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Automated Report

Technical Report for

Arcadis

National Grid, Philly Coke, Philadelphia PA

B0036790.0001.00002

SGS Job Number: JC62879

Sampling Dates: 03/19/18 - 03/22/18

Report to:

Arcadis

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Total number of pages in report: **2538**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

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Sample Summary

Arcadis

Job No: JC62879

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC62879-1	03/19/18	11:50	CO	03/23/18	AQ	Ground Water	PCMW-01
JC62879-2	03/19/18	13:10	CO	03/23/18	AQ	Ground Water	PCMW-04
JC62879-3	03/19/18	14:10	CO	03/23/18	AQ	Ground Water	PCMW-9S
JC62879-4	03/19/18	13:05	AW	03/23/18	AQ	Ground Water	PCMW-16D
JC62879-5	03/19/18	14:20	AW	03/23/18	AQ	Ground Water	MW-5
JC62879-6	03/20/18	10:00	AW	03/23/18	AQ	Ground Water	PCMW-15S
JC62879-7	03/20/18	10:55	AW	03/23/18	AQ	Ground Water	PCMW-15D
JC62879-8	03/22/18	08:05	CO	03/23/18	AQ	Ground Water	PCMW-8S
JC62879-9	03/22/18	09:05	CO	03/23/18	AQ	Ground Water	PCMW-8D
JC62879-9D	03/22/18	09:05	CO	03/23/18	AQ	Water Dup/MSD	PCMW-8D MS/MSD
JC62879-9S	03/22/18	09:05	CO	03/23/18	AQ	Water Matrix Spike	PCMW-8D MS/MSD
JC62879-10	03/22/18	10:35	CO	03/23/18	AQ	Ground Water	PCMW-17S
JC62879-11	03/22/18	11:25	CO	03/23/18	AQ	Ground Water	PCMW-17D

Sample Summary
(continued)

Arcadis

Job No: JC62879

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC62879-11D	03/22/18	11:25	CO	03/23/18	AQ	Water Dup/MSD	PCMW-17D MS/MSD
JC62879-11S	03/22/18	11:25	CO	03/23/18	AQ	Water Matrix Spike	PCMW-17D MS/MSD
JC62879-12	03/22/18	08:15	AW	03/23/18	AQ	Ground Water	PCMW-20S
JC62879-13	03/22/18	09:15	AW	03/23/18	AQ	Ground Water	PCMW-20D
JC62879-14	03/22/18	11:35	AW	03/23/18	AQ	Ground Water	PCMW-19S
JC62879-15	03/22/18	10:25	AW	03/23/18	AQ	Ground Water	PCMW-19D
JC62879-16	03/22/18	00:00	AW	03/23/18	AQ	Ground Water	DUP-03222018
JC62879-17	03/22/18	13:05	CO	03/23/18	AQ	Ground Water	PCMW-10S
JC62879-18	03/22/18	13:05	CO	03/23/18	AQ	Ground Water	PCMW-10D
JC62879-19	03/22/18	13:50	CO	03/23/18	AQ	Trip Blank Water	TRIP BLANK
JC62879-20	03/22/18	13:50	AW	03/23/18	AQ	Ground Water	MW-6

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Arcadis **Job No** JC62879

Site: National Grid, Philly Coke, Philadelphia PA **Report Date** 4/9/2018 11:41:00 AM

On 03/23/2018, 19 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 5.6 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC62879 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2D7344

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC62879-9MS, JC62879-9MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC62879-9 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-9 for 2-Butanone (MEK): Associated CCV outside of control limits low.
- JC62879-9 for Acetone: Associated CCV outside of control limits low.
- JC62879-1 for 1,2,3-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-1 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-3 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-1 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-7 for 2-Butanone (MEK): Associated CCV outside of control limits low.
- JC62879-9 for 1,2,3-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-1 for Acetone: Associated CCV outside of control limits low.
- JC62879-2 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-2 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-2 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-2 for 2-Butanone (MEK): Associated CCV outside of control limits low.
- JC62879-2 for Acetone: Associated CCV outside of control limits low.
- JC62879-5 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-1 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-4 for 2-Butanone (MEK): Associated CCV outside of control limits low.
- JC62879-5 for 2-Butanone (MEK): Associated CCV outside of control limits low.
- JC62879-3 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-3 for 2-Butanone (MEK): Associated CCV outside of control limits low.
- JC62879-3 for Acetone: Associated CCV outside of control limits low.
- JC62879-4 for 1,2,3-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-4 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-9 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-4 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-9 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2D7344

- JC62879-4 for Acetone: Associated CCV outside of control limits low.
- JC62879-5 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-3 for 1,2,3-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-5 for Acetone: Associated CCV outside of control limits low.
- JC62879-5 for 1,2,3-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-1 for 2-Butanone (MEK): Associated CCV outside of control limits low.
- JC62879-2 for 1,2,3-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-4 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-8 for Acetone: Associated CCV outside of control limits low.
- JC62879-6 for Acetone: Associated CCV outside of control limits low.
- JC62879-7 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-6 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-7 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-10 for Acetone: Associated CCV outside of control limits low.
- JC62879-6 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-7 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-6 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-3 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-10 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-10 for 1,2,3-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-8 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-7 for 1,2,3-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-10 for 2-Butanone (MEK): Associated CCV outside of control limits low.
- JC62879-5 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-8 for 2-Butanone (MEK): Associated CCV outside of control limits low.
- JC62879-6 for 1,2,3-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-10 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-10 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-8 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-8 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-8 for 1,2,3-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JC62879-7 for Acetone: Associated CCV outside of control limits low.
- JC62879-6 for 2-Butanone (MEK): Associated CCV outside of control limits low.

Matrix: AQ **Batch ID:** V2E6206

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62879-11MS, JC62879-11MSD were used as the QC samples indicated.
- JC62879-19 for Acetone: Associated CCV outside of control limits low.
- JC62879-18 for Acetone: Associated CCV outside of control limits low.
- JC62879-11 for Acetone: Associated CCV outside of control limits low.
- JC62879-17 for Acetone: Associated CCV outside of control limits low.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V3B6426

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC62879-12MS, JC62879-13DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for Duplicate for Methyl Tert Butyl Ether are outside control limits for sample JC62879-13DUP. RPD acceptable due to low DUP and sample concentrations.
- JC62879-12 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-13 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-16 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-15 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JC62879-14 for Bromomethane: Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** V4B3335

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC62880-23MS, JC62880-24DUP, JC62880-23MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,2-Dibromo-3-chloropropane, Bromoform are outside control limits. High percent recoveries and no associated positive reported in the QC batch.
- Matrix Spike Recovery(s) for Styrene are outside control limits. Outside control limits due to matrix interference.
- JC62879-20 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND.
- JC62879-20 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits high, sample was ND.
- JC62879-20 for Bromoform: Associated CCV outside of control limits high, sample was ND.

MS Semi-volatiles By Method SW846 8270D

Matrix: AQ **Batch ID:** OP10877

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- JC62879-2 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-4 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-2 for Dibenzo(a,h)anthracene: Associated CCV outside of control limits high, sample was ND.
- JC62879-2 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC62879-4 for Dibenzo(a,h)anthracene: Associated CCV outside of control limits high, sample was ND.
- JC62879-3 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-4 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-3 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC62879-2 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-1 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-1 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-3 for Dibenzo(a,h)anthracene: Associated CCV outside of control limits high, sample was ND.
- JC62879-3 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-5 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC62879-7 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-6 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-6 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC62879-6 for Dibenzo(a,h)anthracene: Associated CCV outside of control limits high, sample was ND.
- JC62879-6 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-5 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-7 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-5 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-4 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high.
- JC62879-5 for Dibenzo(a,h)anthracene: Associated CCV outside of control limits high, sample was ND.
- JC62879-5 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-5 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-4 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-2 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-3 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-6 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-3 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-7 for Dibenzo(a,h)anthracene: Associated CCV outside of control limits high, sample was ND.
- JC62879-7 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-2 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC62879-4 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC62879-7 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC62879-1 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC62879-6 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-1 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.

MS Semi-volatiles By Method SW846 8270D

Matrix: AQ **Batch ID:** OP10877

- JC62879-1 for Dibenzo(a,h)anthracene: Associated CCV outside of control limits high, sample was ND.
- JC62879-7 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC62879-1 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** OP10883

- All samples were extracted within the recommended method holding time.
- Sample(s) JC62879-11MS, JC62879-11MSD, JC62879-9MS, JC62879-9MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for MSD for 4-Chloroaniline are outside control limits for sample OP10883-MSD. Outside control limits due to matrix interference.

GC/LC Semi-volatiles By Method SW846 8081B

Matrix: AQ **Batch ID:** OP10876

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- JC62879-2 for gamma-Chlordane: More than 40 % RPD for detected concentrations between the two GC columns.
- OP10876-BS1 for beta-BHC: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

Matrix: AQ **Batch ID:** OP10885

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62879-11MS, JC62879-11MSD, JC62879-9MS, JC62879-9MSD, OP10885-MS2MSD, OP10885-MSMSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Aldrin are outside control limits. Outside the QC limits.
- Matrix Spike Duplicate Recovery(s) for Aldrin, Endrin ketone are outside control limits. Outside the QC limits.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: AQ **Batch ID:** OP10875

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix: AQ **Batch ID:** OP10884

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62879-11MS, JC62879-11MSD, JC62879-9MS, JC62879-9MSD, OP10884-MS2MSD, OP10884-MSMSD were used as the QC samples indicated.

Metals Analysis By Method SW846 6010C

Matrix: AQ **Batch ID:** MP6399

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62879-9MS, JC62879-9MSD, JC62879-9SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Potassium, Vanadium, Zinc are outside control limits for sample MP6399-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC62879-9: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.
- JC62879-9 for Selenium: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Potassium: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Copper: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Iron: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Lead: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Magnesium: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Chromium: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Nickel: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Cobalt: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Barium: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Aluminum: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Beryllium: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Antimony: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Silver: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Calcium: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Arsenic: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Vanadium: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Sodium: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Thallium: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Cadmium: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Zinc: Elevated sample detection limit due to difficult sample matrix.
- JC62879-9 for Manganese: Elevated sample detection limit due to difficult sample matrix.

Matrix: AQ **Batch ID:** MP6402

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62879-11MS, JC62879-11MSD, JC62879-11SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Chromium, Cobalt, Copper, Nickel are outside control limits for sample MP6402-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC62879-1, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-2, JC62879-20, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.
- JC62879-6 for Thallium: Elevated detection limit due to dilution required for high interfering element.

Metals Analysis By Method SW846 6010C

Matrix: AQ	Batch ID: MP6402

- JC62879-6 for Arsenic: Elevated detection limit due to dilution required for high interfering element.
- JC62879-17 for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC62879-10 for Lead: Elevated detection limit due to dilution required for high interfering element.
- JC62879-6 for Lead: Elevated detection limit due to dilution required for high interfering element.
- JC62879-17 for Lead: Elevated detection limit due to dilution required for high interfering element.
- JC62879-10 for Arsenic: Elevated detection limit due to dilution required for high interfering element.
- MP6402-SD1 for Zinc: Serial dilution indicates possible matrix interference.
- JC62879-17 for Arsenic: Elevated detection limit due to dilution required for high interfering element.
- JC62879-10 for Thallium: Elevated detection limit due to dilution required for high interfering element.

Metals Analysis By Method SW846 7470A

Matrix: AQ	Batch ID: MP6364

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62879-11MS, JC62879-11MSD, JC62879-9MS, JC62879-9MSD were used as the QC samples for metals.
- JC62879-9 for Mercury: Elevated sample detection limit due to difficult sample matrix.
- JC62879-18 for Mercury: Elevated sample detection limit due to difficult sample matrix.
- JC62879-13 for Mercury: Elevated sample detection limit due to difficult sample matrix.

General Chemistry By Method EPA 335.4/LACHAT

Matrix: AQ	Batch ID: GP12036

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62879-11DUP, JC62879-9DUP, JC62879-11MS, JC62879-9MS were used as the QC samples for Cyanide.
- Matrix Spike Recovery(s) for Cyanide are outside control limits. Spike recovery indicates possible matrix interference.
- RPD(s) for Duplicate for Cyanide are outside control limits for sample GP12036-D1. High RPD due to possible sample nonhomogeneity.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC62879
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 03/19/18 thru 03/22/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC62879-1	**PCMW-01**					
Calcium		72200	5000		ug/l	SW846 6010C
Iron		7790	100		ug/l	SW846 6010C
Magnesium		19300	5000		ug/l	SW846 6010C
Manganese		863	15		ug/l	SW846 6010C
Sodium		14100	10000		ug/l	SW846 6010C
Zinc		34.6	20		ug/l	SW846 6010C
JC62879-2	**PCMW-04**					
Methyl Tert Butyl Ether		4.8	1.0	0.25	ug/l	SW846 8260C
gamma-Chlordane [a]		0.0045 J	0.0067	0.0028	ug/l	SW846 8081B
Aluminum		209	200		ug/l	SW846 6010C
Arsenic		6.3	3.0		ug/l	SW846 6010C
Calcium		119000	5000		ug/l	SW846 6010C
Copper		23.5	10		ug/l	SW846 6010C
Iron		7130	100		ug/l	SW846 6010C
Lead		17.8	3.0		ug/l	SW846 6010C
Magnesium		37400	5000		ug/l	SW846 6010C
Manganese		654	15		ug/l	SW846 6010C
Zinc		58.0	20		ug/l	SW846 6010C
JC62879-3	**PCMW-9S**					
Aluminum		275	200		ug/l	SW846 6010C
Arsenic		19.2	3.0		ug/l	SW846 6010C
Calcium		186000	5000		ug/l	SW846 6010C
Copper		24.5	10		ug/l	SW846 6010C
Iron		6760	100		ug/l	SW846 6010C
Lead		21.2	3.0		ug/l	SW846 6010C
Magnesium		101000	5000		ug/l	SW846 6010C
Manganese		515	15		ug/l	SW846 6010C
Nickel		20.0	10		ug/l	SW846 6010C
Potassium		13600	10000		ug/l	SW846 6010C
Selenium		11.3	10		ug/l	SW846 6010C
Sodium		21900	10000		ug/l	SW846 6010C
Zinc		85.2	20		ug/l	SW846 6010C
JC62879-4	**PCMW-16D**					
Chlorobenzene		1.4	1.0	0.24	ug/l	SW846 8260C
2,4-Dinitrotoluene [b]		13.3	1.0	0.55	ug/l	SW846 8270D
Dieldrin		0.038	0.0067	0.0051	ug/l	SW846 8081B
Aluminum		343	200		ug/l	SW846 6010C

Summary of Hits

Job Number: JC62879
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 03/19/18 thru 03/22/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Arsenic		93.5	3.0		ug/l	SW846 6010C
Calcium		51800	5000		ug/l	SW846 6010C
Iron		61600	100		ug/l	SW846 6010C
Magnesium		28900	5000		ug/l	SW846 6010C
Manganese		3610	15		ug/l	SW846 6010C
Sodium		61300	10000		ug/l	SW846 6010C
JC62879-5	**MW-5**					
cis-1,2-Dichloroethene		28.3	1.0	0.50	ug/l	SW846 8260C
Tetrachloroethene		1.1	1.0	0.50	ug/l	SW846 8260C
Trichloroethene		6.1	1.0	0.27	ug/l	SW846 8260C
Acenaphthene		0.78 J	1.0	0.19	ug/l	SW846 8270D
Arsenic		3.7	3.0		ug/l	SW846 6010C
Calcium		29800	5000		ug/l	SW846 6010C
Iron		14100	100		ug/l	SW846 6010C
Lead		4.2	3.0		ug/l	SW846 6010C
Magnesium		15500	5000		ug/l	SW846 6010C
Manganese		326	15		ug/l	SW846 6010C
JC62879-6	**PCMW-15S**					
Benzene		0.20 J	0.50	0.17	ug/l	SW846 8260C
Aluminum		267	200		ug/l	SW846 6010C
Calcium		210000	5000		ug/l	SW846 6010C
Iron		10300	100		ug/l	SW846 6010C
Magnesium		135000	5000		ug/l	SW846 6010C
Manganese		5290	15		ug/l	SW846 6010C
Mercury		0.29	0.20		ug/l	SW846 7470A
Sodium		90300	10000		ug/l	SW846 6010C
Zinc		25.9	20		ug/l	SW846 6010C
Cyanide		0.21	0.010		mg/l	EPA 335.4/LACHAT
JC62879-7	**PCMW-15D**					
Arsenic		27.3	3.0		ug/l	SW846 6010C
Calcium		124000	5000		ug/l	SW846 6010C
Iron		26800	100		ug/l	SW846 6010C
Magnesium		49600	5000		ug/l	SW846 6010C
Manganese		5070	15		ug/l	SW846 6010C
Potassium		13300	10000		ug/l	SW846 6010C
Sodium		54800	10000		ug/l	SW846 6010C
Cyanide		0.020	0.010		mg/l	EPA 335.4/LACHAT

Summary of Hits

Job Number: JC62879
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 03/19/18 thru 03/22/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC62879-8	**PCMW-8S**					
Antimony		9.9	6.0		ug/l	SW846 6010C
Arsenic		3.4	3.0		ug/l	SW846 6010C
Calcium		170000	5000		ug/l	SW846 6010C
Iron		163	100		ug/l	SW846 6010C
Lead		5.3	3.0		ug/l	SW846 6010C
Magnesium		149000	5000		ug/l	SW846 6010C
Manganese		41.7	15		ug/l	SW846 6010C
Potassium		17400	10000		ug/l	SW846 6010C
Selenium		11.9	10		ug/l	SW846 6010C
Sodium		13900	10000		ug/l	SW846 6010C
Zinc		48.2	20		ug/l	SW846 6010C
Cyanide		0.018	0.010		mg/l	EPA 335.4/LACHAT
JC62879-9	**PCMW-8D**					
Acenaphthene		3.9	1.0	0.19	ug/l	SW846 8270D
Diethyl phthalate		1.0 J	2.0	0.27	ug/l	SW846 8270D
Calcium [c]		63500	25000		ug/l	SW846 6010C
Iron [c]		165000	500		ug/l	SW846 6010C
Magnesium [c]		26800	25000		ug/l	SW846 6010C
Manganese [c]		6640	75		ug/l	SW846 6010C
Sodium [c]		79000	50000		ug/l	SW846 6010C
Cyanide		0.060	0.010		mg/l	EPA 335.4/LACHAT
JC62879-10	**PCMW-17S**					
Benzene		1.1	0.50	0.17	ug/l	SW846 8260C
Acenaphthene		1.2	1.0	0.19	ug/l	SW846 8270D
Fluorene		0.76 J	1.0	0.17	ug/l	SW846 8270D
Aluminum		1020	200		ug/l	SW846 6010C
Cadmium		3.3	3.0		ug/l	SW846 6010C
Calcium		188000	5000		ug/l	SW846 6010C
Copper		30.6	10		ug/l	SW846 6010C
Iron		22100	100		ug/l	SW846 6010C
Magnesium		34500	5000		ug/l	SW846 6010C
Manganese		2120	15		ug/l	SW846 6010C
Nickel		93.4	10		ug/l	SW846 6010C
Sodium		11100	10000		ug/l	SW846 6010C
Zinc		1130	20		ug/l	SW846 6010C
JC62879-11	**PCMW-17D**					
Dieldrin		0.046	0.0069	0.0053	ug/l	SW846 8081B

Summary of Hits

Job Number: JC62879
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 03/19/18 thru 03/22/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Aluminum		1170	200		ug/l	SW846 6010C
Calcium		58900	5000		ug/l	SW846 6010C
Iron		5830	100		ug/l	SW846 6010C
Magnesium		32000	5000		ug/l	SW846 6010C
Manganese		4750	15		ug/l	SW846 6010C
Sodium		50100	10000		ug/l	SW846 6010C
JC62879-12	**PCMW-20S**					
Calcium		31300	5000		ug/l	SW846 6010C
Iron		7420	100		ug/l	SW846 6010C
Lead		4.0	3.0		ug/l	SW846 6010C
Manganese		613	15		ug/l	SW846 6010C
Zinc		42.4	20		ug/l	SW846 6010C
JC62879-13	**PCMW-20D**					
Aluminum		996	200		ug/l	SW846 6010C
Arsenic		17.4	3.0		ug/l	SW846 6010C
Calcium		28300	5000		ug/l	SW846 6010C
Iron		8400	100		ug/l	SW846 6010C
Magnesium		13900	5000		ug/l	SW846 6010C
Manganese		641	15		ug/l	SW846 6010C
Sodium		241000	10000		ug/l	SW846 6010C
Cyanide		0.12	0.010		mg/l	EPA 335.4/LACHAT
JC62879-14	**PCMW-19S**					
Aluminum		393	200		ug/l	SW846 6010C
Arsenic		33.2	3.0		ug/l	SW846 6010C
Calcium		87800	5000		ug/l	SW846 6010C
Iron		12700	100		ug/l	SW846 6010C
Lead		11.5	3.0		ug/l	SW846 6010C
Magnesium		15800	5000		ug/l	SW846 6010C
Manganese		1300	15		ug/l	SW846 6010C
Zinc		23.2	20		ug/l	SW846 6010C
JC62879-15	**PCMW-19D**					
Aluminum		1440	200		ug/l	SW846 6010C
Arsenic		13.4	3.0		ug/l	SW846 6010C
Calcium		83900	5000		ug/l	SW846 6010C
Iron		21300	100		ug/l	SW846 6010C
Lead		3.5	3.0		ug/l	SW846 6010C
Magnesium		35900	5000		ug/l	SW846 6010C

Summary of Hits

Job Number: JC62879
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 03/19/18 thru 03/22/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Manganese		5690	15		ug/l	SW846 6010C
Nickel		11.9	10		ug/l	SW846 6010C
Sodium		34600	10000		ug/l	SW846 6010C
JC62879-16	**DUP-03222018**					
Aluminum		1130	200		ug/l	SW846 6010C
Arsenic		12.8	3.0		ug/l	SW846 6010C
Calcium		81800	5000		ug/l	SW846 6010C
Iron		20100	100		ug/l	SW846 6010C
Magnesium		34900	5000		ug/l	SW846 6010C
Manganese		5530	15		ug/l	SW846 6010C
Nickel		11.7	10		ug/l	SW846 6010C
Sodium		33400	10000		ug/l	SW846 6010C
JC62879-17	**PCMW-10S**					
Calcium		299000	15000		ug/l	SW846 6010C
Copper		15.2	10		ug/l	SW846 6010C
Iron		462	100		ug/l	SW846 6010C
Magnesium		165000	5000		ug/l	SW846 6010C
Manganese		125	15		ug/l	SW846 6010C
Potassium		20700	10000		ug/l	SW846 6010C
Sodium		14700	10000		ug/l	SW846 6010C
Zinc		88.6	20		ug/l	SW846 6010C
JC62879-18	**PCMW-10D**					
Chlorobenzene		0.28 J	1.0	0.24	ug/l	SW846 8260C
Methyl Tert Butyl Ether		0.80 J	1.0	0.25	ug/l	SW846 8260C
Aluminum		1740	1000		ug/l	SW846 6010C
Calcium		92400	25000		ug/l	SW846 6010C
Iron		64600	500		ug/l	SW846 6010C
Magnesium		38000	25000		ug/l	SW846 6010C
Manganese		7650	75		ug/l	SW846 6010C
Sodium		103000	50000		ug/l	SW846 6010C
Cyanide		0.35	0.010		mg/l	EPA 335.4/LACHAT
JC62879-19	**TRIP BLANK**					
No hits reported in this sample.						
JC62879-20	**MW-6**					
Acenaphthene		1.6	0.98	0.19	ug/l	SW846 8270D

Summary of Hits

Job Number: JC62879
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 03/19/18 thru 03/22/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Calcium		71100	5000		ug/l	SW846 6010C
Iron		12300	100		ug/l	SW846 6010C
Lead		3.0	3.0		ug/l	SW846 6010C
Magnesium		20200	5000		ug/l	SW846 6010C
Manganese		948	15		ug/l	SW846 6010C
Cyanide		0.010	0.010		mg/l	EPA 335.4/LACHAT

(a) More than 40 % RPD for detected concentrations between the two GC columns.
(b) Associated CCV outside of control limits high.
(c) Elevated sample detection limit due to difficult sample matrix.

Sample Results

Report of Analysis

SGS LabLink@996135 15:37 10-Apr-2018

Report of Analysis

Client Sample ID:	PCMW-01		
Lab Sample ID:	JC62879-1	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D174436.D	1	03/27/18 13:51	JP	n/a	n/a	V2D7344
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-01		
Lab Sample ID:	JC62879-1	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	106%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS LabLink@996135 15:37 10-Apr-2018

Report of Analysis

Client Sample ID:	PCMW-01		
Lab Sample ID:	JC62879-1	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F175216.D	1	03/27/18 15:37	CS	03/26/18 18:30	OP10877	EF7460
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	0.86	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	0.94	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	2.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.3	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.3	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.93	ug/l	
	3&4-Methylphenol	ND	2.1	0.93	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	1.0	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.2	ug/l	
87-86-5	Pentachlorophenol [a]	ND	4.2	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.41	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol [a]	ND	5.3	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.3	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	0.97	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.20	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.14	ug/l	
98-86-2	Acetophenone	ND	2.1	0.22	ug/l	
120-12-7	Anthracene	ND	1.1	0.22	ug/l	
1912-24-9	Atrazine	ND	2.1	0.47	ug/l	
100-52-7	Benzaldehyde	ND	5.3	0.30	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.36	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.22	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.43	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.48	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.22	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.25	ug/l	
106-47-8	4-Chloroaniline	ND	5.3	0.36	ug/l	
86-74-8	Carbazole	ND	1.1	0.24	ug/l	

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-01		
Lab Sample ID:	JC62879-1	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.68	ug/l	
218-01-9	Chrysene	ND	1.1	0.19	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.29	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.26	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.1	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.39	ug/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	1.1	0.58	ug/l	
606-20-2	2,6-Dinitrotoluene [a]	ND	1.1	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.53	ug/l	
53-70-3	Dibenzo(a,h)anthracene [a]	ND	1.1	0.35	ug/l	
132-64-9	Dibenzofuran	ND	5.3	0.23	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.52	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.25	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.23	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.18	ug/l	
86-73-7	Fluorene	ND	1.1	0.18	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.34	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.52	ug/l	
77-47-4	Hexachlorocyclopentadiene [a]	ND	11	2.9	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.41	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.35	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	5.3	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	5.3	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	5.3	0.46	ug/l	
91-20-3	Naphthalene	ND	1.1	0.24	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.68	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.51	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.23	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.18	ug/l	
129-00-0	Pyrene	ND	1.1	0.23	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	58%		10-110%
4165-62-2	Phenol-d5	38%		10-110%

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J = Indicates an estimated value
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-01		
Lab Sample ID:	JC62879-1	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	103%		36-151%
4165-60-0	Nitrobenzene-d5	74%		34-128%
321-60-8	2-Fluorobiphenyl	76%		38-119%
1718-51-0	Terphenyl-d14	89%		26-129%

(a) Associated CCV outside of control limits high, sample was ND.

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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-01		
Lab Sample ID:	JC62879-1	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G90993.D	1	03/27/18 12:10	CP	03/26/18 18:20	OP10876	G4G2399
Run #2							

	Initial Volume	Final Volume
Run #1	275 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0073	0.0038	ug/l	
319-84-6	alpha-BHC	ND	0.0073	0.0038	ug/l	
319-85-7	beta-BHC	ND	0.0073	0.0058	ug/l	
319-86-8	delta-BHC	ND	0.0073	0.0048	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0073	0.0044	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0073	0.0036	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0073	0.0031	ug/l	
60-57-1	Dieldrin	ND	0.0073	0.0056	ug/l	
72-54-8	4,4'-DDD	ND	0.0073	0.0042	ug/l	
72-55-9	4,4'-DDE	ND	0.0073	0.0037	ug/l	
50-29-3	4,4'-DDT	ND	0.0073	0.0050	ug/l	
72-20-8	Endrin	ND	0.0073	0.0044	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0073	0.0040	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0073	0.0049	ug/l	
53494-70-5	Endrin ketone	ND	0.0073	0.0045	ug/l	
959-98-8	Endosulfan-I	ND	0.0073	0.0038	ug/l	
33213-65-9	Endosulfan-II	ND	0.0073	0.0035	ug/l	
76-44-8	Heptachlor	ND	0.0073	0.0033	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0073	0.0044	ug/l	
72-43-5	Methoxychlor	ND	0.015	0.0049	ug/l	
8001-35-2	Toxaphene	ND	0.18	0.12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		13-153%
877-09-8	Tetrachloro-m-xylene	84%		13-153%
2051-24-3	Decachlorobiphenyl	73%		10-138%
2051-24-3	Decachlorobiphenyl	66%		10-138%

ND = Not detected MDL = Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-01		
Lab Sample ID:	JC62879-1	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181182.D	1	03/27/18 14:15	HB	03/26/18 18:20	OP10875	GEF6202
Run #2							

	Initial Volume	Final Volume
Run #1	275 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.36	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.36	0.30	ug/l	
11141-16-5	Aroclor 1232	ND	0.36	0.19	ug/l	
53469-21-9	Aroclor 1242	ND	0.36	0.17	ug/l	
12672-29-6	Aroclor 1248	ND	0.36	0.092	ug/l	
11097-69-1	Aroclor 1254	ND	0.36	0.30	ug/l	
11096-82-5	Aroclor 1260	ND	0.36	0.11	ug/l	
11100-14-4	Aroclor 1268	ND	0.36	0.13	ug/l	
37324-23-5	Aroclor 1262	ND	0.36	0.14	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		11-166%
877-09-8	Tetrachloro-m-xylene	82%		11-166%
2051-24-3	Decachlorobiphenyl	70%		10-150%
2051-24-3	Decachlorobiphenyl	70%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-01		
Lab Sample ID:	JC62879-1	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	72200	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	7790	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	19300	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	863	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	14100	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	34.6	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-01		
Lab Sample ID:	JC62879-1	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:18	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-04		
Lab Sample ID:	JC62879-2	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D174437.D	1	03/27/18 14:21	JP	n/a	n/a	V2D7344
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-04		
Lab Sample ID:	JC62879-2	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4.8	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-04		
Lab Sample ID:	JC62879-2	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F175217.D	1	03/27/18 16:05	CS	03/26/18 18:30	OP10877	EF7460
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	0.87	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	0.95	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	2.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.3	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.3	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.94	ug/l	
	3&4-Methylphenol	ND	2.1	0.94	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	1.0	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.2	ug/l	
87-86-5	Pentachlorophenol [a]	ND	4.3	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.42	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol [a]	ND	5.3	1.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.3	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	0.98	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.20	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.14	ug/l	
98-86-2	Acetophenone	ND	2.1	0.22	ug/l	
120-12-7	Anthracene	ND	1.1	0.22	ug/l	
1912-24-9	Atrazine	ND	2.1	0.48	ug/l	
100-52-7	Benzaldehyde	ND	5.3	0.31	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.36	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.22	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.43	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.49	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.23	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.25	ug/l	
106-47-8	4-Chloroaniline	ND	5.3	0.36	ug/l	
86-74-8	Carbazole	ND	1.1	0.24	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-04		
Lab Sample ID:	JC62879-2	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.69	ug/l	
218-01-9	Chrysene	ND	1.1	0.19	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.30	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.26	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.1	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.39	ug/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	1.1	0.59	ug/l	
606-20-2	2,6-Dinitrotoluene [a]	ND	1.1	0.51	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.54	ug/l	
53-70-3	Dibenzo(a,h)anthracene [a]	ND	1.1	0.35	ug/l	
132-64-9	Dibenzofuran	ND	5.3	0.23	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.53	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.25	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.23	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	1.8	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.18	ug/l	
86-73-7	Fluorene	ND	1.1	0.18	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.35	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.52	ug/l	
77-47-4	Hexachlorocyclopentadiene [a]	ND	11	3.0	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.41	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.35	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	5.3	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	5.3	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	5.3	0.47	ug/l	
91-20-3	Naphthalene	ND	1.1	0.25	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.68	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.51	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.24	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.19	ug/l	
129-00-0	Pyrene	ND	1.1	0.23	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		10-110%
4165-62-2	Phenol-d5	35%		10-110%

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-04		
Lab Sample ID:	JC62879-2	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	83%		36-151%
4165-60-0	Nitrobenzene-d5	53%		34-128%
321-60-8	2-Fluorobiphenyl	60%		38-119%
1718-51-0	Terphenyl-d14	76%		26-129%

(a) Associated CCV outside of control limits high, sample was ND.

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-04		
Lab Sample ID:	JC62879-2	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G90994.D	1	03/27/18 12:27	CP	03/26/18 18:20	OP10876	G4G2399
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane [a]	0.0045	0.0067	0.0028	ug/l	J
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	57%		13-153%
877-09-8	Tetrachloro-m-xylene	60%		13-153%
2051-24-3	Decachlorobiphenyl	56%		10-138%
2051-24-3	Decachlorobiphenyl	51%		10-138%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-04		
Lab Sample ID:	JC62879-2	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181183.D	1	03/27/18 14:40	HB	03/26/18 18:20	OP10875	GEF6202
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	52%		11-166%
877-09-8	Tetrachloro-m-xylene	52%		11-166%
2051-24-3	Decachlorobiphenyl	49%		10-150%
2051-24-3	Decachlorobiphenyl	52%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-04		
Lab Sample ID:	JC62879-2	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	209	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	6.3	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	119000	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	23.5	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	7130	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	17.8	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	37400	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	654	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	58.0	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-04		
Lab Sample ID:	JC62879-2	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:19	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-9S		
Lab Sample ID:	JC62879-3	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D174438.D	1	03/27/18 14:51	JP	n/a	n/a	V2D7344
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-9S		
Lab Sample ID:	JC62879-3	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-9S		
Lab Sample ID:	JC62879-3	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F175218.D	1	03/27/18 16:33	CS	03/26/18 18:30	OP10877	EF7460
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	0.86	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	0.94	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	2.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.3	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.3	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.93	ug/l	
	3&4-Methylphenol	ND	2.1	0.93	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	1.0	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.2	ug/l	
87-86-5	Pentachlorophenol [a]	ND	4.2	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.41	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol [a]	ND	5.3	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.3	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	0.97	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.20	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.14	ug/l	
98-86-2	Acetophenone	ND	2.1	0.22	ug/l	
120-12-7	Anthracene	ND	1.1	0.22	ug/l	
1912-24-9	Atrazine	ND	2.1	0.47	ug/l	
100-52-7	Benzaldehyde	ND	5.3	0.30	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.36	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.22	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.43	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.48	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.22	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.25	ug/l	
106-47-8	4-Chloroaniline	ND	5.3	0.36	ug/l	
86-74-8	Carbazole	ND	1.1	0.24	ug/l	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-9S		
Lab Sample ID:	JC62879-3	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.68	ug/l	
218-01-9	Chrysene	ND	1.1	0.19	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.29	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.26	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.1	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.39	ug/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	1.1	0.58	ug/l	
606-20-2	2,6-Dinitrotoluene [a]	ND	1.1	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.53	ug/l	
53-70-3	Dibenzo(a,h)anthracene [a]	ND	1.1	0.35	ug/l	
132-64-9	Dibenzofuran	ND	5.3	0.23	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.52	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.25	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.23	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.18	ug/l	
86-73-7	Fluorene	ND	1.1	0.18	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.34	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.52	ug/l	
77-47-4	Hexachlorocyclopentadiene [a]	ND	11	2.9	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.41	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.35	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	5.3	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	5.3	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	5.3	0.46	ug/l	
91-20-3	Naphthalene	ND	1.1	0.24	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.68	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.51	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.23	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.18	ug/l	
129-00-0	Pyrene	ND	1.1	0.23	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		10-110%
4165-62-2	Phenol-d5	36%		10-110%

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-9S		
Lab Sample ID:	JC62879-3	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	94%		36-151%
4165-60-0	Nitrobenzene-d5	67%		34-128%
321-60-8	2-Fluorobiphenyl	72%		38-119%
1718-51-0	Terphenyl-d14	71%		26-129%

(a) Associated CCV outside of control limits high, sample was ND.

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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-9S		
Lab Sample ID:	JC62879-3	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G90995.D	1	03/27/18 12:44	CP	03/26/18 18:20	OP10876	G4G2399
Run #2							

	Initial Volume	Final Volume
Run #1	280 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0071	0.0037	ug/l	
319-84-6	alpha-BHC	ND	0.0071	0.0037	ug/l	
319-85-7	beta-BHC	ND	0.0071	0.0057	ug/l	
319-86-8	delta-BHC	ND	0.0071	0.0047	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0071	0.0043	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0071	0.0035	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0071	0.0030	ug/l	
60-57-1	Dieldrin	ND	0.0071	0.0055	ug/l	
72-54-8	4,4'-DDD	ND	0.0071	0.0041	ug/l	
72-55-9	4,4'-DDE	ND	0.0071	0.0036	ug/l	
50-29-3	4,4'-DDT	ND	0.0071	0.0049	ug/l	
72-20-8	Endrin	ND	0.0071	0.0043	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0071	0.0039	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0071	0.0048	ug/l	
53494-70-5	Endrin ketone	ND	0.0071	0.0044	ug/l	
959-98-8	Endosulfan-I	ND	0.0071	0.0038	ug/l	
33213-65-9	Endosulfan-II	ND	0.0071	0.0035	ug/l	
76-44-8	Heptachlor	ND	0.0071	0.0032	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0071	0.0043	ug/l	
72-43-5	Methoxychlor	ND	0.014	0.0048	ug/l	
8001-35-2	Toxaphene	ND	0.18	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		13-153%
877-09-8	Tetrachloro-m-xylene	86%		13-153%
2051-24-3	Decachlorobiphenyl	63%		10-138%
2051-24-3	Decachlorobiphenyl	58%		10-138%

ND = Not detected MDL = Method Detection Limit
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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-9S		
Lab Sample ID:	JC62879-3	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181184.D	1	03/27/18 15:05	HB	03/26/18 18:20	OP10875	GEF6202
Run #2							

	Initial Volume	Final Volume
Run #1	280 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.36	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.36	0.30	ug/l	
11141-16-5	Aroclor 1232	ND	0.36	0.19	ug/l	
53469-21-9	Aroclor 1242	ND	0.36	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.36	0.090	ug/l	
11097-69-1	Aroclor 1254	ND	0.36	0.30	ug/l	
11096-82-5	Aroclor 1260	ND	0.36	0.11	ug/l	
11100-14-4	Aroclor 1268	ND	0.36	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.36	0.14	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		11-166%
877-09-8	Tetrachloro-m-xylene	88%		11-166%
2051-24-3	Decachlorobiphenyl	60%		10-150%
2051-24-3	Decachlorobiphenyl	61%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCMW-9S
Lab Sample ID: JC62879-3
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/19/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	275	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Arsenic	19.2	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Calcium	186000	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Copper	24.5	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Iron	6760	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Lead	21.2	3.0	ug/l	1	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Magnesium	101000	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Manganese	515	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [4]
Nickel	20.0	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Potassium	13600	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Selenium	11.3	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Sodium	21900	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Zinc	85.2	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Instrument QC Batch: MA44142
(4) Prep QC Batch: MP6364
(5) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-9S		
Lab Sample ID:	JC62879-3	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:23	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-16D		
Lab Sample ID:	JC62879-4	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D174439.D	1	03/27/18 15:21	JP	n/a	n/a	V2D7344
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	1.4	1.0	0.24	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-16D		
Lab Sample ID:	JC62879-4	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-16D		
Lab Sample ID:	JC62879-4	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F175219.D	1	03/27/18 17:01	CS	03/26/18 18:30	OP10877	EF7460
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol [a]	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol [a]	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

ND = Not detected MDL = Method Detection Limit
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-16D		
Lab Sample ID:	JC62879-4	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene [b]	13.3	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene [a]	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene [a]	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene [a]	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	58%		10-110%
4165-62-2	Phenol-d5	37%		10-110%

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-16D		
Lab Sample ID:	JC62879-4	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	96%		36-151%
4165-60-0	Nitrobenzene-d5	77%		34-128%
321-60-8	2-Fluorobiphenyl	75%		38-119%
1718-51-0	Terphenyl-d14	80%		26-129%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high.

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-16D		
Lab Sample ID:	JC62879-4	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G90996.D	1	03/27/18 13:01	CP	03/26/18 18:20	OP10876	G4G2399
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	0.038	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	68%		13-153%
877-09-8	Tetrachloro-m-xylene	71%		13-153%
2051-24-3	Decachlorobiphenyl	59%		10-138%
2051-24-3	Decachlorobiphenyl	56%		10-138%

ND = Not detected MDL = Method Detection Limit
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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-16D		
Lab Sample ID:	JC62879-4	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181189.D	1	03/27/18 17:10	HB	03/26/18 18:20	OP10875	GEF6202
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		11-166%
877-09-8	Tetrachloro-m-xylene	82%		11-166%
2051-24-3	Decachlorobiphenyl	64%		10-150%
2051-24-3	Decachlorobiphenyl	65%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCMW-16D
Lab Sample ID: JC62879-4
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/19/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	343	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	93.5	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	51800	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	61600	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	28900	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	3610	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	61300	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	< 20	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-16D		
Lab Sample ID:	JC62879-4	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:25	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC62879-5	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D174440.D	1	03/27/18 15:51	JP	n/a	n/a	V2D7344
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	28.3	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC62879-5	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	1.1	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	6.1	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC62879-5	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F175220.D	1	03/27/18 17:29	CS	03/26/18 18:30	OP10877	EF7460
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol [a]	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol [a]	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	0.78	1.0	0.19	ug/l	J
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

ND = Not detected MDL = Method Detection Limit
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J = Indicates an estimated value
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC62879-5	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene [a]	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene [a]	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	0.0	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene [a]	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		10-110%
4165-62-2	Phenol-d5	30%		10-110%

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC62879-5	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	91%		36-151%
4165-60-0	Nitrobenzene-d5	62%		34-128%
321-60-8	2-Fluorobiphenyl	66%		38-119%
1718-51-0	Terphenyl-d14	79%		26-129%

(a) Associated CCV outside of control limits high, sample was ND.

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC62879-5	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G90997.D	1	03/27/18 13:18	CP	03/26/18 18:20	OP10876	G4G2399
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		13-153%
877-09-8	Tetrachloro-m-xylene	75%		13-153%
2051-24-3	Decachlorobiphenyl	56%		10-138%
2051-24-3	Decachlorobiphenyl	52%		10-138%

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Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC62879-5	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181190.D	1	03/27/18 17:35	HB	03/26/18 18:20	OP10875	GEF6202
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		11-166%
877-09-8	Tetrachloro-m-xylene	82%		11-166%
2051-24-3	Decachlorobiphenyl	57%		10-150%
2051-24-3	Decachlorobiphenyl	58%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-5
Lab Sample ID: JC62879-5
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/19/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	3.7	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	29800	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	14100	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	4.2	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	15500	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	326	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	< 20	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC62879-5	**Date Sampled:**	03/19/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:26	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-15S		
Lab Sample ID:	JC62879-6	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D174441.D	1	03/27/18 16:20	JP	n/a	n/a	V2D7344
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	0.20	0.50	0.17	ug/l	J
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-15S		
Lab Sample ID:	JC62879-6	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS LabLink@996135 15:37 10-Apr-2018

Report of Analysis

Client Sample ID:	PCMW-15S		
Lab Sample ID:	JC62879-6	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F175221.D	1	03/27/18 17:57	CS	03/26/18 18:30	OP10877	EF7460
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol [a]	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol [a]	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

ND = Not detected MDL = Method Detection Limit
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-15S		
Lab Sample ID:	JC62879-6	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene [a]	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene [a]	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene [a]	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	51%		10-110%
4165-62-2	Phenol-d5	33%		10-110%

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-15S		
Lab Sample ID:	JC62879-6	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	95%		36-151%
4165-60-0	Nitrobenzene-d5	68%		34-128%
321-60-8	2-Fluorobiphenyl	69%		38-119%
1718-51-0	Terphenyl-d14	79%		26-129%

(a) Associated CCV outside of control limits high, sample was ND.

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-15S		
Lab Sample ID:	JC62879-6	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G90998.D	1	03/27/18 13:34	CP	03/26/18 18:20	OP10876	G4G2399
Run #2							

	Initial Volume	Final Volume
Run #1	295 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0068	0.0035	ug/l	
319-84-6	alpha-BHC	ND	0.0068	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0068	0.0054	ug/l	
319-86-8	delta-BHC	ND	0.0068	0.0045	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0068	0.0041	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0068	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0068	0.0029	ug/l	
60-57-1	Dieldrin	ND	0.0068	0.0052	ug/l	
72-54-8	4,4'-DDD	ND	0.0068	0.0039	ug/l	
72-55-9	4,4'-DDE	ND	0.0068	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0068	0.0046	ug/l	
72-20-8	Endrin	ND	0.0068	0.0041	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0068	0.0037	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0068	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0068	0.0042	ug/l	
959-98-8	Endosulfan-I	ND	0.0068	0.0036	ug/l	
33213-65-9	Endosulfan-II	ND	0.0068	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0068	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0068	0.0041	ug/l	
72-43-5	Methoxychlor	ND	0.014	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		13-153%
877-09-8	Tetrachloro-m-xylene	82%		13-153%
2051-24-3	Decachlorobiphenyl	80%		10-138%
2051-24-3	Decachlorobiphenyl	74%		10-138%

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-15S		
Lab Sample ID:	JC62879-6	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181191.D	1	03/27/18 18:00	HB	03/26/18 18:20	OP10875	GEF6202
Run #2							

	Initial Volume	Final Volume
Run #1	295 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.34	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.34	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.34	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.34	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.34	0.085	ug/l	
11097-69-1	Aroclor 1254	ND	0.34	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.34	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.34	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.34	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	68%		11-166%
877-09-8	Tetrachloro-m-xylene	74%		11-166%
2051-24-3	Decachlorobiphenyl	68%		10-150%
2051-24-3	Decachlorobiphenyl	67%		10-150%

ND = Not detected MDL = Method Detection Limit
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J = Indicates an estimated value
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCMW-15S
Lab Sample ID: JC62879-6
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/20/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	267	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Arsenic [a]	< 15	15	ug/l	5	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Calcium	210000	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Iron	10300	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Lead [a]	< 15	15	ug/l	5	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Magnesium	135000	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Manganese	5290	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Mercury	0.29	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [4]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Sodium	90300	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Thallium [a]	< 10	10	ug/l	5	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Zinc	25.9	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Instrument QC Batch: MA44142
(4) Prep QC Batch: MP6364
(5) Prep QC Batch: MP6402

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-15S		
Lab Sample ID:	JC62879-6	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.21	0.010	mg/l	1	03/29/18 09:27	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-15D		
Lab Sample ID:	JC62879-7	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D174442.D	1	03/27/18 16:50	JP	n/a	n/a	V2D7344
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-15D		
Lab Sample ID:	JC62879-7	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-15D		
Lab Sample ID:	JC62879-7	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F175222.D	1	03/27/18 18:25	CS	03/26/18 18:30	OP10877	EF7460
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol [a]	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol [a]	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-15D		
Lab Sample ID:	JC62879-7	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene [a]	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene [a]	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene [a]	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%		10-110%
4165-62-2	Phenol-d5	32%		10-110%

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-15D		
Lab Sample ID:	JC62879-7	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	85%		36-151%
4165-60-0	Nitrobenzene-d5	65%		34-128%
321-60-8	2-Fluorobiphenyl	68%		38-119%
1718-51-0	Terphenyl-d14	72%		26-129%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-15D		
Lab Sample ID:	JC62879-7	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G90999.D	1	03/27/18 13:51	CP	03/26/18 18:20	OP10876	G4G2399
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0069	0.0036	ug/l	
319-84-6	alpha-BHC	ND	0.0069	0.0036	ug/l	
319-85-7	beta-BHC	ND	0.0069	0.0055	ug/l	
319-86-8	delta-BHC	ND	0.0069	0.0045	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0069	0.0041	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0069	0.0034	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0069	0.0029	ug/l	
60-57-1	Dieldrin	ND	0.0069	0.0053	ug/l	
72-54-8	4,4'-DDD	ND	0.0069	0.0040	ug/l	
72-55-9	4,4'-DDE	ND	0.0069	0.0035	ug/l	
50-29-3	4,4'-DDT	ND	0.0069	0.0047	ug/l	
72-20-8	Endrin	ND	0.0069	0.0042	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0069	0.0038	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0069	0.0046	ug/l	
53494-70-5	Endrin ketone	ND	0.0069	0.0043	ug/l	
959-98-8	Endosulfan-I	ND	0.0069	0.0036	ug/l	
33213-65-9	Endosulfan-II	ND	0.0069	0.0034	ug/l	
76-44-8	Heptachlor	ND	0.0069	0.0031	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0069	0.0041	ug/l	
72-43-5	Methoxychlor	ND	0.014	0.0046	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	75%		13-153%
877-09-8	Tetrachloro-m-xylene	76%		13-153%
2051-24-3	Decachlorobiphenyl	62%		10-138%
2051-24-3	Decachlorobiphenyl	56%		10-138%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-15D		
Lab Sample ID:	JC62879-7	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181192.D	1	03/27/18 18:25	HB	03/26/18 18:20	OP10875	GEF6202
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.34	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.34	0.29	ug/l	
11141-16-5	Aroclor 1232	ND	0.34	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.34	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.34	0.087	ug/l	
11097-69-1	Aroclor 1254	ND	0.34	0.29	ug/l	
11096-82-5	Aroclor 1260	ND	0.34	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.34	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.34	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		11-166%
877-09-8	Tetrachloro-m-xylene	83%		11-166%
2051-24-3	Decachlorobiphenyl	69%		10-150%
2051-24-3	Decachlorobiphenyl	63%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCMW-15D
Lab Sample ID: JC62879-7
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/20/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	27.3	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	124000	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	26800	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	49600	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	5070	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	13300	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	54800	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	< 20	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-15D		
Lab Sample ID:	JC62879-7	**Date Sampled:**	03/20/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.020	0.010	mg/l	1	03/29/18 09:29	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-8S		
Lab Sample ID:	JC62879-8	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D174443.D	1	03/27/18 17:21	JP	n/a	n/a	V2D7344
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-8S		
Lab Sample ID:	JC62879-8	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-8S		
Lab Sample ID:	JC62879-8	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78143.D	1	03/28/18 21:17	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-8S		
Lab Sample ID:	JC62879-8	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		10-110%
4165-62-2	Phenol-d5	24%		10-110%

ND = Not detected MDL = Method Detection Limit
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-8S		
Lab Sample ID:	JC62879-8	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	86%		36-151%
4165-60-0	Nitrobenzene-d5	59%		34-128%
321-60-8	2-Fluorobiphenyl	67%		38-119%
1718-51-0	Terphenyl-d14	72%		26-129%

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Report of Analysis

Client Sample ID:	PCMW-8S		
Lab Sample ID:	JC62879-8	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144707.D	1	03/28/18 02:18	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		13-153%
877-09-8	Tetrachloro-m-xylene	80%		13-153%
2051-24-3	Decachlorobiphenyl	109%		10-138%
2051-24-3	Decachlorobiphenyl	83%		10-138%

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-8S		
Lab Sample ID:	JC62879-8	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181224.D	1	03/28/18 20:19	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		11-166%
877-09-8	Tetrachloro-m-xylene	89%		11-166%
2051-24-3	Decachlorobiphenyl	80%		10-150%
2051-24-3	Decachlorobiphenyl	82%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCMW-8S
Lab Sample ID: JC62879-8
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/22/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	9.9	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	3.4	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	170000	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	163	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	5.3	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	149000	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	41.7	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	17400	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	11.9	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	13900	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	48.2	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-8S		
Lab Sample ID:	JC62879-8	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.018	0.010	mg/l	1	03/29/18 09:30	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-8D		
Lab Sample ID:	JC62879-9	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D174435.D	1	03/27/18 13:21	JP	n/a	n/a	V2D7344
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

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RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-8D		
Lab Sample ID:	JC62879-9	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-8D		
Lab Sample ID:	JC62879-9	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78144.D	1	03/28/18 21:38	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.1	0.84	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.1	0.91	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.1	2.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.1	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.1	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.91	ug/l	
	3&4-Methylphenol	ND	2.0	0.90	ug/l	
88-75-5	2-Nitrophenol	ND	5.1	0.98	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.1	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.40	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.1	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.1	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.1	0.94	ug/l	
83-32-9	Acenaphthene	3.9	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.22	ug/l	
1912-24-9	Atrazine	ND	2.0	0.46	ug/l	
100-52-7	Benzaldehyde	ND	5.1	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.35	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.41	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.47	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.22	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.1	0.35	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-8D		
Lab Sample ID:	JC62879-9	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.66	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.41	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.56	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.49	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.52	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.34	ug/l	
132-64-9	Dibenzofuran	ND	5.1	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.51	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.24	ug/l	
84-66-2	Diethyl phthalate	1.0	2.0	0.27	ug/l	J
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.40	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.34	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.1	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.1	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.1	0.45	ug/l	
91-20-3	Naphthalene	ND	1.0	0.24	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.66	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.49	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.23	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		10-110%
4165-62-2	Phenol-d5	27%		10-110%

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-8D		
Lab Sample ID:	JC62879-9	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	95%		36-151%
4165-60-0	Nitrobenzene-d5	65%		34-128%
321-60-8	2-Fluorobiphenyl	72%		38-119%
1718-51-0	Terphenyl-d14	71%		26-129%

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Report of Analysis

Client Sample ID:	PCMW-8D		
Lab Sample ID:	JC62879-9	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144708.D	1	03/28/18 02:35	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0069	0.0036	ug/l	
319-84-6	alpha-BHC	ND	0.0069	0.0036	ug/l	
319-85-7	beta-BHC	ND	0.0069	0.0055	ug/l	
319-86-8	delta-BHC	ND	0.0069	0.0045	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0069	0.0041	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0069	0.0034	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0069	0.0029	ug/l	
60-57-1	Dieldrin	ND	0.0069	0.0053	ug/l	
72-54-8	4,4'-DDD	ND	0.0069	0.0040	ug/l	
72-55-9	4,4'-DDE	ND	0.0069	0.0035	ug/l	
50-29-3	4,4'-DDT	ND	0.0069	0.0047	ug/l	
72-20-8	Endrin	ND	0.0069	0.0042	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0069	0.0038	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0069	0.0046	ug/l	
53494-70-5	Endrin ketone	ND	0.0069	0.0043	ug/l	
959-98-8	Endosulfan-I	ND	0.0069	0.0036	ug/l	
33213-65-9	Endosulfan-II	ND	0.0069	0.0034	ug/l	
76-44-8	Heptachlor	ND	0.0069	0.0031	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0069	0.0041	ug/l	
72-43-5	Methoxychlor	ND	0.014	0.0046	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	49%		13-153%
877-09-8	Tetrachloro-m-xylene	53%		13-153%
2051-24-3	Decachlorobiphenyl	22%		10-138%
2051-24-3	Decachlorobiphenyl	23%		10-138%

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Report of Analysis

Client Sample ID:	PCMW-8D		
Lab Sample ID:	JC62879-9	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181220.D	1	03/28/18 18:39	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.34	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.34	0.29	ug/l	
11141-16-5	Aroclor 1232	ND	0.34	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.34	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.34	0.087	ug/l	
11097-69-1	Aroclor 1254	ND	0.34	0.29	ug/l	
11096-82-5	Aroclor 1260	ND	0.34	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.34	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.34	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	54%		11-166%
877-09-8	Tetrachloro-m-xylene	53%		11-166%
2051-24-3	Decachlorobiphenyl	29%		10-150%
2051-24-3	Decachlorobiphenyl	28%		10-150%

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-8D		
Lab Sample ID:	JC62879-9	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	< 1000	1000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Antimony [a]	< 30	30	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Arsenic [a]	< 15	15	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Barium [a]	< 1000	1000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Beryllium [a]	< 5.0	5.0	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Cadmium [a]	< 15	15	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Calcium [a]	63500	25000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Chromium [a]	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Cobalt [a]	< 250	250	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Copper [a]	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Iron [a]	165000	500	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Lead [a]	< 15	15	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Magnesium [a]	26800	25000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Manganese [a]	6640	75	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Mercury [a]	< 0.60	0.60	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel [a]	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Potassium [a]	< 50000	50000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Selenium [a]	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Silver [a]	< 50	50	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Sodium [a]	79000	50000	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Thallium [a]	< 10	10	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Vanadium [a]	< 250	250	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]
Zinc [a]	< 100	100	ug/l	1	03/29/18	03/31/18		SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44114
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6399

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-8D		
Lab Sample ID:	JC62879-9	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.060	0.010	mg/l	1	03/29/18 09:31	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-17S		
Lab Sample ID:	JC62879-10	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D174444.D	1	03/27/18 17:51	JP	n/a	n/a	V2D7344
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	1.1	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-17S		
Lab Sample ID:	JC62879-10	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene [b]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	106%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-17S		
Lab Sample ID:	JC62879-10	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78145.D	1	03/28/18 22:00	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.1	0.84	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.1	0.91	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.1	2.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.1	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.1	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.91	ug/l	
	3&4-Methylphenol	ND	2.0	0.90	ug/l	
88-75-5	2-Nitrophenol	ND	5.1	0.98	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.1	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.40	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.1	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.1	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.1	0.94	ug/l	
83-32-9	Acenaphthene	1.2	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.22	ug/l	
1912-24-9	Atrazine	ND	2.0	0.46	ug/l	
100-52-7	Benzaldehyde	ND	5.1	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.35	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.41	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.47	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.22	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.1	0.35	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-17S		
Lab Sample ID:	JC62879-10	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.66	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.41	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.56	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.49	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.52	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.34	ug/l	
132-64-9	Dibenzofuran	ND	5.1	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.51	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.24	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	0.76	1.0	0.17	ug/l	J
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.40	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.34	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.1	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.1	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.1	0.45	ug/l	
91-20-3	Naphthalene	ND	1.0	0.24	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.66	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.49	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.23	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		10-110%
4165-62-2	Phenol-d5	25%		10-110%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-17S		
Lab Sample ID:	JC62879-10	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	89%		36-151%
4165-60-0	Nitrobenzene-d5	59%		34-128%
321-60-8	2-Fluorobiphenyl	67%		38-119%
1718-51-0	Terphenyl-d14	72%		26-129%

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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-17S		
Lab Sample ID:	JC62879-10	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144711.D	1	03/28/18 03:27	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0069	0.0036	ug/l	
319-84-6	alpha-BHC	ND	0.0069	0.0036	ug/l	
319-85-7	beta-BHC	ND	0.0069	0.0055	ug/l	
319-86-8	delta-BHC	ND	0.0069	0.0045	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0069	0.0041	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0069	0.0034	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0069	0.0029	ug/l	
60-57-1	Dieldrin	ND	0.0069	0.0053	ug/l	
72-54-8	4,4'-DDD	ND	0.0069	0.0040	ug/l	
72-55-9	4,4'-DDE	ND	0.0069	0.0035	ug/l	
50-29-3	4,4'-DDT	ND	0.0069	0.0047	ug/l	
72-20-8	Endrin	ND	0.0069	0.0042	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0069	0.0038	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0069	0.0046	ug/l	
53494-70-5	Endrin ketone	ND	0.0069	0.0043	ug/l	
959-98-8	Endosulfan-I	ND	0.0069	0.0036	ug/l	
33213-65-9	Endosulfan-II	ND	0.0069	0.0034	ug/l	
76-44-8	Heptachlor	ND	0.0069	0.0031	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0069	0.0041	ug/l	
72-43-5	Methoxychlor	ND	0.014	0.0046	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		13-153%
877-09-8	Tetrachloro-m-xylene	74%		13-153%
2051-24-3	Decachlorobiphenyl	105%		10-138%
2051-24-3	Decachlorobiphenyl	75%		10-138%

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J = Indicates an estimated value
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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-17S		
Lab Sample ID:	JC62879-10	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181229.D	1	03/28/18 22:24	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.34	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.34	0.29	ug/l	
11141-16-5	Aroclor 1232	ND	0.34	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.34	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.34	0.087	ug/l	
11097-69-1	Aroclor 1254	ND	0.34	0.29	ug/l	
11096-82-5	Aroclor 1260	ND	0.34	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.34	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.34	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		11-166%
877-09-8	Tetrachloro-m-xylene	79%		11-166%
2051-24-3	Decachlorobiphenyl	73%		10-150%
2051-24-3	Decachlorobiphenyl	73%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCMW-17S
Lab Sample ID: JC62879-10
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/22/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	1020	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Arsenic [a]	< 15	15	ug/l	5	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Cadmium	3.3	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Calcium	188000	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Copper	30.6	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Iron	22100	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Lead [a]	< 15	15	ug/l	5	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Magnesium	34500	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Manganese	2120	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [4]
Nickel	93.4	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Sodium	11100	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Thallium [a]	< 10	10	ug/l	5	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Zinc	1130	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Instrument QC Batch: MA44142
(4) Prep QC Batch: MP6364
(5) Prep QC Batch: MP6402

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-17S		
Lab Sample ID:	JC62879-10	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:33	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-17D		
Lab Sample ID:	JC62879-11	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E141954.D	1	03/29/18 10:03	SS	n/a	n/a	V2E6206
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-17D		
Lab Sample ID:	JC62879-11	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

(a) Associated CCV outside of control limits low.

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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-17D		
Lab Sample ID:	JC62879-11	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78146.D	1	03/28/18 22:21	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.6	0.91	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.6	0.99	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.2	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.6	2.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.6	1.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.6	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.2	0.99	ug/l	
	3&4-Methylphenol	ND	2.2	0.98	ug/l	
88-75-5	2-Nitrophenol	ND	5.6	1.1	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	4.4	1.5	ug/l	
108-95-2	Phenol	ND	2.2	0.44	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.6	1.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.6	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.6	1.0	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.21	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.15	ug/l	
98-86-2	Acetophenone	ND	2.2	0.23	ug/l	
120-12-7	Anthracene	ND	1.1	0.23	ug/l	
1912-24-9	Atrazine	ND	2.2	0.50	ug/l	
100-52-7	Benzaldehyde	ND	5.6	0.32	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.38	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.23	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.2	0.45	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.2	0.51	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.24	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.2	0.26	ug/l	
106-47-8	4-Chloroaniline	ND	5.6	0.38	ug/l	
86-74-8	Carbazole	ND	1.1	0.25	ug/l	

ND = Not detected MDL = Method Detection Limit
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-17D		
Lab Sample ID:	JC62879-11	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.2	0.72	ug/l	
218-01-9	Chrysene	ND	1.1	0.20	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.2	0.31	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.2	0.28	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.2	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.2	0.41	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.61	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.53	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.2	0.56	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.6	0.24	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.2	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.2	0.26	ug/l	
84-66-2	Diethyl phthalate	ND	2.2	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	2.2	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	1.8	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.19	ug/l	
86-73-7	Fluorene	ND	1.1	0.19	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.36	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.55	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	3.1	ug/l	
67-72-1	Hexachloroethane	ND	2.2	0.43	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.37	ug/l	
78-59-1	Isophorone	ND	2.2	0.31	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.23	ug/l	
88-74-4	2-Nitroaniline	ND	5.6	0.31	ug/l	
99-09-2	3-Nitroaniline	ND	5.6	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	5.6	0.49	ug/l	
91-20-3	Naphthalene	ND	1.1	0.26	ug/l	
98-95-3	Nitrobenzene	ND	2.2	0.71	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.2	0.53	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	0.25	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.19	ug/l	
129-00-0	Pyrene	ND	1.1	0.24	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.2	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		10-110%
4165-62-2	Phenol-d5	31%		10-110%

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Report of Analysis

Client Sample ID:	PCMW-17D		
Lab Sample ID:	JC62879-11	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	91%		36-151%
4165-60-0	Nitrobenzene-d5	71%		34-128%
321-60-8	2-Fluorobiphenyl	73%		38-119%
1718-51-0	Terphenyl-d14	60%		26-129%

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Report of Analysis

Client Sample ID:	PCMW-17D		
Lab Sample ID:	JC62879-11	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144712.D	1	03/28/18 03:44	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0069	0.0036	ug/l	
319-84-6	alpha-BHC	ND	0.0069	0.0036	ug/l	
319-85-7	beta-BHC	ND	0.0069	0.0055	ug/l	
319-86-8	delta-BHC	ND	0.0069	0.0045	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0069	0.0041	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0069	0.0034	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0069	0.0029	ug/l	
60-57-1	Dieldrin	0.046	0.0069	0.0053	ug/l	
72-54-8	4,4'-DDD	ND	0.0069	0.0040	ug/l	
72-55-9	4,4'-DDE	ND	0.0069	0.0035	ug/l	
50-29-3	4,4'-DDT	ND	0.0069	0.0047	ug/l	
72-20-8	Endrin	ND	0.0069	0.0042	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0069	0.0038	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0069	0.0046	ug/l	
53494-70-5	Endrin ketone	ND	0.0069	0.0043	ug/l	
959-98-8	Endosulfan-I	ND	0.0069	0.0036	ug/l	
33213-65-9	Endosulfan-II	ND	0.0069	0.0034	ug/l	
76-44-8	Heptachlor	ND	0.0069	0.0031	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0069	0.0041	ug/l	
72-43-5	Methoxychlor	ND	0.014	0.0046	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%		13-153%
877-09-8	Tetrachloro-m-xylene	79%		13-153%
2051-24-3	Decachlorobiphenyl	77%		10-138%
2051-24-3	Decachlorobiphenyl	69%		10-138%

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Report of Analysis

Client Sample ID:	PCMW-17D		
Lab Sample ID:	JC62879-11	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181230.D	1	03/28/18 22:49	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.34	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.34	0.29	ug/l	
11141-16-5	Aroclor 1232	ND	0.34	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.34	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.34	0.087	ug/l	
11097-69-1	Aroclor 1254	ND	0.34	0.29	ug/l	
11096-82-5	Aroclor 1260	ND	0.34	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.34	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.34	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		11-166%
877-09-8	Tetrachloro-m-xylene	92%		11-166%
2051-24-3	Decachlorobiphenyl	80%		10-150%
2051-24-3	Decachlorobiphenyl	69%		10-150%

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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-17D		
Lab Sample ID:	JC62879-11	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	1170	200	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	< 3.0	3.0	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	58900	5000	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	5830	100	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	< 3.0	3.0	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	32000	5000	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	4750	15	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	50100	10000	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	< 20	20	ug/l	1	03/29/18	03/30/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44103
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-17D		
Lab Sample ID:	JC62879-11	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:34	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-20S		
Lab Sample ID:	JC62879-12	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B145279.D	1	03/29/18 00:11	EH	n/a	n/a	V3B6426
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-20S		
Lab Sample ID:	JC62879-12	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		80-120%
17060-07-0	1,2-Dichloroethane-D4	109%		81-124%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	93%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-20S		
Lab Sample ID:	JC62879-12	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78147.D	1	03/28/18 22:43	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-20S		
Lab Sample ID:	JC62879-12	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		10-110%
4165-62-2	Phenol-d5	25%		10-110%

ND = Not detected MDL = Method Detection Limit
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-20S		
Lab Sample ID:	JC62879-12	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	85%		36-151%
4165-60-0	Nitrobenzene-d5	65%		34-128%
321-60-8	2-Fluorobiphenyl	69%		38-119%
1718-51-0	Terphenyl-d14	68%		26-129%

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Report of Analysis

Client Sample ID:	PCMW-20S		
Lab Sample ID:	JC62879-12	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144715.D	1	03/28/18 04:35	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		13-153%
877-09-8	Tetrachloro-m-xylene	89%		13-153%
2051-24-3	Decachlorobiphenyl	98%		10-138%
2051-24-3	Decachlorobiphenyl	80%		10-138%

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Report of Analysis

Client Sample ID:	PCMW-20S		
Lab Sample ID:	JC62879-12	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181233.D	1	03/29/18 00:04	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		11-166%
877-09-8	Tetrachloro-m-xylene	84%		11-166%
2051-24-3	Decachlorobiphenyl	82%		10-150%
2051-24-3	Decachlorobiphenyl	73%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-20S		
Lab Sample ID:	JC62879-12	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	31300	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	7420	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	4.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	< 5000	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	613	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	42.4	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-20S		
Lab Sample ID:	JC62879-12	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:36	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-20D		
Lab Sample ID:	JC62879-13	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B145280.D	1	03/29/18 00:40	EH	n/a	n/a	V3B6426
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-20D		
Lab Sample ID:	JC62879-13	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	93%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

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J = Indicates an estimated value
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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-20D		
Lab Sample ID:	JC62879-13	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78148.D	1	03/28/18 23:04	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.9	0.80	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.9	0.87	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.9	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	4.9	1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	4.9	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.87	ug/l	
	3&4-Methylphenol	ND	2.0	0.86	ug/l	
88-75-5	2-Nitrophenol	ND	4.9	0.94	ug/l	
100-02-7	4-Nitrophenol	ND	9.8	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	3.9	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.38	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	4.9	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.9	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.9	0.91	ug/l	
83-32-9	Acenaphthene	ND	0.98	0.19	ug/l	
208-96-8	Acenaphthylene	ND	0.98	0.13	ug/l	
98-86-2	Acetophenone	ND	2.0	0.20	ug/l	
120-12-7	Anthracene	ND	0.98	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.44	ug/l	
100-52-7	Benzaldehyde	ND	4.9	0.28	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.98	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.98	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.98	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.98	0.33	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.98	0.20	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.45	ug/l	
92-52-4	1,1'-Biphenyl	ND	0.98	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.23	ug/l	
106-47-8	4-Chloroaniline	ND	4.9	0.33	ug/l	
86-74-8	Carbazole	ND	0.98	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-20D		
Lab Sample ID:	JC62879-13	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.64	ug/l	
218-01-9	Chrysene	ND	0.98	0.17	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.24	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.36	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.98	0.54	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.98	0.47	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.50	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.98	0.32	ug/l	
132-64-9	Dibenzofuran	ND	4.9	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.49	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.6	ug/l	
206-44-0	Fluoranthene	ND	0.98	0.17	ug/l	
86-73-7	Fluorene	ND	0.98	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	0.98	0.32	ug/l	
87-68-3	Hexachlorobutadiene	ND	0.98	0.48	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.8	2.7	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.38	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.98	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.27	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.98	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	4.9	0.27	ug/l	
99-09-2	3-Nitroaniline	ND	4.9	0.38	ug/l	
100-01-6	4-Nitroaniline	ND	4.9	0.43	ug/l	
91-20-3	Naphthalene	ND	0.98	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.63	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.47	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.9	0.22	ug/l	
85-01-8	Phenanthrene	ND	0.98	0.17	ug/l	
129-00-0	Pyrene	ND	0.98	0.21	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		10-110%
4165-62-2	Phenol-d5	23%		10-110%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-20D		
Lab Sample ID:	JC62879-13	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	78%		36-151%
4165-60-0	Nitrobenzene-d5	70%		34-128%
321-60-8	2-Fluorobiphenyl	65%		38-119%
1718-51-0	Terphenyl-d14	54%		26-129%

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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-20D		
Lab Sample ID:	JC62879-13	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144716.D	1	03/28/18 04:52	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	52%		13-153%
877-09-8	Tetrachloro-m-xylene	62%		13-153%
2051-24-3	Decachlorobiphenyl	48%		10-138%
2051-24-3	Decachlorobiphenyl	46%		10-138%

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Report of Analysis

Client Sample ID:	PCMW-20D		
Lab Sample ID:	JC62879-13	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181234.D	1	03/29/18 00:29	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	72%		11-166%
877-09-8	Tetrachloro-m-xylene	64%		11-166%
2051-24-3	Decachlorobiphenyl	54%		10-150%
2051-24-3	Decachlorobiphenyl	56%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCMW-20D
Lab Sample ID: JC62879-13
Matrix: AQ - Ground Water
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 03/22/18
Date Received: 03/23/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	996	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	17.4	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	28300	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	8400	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	13900	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	641	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury [a]	< 0.40	0.40	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	241000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	< 20	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-20D		
Lab Sample ID:	JC62879-13	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.12	0.010	mg/l	1	03/29/18 09:40	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-19S		
Lab Sample ID:	JC62879-14	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B145281.D	1	03/29/18 01:08	EH	n/a	n/a	V3B6426
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-19S		
Lab Sample ID:	JC62879-14	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	108%		81-124%
2037-26-5	Toluene-D8	94%		80-120%
460-00-4	4-Bromofluorobenzene	92%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-19S		
Lab Sample ID:	JC62879-14	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78149.D	1	03/28/18 23:26	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.8	0.78	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.85	ug/l	
120-83-2	2,4-Dichlorophenol	ND	1.9	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	2.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	4.8	1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	4.8	1.2	ug/l	
95-48-7	2-Methylphenol	ND	1.9	0.85	ug/l	
	3&4-Methylphenol	ND	1.9	0.84	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.91	ug/l	
100-02-7	4-Nitrophenol	ND	9.5	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	3.8	1.3	ug/l	
108-95-2	Phenol	ND	1.9	0.37	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	4.8	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.88	ug/l	
83-32-9	Acenaphthene	ND	0.95	0.18	ug/l	
208-96-8	Acenaphthylene	ND	0.95	0.13	ug/l	
98-86-2	Acetophenone	ND	1.9	0.20	ug/l	
120-12-7	Anthracene	ND	0.95	0.20	ug/l	
1912-24-9	Atrazine	ND	1.9	0.43	ug/l	
100-52-7	Benzaldehyde	ND	4.8	0.28	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.95	0.19	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.95	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.95	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.95	0.32	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.95	0.20	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	1.9	0.38	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.9	0.44	ug/l	
92-52-4	1,1'-Biphenyl	ND	0.95	0.20	ug/l	
91-58-7	2-Chloronaphthalene	ND	1.9	0.22	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.32	ug/l	
86-74-8	Carbazole	ND	0.95	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-19S		
Lab Sample ID:	JC62879-14	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	1.9	0.62	ug/l	
218-01-9	Chrysene	ND	0.95	0.17	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	1.9	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.9	0.24	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	1.9	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1.9	0.35	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.95	0.53	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.95	0.45	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.95	0.32	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.21	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.9	0.47	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.9	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	1.9	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	1.9	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.9	1.6	ug/l	
206-44-0	Fluoranthene	ND	0.95	0.16	ug/l	
86-73-7	Fluorene	ND	0.95	0.16	ug/l	
118-74-1	Hexachlorobenzene	ND	0.95	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND	0.95	0.47	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	2.6	ug/l	
67-72-1	Hexachloroethane	ND	1.9	0.37	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.95	0.32	ug/l	
78-59-1	Isophorone	ND	1.9	0.26	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.95	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	0.26	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.37	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.42	ug/l	
91-20-3	Naphthalene	ND	0.95	0.22	ug/l	
98-95-3	Nitrobenzene	ND	1.9	0.61	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	1.9	0.46	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.21	ug/l	
85-01-8	Phenanthrene	ND	0.95	0.17	ug/l	
129-00-0	Pyrene	ND	0.95	0.21	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1.9	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		10-110%
4165-62-2	Phenol-d5	24%		10-110%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-19S		
Lab Sample ID:	JC62879-14	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	81%		36-151%
4165-60-0	Nitrobenzene-d5	63%		34-128%
321-60-8	2-Fluorobiphenyl	70%		38-119%
1718-51-0	Terphenyl-d14	66%		26-129%

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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-19S		
Lab Sample ID:	JC62879-14	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144717.D	1	03/28/18 05:09	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		13-153%
877-09-8	Tetrachloro-m-xylene	81%		13-153%
2051-24-3	Decachlorobiphenyl	56%		10-138%
2051-24-3	Decachlorobiphenyl	45%		10-138%

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Report of Analysis

Client Sample ID:	PCMW-19S		
Lab Sample ID:	JC62879-14	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181235.D	1	03/29/18 00:54	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		11-166%
877-09-8	Tetrachloro-m-xylene	88%		11-166%
2051-24-3	Decachlorobiphenyl	52%		10-150%
2051-24-3	Decachlorobiphenyl	52%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-19S		
Lab Sample ID:	JC62879-14	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	393	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	33.2	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	87800	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	12700	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	11.5	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	15800	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	1300	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	23.2	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-19S		
Lab Sample ID:	JC62879-14	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:41	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-19D		
Lab Sample ID:	JC62879-15	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B145282.D	1	03/29/18 01:37	EH	n/a	n/a	V3B6426
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-19D		
Lab Sample ID:	JC62879-15	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		80-120%
17060-07-0	1,2-Dichloroethane-D4	109%		81-124%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	93%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-19D		
Lab Sample ID:	JC62879-15	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78150.D	1	03/28/18 23:47	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.9	0.80	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.9	0.87	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.9	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	4.9	1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	4.9	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.87	ug/l	
	3&4-Methylphenol	ND	2.0	0.86	ug/l	
88-75-5	2-Nitrophenol	ND	4.9	0.94	ug/l	
100-02-7	4-Nitrophenol	ND	9.8	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	3.9	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.38	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	4.9	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.9	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.9	0.91	ug/l	
83-32-9	Acenaphthene	ND	0.98	0.19	ug/l	
208-96-8	Acenaphthylene	ND	0.98	0.13	ug/l	
98-86-2	Acetophenone	ND	2.0	0.20	ug/l	
120-12-7	Anthracene	ND	0.98	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.44	ug/l	
100-52-7	Benzaldehyde	ND	4.9	0.28	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.98	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.98	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.98	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.98	0.33	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.98	0.20	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.45	ug/l	
92-52-4	1,1'-Biphenyl	ND	0.98	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.23	ug/l	
106-47-8	4-Chloroaniline	ND	4.9	0.33	ug/l	
86-74-8	Carbazole	ND	0.98	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-19D		
Lab Sample ID:	JC62879-15	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.64	ug/l	
218-01-9	Chrysene	ND	0.98	0.17	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.24	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.36	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.98	0.54	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.98	0.47	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.50	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.98	0.32	ug/l	
132-64-9	Dibenzofuran	ND	4.9	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.49	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.6	ug/l	
206-44-0	Fluoranthene	ND	0.98	0.17	ug/l	
86-73-7	Fluorene	ND	0.98	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	0.98	0.32	ug/l	
87-68-3	Hexachlorobutadiene	ND	0.98	0.48	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.8	2.7	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.38	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.98	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.27	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.98	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	4.9	0.27	ug/l	
99-09-2	3-Nitroaniline	ND	4.9	0.38	ug/l	
100-01-6	4-Nitroaniline	ND	4.9	0.43	ug/l	
91-20-3	Naphthalene	ND	0.98	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.63	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.47	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.9	0.22	ug/l	
85-01-8	Phenanthrene	ND	0.98	0.17	ug/l	
129-00-0	Pyrene	ND	0.98	0.21	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		10-110%
4165-62-2	Phenol-d5	25%		10-110%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-19D		
Lab Sample ID:	JC62879-15	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	83%		36-151%
4165-60-0	Nitrobenzene-d5	66%		34-128%
321-60-8	2-Fluorobiphenyl	72%		38-119%
1718-51-0	Terphenyl-d14	63%		26-129%

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Report of Analysis

Client Sample ID:	PCMW-19D		
Lab Sample ID:	JC62879-15	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144718.D	1	03/28/18 05:27	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0069	0.0036	ug/l	
319-84-6	alpha-BHC	ND	0.0069	0.0036	ug/l	
319-85-7	beta-BHC	ND	0.0069	0.0055	ug/l	
319-86-8	delta-BHC	ND	0.0069	0.0045	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0069	0.0041	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0069	0.0034	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0069	0.0029	ug/l	
60-57-1	Dieldrin	ND	0.0069	0.0053	ug/l	
72-54-8	4,4'-DDD	ND	0.0069	0.0040	ug/l	
72-55-9	4,4'-DDE	ND	0.0069	0.0035	ug/l	
50-29-3	4,4'-DDT	ND	0.0069	0.0047	ug/l	
72-20-8	Endrin	ND	0.0069	0.0042	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0069	0.0038	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0069	0.0046	ug/l	
53494-70-5	Endrin ketone	ND	0.0069	0.0043	ug/l	
959-98-8	Endosulfan-I	ND	0.0069	0.0036	ug/l	
33213-65-9	Endosulfan-II	ND	0.0069	0.0034	ug/l	
76-44-8	Heptachlor	ND	0.0069	0.0031	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0069	0.0041	ug/l	
72-43-5	Methoxychlor	ND	0.014	0.0046	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	70%		13-153%
877-09-8	Tetrachloro-m-xylene	68%		13-153%
2051-24-3	Decachlorobiphenyl	51%		10-138%
2051-24-3	Decachlorobiphenyl	38%		10-138%

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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS LabLink@996135 15:37 10-Apr-2018

Report of Analysis

Client Sample ID:	PCMW-19D		
Lab Sample ID:	JC62879-15	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181240.D	1	03/29/18 02:59	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	290 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.34	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.34	0.29	ug/l	
11141-16-5	Aroclor 1232	ND	0.34	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.34	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.34	0.087	ug/l	
11097-69-1	Aroclor 1254	ND	0.34	0.29	ug/l	
11096-82-5	Aroclor 1260	ND	0.34	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.34	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.34	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		11-166%
877-09-8	Tetrachloro-m-xylene	74%		11-166%
2051-24-3	Decachlorobiphenyl	44%		10-150%
2051-24-3	Decachlorobiphenyl	43%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-19D		
Lab Sample ID:	JC62879-15	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	1440	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	13.4	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	83900	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	21300	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	3.5	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	35900	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	5690	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	11.9	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	34600	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	< 20	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-19D		
Lab Sample ID:	JC62879-15	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:42	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	DUP-03222018		
Lab Sample ID:	JC62879-16	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B145283.D	1	03/29/18 02:05	EH	n/a	n/a	V3B6426
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-03222018		
Lab Sample ID:	JC62879-16	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	93%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

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SGS LabLink@996135 15:37 10-Apr-2018

Report of Analysis

Client Sample ID:	DUP-03222018		
Lab Sample ID:	JC62879-16	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78151.D	1	03/29/18 00:09	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.8	0.78	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.85	ug/l	
120-83-2	2,4-Dichlorophenol	ND	1.9	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	2.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	4.8	1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	4.8	1.2	ug/l	
95-48-7	2-Methylphenol	ND	1.9	0.85	ug/l	
	3&4-Methylphenol	ND	1.9	0.84	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.91	ug/l	
100-02-7	4-Nitrophenol	ND	9.5	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	3.8	1.3	ug/l	
108-95-2	Phenol	ND	1.9	0.37	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	4.8	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.88	ug/l	
83-32-9	Acenaphthene	ND	0.95	0.18	ug/l	
208-96-8	Acenaphthylene	ND	0.95	0.13	ug/l	
98-86-2	Acetophenone	ND	1.9	0.20	ug/l	
120-12-7	Anthracene	ND	0.95	0.20	ug/l	
1912-24-9	Atrazine	ND	1.9	0.43	ug/l	
100-52-7	Benzaldehyde	ND	4.8	0.28	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.95	0.19	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.95	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.95	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.95	0.32	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.95	0.20	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	1.9	0.38	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.9	0.44	ug/l	
92-52-4	1,1'-Biphenyl	ND	0.95	0.20	ug/l	
91-58-7	2-Chloronaphthalene	ND	1.9	0.22	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.32	ug/l	
86-74-8	Carbazole	ND	0.95	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-03222018		
Lab Sample ID:	JC62879-16	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	1.9	0.62	ug/l	
218-01-9	Chrysene	ND	0.95	0.17	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	1.9	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.9	0.24	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	1.9	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1.9	0.35	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.95	0.53	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.95	0.45	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.95	0.32	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.21	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.9	0.47	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.9	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	1.9	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	1.9	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.9	1.6	ug/l	
206-44-0	Fluoranthene	ND	0.95	0.16	ug/l	
86-73-7	Fluorene	ND	0.95	0.16	ug/l	
118-74-1	Hexachlorobenzene	ND	0.95	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND	0.95	0.47	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	2.6	ug/l	
67-72-1	Hexachloroethane	ND	1.9	0.37	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.95	0.32	ug/l	
78-59-1	Isophorone	ND	1.9	0.26	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.95	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	0.26	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.37	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.42	ug/l	
91-20-3	Naphthalene	ND	0.95	0.22	ug/l	
98-95-3	Nitrobenzene	ND	1.9	0.61	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	1.9	0.46	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.21	ug/l	
85-01-8	Phenanthrene	ND	0.95	0.17	ug/l	
129-00-0	Pyrene	ND	0.95	0.21	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1.9	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		10-110%
4165-62-2	Phenol-d5	24%		10-110%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-03222018		
Lab Sample ID:	JC62879-16	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	89%		36-151%
4165-60-0	Nitrobenzene-d5	62%		34-128%
321-60-8	2-Fluorobiphenyl	68%		38-119%
1718-51-0	Terphenyl-d14	63%		26-129%

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Report of Analysis

Client Sample ID:	DUP-03222018		
Lab Sample ID:	JC62879-16	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144719.D	1	03/28/18 05:44	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0069	0.0036	ug/l	
319-84-6	alpha-BHC	ND	0.0069	0.0036	ug/l	
319-85-7	beta-BHC	ND	0.0069	0.0055	ug/l	
319-86-8	delta-BHC	ND	0.0069	0.0045	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0069	0.0041	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0069	0.0034	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0069	0.0029	ug/l	
60-57-1	Dieldrin	ND	0.0069	0.0053	ug/l	
72-54-8	4,4'-DDD	ND	0.0069	0.0040	ug/l	
72-55-9	4,4'-DDE	ND	0.0069	0.0035	ug/l	
50-29-3	4,4'-DDT	ND	0.0069	0.0047	ug/l	
72-20-8	Endrin	ND	0.0069	0.0042	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0069	0.0038	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0069	0.0046	ug/l	
53494-70-5	Endrin ketone	ND	0.0069	0.0043	ug/l	
959-98-8	Endosulfan-I	ND	0.0069	0.0036	ug/l	
33213-65-9	Endosulfan-II	ND	0.0069	0.0034	ug/l	
76-44-8	Heptachlor	ND	0.0069	0.0031	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0069	0.0041	ug/l	
72-43-5	Methoxychlor	ND	0.014	0.0046	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		13-153%
877-09-8	Tetrachloro-m-xylene	72%		13-153%
2051-24-3	Decachlorobiphenyl	52%		10-138%
2051-24-3	Decachlorobiphenyl	38%		10-138%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS LabLink@996135 15:37 10-Apr-2018

Report of Analysis

Client Sample ID:	DUP-03222018		
Lab Sample ID:	JC62879-16	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181241.D	1	03/29/18 03:24	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	71%		11-166%
877-09-8	Tetrachloro-m-xylene	75%		11-166%
2051-24-3	Decachlorobiphenyl	40%		10-150%
2051-24-3	Decachlorobiphenyl	40%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-03222018		
Lab Sample ID:	JC62879-16	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	1130	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	12.8	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	81800	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	20100	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	34900	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	5530	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	11.7	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	33400	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	< 20	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DUP-03222018		
Lab Sample ID:	JC62879-16	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:44	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-10S		
Lab Sample ID:	JC62879-17	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E141955.D	1	03/29/18 11:26	SS	n/a	n/a	V2E6206
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-10S		
Lab Sample ID:	JC62879-17	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

(a) Associated CCV outside of control limits low.

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-10S		
Lab Sample ID:	JC62879-17	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78152.D	1	03/29/18 00:30	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.6	0.91	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.6	0.99	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.2	1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.6	2.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.6	1.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.6	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.2	0.99	ug/l	
	3&4-Methylphenol	ND	2.2	0.98	ug/l	
88-75-5	2-Nitrophenol	ND	5.6	1.1	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	4.4	1.5	ug/l	
108-95-2	Phenol	ND	2.2	0.44	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.6	1.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.6	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.6	1.0	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.21	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.15	ug/l	
98-86-2	Acetophenone	ND	2.2	0.23	ug/l	
120-12-7	Anthracene	ND	1.1	0.23	ug/l	
1912-24-9	Atrazine	ND	2.2	0.50	ug/l	
100-52-7	Benzaldehyde	ND	5.6	0.32	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.38	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.23	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.2	0.45	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.2	0.51	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.24	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.2	0.26	ug/l	
106-47-8	4-Chloroaniline	ND	5.6	0.38	ug/l	
86-74-8	Carbazole	ND	1.1	0.25	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-10S		
Lab Sample ID:	JC62879-17	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.2	0.72	ug/l	
218-01-9	Chrysene	ND	1.1	0.20	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.2	0.31	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.2	0.28	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.2	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.2	0.41	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.61	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.53	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.2	0.56	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.6	0.24	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.2	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.2	0.26	ug/l	
84-66-2	Diethyl phthalate	ND	2.2	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	2.2	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	1.8	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.19	ug/l	
86-73-7	Fluorene	ND	1.1	0.19	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.36	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.55	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	3.1	ug/l	
67-72-1	Hexachloroethane	ND	2.2	0.43	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.37	ug/l	
78-59-1	Isophorone	ND	2.2	0.31	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.23	ug/l	
88-74-4	2-Nitroaniline	ND	5.6	0.31	ug/l	
99-09-2	3-Nitroaniline	ND	5.6	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	5.6	0.49	ug/l	
91-20-3	Naphthalene	ND	1.1	0.26	ug/l	
98-95-3	Nitrobenzene	ND	2.2	0.71	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.2	0.53	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	0.25	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.19	ug/l	
129-00-0	Pyrene	ND	1.1	0.24	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.2	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		10-110%
4165-62-2	Phenol-d5	21%		10-110%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-10S		
Lab Sample ID:	JC62879-17	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	82%		36-151%
4165-60-0	Nitrobenzene-d5	53%		34-128%
321-60-8	2-Fluorobiphenyl	62%		38-119%
1718-51-0	Terphenyl-d14	52%		26-129%

ND = Not detected MDL = Method Detection Limit
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Report of Analysis

Client Sample ID:	PCMW-10S		
Lab Sample ID:	JC62879-17	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144720.D	1	03/28/18 06:01	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		13-153%
877-09-8	Tetrachloro-m-xylene	82%		13-153%
2051-24-3	Decachlorobiphenyl	101%		10-138%
2051-24-3	Decachlorobiphenyl	83%		10-138%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-10S		
Lab Sample ID:	JC62879-17	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181242.D	1	03/29/18 03:49	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		11-166%
877-09-8	Tetrachloro-m-xylene	92%		11-166%
2051-24-3	Decachlorobiphenyl	82%		10-150%
2051-24-3	Decachlorobiphenyl	83%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-10S		
Lab Sample ID:	JC62879-17	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Arsenic [a]	< 9.0	9.0	ug/l	3	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Calcium	299000	15000	ug/l	3	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Copper	15.2	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Iron	462	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Lead [a]	< 9.0	9.0	ug/l	3	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Magnesium	165000	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Manganese	125	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [4]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Potassium	20700	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Sodium	14700	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Thallium [a]	< 6.0	6.0	ug/l	3	03/29/18	04/04/18		SW846 6010C [3]	SW846 3010A [5]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]
Zinc	88.6	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Instrument QC Batch: MA44142
(4) Prep QC Batch: MP6364
(5) Prep QC Batch: MP6402

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-10S		
Lab Sample ID:	JC62879-17	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	03/29/18 09:45	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	PCMW-10D		
Lab Sample ID:	JC62879-18	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E141956.D	1	03/29/18 11:53	SS	n/a	n/a	V2E6206
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	0.28	1.0	0.24	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-10D		
Lab Sample ID:	JC62879-18	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.80	1.0	0.25	ug/l	J
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

(a) Associated CCV outside of control limits low.

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-10D		
Lab Sample ID:	JC62879-18	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78153.D	1	03/29/18 00:51	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-10D		
Lab Sample ID:	JC62879-18	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		10-110%
4165-62-2	Phenol-d5	27%		10-110%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-10D		
Lab Sample ID:	JC62879-18	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	85%		36-151%
4165-60-0	Nitrobenzene-d5	59%		34-128%
321-60-8	2-Fluorobiphenyl	65%		38-119%
1718-51-0	Terphenyl-d14	55%		26-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-10D		
Lab Sample ID:	JC62879-18	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144725.D	1	03/28/18 07:27	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	68%		13-153%
877-09-8	Tetrachloro-m-xylene	79%		13-153%
2051-24-3	Decachlorobiphenyl	26%		10-138%
2051-24-3	Decachlorobiphenyl	23%		10-138%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	PCMW-10D		
Lab Sample ID:	JC62879-18	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181243.D	1	03/29/18 04:14	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		11-166%
877-09-8	Tetrachloro-m-xylene	82%		11-166%
2051-24-3	Decachlorobiphenyl	33%		10-150%
2051-24-3	Decachlorobiphenyl	25%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCMW-10D		
Lab Sample ID:	JC62879-18	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	1740	1000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 30	30	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	< 15	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 1000	1000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 5.0	5.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 15	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	92400	25000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 250	250	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	64600	500	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	< 15	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	38000	25000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	7650	75	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury [a]	< 0.60	0.60	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 50000	50000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	103000	50000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 250	250	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	< 100	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCMW-10D		
Lab Sample ID:	JC62879-18	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.35	0.010	mg/l	1	03/29/18 09:46	BM	EPA 335.4/LACHAT

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JC62879-19	**Date Sampled:**	03/22/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E141957.D	1	03/29/18 12:22	SS	n/a	n/a	V2E6206
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JC62879-19	**Date Sampled:**	03/22/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	JC62879-20	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B80684.D	1	03/30/18 16:02	HT	n/a	n/a	V4B3335
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	JC62879-20	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	88%		80-120%
460-00-4	4-Bromofluorobenzene	93%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	JC62879-20	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P78154.D	1	03/29/18 01:13	JB	03/28/18 00:25	OP10883	E2P3440
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.9	0.80	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.9	0.87	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.9	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	4.9	1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	4.9	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.87	ug/l	
	3&4-Methylphenol	ND	2.0	0.86	ug/l	
88-75-5	2-Nitrophenol	ND	4.9	0.94	ug/l	
100-02-7	4-Nitrophenol	ND	9.8	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	3.9	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.38	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	4.9	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.9	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.9	0.91	ug/l	
83-32-9	Acenaphthene	1.6	0.98	0.19	ug/l	
208-96-8	Acenaphthylene	ND	0.98	0.13	ug/l	
98-86-2	Acetophenone	ND	2.0	0.20	ug/l	
120-12-7	Anthracene	ND	0.98	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.44	ug/l	
100-52-7	Benzaldehyde	ND	4.9	0.28	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.98	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.98	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.98	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.98	0.33	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.98	0.20	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.45	ug/l	
92-52-4	1,1'-Biphenyl	ND	0.98	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.23	ug/l	
106-47-8	4-Chloroaniline	ND	4.9	0.33	ug/l	
86-74-8	Carbazole	ND	0.98	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	JC62879-20	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.64	ug/l	
218-01-9	Chrysene	ND	0.98	0.17	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.24	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.36	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.98	0.54	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.98	0.47	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.50	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.98	0.32	ug/l	
132-64-9	Dibenzofuran	ND	4.9	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.49	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.6	ug/l	
206-44-0	Fluoranthene	ND	0.98	0.17	ug/l	
86-73-7	Fluorene	ND	0.98	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	0.98	0.32	ug/l	
87-68-3	Hexachlorobutadiene	ND	0.98	0.48	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.8	2.7	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.38	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.98	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.27	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.98	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	4.9	0.27	ug/l	
99-09-2	3-Nitroaniline	ND	4.9	0.38	ug/l	
100-01-6	4-Nitroaniline	ND	4.9	0.43	ug/l	
91-20-3	Naphthalene	ND	0.98	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.63	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.47	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.9	0.22	ug/l	
85-01-8	Phenanthrene	ND	0.98	0.17	ug/l	
129-00-0	Pyrene	ND	0.98	0.21	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		10-110%
4165-62-2	Phenol-d5	23%		10-110%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	JC62879-20	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	84%		36-151%
4165-60-0	Nitrobenzene-d5	61%		34-128%
321-60-8	2-Fluorobiphenyl	63%		38-119%
1718-51-0	Terphenyl-d14	68%		26-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS LabLink@996135 15:37 10-Apr-2018

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	JC62879-20	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G144726.D	1	03/28/18 07:44	CP	03/27/18 18:10	OP10885	G1G4598
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		13-153%
877-09-8	Tetrachloro-m-xylene	76%		13-153%
2051-24-3	Decachlorobiphenyl	104%		10-138%
2051-24-3	Decachlorobiphenyl	77%		10-138%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS LabLink@996135 15:37 10-Apr-2018

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	JC62879-20	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF181223.D	1	03/28/18 19:54	HB	03/27/18 18:10	OP10884	GEF6203
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	2.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		11-166%
877-09-8	Tetrachloro-m-xylene	82%		11-166%
2051-24-3	Decachlorobiphenyl	82%		10-150%
2051-24-3	Decachlorobiphenyl	78%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	JC62879-20	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 6.0	6.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Arsenic	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 1.0	1.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Calcium	71100	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Iron	12300	100	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Lead	3.0	3.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Magnesium	20200	5000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Manganese	948	15	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	03/27/18	03/27/18	JA	SW846 7470A [1]	SW846 7470A [3]
Nickel	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Potassium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Sodium	< 10000	10000	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 2.0	2.0	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]
Zinc	< 20	20	ug/l	1	03/29/18	04/03/18	ND	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA44080
(2) Instrument QC Batch: MA44135
(3) Prep QC Batch: MP6364
(4) Prep QC Batch: MP6402

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	JC62879-20	**Date Sampled:**	03/22/18
Matrix:	AQ - Ground Water	**Date Received:**	03/23/18
		Percent Solids:	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.010	0.010	mg/l	1	03/29/18 09:48	BM	EPA 335.4/LACHAT

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

SGS ACCUTEST

GW WTB

CHAIN OF CUSTODY

Quick

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

PAGE 1 OF 2

FED-EX Tracking #	Bottle Order Control # 014-031218-61
SGS Accutest Quote #	SGS Accutest Job # JC62879

Client / Reporting Information

Company Name: ARCADIS
Street Address: 824 N. MARKET ST Ste 820
City / State / Zip: WILMINGTON DE 19801
Project Contact / E-mail: CAREY HEALY
Phone #: 315-335-9493 Fax #:
Sampler(s) Name(s) / Phone #: CHRIS ORTOLANO

Project Information

Project Name: NATIONAL GRID / PHILLY CORE
Street: RICHMOND & LEFEVRE
City / State: PHILLY PA
Project #:
Client Purchase Order #:
Project Manager: DAN SHEEHAN

Billing Information (if different from Report to)

Company Name: SAME
Street Address:
City / State / Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	8260 TCL VOC	8270 TCL SVOC	3354 CN	METALS	8081 PESTICIDE	8082 PCB	LAB USE ONLY
-1	PCMW-01		3/19/18	1150	CO	GW	11	3	1	1		6				X	X	X	X	X	X	A36
-2	PCMW-04		↓	1310	CO	↓	↓	↓	↓	↓		↓				X	X	X	X	X	X	B28
-3	PCMW-9S		↓	1410	CO	↓	↓	↓	↓	↓		↓				X	X	X	X	X	X	G46T3
-4	PCMW-16D		↓	1305	AN	↓	↓	↓	↓	↓		↓				X	X	X	X	X	X	V1210
-5	MW-5		↓	1420	AN	↓	↓	↓	↓	↓		↓				X	X	X	X	X	X	V1211
-6	PCMW-15S		3/20/18	1000	AN	↓	↓	↓	↓	↓		↓				X	X	X	X	X	X	
-7	PCMW-15D		3/20/18	1055	AN	↓	↓	↓	↓	↓		↓				X	X	X	X	X	X	
-8	PCMW-8S		3/22/18	0805	CO	↓	↓	↓	↓	↓		↓				X	X	X	X	X	X	
-9	PCMW-8D MS/MSD		↓	0905	CO	↓	33	9	3	3		18				X	X	X	X	X	X	
-10	PCMW-17S		↓	1035	CO	↓	11	3	1	1		6				X	X	X	X	X	X	
-11	PCMW-17D MS/MSD		↓	1125	CO	↓	33	9	3	3		18				X	X	X	X	X	X	

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available VIA Lablink

Approved By (SGS Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [x] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [ ] NJ Data of Known Quality Protocol Reporting

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1 [signature]	3/22/18 1540	1 [signature]	2 [signature]		2 [signature]
3 [signature]	3/23/18 16:30	3 [signature]	4		4
5		5			

Custody Seal # ☐ Intact ☐ Not intact
Preserved where applicable ☐ 16 coolers
On Ice ☑
Cooler Temp. 3.2° cg

Form:SM088-01CRev.Date:9/13/16

3.1° 3.1° 2.8° 2.2° 2.4° 2.4° 3.8° 3.6° 4.1° 2.1° 1.8° 1.9° 2.4° 2.5° 3.8°

5.1

5

JC62879: Chain of Custody
Page 1 of 4

SGS ACCUTEST

GW WTB

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

quick

FED-EX Tracking #

Bottle Order Control # DK-031218-61

SGS Accutest Quote #

SGS Accutest Job # JC62879

Company Name: ARCADIS	Project Name: NATIONAL GRID / PHILLY COKE	
Street Address: SEE PAGE 1	Street: RICHMOND & LEVERE	Billing Information (if different from Report to)
City / State / Zip	City: PHILA State: PA	Company Name
Project Contact / E-mail	Project #	Street Address
Phone # / Fax #	Client Purchase Order #	City / State / Zip
Sampler(s) Name(s) / Phone #	Project Manager: DAN SHEEHAN	Attention:

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	8260 VR	8270 SVOC	335.4 CN	METALS	8081 PESTICIDES	8082 PCB					LAB USE ON
-12	PCMW-20S		3/22/18	0815	MW	GW	11	3	1	1		6				X	X	X	X	X	X					V1211
-13	PCMW-20D			0915	MW											X	X	X	X	X	X					A36
-14	PCMW-19S			1135	MW											X	X	X	X	X	X					B28
-15	PCMW-19D			1025	MW											X	X	X	X	X	X					G46T3
-16	DUP-03222018			—	MW											X	X	X	X	X	X					V1246
-17	PCMW-10S			1305	CO											X	X	X	X	X	X					
-18	PCMW-10D			1350	CO											X	X	X	X	X	X					
-19	TRIP BLANK		—	—	—	H2O	3	3								X										
-20	MW-6		3/22/18	1350	MW	GW	11	3	1	1		6				X	X	X	X	X	X					

Matrix Codes: DW - Drinking W; GW - Ground W; WW - Wate; SW - Surface W; SO - Soil; SL- Sludge; SED-Sedime; OI - Oil; LIQ - Other Liq; AIR - Air; SOL - Other S; WP - Wipe; FB-Field Blan; EB-Equipment B; RB- Rinse Bla; TB-Trip Blan

Turnaround Time (Business days)

Approved By (SGS Accutest PM): / Date:

- [X] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other _____

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [X] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format _____
- [ ] Other _____

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary

NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	ARCA	3/22/18 1540	1	2		2
3	Relinquished by Sampler:	Date Time: 3/23/18 16:30	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Intact / Not intact	Preserved where applicable / On Ice / Cooler Temp.

Form:SM088-01CRev.Date:9/13/16

JC62879: Chain of Custody
Page 2 of 4

SGS Sample Receipt Summary

Job Number: JC62879 **Client:** ARCADIS U.S. **Project:** NATIONAL GRID, PHILLY COKE, PHILADELPHI

Date / Time Received: 3/23/2018 4:30:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.2); Cooler 2: (3.1); Cooler 3: (3.1); Cooler 4: (2.8); Cooler 5: (2.2); Cooler 6: (2.4); Cooler 7: (3.8); Cooler 8: (3.6); Cooler 9: (4.1); Cooler 10: (2.1); Cooler 11: (1.8); Cooler 12: (1.9); Cooler 13: (2.4); Cooler 14: (2.5); Cooler 15: (3.8); Cooler 16: (2.4);

Cooler Temps (Corrected) °C: Cooler 1: (4.7); Cooler 2: (4.6); Cooler 3: (4.6); Cooler 4: (4.3); Cooler 5: (3.7); Cooler 6: (3.9); Cooler 7: (5.3); Cooler 8: (5.1); Cooler 9: (5.6); Cooler 10: (3.6); Cooler 11: (3.3); Cooler 12: (3.4); Cooler 13: (3.9); Cooler 14: (4.0); Cooler 15: (5.3); Cooler 16: (3.9);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	16	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Test Strip Lot #s: pH 1-12: 216017 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JC62879: Chain of Custody
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Internal Sample Tracking Chronicle

Arcadis

Job No: JC62879

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC62879-1 PCMW-01	Collected: 19-MAR-18 11:50 By: CO			Received: 23-MAR-18 By: AS		
JC62879-1	SW846 7470A	27-MAR-18 10:59	JA	27-MAR-18	JA	HG
JC62879-1	SW846 8081B	27-MAR-18 12:10	CP	26-MAR-18	LL	P8081PESTTCL
JC62879-1	SW846 8260C	27-MAR-18 13:51	JP			V8260TCL20
JC62879-1	SW846 8082A	27-MAR-18 14:15	HB	26-MAR-18	LL	P8082PCB11
JC62879-1	SW846 8270D	27-MAR-18 15:37	CS	26-MAR-18	LL	AB8270TCL20-14DX
JC62879-1	EPA 335.4/LACHAT	29-MAR-18 09:18	BM	28-MAR-18	FO	CN
JC62879-1	SW846 6010C	03-APR-18 17:14	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC62879-2 PCMW-04	Collected: 19-MAR-18 13:10 By: CO			Received: 23-MAR-18 By: AS		
JC62879-2	SW846 7470A	27-MAR-18 11:03	JA	27-MAR-18	JA	HG
JC62879-2	SW846 8081B	27-MAR-18 12:27	CP	26-MAR-18	LL	P8081PESTTCL
JC62879-2	SW846 8260C	27-MAR-18 14:21	JP			V8260TCL20
JC62879-2	SW846 8082A	27-MAR-18 14:40	HB	26-MAR-18	LL	P8082PCB11
JC62879-2	SW846 8270D	27-MAR-18 16:05	CS	26-MAR-18	LL	AB8270TCL20-14DX
JC62879-2	EPA 335.4/LACHAT	29-MAR-18 09:19	BM	28-MAR-18	FO	CN
JC62879-2	SW846 6010C	03-APR-18 17:18	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC62879-3 PCMW-9S	Collected: 19-MAR-18 14:10 By: CO			Received: 23-MAR-18 By: AS		
JC62879-3	SW846 7470A	27-MAR-18 11:04	JA	27-MAR-18	JA	HG
JC62879-3	SW846 8081B	27-MAR-18 12:44	CP	26-MAR-18	LL	P8081PESTTCL
JC62879-3	SW846 8260C	27-MAR-18 14:51	JP			V8260TCL20
JC62879-3	SW846 8082A	27-MAR-18 15:05	HB	26-MAR-18	LL	P8082PCB11
JC62879-3	SW846 8270D	27-MAR-18 16:33	CS	26-MAR-18	LL	AB8270TCL20-14DX
JC62879-3	EPA 335.4/LACHAT	29-MAR-18 09:23	BM	28-MAR-18	FO	CN
JC62879-3	SW846 6010C	03-APR-18 17:22	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,SB,SE, TL,V,ZN
JC62879-3	SW846 6010C	04-APR-18 14:32		29-MAR-18	RM	PB

Internal Sample Tracking Chronicle

Arcadis

Job No: JC62879

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC62879-4	Collected: 19-MAR-18 13:05 By: AW			Received: 23-MAR-18 By: AS		
PCMW-16D						
JC62879-4	SW846 7470A	27-MAR-18 11:06	JA	27-MAR-18	JA	HG
JC62879-4	SW846 8081B	27-MAR-18 13:01	CP	26-MAR-18	LL	P8081PESTTCL
JC62879-4	SW846 8260C	27-MAR-18 15:21	JP			V8260TCL20
JC62879-4	SW846 8270D	27-MAR-18 17:01	CS	26-MAR-18	LL	AB8270TCL20-14DX
JC62879-4	SW846 8082A	27-MAR-18 17:10	HB	26-MAR-18	LL	P8082PCB11
JC62879-4	EPA 335.4/LACHAT	29-MAR-18 09:25	BM	28-MAR-18	FO	CN
JC62879-4	SW846 6010C	03-APR-18 17:27	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN
JC62879-5	Collected: 19-MAR-18 14:20 By: AW			Received: 23-MAR-18 By: AS		
MW-5						
JC62879-5	SW846 7470A	27-MAR-18 11:07	JA	27-MAR-18	JA	HG
JC62879-5	SW846 8081B	27-MAR-18 13:18	CP	26-MAR-18	LL	P8081PESTTCL
JC62879-5	SW846 8260C	27-MAR-18 15:51	JP			V8260TCL20
JC62879-5	SW846 8270D	27-MAR-18 17:29	CS	26-MAR-18	LL	AB8270TCL20-14DX
JC62879-5	SW846 8082A	27-MAR-18 17:35	HB	26-MAR-18	LL	P8082PCB11
JC62879-5	EPA 335.4/LACHAT	29-MAR-18 09:26	BM	28-MAR-18	FO	CN
JC62879-5	SW846 6010C	03-APR-18 17:31	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN
JC62879-6	Collected: 20-MAR-18 10:00 By: AW			Received: 23-MAR-18 By: AS		
PCMW-15S						
JC62879-6	SW846 7470A	27-MAR-18 11:08	JA	27-MAR-18	JA	HG
JC62879-6	SW846 8081B	27-MAR-18 13:34	CP	26-MAR-18	LL	P8081PESTTCL
JC62879-6	SW846 8260C	27-MAR-18 16:20	JP			V8260TCL20
JC62879-6	SW846 8270D	27-MAR-18 17:57	CS	26-MAR-18	LL	AB8270TCL20-14DX
JC62879-6	SW846 8082A	27-MAR-18 18:00	HB	26-MAR-18	LL	P8082PCB11
JC62879-6	EPA 335.4/LACHAT	29-MAR-18 09:27	BM	28-MAR-18	FO	CN
JC62879-6	SW846 6010C	03-APR-18 17:35	ND	29-MAR-18	RM	AG,AL,BA,BE,CA,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,SB,SE,V,ZN
JC62879-6	SW846 6010C	04-APR-18 14:36		29-MAR-18	RM	AS,PB,TL

Internal Sample Tracking Chronicle

Arcadis

Job No: JC62879

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC62879-7 PCMW-15D	Collected: 20-MAR-18 10:55 By: AW			Received: 23-MAR-18 By: AS		
JC62879-7	SW846 7470A	27-MAR-18 11:10	JA	27-MAR-18	JA	HG
JC62879-7	SW846 8081B	27-MAR-18 13:51	CP	26-MAR-18	LL	P8081PESTTCL
JC62879-7	SW846 8260C	27-MAR-18 16:50	JP			V8260TCL20
JC62879-7	SW846 8270D	27-MAR-18 18:25	CS	26-MAR-18	LL	AB8270TCL20-14DX
JC62879-7	SW846 8082A	27-MAR-18 18:25	HB	26-MAR-18	LL	P8082PCB11
JC62879-7	EPA 335.4/LACHAT	29-MAR-18 09:29	BM	28-MAR-18	FO	CN
JC62879-7	SW846 6010C	03-APR-18 17:39	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC62879-8 PCMW-8S	Collected: 22-MAR-18 08:05 By: CO			Received: 23-MAR-18 By: AS		
JC62879-8	SW846 7470A	27-MAR-18 11:11	JA	27-MAR-18	JA	HG
JC62879-8	SW846 8260C	27-MAR-18 17:21	JP			V8260TCL20
JC62879-8	SW846 8081B	28-MAR-18 02:18	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-8	SW846 8082A	28-MAR-18 20:19	HB	27-MAR-18	LL	P8082PCB11
JC62879-8	SW846 8270D	28-MAR-18 21:17	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-8	EPA 335.4/LACHAT	29-MAR-18 09:30	BM	28-MAR-18	FO	CN
JC62879-8	SW846 6010C	03-APR-18 17:44	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC62879-9 PCMW-8D	Collected: 22-MAR-18 09:05 By: CO			Received: 23-MAR-18 By: AS		
JC62879-9	SW846 7470A	27-MAR-18 10:55	JA	27-MAR-18	JA	HG
JC62879-9	SW846 8260C	27-MAR-18 13:21	JP			V8260TCL20
JC62879-9	SW846 8081B	28-MAR-18 02:35	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-9	SW846 8082A	28-MAR-18 18:39	HB	27-MAR-18	LL	P8082PCB11
JC62879-9	SW846 8270D	28-MAR-18 21:38	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-9	EPA 335.4/LACHAT	29-MAR-18 09:31	BM	28-MAR-18	FO	CN
JC62879-9	SW846 6010C	31-MAR-18 17:28		29-MAR-18	CH	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN

Internal Sample Tracking Chronicle

Arcadis

Job No: JC62879

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC62879-10 Collected: 22-MAR-18 10:35 By: CO Received: 23-MAR-18 By: AS PCMW-17S						
JC62879-10	SW846 7470A	27-MAR-18 11:12	JA	27-MAR-18	JA	HG
JC62879-10	SW846 8260C	27-MAR-18 17:51	JP			V8260TCL20
JC62879-10	SW846 8081B	28-MAR-18 03:27	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-10	SW846 8270D	28-MAR-18 22:00	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-10	SW846 8082A	28-MAR-18 22:24	HB	27-MAR-18	LL	P8082PCB11
JC62879-10	EPA 335.4/LACHAT	29-MAR-18 09:33	BM	28-MAR-18	FO	CN
JC62879-10	SW846 6010C	03-APR-18 17:48	ND	29-MAR-18	RM	AG,AL,BA,BE,CA,CD,CO,CR,CU, FE,K,MG,MN,NA,NI,SB,SE,V,ZN
JC62879-10	SW846 6010C	04-APR-18 14:40		29-MAR-18	RM	AS,PB,TL
JC62879-11 Collected: 22-MAR-18 11:25 By: CO Received: 23-MAR-18 By: AS PCMW-17D						
JC62879-11	SW846 7470A	27-MAR-18 10:57	JA	27-MAR-18	JA	HG
JC62879-11	SW846 8081B	28-MAR-18 03:44	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-11	SW846 8270D	28-MAR-18 22:21	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-11	SW846 8082A	28-MAR-18 22:49	HB	27-MAR-18	LL	P8082PCB11
JC62879-11	EPA 335.4/LACHAT	29-MAR-18 09:34	BM	28-MAR-18	FO	CN
JC62879-11	SW846 8260C	29-MAR-18 10:03	SS			V8260TCL20
JC62879-11	SW846 6010C	30-MAR-18 14:28	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC62879-12 Collected: 22-MAR-18 08:15 By: AW Received: 23-MAR-18 By: AS PCMW-20S						
JC62879-12	SW846 7470A	27-MAR-18 11:17	JA	27-MAR-18	JA	HG
JC62879-12	SW846 8081B	28-MAR-18 04:35	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-12	SW846 8270D	28-MAR-18 22:43	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-12	SW846 8082A	29-MAR-18 00:04	HB	27-MAR-18	LL	P8082PCB11
JC62879-12	SW846 8260C	29-MAR-18 00:11	EH			V8260TCL20
JC62879-12	EPA 335.4/LACHAT	29-MAR-18 09:36	BM	28-MAR-18	FO	CN
JC62879-12	SW846 6010C	03-APR-18 18:01	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN

Internal Sample Tracking Chronicle

Arcadis

Job No: JC62879

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC62879-13 Collected: 22-MAR-18 09:15 By: AW Received: 23-MAR-18 By: AS PCMW-20D						
JC62879-13	SW846 7470A	27-MAR-18 11:18	JA	27-MAR-18	JA	HG
JC62879-13	SW846 8081B	28-MAR-18 04:52	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-13	SW846 8270D	28-MAR-18 23:04	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-13	SW846 8082A	29-MAR-18 00:29	HB	27-MAR-18	LL	P8082PCB11
JC62879-13	SW846 8260C	29-MAR-18 00:40	EH			V8260TCL20
JC62879-13	EPA 335.4/LACHAT	29-MAR-18 09:40	BM	28-MAR-18	FO	CN
JC62879-13	SW846 6010C	03-APR-18 18:05	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC62879-14 Collected: 22-MAR-18 11:35 By: AW Received: 23-MAR-18 By: AS PCMW-19S						
JC62879-14	SW846 7470A	27-MAR-18 11:19	JA	27-MAR-18	JA	HG
JC62879-14	SW846 8081B	28-MAR-18 05:09	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-14	SW846 8270D	28-MAR-18 23:26	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-14	SW846 8082A	29-MAR-18 00:54	HB	27-MAR-18	LL	P8082PCB11
JC62879-14	SW846 8260C	29-MAR-18 01:08	EH			V8260TCL20
JC62879-14	EPA 335.4/LACHAT	29-MAR-18 09:41	BM	28-MAR-18	FO	CN
JC62879-14	SW846 6010C	03-APR-18 18:09	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC62879-15 Collected: 22-MAR-18 10:25 By: AW Received: 23-MAR-18 By: AS PCMW-19D						
JC62879-15	SW846 7470A	27-MAR-18 11:21	JA	27-MAR-18	JA	HG
JC62879-15	SW846 8081B	28-MAR-18 05:27	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-15	SW846 8270D	28-MAR-18 23:47	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-15	SW846 8260C	29-MAR-18 01:37	EH			V8260TCL20
JC62879-15	SW846 8082A	29-MAR-18 02:59	HB	27-MAR-18	LL	P8082PCB11
JC62879-15	EPA 335.4/LACHAT	29-MAR-18 09:42	BM	28-MAR-18	FO	CN
JC62879-15	SW846 6010C	03-APR-18 18:13	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN

Internal Sample Tracking Chronicle

Arcadis

Job No: JC62879

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC62879-16 Collected: 22-MAR-18 00:00 By: AW Received: 23-MAR-18 By: AS DUP-03222018						
JC62879-16	SW846 7470A	27-MAR-18 11:22	JA	27-MAR-18	JA	HG
JC62879-16	SW846 8081B	28-MAR-18 05:44	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-16	SW846 8270D	29-MAR-18 00:09	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-16	SW846 8260C	29-MAR-18 02:05	EH			V8260TCL20
JC62879-16	SW846 8082A	29-MAR-18 03:24	HB	27-MAR-18	LL	P8082PCB11
JC62879-16	EPA 335.4/LACHAT	29-MAR-18 09:44	BM	28-MAR-18	FO	CN
JC62879-16	SW846 6010C	03-APR-18 18:18	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN
JC62879-17 Collected: 22-MAR-18 13:05 By: CO Received: 23-MAR-18 By: AS PCMW-10S						
JC62879-17	SW846 7470A	27-MAR-18 11:23	JA	27-MAR-18	JA	HG
JC62879-17	SW846 8081B	28-MAR-18 06:01	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-17	SW846 8270D	29-MAR-18 00:30	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-17	SW846 8082A	29-MAR-18 03:49	HB	27-MAR-18	LL	P8082PCB11
JC62879-17	EPA 335.4/LACHAT	29-MAR-18 09:45	BM	28-MAR-18	FO	CN
JC62879-17	SW846 8260C	29-MAR-18 11:26	SS			V8260TCL20
JC62879-17	SW846 6010C	03-APR-18 18:22	ND	29-MAR-18	RM	AG,AL,BA,BE,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,SB,SE,V,ZN
JC62879-17	SW846 6010C	04-APR-18 14:45		29-MAR-18	RM	AS,CA,PB,TL
JC62879-18 Collected: 22-MAR-18 13:05 By: CO Received: 23-MAR-18 By: AS PCMW-10D						
JC62879-18	SW846 7470A	27-MAR-18 11:24	JA	27-MAR-18	JA	HG
JC62879-18	SW846 8081B	28-MAR-18 07:27	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-18	SW846 8270D	29-MAR-18 00:51	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-18	SW846 8082A	29-MAR-18 04:14	HB	27-MAR-18	LL	P8082PCB11
JC62879-18	EPA 335.4/LACHAT	29-MAR-18 09:46	BM	28-MAR-18	FO	CN
JC62879-18	SW846 8260C	29-MAR-18 11:53	SS			V8260TCL20
JC62879-18	SW846 6010C	03-APR-18 18:26	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN

Internal Sample Tracking Chronicle

Arcadis

Job No: JC62879

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC62879-19	Collected: 22-MAR-18 13:50 By: CO TRIP BLANK		Received: 23-MAR-18 By: AS			
JC62879-19	SW846 8260C	29-MAR-18 12:22	SS			V8260TCL20
JC62879-20	Collected: 22-MAR-18 13:50 By: AW MW-6		Received: 23-MAR-18 By: AS			
JC62879-20	SW846 7470A	27-MAR-18 11:26	JA	27-MAR-18	JA	HG
JC62879-20	SW846 8081B	28-MAR-18 07:44	CP	27-MAR-18	LL	P8081PESTTCL
JC62879-20	SW846 8082A	28-MAR-18 19:54	HB	27-MAR-18	LL	P8082PCB11
JC62879-20	SW846 8270D	29-MAR-18 01:13	JB	28-MAR-18	JS	AB8270TCL20-14DX
JC62879-20	EPA 335.4/LACHAT	29-MAR-18 09:48	BM	28-MAR-18	FO	CN
JC62879-20	SW846 8260C	30-MAR-18 16:02	HT			V8260TCL20
JC62879-20	SW846 6010C	03-APR-18 18:30	ND	29-MAR-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN

SGS Internal Chain of Custody

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-1.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-1.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-1.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-1.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-1.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-1.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-1.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-1.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-1.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-1.1
JC62879-1.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-1.1
JC62879-1.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-1.3	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-1.3	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-1.3	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-1.3	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-1.3.1	Rebecca Gluckman	Organics Prep	03/26/18 17:16	Extract from JC62879-1.3
JC62879-1.3.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-1.3
JC62879-1.3.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-1.3.1	Extract Storage	John Boudreau	03/27/18 11:35	Retrieve from Storage
JC62879-1.3.1	John Boudreau	GCMSF	03/27/18 11:35	Load on Instrument
JC62879-1.6	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-1.6	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-1.6	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-1.6	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-1.6.1	Rebecca Gluckman	Organics Prep	03/26/18 17:22	Extract from JC62879-1.6
JC62879-1.6.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-1.6
JC62879-1.6.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-1.6.1	Extract Storage	Humarah Bano	03/27/18 12:53	Retrieve from Storage
JC62879-1.6.1	Humarah Bano	GCEF	03/27/18 12:53	Load on Instrument
JC62879-1.6.2	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-1.6
JC62879-1.6.2	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-1.6
JC62879-1.6.2	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-1.6.2	Extract Storage	Dharmistha Mehta	03/27/18 10:11	Retrieve from Storage
JC62879-1.6.2	Dharmistha Mehta	GC4G	03/27/18 10:11	Load on Instrument
JC62879-1.6.3	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-1.6
JC62879-1.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-1.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-1.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-1.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-1.9	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-1.9	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-1.9	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-1.9	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-1.9	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-1.9	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-2.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-2.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-2.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-2.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-2.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-2.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-2.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-2.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-2.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-2.1
JC62879-2.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-2.1
JC62879-2.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-2.3	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-2.3	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-2.3	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-2.3	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-2.3.1	Rebecca Gluckman	Organics Prep	03/26/18 17:16	Extract from JC62879-2.3
JC62879-2.3.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-2.3
JC62879-2.3.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-2.3.1	Extract Storage	John Boudreau	03/27/18 11:35	Retrieve from Storage
JC62879-2.3.1	John Boudreau	GCMSF	03/27/18 11:35	Load on Instrument
JC62879-2.6	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-2.6	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-2.6	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-2.6	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-2.6.1	Rebecca Gluckman	Organics Prep	03/26/18 17:22	Extract from JC62879-2.6
JC62879-2.6.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-2.6
JC62879-2.6.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-2.6.1	Extract Storage	Humarah Bano	03/27/18 12:53	Retrieve from Storage

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JC62879-2.6.1	Humarah Bano	GCEF	03/27/18 12:53	Load on Instrument
JC62879-2.6.2	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-2.6
JC62879-2.6.2	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-2.6
JC62879-2.6.2	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-2.6.2	Extract Storage	Dharmistha Mehta	03/27/18 10:11	Retrieve from Storage
JC62879-2.6.2	Dharmistha Mehta	GC4G	03/27/18 10:11	Load on Instrument
JC62879-2.6.3	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-2.6
JC62879-2.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-2.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-2.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-2.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-2.10	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-2.10	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-2.10	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-2.10	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-2.10	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-2.10	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-3.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-3.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-3.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-3.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-3.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-3.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-3.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-3.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-3.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-3.1
JC62879-3.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-3.1
JC62879-3.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-3.3	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-3.3	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-3.3	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-3.3	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-3.3.1	Rebecca Gluckman	Organics Prep	03/26/18 17:16	Extract from JC62879-3.3
JC62879-3.3.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-3.3
JC62879-3.3.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-3.3.1	Extract Storage	John Boudreau	03/27/18 11:35	Retrieve from Storage

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JC62879-3.3.1	John Boudreau	GCMSF	03/27/18 11:35	Load on Instrument
JC62879-3.5	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-3.5	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-3.5	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-3.5	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-3.5.1	Rebecca Gluckman	Organics Prep	03/26/18 17:22	Extract from JC62879-3.5
JC62879-3.5.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-3.5
JC62879-3.5.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-3.5.1	Extract Storage	Humarah Bano	03/27/18 12:53	Retrieve from Storage
JC62879-3.5.1	Humarah Bano	GCEF	03/27/18 12:53	Load on Instrument
JC62879-3.5.2	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-3.5
JC62879-3.5.2	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-3.5
JC62879-3.5.2	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-3.5.2	Extract Storage	Dharmistha Mehta	03/27/18 10:11	Retrieve from Storage
JC62879-3.5.2	Dharmistha Mehta	GC4G	03/27/18 10:11	Load on Instrument
JC62879-3.5.3	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-3.5
JC62879-3.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-3.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-3.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-3.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-3.9	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-3.9	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-3.9	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-3.9	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-3.9	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-3.9	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-4.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-4.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-4.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-4.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-4.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-4.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-4.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-4.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-4.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-4.1
JC62879-4.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-4.1

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JC62879-4.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-4.3	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-4.3	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-4.3	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-4.3	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-4.3.1	Rebecca Gluckman	Organics Prep	03/26/18 17:16	Extract from JC62879-4.3
JC62879-4.3.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-4.3
JC62879-4.3.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-4.3.1	Extract Storage	John Boudreau	03/27/18 11:35	Retrieve from Storage
JC62879-4.3.1	John Boudreau	GCMSF	03/27/18 11:35	Load on Instrument
JC62879-4.6	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-4.6	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-4.6	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-4.6	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-4.6.1	Rebecca Gluckman	Organics Prep	03/26/18 17:22	Extract from JC62879-4.6
JC62879-4.6.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-4.6
JC62879-4.6.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-4.6.1	Extract Storage	Humarah Bano	03/27/18 12:53	Retrieve from Storage
JC62879-4.6.1	Humarah Bano	GCEF	03/27/18 12:53	Load on Instrument
JC62879-4.6.2	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-4.6
JC62879-4.6.2	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-4.6
JC62879-4.6.2	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-4.6.2	Extract Storage	Dharmistha Mehta	03/27/18 10:11	Retrieve from Storage
JC62879-4.6.2	Dharmistha Mehta	GC4G	03/27/18 10:11	Load on Instrument
JC62879-4.6.3	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-4.6
JC62879-4.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-4.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-4.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-4.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-4.9	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-4.9	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-4.9	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-4.9	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-4.9	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-4.9	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage

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JC62879-5.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-5.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-5.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-5.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-5.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-5.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-5.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-5.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-5.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-5.1
JC62879-5.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-5.1
JC62879-5.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-5.2	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-5.2	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-5.2	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-5.2	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-5.2.1	Rebecca Gluckman	Organics Prep	03/26/18 17:16	Extract from JC62879-5.2
JC62879-5.2.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-5.2
JC62879-5.2.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-5.2.1	Extract Storage	John Boudreau	03/27/18 11:35	Retrieve from Storage
JC62879-5.2.1	John Boudreau	GCMSF	03/27/18 11:35	Load on Instrument
JC62879-5.6	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-5.6	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-5.6	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-5.6	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-5.6.1	Rebecca Gluckman	Organics Prep	03/26/18 17:22	Extract from JC62879-5.6
JC62879-5.6.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-5.6
JC62879-5.6.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-5.6.1	Extract Storage	Humarah Bano	03/27/18 12:53	Retrieve from Storage
JC62879-5.6.1	Humarah Bano	GCEF	03/27/18 12:53	Load on Instrument
JC62879-5.6.2	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-5.6
JC62879-5.6.2	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-5.6
JC62879-5.6.2	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-5.6.2	Extract Storage	Dharmistha Mehta	03/27/18 10:11	Retrieve from Storage
JC62879-5.6.2	Dharmistha Mehta	GC4G	03/27/18 10:11	Load on Instrument
JC62879-5.6.3	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-5.6
JC62879-5.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-5.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-5.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-5.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-5.9	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-5.9	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-5.9	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-5.9	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-5.9	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-5.9	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-6.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-6.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-6.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-6.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-6.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-6.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-6.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-6.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-6.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-6.1
JC62879-6.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-6.1
JC62879-6.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-6.3	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-6.3	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-6.3	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-6.3	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-6.3.1	Rebecca Gluckman	Organics Prep	03/26/18 17:16	Extract from JC62879-6.3
JC62879-6.3.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-6.3
JC62879-6.3.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-6.3.1	Extract Storage	John Boudreau	03/27/18 11:35	Retrieve from Storage
JC62879-6.3.1	John Boudreau	GCMSF	03/27/18 11:35	Load on Instrument
JC62879-6.5	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-6.5	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-6.5	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-6.5	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-6.5.1	Rebecca Gluckman	Organics Prep	03/26/18 17:22	Extract from JC62879-6.5
JC62879-6.5.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-6.5
JC62879-6.5.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-6.5.1	Extract Storage	Humarah Bano	03/27/18 12:53	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-6.5.1	Humarah Bano	GCEF	03/27/18 12:53	Load on Instrument
JC62879-6.5.2	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-6.5
JC62879-6.5.2	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-6.5
JC62879-6.5.2	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-6.5.2	Extract Storage	Dharmistha Mehta	03/27/18 10:11	Retrieve from Storage
JC62879-6.5.2	Dharmistha Mehta	GC4G	03/27/18 10:11	Load on Instrument
JC62879-6.5.3	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-6.5
JC62879-6.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-6.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-6.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-6.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-6.10	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-6.10	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-6.10	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-6.10	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-6.10	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-6.10	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-7.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-7.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-7.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-7.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-7.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-7.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-7.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-7.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-7.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-7.1
JC62879-7.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-7.1
JC62879-7.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-7.2	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-7.2	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-7.2	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-7.2	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-7.2.1	Rebecca Gluckman	Organics Prep	03/26/18 17:16	Extract from JC62879-7.2
JC62879-7.2.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-7.2
JC62879-7.2.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-7.2.1	Extract Storage	John Boudreau	03/27/18 11:35	Retrieve from Storage

SGS Internal Chain of Custody

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-7.2.1	John Boudreau	GCMSF	03/27/18 11:35	Load on Instrument
JC62879-7.5	Secured Storage	Jennifer Voitovitch	03/26/18 17:13	Retrieve from Storage
JC62879-7.5	Jennifer Voitovitch	Secured Staging Area	03/26/18 17:13	Return to Storage
JC62879-7.5	Secured Staging Area	Rebecca Gluckman	03/26/18 17:15	Retrieve from Storage
JC62879-7.5	Rebecca Gluckman		03/26/18 17:23	Depleted
JC62879-7.5.1	Rebecca Gluckman	Organics Prep	03/26/18 17:22	Extract from JC62879-7.5
JC62879-7.5.1	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-7.5
JC62879-7.5.1	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-7.5.1	Extract Storage	Humarah Bano	03/27/18 12:53	Retrieve from Storage
JC62879-7.5.1	Humarah Bano	GCEF	03/27/18 12:53	Load on Instrument
JC62879-7.5.2	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-7.5
JC62879-7.5.2	Organics Prep	Lindsey Lee	03/26/18 23:42	Extract from JC62879-7.5
JC62879-7.5.2	Lindsey Lee	Extract Storage	03/26/18 23:42	Return to Storage
JC62879-7.5.2	Extract Storage	Dharmistha Mehta	03/27/18 10:11	Retrieve from Storage
JC62879-7.5.2	Dharmistha Mehta	GC4G	03/27/18 10:11	Load on Instrument
JC62879-7.5.3	Rebecca Gluckman	Organics Prep	03/26/18 17:23	Extract from JC62879-7.5
JC62879-7.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-7.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-7.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-7.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-7.8	Secured Storage	Todd Shoemaker	04/09/18 07:38	Retrieve from Storage
JC62879-7.8	Todd Shoemaker	Secured Staging Area	04/09/18 07:38	Return to Storage
JC62879-7.10	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-7.10	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-7.10	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-7.10	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-7.10	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-7.10	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-8.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-8.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-8.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-8.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-8.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-8.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-8.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-8.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-8.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-8.1
JC62879-8.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-8.1
JC62879-8.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-8.2	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-8.2	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-8.2	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-8.2	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-8.2.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-8.2
JC62879-8.2.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-8.2
JC62879-8.2.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-8.2.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-8.2.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument
JC62879-8.2.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-8.2.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-8.5	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-8.5	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-8.5	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-8.5	Amanda Furka		03/28/18 00:00	Depleted
JC62879-8.5.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-8.5
JC62879-8.5.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-8.5
JC62879-8.5.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-8.5.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62879-8.5.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-8.5.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-8.5
JC62879-8.5.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-8.5
JC62879-8.5.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-8.5.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-8.5.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-8.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-8.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-8.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-8.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-8.8	Secured Storage	Todd Shoemaker	04/09/18 07:38	Retrieve from Storage
JC62879-8.8	Todd Shoemaker	Secured Staging Area	04/09/18 07:38	Return to Storage
JC62879-8.9	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-8.9	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-8.9	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-8.9	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-8.9	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-8.9	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-9.2	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-9.2	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-9.2	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-9.2	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-9.2	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-9.2	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-9.2	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-9.2	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-9.3	Secured Storage	Todd Shoemaker	03/29/18 15:02	Retrieve from Storage
JC62879-9.3	Todd Shoemaker	Secured Staging Area	03/29/18 15:02	Return to Storage
JC62879-9.3	Secured Staging Area	Colleen Hill	03/29/18 17:31	Retrieve from Storage
JC62879-9.3	Colleen Hill	Secured Storage	03/29/18 17:47	Return to Storage
JC62879-9.3.1	Colleen Hill	Metals Digestion	03/29/18 17:46	Digestate from JC62879-9.3
JC62879-9.3.1	Metals Digestion	Colleen Hill	03/29/18 17:46	Digestate from JC62879-9.3
JC62879-9.3.1	Colleen Hill	Metals Digestate Storage	03/29/18 17:46	Return to Storage
JC62879-9.4	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-9.4	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-9.4	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-9.4	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-9.4.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-9.4
JC62879-9.4.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-9.4
JC62879-9.4.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-9.4.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-9.4.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument
JC62879-9.4.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-9.4.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-9.5	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-9.5	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-9.5	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-9.5	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-9.5.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-9.5
JC62879-9.5.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-9.5
JC62879-9.5.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage

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Project: National Grid, Philly Coke, Philadelphia PA
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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-9.6	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-9.6	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-9.6	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-9.6	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-9.6.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-9.6
JC62879-9.6.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-9.6
JC62879-9.6.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-9.15	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-9.15	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-9.15	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-9.15	Amanda Furka		03/28/18 00:00	Depleted
JC62879-9.15.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-9.15
JC62879-9.15.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-9.15
JC62879-9.15.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-9.15.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62879-9.15.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-9.15.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-9.15
JC62879-9.15.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-9.15
JC62879-9.15.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-9.15.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-9.15.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-9.16	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-9.16	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-9.16	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-9.16	Amanda Furka		03/28/18 00:00	Depleted
JC62879-9.17	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-9.17	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-9.17	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-9.17	Amanda Furka		03/28/18 00:00	Depleted
JC62879-9.18	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-9.18	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-9.18	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-9.18	Amanda Furka		03/28/18 00:00	Depleted
JC62879-9.21	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-9.21	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-9.21	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage

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Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-9.21	Amanda Furka		03/28/18 00:00	Depleted
JC62879-9.22	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-9.22	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-9.22	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-9.22	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-9.23	Secured Storage	Todd Shoemaker	04/09/18 07:38	Retrieve from Storage
JC62879-9.23	Todd Shoemaker	Secured Staging Area	04/09/18 07:38	Return to Storage
JC62879-9.27	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-9.27	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-9.27	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-9.27	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-9.27	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-9.27	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-9.28	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-9.28	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-9.28	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-9.28	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-9.28	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-9.28	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-9.32	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-9.32	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-9.32	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-9.32	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-9.32	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-9.32	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-10.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-10.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-10.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-10.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-10.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-10.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-10.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-10.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-10.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-10.1
JC62879-10.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-10.1
JC62879-10.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage

SGS Internal Chain of Custody

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-10.2	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-10.2	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-10.2	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-10.2	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-10.2.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-10.2
JC62879-10.2.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-10.2
JC62879-10.2.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-10.2.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-10.2.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument
JC62879-10.2.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-10.2.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-10.4	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-10.4	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-10.4	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-10.4	Amanda Furka		03/28/18 00:00	Depleted
JC62879-10.4.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-10.4
JC62879-10.4.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-10.4
JC62879-10.4.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-10.4.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62879-10.4.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-10.4.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-10.4
JC62879-10.4.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-10.4
JC62879-10.4.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-10.4.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-10.4.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-10.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-10.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-10.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-10.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-10.9	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-10.9	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-10.9	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-10.9	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-10.9	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-10.9	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-11.3	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-11.3	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-11.3	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-11.3	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-11.3	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-11.3	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-11.3	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-11.3	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-11.3.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-11.3
JC62879-11.3.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-11.3
JC62879-11.3.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-11.6	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-11.6	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-11.6	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-11.6	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-11.6.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-11.6
JC62879-11.6.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-11.6
JC62879-11.6.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-11.8	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-11.8	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-11.8	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-11.8	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-11.8.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-11.8
JC62879-11.8.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-11.8
JC62879-11.8.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-11.9	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-11.9	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-11.9	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-11.9	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-11.9.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-11.9
JC62879-11.9.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-11.9
JC62879-11.9.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-11.9.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-11.9.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument
JC62879-11.9.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-11.9.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-11.11	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-11.11	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-11.11	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-11.11	Amanda Furka		03/28/18 00:00	Depleted
JC62879-11.11.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-11.11
JC62879-11.11.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-11.11
JC62879-11.11.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-11.11.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62879-11.11.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-11.11.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-11.11
JC62879-11.11.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-11.11
JC62879-11.11.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-11.11.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-11.11.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-11.12	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-11.12	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-11.12	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-11.12	Amanda Furka		03/28/18 00:00	Depleted
JC62879-11.19	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-11.19	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-11.19	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-11.19	Amanda Furka		03/28/18 00:00	Depleted
JC62879-11.20	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-11.20	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-11.20	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-11.20	Amanda Furka		03/28/18 00:00	Depleted
JC62879-11.21	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-11.21	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-11.21	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-11.21	Amanda Furka		03/28/18 00:00	Depleted
JC62879-11.21.1	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-11.21
JC62879-11.21.1	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-11.21
JC62879-11.21.1	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-11.21.1	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-11.21.1	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-11.24	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-11.24	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-11.24	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-11.24	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-11.25	Secured Storage	Gabriela Alvarez	03/29/18 12:38	Retrieve from Storage
JC62879-11.25	Gabriela Alvarez	GCMS3B	03/29/18 12:38	Load on Instrument
JC62879-11.25	GCMS3B	Oyinade Ifaturoti	03/30/18 11:08	Unload from Instrument
JC62879-11.25	Oyinade Ifaturoti	Secured Storage	03/30/18 11:08	Return to Storage
JC62879-11.26	Secured Storage	Gabriela Alvarez	03/29/18 12:38	Retrieve from Storage
JC62879-11.26	Gabriela Alvarez	GCMS3B	03/29/18 12:38	Load on Instrument
JC62879-11.26	GCMS3B	Oyinade Ifaturoti	03/30/18 11:08	Unload from Instrument
JC62879-11.26	Oyinade Ifaturoti	Secured Storage	03/30/18 11:08	Return to Storage
JC62879-11.28	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-11.28	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-11.28	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-11.28	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-11.28	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-11.28	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-11.29	Secured Storage	Sydney Scelfo	03/29/18 06:42	Retrieve from Storage
JC62879-11.29	Sydney Scelfo	VOA Prep Storage	03/29/18 06:42	Return to Storage
JC62879-11.29	VOA Prep Storage	Sydney Scelfo	03/29/18 09:07	Retrieve from Storage
JC62879-11.29	Sydney Scelfo	GCMS2E	03/29/18 09:07	Load on Instrument
JC62879-11.29	GCMS2E	Toan Pham	04/04/18 18:34	Unload from Instrument
JC62879-11.29	Toan Pham	Secured Storage	04/04/18 18:34	Return to Storage
JC62879-11.30	Secured Storage	Sydney Scelfo	03/29/18 06:42	Retrieve from Storage
JC62879-11.30	Sydney Scelfo	VOA Prep Storage	03/29/18 06:42	Return to Storage
JC62879-11.30	VOA Prep Storage	Sydney Scelfo	03/29/18 09:07	Retrieve from Storage
JC62879-11.30	Sydney Scelfo	GCMS2E	03/29/18 09:07	Load on Instrument
JC62879-11.30	GCMS2E	Toan Pham	04/04/18 18:34	Unload from Instrument
JC62879-11.30	Toan Pham	Secured Storage	04/04/18 18:34	Return to Storage
JC62879-11.31	Secured Storage	Sydney Scelfo	03/29/18 06:42	Retrieve from Storage
JC62879-11.31	Sydney Scelfo	VOA Prep Storage	03/29/18 06:42	Return to Storage
JC62879-11.31	VOA Prep Storage	Sydney Scelfo	03/29/18 09:07	Retrieve from Storage
JC62879-11.31	Sydney Scelfo	GCMS2E	03/29/18 09:07	Load on Instrument
JC62879-11.31	GCMS2E	Toan Pham	04/04/18 18:34	Unload from Instrument
JC62879-11.31	Toan Pham	Secured Storage	04/04/18 18:34	Return to Storage
JC62879-11.32	Secured Storage	Gabriela Alvarez	03/29/18 12:38	Retrieve from Storage
JC62879-11.32	Gabriela Alvarez	GCMS3B	03/29/18 12:38	Load on Instrument
JC62879-11.32	GCMS3B	Oyinade Ifaturoti	03/30/18 11:08	Unload from Instrument
JC62879-11.32	Oyinade Ifaturoti	Secured Storage	03/30/18 11:08	Return to Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-12.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-12.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-12.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-12.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-12.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-12.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-12.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-12.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-12.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-12.1
JC62879-12.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-12.1
JC62879-12.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-12.3	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-12.3	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-12.3	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-12.3	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-12.3.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-12.3
JC62879-12.3.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-12.3
JC62879-12.3.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-12.3.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-12.3.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument
JC62879-12.3.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-12.3.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-12.6	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-12.6	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-12.6	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-12.6	Amanda Furka		03/28/18 00:00	Depleted
JC62879-12.6.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-12.6
JC62879-12.6.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-12.6
JC62879-12.6.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-12.6.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62879-12.6.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-12.6.2	Amanda Furka	Organics Prep	03/27/18 17:44	Extract from JC62879-12.6
JC62879-12.6.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-12.6
JC62879-12.6.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-12.6.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-12.6.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-12.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-12.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-12.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-12.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-12.9	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-12.9	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-12.9	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-12.9	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-12.9	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-12.9	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-12.9	Secured Storage	Juntae Park	03/28/18 20:02	Retrieve from Storage
JC62879-12.9	Juntae Park	GCMS3B	03/28/18 20:02	Load on Instrument
JC62879-12.9	GCMS3B	Oyinade Ifaturoti	03/30/18 11:08	Unload from Instrument
JC62879-12.9	Oyinade Ifaturoti	Secured Storage	03/30/18 11:08	Return to Storage
JC62879-12.10	Secured Storage	Eddie Huang	03/29/18 16:12	Retrieve from Storage
JC62879-12.10	Eddie Huang	GCMS3B	03/29/18 16:12	Load on Instrument
JC62879-12.10	GCMS3B	Oyinade Ifaturoti	03/30/18 11:08	Unload from Instrument
JC62879-12.10	Oyinade Ifaturoti	Secured Storage	03/30/18 11:08	Return to Storage
JC62879-13.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-13.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-13.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-13.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-13.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-13.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-13.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-13.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-13.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-13.1
JC62879-13.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-13.1
JC62879-13.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-13.3	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-13.3	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-13.3	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-13.3	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-13.3.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-13.3
JC62879-13.3.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-13.3
JC62879-13.3.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-13.3.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-13.3.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument

SGS Internal Chain of Custody

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-13.3.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-13.3.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-13.7	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-13.7	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-13.7	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-13.7	Amanda Furka		03/28/18 00:00	Depleted
JC62879-13.7.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-13.7
JC62879-13.7.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-13.7
JC62879-13.7.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-13.7.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62879-13.7.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-13.7.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-13.7
JC62879-13.7.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-13.7
JC62879-13.7.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-13.7.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-13.7.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-13.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-13.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-13.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-13.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-13.9	Secured Storage	Eddie Huang	03/29/18 16:12	Retrieve from Storage
JC62879-13.9	Eddie Huang	GCMS3B	03/29/18 16:12	Load on Instrument
JC62879-13.9	GCMS3B	Oyinade Ifaturoti	03/30/18 11:08	Unload from Instrument
JC62879-13.9	Oyinade Ifaturoti	Secured Storage	03/30/18 11:08	Return to Storage
JC62879-13.10	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-13.10	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-13.10	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-13.10	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-13.10	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-13.10	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-13.10	Secured Storage	Juntae Park	03/28/18 20:02	Retrieve from Storage
JC62879-13.10	Juntae Park	GCMS3B	03/28/18 20:02	Load on Instrument
JC62879-13.10	GCMS3B	Oyinade Ifaturoti	03/30/18 11:08	Unload from Instrument
JC62879-13.10	Oyinade Ifaturoti	Secured Storage	03/30/18 11:08	Return to Storage
JC62879-14.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-14.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-14.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage

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JC62879-14.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-14.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-14.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-14.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-14.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-14.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-14.1
JC62879-14.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-14.1
JC62879-14.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-14.3	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-14.3	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-14.3	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-14.3	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-14.3.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-14.3
JC62879-14.3.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-14.3
JC62879-14.3.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-14.3.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-14.3.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument
JC62879-14.3.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-14.3.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-14.7	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-14.7	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-14.7	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-14.7	Amanda Furka		03/28/18 00:00	Depleted
JC62879-14.7.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-14.7
JC62879-14.7.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-14.7
JC62879-14.7.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-14.7.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62879-14.7.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-14.7.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-14.7
JC62879-14.7.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-14.7
JC62879-14.7.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-14.7.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-14.7.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-14.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-14.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-14.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-14.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-14.10	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-14.10	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-14.10	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-14.10	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-14.10	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-14.10	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-14.10	Secured Storage	Juntae Park	03/28/18 20:02	Retrieve from Storage
JC62879-14.10	Juntae Park	GCMS3B	03/28/18 20:02	Load on Instrument
JC62879-14.10	GCMS3B	Oyinade Ifaturoti	03/30/18 11:08	Unload from Instrument
JC62879-14.10	Oyinade Ifaturoti	Secured Storage	03/30/18 11:08	Return to Storage
JC62879-15.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-15.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-15.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-15.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-15.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-15.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-15.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-15.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-15.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-15.1
JC62879-15.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-15.1
JC62879-15.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-15.2	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-15.2	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-15.2	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-15.2	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-15.2.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-15.2
JC62879-15.2.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-15.2
JC62879-15.2.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-15.2.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-15.2.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument
JC62879-15.2.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-15.2.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-15.4	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-15.4	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-15.4	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-15.4	Amanda Furka		03/28/18 00:00	Depleted
JC62879-15.4.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-15.4

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JC62879-15.4.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-15.4
JC62879-15.4.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-15.4.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62879-15.4.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-15.4.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-15.4
JC62879-15.4.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-15.4
JC62879-15.4.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-15.4.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-15.4.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-15.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-15.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-15.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-15.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-15.10	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-15.10	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-15.10	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-15.10	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-15.10	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-15.10	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-15.10	Secured Storage	Juntae Park	03/28/18 20:02	Retrieve from Storage
JC62879-15.10	Juntae Park	GCMS3B	03/28/18 20:02	Load on Instrument
JC62879-15.10	GCMS3B	Oyinade Ifaturoti	03/30/18 11:08	Unload from Instrument
JC62879-15.10	Oyinade Ifaturoti	Secured Storage	03/30/18 11:08	Return to Storage
JC62879-16.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-16.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-16.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-16.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-16.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-16.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-16.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-16.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-16.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-16.1
JC62879-16.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-16.1
JC62879-16.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-16.3	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-16.3	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-16.3	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-16.3	Arielle Cocozza		03/28/18 09:53	Depleted

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JC62879-16.3.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-16.3
JC62879-16.3.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-16.3
JC62879-16.3.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-16.3.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-16.3.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument
JC62879-16.3.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-16.3.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-16.6	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-16.6	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-16.6	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-16.6	Amanda Furka		03/28/18 00:00	Depleted
JC62879-16.6.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-16.6
JC62879-16.6.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-16.6
JC62879-16.6.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-16.6.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62879-16.6.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-16.6.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-16.6
JC62879-16.6.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-16.6
JC62879-16.6.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-16.6.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-16.6.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-16.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-16.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-16.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-16.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-16.9	Secured Storage	Oyinade Ifaturoti	03/27/18 06:47	Retrieve from Storage
JC62879-16.9	Oyinade Ifaturoti	VOA Prep Storage	03/27/18 06:47	Return to Storage
JC62879-16.9	VOA Prep Storage	Oyinade Ifaturoti	03/27/18 11:14	Retrieve from Storage
JC62879-16.9	Oyinade Ifaturoti	GCMS2D	03/27/18 11:15	Load on Instrument
JC62879-16.9	GCMS2D	Oyinade Ifaturoti	03/28/18 10:43	Unload from Instrument
JC62879-16.9	Oyinade Ifaturoti	Secured Storage	03/28/18 10:43	Return to Storage
JC62879-16.9	Secured Storage	Juntae Park	03/28/18 20:02	Retrieve from Storage
JC62879-16.9	Juntae Park	GCMS3B	03/28/18 20:02	Load on Instrument
JC62879-16.9	GCMS3B	Oyinade Ifaturoti	03/30/18 11:08	Unload from Instrument
JC62879-16.9	Oyinade Ifaturoti	Secured Storage	03/30/18 11:08	Return to Storage
JC62879-17.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-17.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage

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Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-17.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-17.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-17.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-17.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-17.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-17.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-17.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-17.1
JC62879-17.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-17.1
JC62879-17.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-17.2	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-17.2	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-17.2	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-17.2	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-17.2.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-17.2
JC62879-17.2.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-17.2
JC62879-17.2.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-17.2.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-17.2.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument
JC62879-17.2.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-17.2.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-17.4	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-17.4	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-17.4	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-17.4	Amanda Furka		03/28/18 00:00	Depleted
JC62879-17.4.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-17.4
JC62879-17.4.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-17.4
JC62879-17.4.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-17.4.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62879-17.4.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-17.4.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-17.4
JC62879-17.4.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-17.4
JC62879-17.4.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-17.4.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-17.4.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-17.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-17.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-17.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-17.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-17.9	Secured Storage	Sydney Scelfo	03/29/18 06:42	Retrieve from Storage
JC62879-17.9	Sydney Scelfo	VOA Prep Storage	03/29/18 06:42	Return to Storage
JC62879-17.9	VOA Prep Storage	Sydney Scelfo	03/29/18 09:07	Retrieve from Storage
JC62879-17.9	Sydney Scelfo	GCMS2E	03/29/18 09:07	Load on Instrument
JC62879-17.9	GCMS2E	Toan Pham	04/04/18 18:34	Unload from Instrument
JC62879-17.9	Toan Pham	Secured Storage	04/04/18 18:34	Return to Storage
JC62879-18.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-18.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-18.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-18.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-18.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-18.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-18.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-18.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-18.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-18.1
JC62879-18.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-18.1
JC62879-18.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-18.3	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-18.3	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-18.3	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-18.3	Arielle Cocozza		03/28/18 09:53	Depleted
JC62879-18.3.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-18.3
JC62879-18.3.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-18.3
JC62879-18.3.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-18.3.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-18.3.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument
JC62879-18.3.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-18.3.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-18.4	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-18.4	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-18.4	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-18.4	Amanda Furka		03/28/18 00:00	Depleted
JC62879-18.4.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-18.4
JC62879-18.4.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-18.4
JC62879-18.4.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-18.4.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-18.4.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-18.4.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-18.4
JC62879-18.4.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-18.4
JC62879-18.4.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-18.4.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-18.4.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-18.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-18.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-18.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-18.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-18.9	Secured Storage	Sydney Scelfo	03/29/18 06:42	Retrieve from Storage
JC62879-18.9	Sydney Scelfo	VOA Prep Storage	03/29/18 06:42	Return to Storage
JC62879-18.9	VOA Prep Storage	Sydney Scelfo	03/29/18 09:07	Retrieve from Storage
JC62879-18.9	Sydney Scelfo	GCMS2E	03/29/18 09:07	Load on Instrument
JC62879-18.9	GCMS2E	Toan Pham	04/04/18 18:34	Unload from Instrument
JC62879-18.9	Toan Pham	Secured Storage	04/04/18 18:34	Return to Storage
JC62879-19.2	Secured Storage	Sydney Scelfo	03/29/18 06:42	Retrieve from Storage
JC62879-19.2	Sydney Scelfo	VOA Prep Storage	03/29/18 06:42	Return to Storage
JC62879-19.2	VOA Prep Storage	Sydney Scelfo	03/29/18 09:07	Retrieve from Storage
JC62879-19.2	Sydney Scelfo	GCMS2E	03/29/18 09:07	Load on Instrument
JC62879-19.2	GCMS2E	Toan Pham	04/04/18 18:34	Unload from Instrument
JC62879-19.2	Toan Pham	Secured Storage	04/04/18 18:34	Return to Storage
JC62879-20.1	Secured Storage	Dave Hunkele	03/27/18 07:35	Retrieve from Storage
JC62879-20.1	Dave Hunkele	Secured Staging Area	03/27/18 07:37	Return to Storage
JC62879-20.1	Secured Staging Area	Jessica Adametz	03/27/18 08:38	Retrieve from Storage
JC62879-20.1	Jessica Adametz	Secured Storage	03/27/18 15:22	Return to Storage
JC62879-20.1	Secured Storage	Sahara Feliciano	03/28/18 18:07	Retrieve from Storage
JC62879-20.1	Sahara Feliciano	Secured Staging Area	03/28/18 18:07	Return to Storage
JC62879-20.1	Secured Staging Area	Radhika Mistry	03/29/18 07:53	Retrieve from Storage
JC62879-20.1	Radhika Mistry	Secured Storage	03/29/18 09:51	Return to Storage
JC62879-20.1.1	Radhika Mistry	Metals Digestion	03/29/18 09:48	Digestate from JC62879-20.1
JC62879-20.1.1	Metals Digestion	Radhika Mistry	03/29/18 09:48	Digestate from JC62879-20.1
JC62879-20.1.1	Radhika Mistry	Metals Digestate Storage	03/29/18 09:48	Return to Storage
JC62879-20.2	Secured Storage	Luis Villanueva	03/27/18 18:03	Retrieve from Storage
JC62879-20.2	Luis Villanueva	Secured Staging Area	03/27/18 18:03	Return to Storage
JC62879-20.2	Secured Staging Area	Arielle Cocozza	03/27/18 23:37	Retrieve from Storage
JC62879-20.2	Arielle Cocozza		03/28/18 09:53	Depleted

SGS Internal Chain of Custody

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 03/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC62879-20.2.1	Arielle Cocozza	Organics Prep	03/27/18 23:39	Extract from JC62879-20.2
JC62879-20.2.1	Organics Prep	Jonathan Stanley	03/28/18 13:05	Extract from JC62879-20.2
JC62879-20.2.1	Jonathan Stanley	Extract Storage	03/28/18 13:05	Return to Storage
JC62879-20.2.1	Extract Storage	John Boudreau	03/28/18 17:15	Retrieve from Storage
JC62879-20.2.1	John Boudreau	GCMS2P	03/28/18 17:15	Load on Instrument
JC62879-20.2.1	GCMS2P	John Boudreau	03/29/18 11:42	Unload from Instrument
JC62879-20.2.1	John Boudreau	Extract Storage	03/29/18 11:42	Return to Storage
JC62879-20.4	Secured Storage	Todd Shoemaker	03/27/18 09:58	Retrieve from Storage
JC62879-20.4	Todd Shoemaker	Secured Staging Area	03/27/18 09:58	Return to Storage
JC62879-20.4	Secured Staging Area	Amanda Furka	03/27/18 15:35	Retrieve from Storage
JC62879-20.4	Amanda Furka		03/28/18 00:00	Depleted
JC62879-20.4.1	Amanda Furka	Organics Prep	03/27/18 15:53	Extract from JC62879-20.4
JC62879-20.4.1	Organics Prep	Lindsey Lee	03/27/18 23:13	Extract from JC62879-20.4
JC62879-20.4.1	Lindsey Lee	Extract Storage	03/27/18 23:13	Return to Storage
JC62879-20.4.1	Extract Storage	Kristen Drake	03/28/18 13:42	Retrieve from Storage
JC62879-20.4.1	Kristen Drake	GCEF	03/28/18 13:42	Load on Instrument
JC62879-20.4.2	Amanda Furka	Organics Prep	03/27/18 15:58	Extract from JC62879-20.4
JC62879-20.4.2	Organics Prep	Lindsey Lee	03/27/18 23:14	Extract from JC62879-20.4
JC62879-20.4.2	Lindsey Lee	Extract Storage	03/27/18 23:14	Return to Storage
JC62879-20.4.2	Extract Storage	Christine Phillips	03/28/18 02:05	Retrieve from Storage
JC62879-20.4.2	Christine Phillips	GC4G	03/28/18 02:05	Load on Instrument
JC62879-20.8	Secured Storage	Jennifer Voitovitch	03/27/18 19:39	Retrieve from Storage
JC62879-20.8	Jennifer Voitovitch	Secured Staging Area	03/27/18 19:39	Return to Storage
JC62879-20.8	Secured Staging Area	Faraja Ombwayo	03/28/18 07:37	Retrieve from Storage
JC62879-20.8	Faraja Ombwayo	Secured Storage	03/28/18 15:33	Return to Storage
JC62879-20.9	Secured Storage	Sydney Scelfo	03/29/18 06:42	Retrieve from Storage
JC62879-20.9	Sydney Scelfo	VOA Prep Storage	03/29/18 06:42	Return to Storage
JC62879-20.9	VOA Prep Storage	Sydney Scelfo	03/29/18 09:07	Retrieve from Storage
JC62879-20.9	Sydney Scelfo	GCMS2E	03/29/18 09:07	Load on Instrument
JC62879-20.9	GCMS2E	Toan Pham	04/04/18 18:34	Unload from Instrument
JC62879-20.9	Toan Pham	Secured Storage	04/04/18 18:34	Return to Storage
JC62879-20.10	Secured Storage	Hueanh Tran	03/30/18 12:04	Retrieve from Storage
JC62879-20.10	Hueanh Tran	GCMS4B	03/30/18 12:04	Load on Instrument
JC62879-20.10	GCMS4B	Hueanh Tran	04/02/18 12:44	Unload from Instrument
JC62879-20.10	Hueanh Tran	Secured Storage	04/02/18 12:44	Return to Storage

MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7344-MB	2D174431.D	1	03/27/18	JP	n/a	n/a	V2D7344

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7344-MB	2D174431.D	1	03/27/18	JP	n/a	n/a	V2D7344

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	106%	81-124%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	99%	80-120%

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6426-MB	3B145270.D	1	03/28/18	EH	n/a	n/a	V3B6426

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6426-MB	3B145270.D	1	03/28/18	EH	n/a	n/a	V3B6426

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	103%	81-124%
2037-26-5	Toluene-D8	97%	80-120%
460-00-4	4-Bromofluorobenzene	94%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2E6206-MB	2E141953.D	1	03/29/18	SS	n/a	n/a	V2E6206

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-11, JC62879-17, JC62879-18, JC62879-19

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2E6206-MB	2E141953.D	1	03/29/18	SS	n/a	n/a	V2E6206

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-11, JC62879-17, JC62879-18, JC62879-19

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	81-124%
2037-26-5	Toluene-D8	101%	80-120%
460-00-4	4-Bromofluorobenzene	101%	80-120%

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B3335-MB	4B80671.D	1	03/30/18	HT	n/a	n/a	V4B3335

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-20

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B3335-MB	4B80671.D	1	03/30/18	HT	n/a	n/a	V4B3335

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-20

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	81-124%
2037-26-5	Toluene-D8	92%	80-120%
460-00-4	4-Bromofluorobenzene	89%	80-120%

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6426-MB2	3B145297A.D	1	03/29/18	EH	n/a	n/a	V3B6426

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-13DUP, JC62879-12MS

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6426-MB2	3B145297A.D	1	03/29/18	EH	n/a	n/a	V3B6426

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-13DUP, JC62879-12MS

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	110%	81-124%
2037-26-5	Toluene-D8	97%	80-120%
460-00-4	4-Bromofluorobenzene	98%	80-120%

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7344-BS	2D174429.D	1	03/27/18	JP	n/a	n/a	V2D7344

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	156	78	42-150
71-43-2	Benzene	50	48.9	98	80-120
74-97-5	Bromochloromethane	50	52.1	104	84-121
75-27-4	Bromodichloromethane	50	52.9	106	83-120
75-25-2	Bromoform	50	52.2	104	76-129
74-83-9	Bromomethane	50	46.7	93	57-138
78-93-3	2-Butanone (MEK)	200	182	91	64-137
75-15-0	Carbon disulfide	35	32.9	94	64-137
56-23-5	Carbon tetrachloride	50	50.3	101	75-135
108-90-7	Chlorobenzene	50	49.9	100	84-117
75-00-3	Chloroethane	50	50.4	101	63-132
67-66-3	Chloroform	50	52.6	105	80-119
74-87-3	Chloromethane	50	48.7	97	46-136
110-82-7	Cyclohexane	50	41.3	83	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	54.3	109	72-127
124-48-1	Dibromochloromethane	50	52.7	105	80-123
106-93-4	1,2-Dibromoethane	50	51.8	104	84-117
95-50-1	1,2-Dichlorobenzene	50	50.3	101	84-119
541-73-1	1,3-Dichlorobenzene	50	49.6	99	81-117
106-46-7	1,4-Dichlorobenzene	50	50.8	102	82-117
75-71-8	Dichlorodifluoromethane	50	45.6	91	36-149
75-34-3	1,1-Dichloroethane	50	51.1	102	79-120
107-06-2	1,2-Dichloroethane	50	54.5	109	78-126
75-35-4	1,1-Dichloroethene	50	46.9	94	69-126
156-59-2	cis-1,2-Dichloroethene	50	49.6	99	80-120
156-60-5	trans-1,2-Dichloroethene	50	48.1	96	76-120
78-87-5	1,2-Dichloropropane	50	51.8	104	82-121
10061-01-5	cis-1,3-Dichloropropene	50	52.5	105	83-120
10061-02-6	trans-1,3-Dichloropropene	50	53.0	106	82-121
100-41-4	Ethylbenzene	50	49.7	99	80-120
76-13-1	Freon 113	50	44.4	89	62-182
591-78-6	2-Hexanone	200	181	91	65-132
98-82-8	Isopropylbenzene	50	50.0	100	83-120
79-20-9	Methyl Acetate	50	53.5	107	67-129
108-87-2	Methylcyclohexane	50	44.2	88	71-134
1634-04-4	Methyl Tert Butyl Ether	35	36.2	103	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7344-BS	2D174429.D	1	03/27/18	JP	n/a	n/a	V2D7344

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	206	103	71-131
75-09-2	Methylene chloride	50	51.3	103	77-120
100-42-5	Styrene	50	51.5	103	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	52.0	104	76-119
127-18-4	Tetrachloroethene	50	46.7	93	70-131
108-88-3	Toluene	50	48.5	97	80-120
87-61-6	1,2,3-Trichlorobenzene	50	62.0	124	76-134
120-82-1	1,2,4-Trichlorobenzene	50	60.8	122	79-132
71-55-6	1,1,1-Trichloroethane	50	51.7	103	81-128
79-00-5	1,1,2-Trichloroethane	50	50.9	102	83-118
79-01-6	Trichloroethene	50	47.9	96	80-120
75-69-4	Trichlorofluoromethane	50	48.6	97	64-136
75-01-4	Vinyl chloride	50	48.2	96	51-135
	m,p-Xylene	100	99.4	99	80-120
95-47-6	o-Xylene	50	49.7	99	80-120
1330-20-7	Xylene (total)	150	149	99	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	105%	81-124%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	95%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6426-BS	3B145268.D	1	03/28/18	EH	n/a	n/a	V3B6426

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	172	86	42-150
71-43-2	Benzene	50	48.9	98	80-120
74-97-5	Bromochloromethane	50	51.9	104	84-121
75-27-4	Bromodichloromethane	50	50.4	101	83-120
75-25-2	Bromoform	50	48.9	98	76-129
74-83-9	Bromomethane	50	62.2	124	57-138
78-93-3	2-Butanone (MEK)	200	187	94	64-137
75-15-0	Carbon disulfide	35	33.8	97	64-137
56-23-5	Carbon tetrachloride	50	53.6	107	75-135
108-90-7	Chlorobenzene	50	48.4	97	84-117
75-00-3	Chloroethane	50	60.6	121	63-132
67-66-3	Chloroform	50	46.9	94	80-119
74-87-3	Chloromethane	50	59.5	119	46-136
110-82-7	Cyclohexane	50	49.1	98	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	46.8	94	72-127
124-48-1	Dibromochloromethane	50	48.3	97	80-123
106-93-4	1,2-Dibromoethane	50	48.3	97	84-117
95-50-1	1,2-Dichlorobenzene	50	49.8	100	84-119
541-73-1	1,3-Dichlorobenzene	50	49.9	100	81-117
106-46-7	1,4-Dichlorobenzene	50	48.4	97	82-117
75-71-8	Dichlorodifluoromethane	50	56.2	112	36-149
75-34-3	1,1-Dichloroethane	50	50.7	101	79-120
107-06-2	1,2-Dichloroethane	50	47.1	94	78-126
75-35-4	1,1-Dichloroethene	50	48.8	98	69-126
156-59-2	cis-1,2-Dichloroethene	50	49.2	98	80-120
156-60-5	trans-1,2-Dichloroethene	50	49.0	98	76-120
78-87-5	1,2-Dichloropropane	50	52.9	106	82-121
10061-01-5	cis-1,3-Dichloropropene	50	53.3	107	83-120
10061-02-6	trans-1,3-Dichloropropene	50	47.7	95	82-121
100-41-4	Ethylbenzene	50	49.3	99	80-120
76-13-1	Freon 113	50	55.7	111	62-182
591-78-6	2-Hexanone	200	190	95	65-132
98-82-8	Isopropylbenzene	50	52.0	104	83-120
79-20-9	Methyl Acetate	50	47.6	95	67-129
108-87-2	Methylcyclohexane	50	49.9	100	71-134
1634-04-4	Methyl Tert Butyl Ether	35	35.3	95	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6426-BS	3B145268.D	1	03/28/18	EH	n/a	n/a	V3B6426

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	222	111	71-131
75-09-2	Methylene chloride	50	51.4	103	77-120
100-42-5	Styrene	50	50.4	101	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	51.3	103	76-119
127-18-4	Tetrachloroethene	50	48.2	96	70-131
108-88-3	Toluene	50	47.6	95	80-120
87-61-6	1,2,3-Trichlorobenzene	50	49.6	99	76-134
120-82-1	1,2,4-Trichlorobenzene	50	51.0	102	79-132
71-55-6	1,1,1-Trichloroethane	50	53.6	107	81-128
79-00-5	1,1,2-Trichloroethane	50	47.6	95	83-118
79-01-6	Trichloroethene	50	49.3	99	80-120
75-69-4	Trichlorofluoromethane	50	54.7	109	64-136
75-01-4	Vinyl chloride	50	61.1	122	51-135
	m,p-Xylene	100	101	101	80-120
95-47-6	o-Xylene	50	50.4	101	80-120
1330-20-7	Xylene (total)	150	152	101	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	81-124%
2037-26-5	Toluene-D8	93%	80-120%
460-00-4	4-Bromofluorobenzene	98%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2E6206-BS	2E141951.D	1	03/29/18	SS	n/a	n/a	V2E6206

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-11, JC62879-17, JC62879-18, JC62879-19

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	212	106	42-150
71-43-2	Benzene	50	55.1	110	80-120
74-97-5	Bromochloromethane	50	56.3	113	84-121
75-27-4	Bromodichloromethane	50	54.9	110	83-120
75-25-2	Bromoform	50	55.9	112	76-129
74-83-9	Bromomethane	50	52.4	105	57-138
78-93-3	2-Butanone (MEK)	200	236	118	64-137
75-15-0	Carbon disulfide	35	40.2	115	64-137
56-23-5	Carbon tetrachloride	50	58.9	118	75-135
108-90-7	Chlorobenzene	50	55.2	110	84-117
75-00-3	Chloroethane	50	54.9	110	63-132
67-66-3	Chloroform	50	56.3	113	80-119
74-87-3	Chloromethane	50	56.3	113	46-136
110-82-7	Cyclohexane	50	50.5	101	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	53.7	107	72-127
124-48-1	Dibromochloromethane	50	56.5	113	80-123
106-93-4	1,2-Dibromoethane	50	54.5	109	84-117
95-50-1	1,2-Dichlorobenzene	50	54.5	109	84-119
541-73-1	1,3-Dichlorobenzene	50	54.1	108	81-117
106-46-7	1,4-Dichlorobenzene	50	53.0	106	82-117
75-71-8	Dichlorodifluoromethane	50	57.0	114	36-149
75-34-3	1,1-Dichloroethane	50	57.7	115	79-120
107-06-2	1,2-Dichloroethane	50	51.7	103	78-126
75-35-4	1,1-Dichloroethene	50	59.6	119	69-126
156-59-2	cis-1,2-Dichloroethene	50	56.6	113	80-120
156-60-5	trans-1,2-Dichloroethene	50	59.8	120	76-120
78-87-5	1,2-Dichloropropane	50	55.9	112	82-121
10061-01-5	cis-1,3-Dichloropropene	50	55.8	112	83-120
10061-02-6	trans-1,3-Dichloropropene	50	57.2	114	82-121
100-41-4	Ethylbenzene	50	56.0	112	80-120
76-13-1	Freon 113	50	59.4	119	62-182
591-78-6	2-Hexanone	200	227	114	65-132
98-82-8	Isopropylbenzene	50	58.1	116	83-120
79-20-9	Methyl Acetate	50	54.2	108	67-129
108-87-2	Methylcyclohexane	50	60.5	121	71-134
1634-04-4	Methyl Tert Butyl Ether	35	39.2	112	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2E6206-BS	2E141951.D	1	03/29/18	SS	n/a	n/a	V2E6206

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-11, JC62879-17, JC62879-18, JC62879-19

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	227	114	71-131
75-09-2	Methylene chloride	50	56.7	113	77-120
100-42-5	Styrene	50	56.7	113	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	54.6	109	76-119
127-18-4	Tetrachloroethene	50	56.1	112	70-131
108-88-3	Toluene	50	57.1	114	80-120
87-61-6	1,2,3-Trichlorobenzene	50	57.3	115	76-134
120-82-1	1,2,4-Trichlorobenzene	50	58.6	117	79-132
71-55-6	1,1,1-Trichloroethane	50	58.1	116	81-128
79-00-5	1,1,2-Trichloroethane	50	55.6	111	83-118
79-01-6	Trichloroethene	50	56.6	113	80-120
75-69-4	Trichlorofluoromethane	50	57.1	114	64-136
75-01-4	Vinyl chloride	50	58.0	116	51-135
	m,p-Xylene	100	114	114	80-120
95-47-6	o-Xylene	50	56.3	113	80-120
1330-20-7	Xylene (total)	150	170	113	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	81-124%
2037-26-5	Toluene-D8	102%	80-120%
460-00-4	4-Bromofluorobenzene	101%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B3335-BS	4B80669.D	1	03/30/18	HT	n/a	n/a	V4B3335

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	276	138	42-150
71-43-2	Benzene	50	52.8	106	80-120
74-97-5	Bromochloromethane	50	60.2	120	84-121
75-27-4	Bromodichloromethane	50	56.6	113	83-120
75-25-2	Bromoform	50	66.0	132* [a]	76-129
74-83-9	Bromomethane	50	56.7	113	57-138
78-93-3	2-Butanone (MEK)	200	236	118	64-137
75-15-0	Carbon disulfide	35	40.6	116	64-137
56-23-5	Carbon tetrachloride	50	55.7	111	75-135
108-90-7	Chlorobenzene	50	52.2	104	84-117
75-00-3	Chloroethane	50	57.6	115	63-132
67-66-3	Chloroform	50	54.0	108	80-119
74-87-3	Chloromethane	50	55.9	112	46-136
110-82-7	Cyclohexane	50	44.8	90	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	67.4	135* [a]	72-127
124-48-1	Dibromochloromethane	50	59.9	120	80-123
106-93-4	1,2-Dibromoethane	50	56.5	113	84-117
95-50-1	1,2-Dichlorobenzene	50	53.6	107	84-119
541-73-1	1,3-Dichlorobenzene	50	51.7	103	81-117
106-46-7	1,4-Dichlorobenzene	50	52.5	105	82-117
75-71-8	Dichlorodifluoromethane	50	50.4	101	36-149
75-34-3	1,1-Dichloroethane	50	54.5	109	79-120
107-06-2	1,2-Dichloroethane	50	50.9	102	78-126
75-35-4	1,1-Dichloroethene	50	53.5	107	69-126
156-59-2	cis-1,2-Dichloroethene	50	56.2	112	80-120
156-60-5	trans-1,2-Dichloroethene	50	55.4	111	76-120
78-87-5	1,2-Dichloropropane	50	52.3	105	82-121
10061-01-5	cis-1,3-Dichloropropene	50	53.3	107	83-120
10061-02-6	trans-1,3-Dichloropropene	50	53.5	107	82-121
100-41-4	Ethylbenzene	50	49.8	100	80-120
76-13-1	Freon 113	50	52.2	104	62-182
591-78-6	2-Hexanone	200	232	116	65-132
98-82-8	Isopropylbenzene	50	53.3	107	83-120
79-20-9	Methyl Acetate	50	54.1	108	67-129
108-87-2	Methylcyclohexane	50	49.3	99	71-134
1634-04-4	Methyl Tert Butyl Ether	35	39.5	113	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B3335-BS	4B80669.D	1	03/30/18	HT	n/a	n/a	V4B3335

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	232	116	71-131
75-09-2	Methylene chloride	50	59.1	118	77-120
100-42-5	Styrene	50	52.6	105	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	54.9	110	76-119
127-18-4	Tetrachloroethene	50	51.2	102	70-131
108-88-3	Toluene	50	50.3	101	80-120
87-61-6	1,2,3-Trichlorobenzene	50	61.3	123	76-134
120-82-1	1,2,4-Trichlorobenzene	50	57.6	115	79-132
71-55-6	1,1,1-Trichloroethane	50	56.6	113	81-128
79-00-5	1,1,2-Trichloroethane	50	55.0	110	83-118
79-01-6	Trichloroethene	50	50.5	101	80-120
75-69-4	Trichlorofluoromethane	50	53.3	107	64-136
75-01-4	Vinyl chloride	50	57.1	114	51-135
	m,p-Xylene	100	103	103	80-120
95-47-6	o-Xylene	50	51.8	104	80-120
1330-20-7	Xylene (total)	150	155	103	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	81-124%
2037-26-5	Toluene-D8	94%	80-120%
460-00-4	4-Bromofluorobenzene	91%	80-120%

(a) High percent recoveries and no associated positive reported in the QC batch.

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62879-12MS	3B145307.D	1	03/29/18	EH	n/a	n/a	V3B6426
JC62879-12	3B145279.D	1	03/29/18	EH	n/a	n/a	V3B6426

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16

CAS No.	Compound	JC62879-12 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	182	91	34-149
71-43-2	Benzene	ND		50	45.0	90	54-136
74-97-5	Bromochloromethane	ND		50	50.2	100	79-124
75-27-4	Bromodichloromethane	ND		50	50.9	102	79-124
75-25-2	Bromoform	ND		50	48.7	97	71-130
74-83-9	Bromomethane	ND		50	59.1	118	53-142
78-93-3	2-Butanone (MEK)	ND		200	185	93	54-142
75-15-0	Carbon disulfide	ND		50	36.3	73	59-145
56-23-5	Carbon tetrachloride	ND		50	54.7	109	70-143
108-90-7	Chlorobenzene	ND		50	45.6	91	78-123
75-00-3	Chloroethane	ND		50	62.1	124	57-141
67-66-3	Chloroform	ND		50	46.2	92	76-123
74-87-3	Chloromethane	ND		50	52.0	104	43-141
110-82-7	Cyclohexane	ND		50	47.8	96	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	47.4	95	66-130
124-48-1	Dibromochloromethane	ND		50	46.7	93	76-125
106-93-4	1,2-Dibromoethane	ND		50	46.4	93	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	48.4	97	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	47.8	96	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	46.1	92	76-122
75-71-8	Dichlorodifluoromethane	ND		50	58.9	118	31-159
75-34-3	1,1-Dichloroethane	ND		50	49.2	98	73-126
107-06-2	1,2-Dichloroethane	ND		50	49.1	98	72-131
75-35-4	1,1-Dichloroethene	ND		50	49.7	99	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	45.2	90	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	46.8	94	70-126
78-87-5	1,2-Dichloropropane	ND		50	50.0	100	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	50.3	101	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	46.7	93	77-123
100-41-4	Ethylbenzene	ND		50	47.2	94	51-140
76-13-1	Freon 113	ND		50	57.9	116	60-192
591-78-6	2-Hexanone	ND		200	197	99	56-139
98-82-8	Isopropylbenzene	ND		50	50.0	100	75-129
79-20-9	Methyl Acetate	ND		50	49.6	99	55-131
108-87-2	Methylcyclohexane	ND		50	51.6	103	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		35	34.1	97	72-123

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62879-12MS	3B145307.D	1	03/29/18	EH	n/a	n/a	V3B6426
JC62879-12	3B145279.D	1	03/29/18	EH	n/a	n/a	V3B6426

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16

CAS No.	Compound	JC62879-12 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	229	115	66-136
75-09-2	Methylene chloride	ND		50	48.9	98	73-125
100-42-5	Styrene	ND		50	47.4	95	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	52.0	104	71-122
127-18-4	Tetrachloroethene	ND		50	47.0	94	61-139
108-88-3	Toluene	ND		50	44.4	89	60-135
87-61-6	1,2,3-Trichlorobenzene	ND		50	46.6	93	70-138
120-82-1	1,2,4-Trichlorobenzene	ND		50	47.8	96	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	53.3	107	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	45.6	91	78-121
79-01-6	Trichloroethene	ND		50	47.5	95	62-141
75-69-4	Trichlorofluoromethane	ND		50	63.0	126	57-149
75-01-4	Vinyl chloride	ND		50	59.9	120	43-146
	m,p-Xylene	ND		100	94.7	95	50-144
95-47-6	o-Xylene	ND		50	48.6	97	63-134
1330-20-7	Xylene (total)	ND		150	143	95	56-139

CAS No.	Surrogate Recoveries	MS	JC62879-12	Limits
1868-53-7	Dibromofluoromethane	104%	106%	80-120%
17060-07-0	1,2-Dichloroethane-D4	112%	109%	81-124%
2037-26-5	Toluene-D8	95%	95%	80-120%
460-00-4	4-Bromofluorobenzene	102%	93%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62880-23MS	4B80680.D	1	03/30/18	HT	n/a	n/a	V4B3335
JC62880-23	4B80676.D	1	03/30/18	HT	n/a	n/a	V4B3335

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-20

CAS No.	Compound	JC62880-23 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	123	62	34-149
71-43-2	Benzene	ND		50	48.4	97	54-136
74-97-5	Bromochloromethane	ND		50	50.9	102	79-124
75-27-4	Bromodichloromethane	ND		50	50.9	102	79-124
75-25-2	Bromoform	ND		50	55.6	111	71-130
74-83-9	Bromomethane	ND		50	49.6	99	53-142
78-93-3	2-Butanone (MEK)	ND		200	148	74	54-142
75-15-0	Carbon disulfide	ND		35	35.4	101	59-145
56-23-5	Carbon tetrachloride	ND		50	52.9	106	70-143
108-90-7	Chlorobenzene	ND		50	48.2	96	78-123
75-00-3	Chloroethane	ND		50	51.3	103	57-141
67-66-3	Chloroform	ND		50	47.4	95	76-123
74-87-3	Chloromethane	ND		50	50.2	100	43-141
110-82-7	Cyclohexane	ND		50	50.3	101	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	54.5	109	66-130
124-48-1	Dibromochloromethane	ND		50	52.4	105	76-125
106-93-4	1,2-Dibromoethane	ND		50	48.9	98	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	47.2	94	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	46.5	93	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	46.2	92	76-122
75-71-8	Dichlorodifluoromethane	ND		50	53.8	108	31-159
75-34-3	1,1-Dichloroethane	ND		50	48.9	98	73-126
107-06-2	1,2-Dichloroethane	ND		50	44.6	89	72-131
75-35-4	1,1-Dichloroethene	ND		50	49.4	99	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	49.7	99	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	49.7	99	70-126
78-87-5	1,2-Dichloropropane	ND		50	47.5	95	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	48.6	97	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	47.2	94	77-123
100-41-4	Ethylbenzene	ND		50	46.5	93	51-140
76-13-1	Freon 113	ND		50	57.4	115	60-192
591-78-6	2-Hexanone	ND		200	159	80	56-139
98-82-8	Isopropylbenzene	ND		50	50.1	100	75-129
79-20-9	Methyl Acetate	ND		50	43.8	88	55-131
108-87-2	Methylcyclohexane	ND		50	54.9	110	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		35	32.5	93	72-123

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62880-23MS	4B80680.D	1	03/30/18	HT	n/a	n/a	V4B3335
JC62880-23	4B80676.D	1	03/30/18	HT	n/a	n/a	V4B3335

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-20

CAS No.	Compound	JC62880-23 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	192	96	66-136
75-09-2	Methylene chloride	ND		50	50.8	102	73-125
100-42-5	Styrene	ND		50	32.7	65* [a]	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	47.2	94	71-122
127-18-4	Tetrachloroethene	ND		50	50.0	100	61-139
108-88-3	Toluene	ND		50	46.2	92	60-135
87-61-6	1,2,3-Trichlorobenzene	ND		50	48.2	96	70-138
120-82-1	1,2,4-Trichlorobenzene	ND		50	47.6	95	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	52.2	104	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	47.3	95	78-121
79-01-6	Trichloroethene	ND		50	47.9	96	62-141
75-69-4	Trichlorofluoromethane	ND		50	53.0	106	57-149
75-01-4	Vinyl chloride	ND		50	51.9	104	43-146
	m,p-Xylene	ND		100	90.2	90	50-144
95-47-6	o-Xylene	ND		50	44.9	90	63-134
1330-20-7	Xylene (total)	ND		150	135	90	56-139

CAS No.	Surrogate Recoveries	MS	JC62880-23	Limits
1868-53-7	Dibromofluoromethane	98%	98%	80-120%
17060-07-0	1,2-Dichloroethane-D4	94%	101%	81-124%
2037-26-5	Toluene-D8	94%	87%	80-120%
460-00-4	4-Bromofluorobenzene	93%	89%	80-120%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62879-9MS	2D174432.D	1	03/27/18	JP	n/a	n/a	V2D7344
JC62879-9MSD	2D174433.D	1	03/27/18	JP	n/a	n/a	V2D7344
JC62879-9	2D174435.D	1	03/27/18	JP	n/a	n/a	V2D7344

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10

CAS No.	Compound	JC62879-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	71.8	36	200	68.9	34	4	34-149/17
71-43-2	Benzene	ND		50	43.8	88	50	43.7	87	0	54-136/10
74-97-5	Bromochloromethane	ND		50	43.3	87	50	43.0	86	1	79-124/11
75-27-4	Bromodichloromethane	ND		50	45.0	90	50	44.7	89	1	79-124/11
75-25-2	Bromoform	ND		50	42.7	85	50	42.1	84	1	71-130/11
74-83-9	Bromomethane	ND		50	39.6	79	50	44.3	89	11	53-142/14
78-93-3	2-Butanone (MEK)	ND		200	109	55	200	109	55	0	54-142/15
75-15-0	Carbon disulfide	ND		35	32.9	94	35	32.5	93	1	59-145/17
56-23-5	Carbon tetrachloride	ND		50	48.4	97	50	48.2	96	0	70-143/12
108-90-7	Chlorobenzene	ND		50	43.5	87	50	42.5	85	2	78-123/10
75-00-3	Chloroethane	ND		50	43.9	88	50	48.4	97	10	57-141/14
67-66-3	Chloroform	ND		50	46.1	92	50	45.7	91	1	76-123/11
74-87-3	Chloromethane	ND		50	38.6	77	50	43.3	87	11	43-141/16
110-82-7	Cyclohexane	ND		50	44.7	89	50	49.7	99	11	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	44.6	89	50	44.3	89	1	66-130/13
124-48-1	Dibromochloromethane	ND		50	43.5	87	50	42.4	85	3	76-125/11
106-93-4	1,2-Dibromoethane	ND		50	42.5	85	50	42.5	85	0	78-119/11
95-50-1	1,2-Dichlorobenzene	ND		50	42.9	86	50	42.4	85	1	77-123/11
541-73-1	1,3-Dichlorobenzene	ND		50	43.1	86	50	42.4	85	2	76-122/11
106-46-7	1,4-Dichlorobenzene	ND		50	43.7	87	50	43.2	86	1	76-122/11
75-71-8	Dichlorodifluoromethane	ND		50	38.0	76	50	42.7	85	12	31-159/16
75-34-3	1,1-Dichloroethane	ND		50	45.6	91	50	44.8	90	2	73-126/11
107-06-2	1,2-Dichloroethane	ND		50	45.3	91	50	45.1	90	0	72-131/11
75-35-4	1,1-Dichloroethene	ND		50	45.2	90	50	44.9	90	1	63-136/14
156-59-2	cis-1,2-Dichloroethene	ND		50	43.5	87	50	42.7	85	2	60-136/11
156-60-5	trans-1,2-Dichloroethene	ND		50	44.8	90	50	43.8	88	2	70-126/11
78-87-5	1,2-Dichloropropane	ND		50	44.7	89	50	44.1	88	1	78-124/10
10061-01-5	cis-1,3-Dichloropropene	ND		50	43.4	87	50	43.2	86	0	79-123/11
10061-02-6	trans-1,3-Dichloropropene	ND		50	43.2	86	50	42.7	85	1	77-123/11
100-41-4	Ethylbenzene	ND		50	44.9	90	50	43.8	88	2	51-140/20
76-13-1	Freon 113	ND		50	47.2	94	50	47.5	95	1	60-192/14
591-78-6	2-Hexanone	ND		200	125	63	200	125	63	0	56-139/14
98-82-8	Isopropylbenzene	ND		50	46.0	92	50	44.8	90	3	75-129/11
79-20-9	Methyl Acetate	ND		50	41.3	83	50	41.7	83	1	55-131/15
108-87-2	Methylcyclohexane	ND		50	46.3	93	50	46.7	93	1	57-155/13
1634-04-4	Methyl Tert Butyl Ether	ND		35	29.8	85	35	29.4	84	1	72-123/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62879-9MS	2D174432.D	1	03/27/18	JP	n/a	n/a	V2D7344
JC62879-9MSD	2D174433.D	1	03/27/18	JP	n/a	n/a	V2D7344
JC62879-9	2D174435.D	1	03/27/18	JP	n/a	n/a	V2D7344

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10

CAS No.	Compound	JC62879-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	165	83	200	165	83	0	66-136/13
75-09-2	Methylene chloride	ND		50	43.8	88	50	42.9	86	2	73-125/13
100-42-5	Styrene	ND		50	44.7	89	50	43.8	88	2	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	43.7	87	50	43.1	86	1	71-122/11
127-18-4	Tetrachloroethene	ND		50	44.0	88	50	43.4	87	1	61-139/11
108-88-3	Toluene	ND		50	43.7	87	50	42.8	86	2	60-135/10
87-61-6	1,2,3-Trichlorobenzene	ND		50	53.1	106	50	52.7	105	1	70-138/13
120-82-1	1,2,4-Trichlorobenzene	ND		50	51.6	103	50	51.3	103	1	72-137/13
71-55-6	1,1,1-Trichloroethane	ND		50	48.7	97	50	47.6	95	2	74-138/12
79-00-5	1,1,2-Trichloroethane	ND		50	41.8	84	50	41.5	83	1	78-121/11
79-01-6	Trichloroethene	ND		50	44.0	88	50	44.2	88	0	62-141/10
75-69-4	Trichlorofluoromethane	ND		50	45.8	92	50	50.4	101	10	57-149/14
75-01-4	Vinyl chloride	ND		50	42.8	86	50	48.4	97	12	43-146/15
	m,p-Xylene	ND		100	89.5	90	100	87.2	87	3	50-144/20
95-47-6	o-Xylene	ND		50	44.0	88	50	43.2	86	2	63-134/10
1330-20-7	Xylene (total)	ND		150	134	89	150	130	87	3	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC62879-9	Limits
1868-53-7	Dibromofluoromethane	102%	102%	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	105%	105%	105%	81-124%
2037-26-5	Toluene-D8	98%	97%	99%	80-120%
460-00-4	4-Bromofluorobenzene	96%	96%	98%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62879-11MS	2E141959.D	1	03/29/18	SS	n/a	n/a	V2E6206
JC62879-11MSD	2E141960.D	1	03/29/18	SS	n/a	n/a	V2E6206
JC62879-11	2E141954.D	1	03/29/18	SS	n/a	n/a	V2E6206

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-11, JC62879-17, JC62879-18, JC62879-19

CAS No.	Compound	JC62879-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	127	64	200	133	67	5	34-149/17
71-43-2	Benzene	ND		50	44.8	90	50	46.4	93	4	54-136/10
74-97-5	Bromochloromethane	ND		50	44.3	89	50	45.5	91	3	79-124/11
75-27-4	Bromodichloromethane	ND		50	43.9	88	50	45.1	90	3	79-124/11
75-25-2	Bromoform	ND		50	43.5	87	50	45.1	90	4	71-130/11
74-83-9	Bromomethane	ND		50	43.6	87	50	43.9	88	1	53-142/14
78-93-3	2-Butanone (MEK)	ND		200	166	83	200	170	85	2	54-142/15
75-15-0	Carbon disulfide	ND		35	33.5	96	35	34.6	99	3	59-145/17
56-23-5	Carbon tetrachloride	ND		50	49.3	99	50	51.5	103	4	70-143/12
108-90-7	Chlorobenzene	ND		50	44.2	88	50	45.7	91	3	78-123/10
75-00-3	Chloroethane	ND		50	45.6	91	50	45.7	91	0	57-141/14
67-66-3	Chloroform	ND		50	45.2	90	50	46.6	93	3	76-123/11
74-87-3	Chloromethane	ND		50	45.3	91	50	45.8	92	1	43-141/16
110-82-7	Cyclohexane	ND		50	50.0	100	50	52.0	104	4	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	40.0	80	50	42.0	84	5	66-130/13
124-48-1	Dibromochloromethane	ND		50	44.4	89	50	45.8	92	3	76-125/11
106-93-4	1,2-Dibromoethane	ND		50	42.5	85	50	44.3	89	4	78-119/11
95-50-1	1,2-Dichlorobenzene	ND		50	43.3	87	50	45.1	90	4	77-123/11
541-73-1	1,3-Dichlorobenzene	ND		50	43.4	87	50	45.0	90	4	76-122/11
106-46-7	1,4-Dichlorobenzene	ND		50	42.5	85	50	44.1	88	4	76-122/11
75-71-8	Dichlorodifluoromethane	ND		50	47.0	94	50	47.8	96	2	31-159/16
75-34-3	1,1-Dichloroethane	ND		50	46.4	93	50	48.3	97	4	73-126/11
107-06-2	1,2-Dichloroethane	ND		50	40.9	82	50	41.5	83	1	72-131/11
75-35-4	1,1-Dichloroethene	ND		50	49.9	100	50	52.2	104	5	63-136/14
156-59-2	cis-1,2-Dichloroethene	ND		50	45.8	92	50	47.3	95	3	60-136/11
156-60-5	trans-1,2-Dichloroethene	ND		50	48.4	97	50	50.2	100	4	70-126/11
78-87-5	1,2-Dichloropropane	ND		50	44.6	89	50	45.5	91	2	78-124/10
10061-01-5	cis-1,3-Dichloropropene	ND		50	43.7	87	50	44.9	90	3	79-123/11
10061-02-6	trans-1,3-Dichloropropene	ND		50	44.2	88	50	45.6	91	3	77-123/11
100-41-4	Ethylbenzene	ND		50	45.4	91	50	47.0	94	3	51-140/20
76-13-1	Freon 113	ND		50	53.2	106	50	54.1	108	2	60-192/14
591-78-6	2-Hexanone	ND		200	163	82	200	168	84	3	56-139/14
98-82-8	Isopropylbenzene	ND		50	47.2	94	50	49.3	99	4	75-129/11
79-20-9	Methyl Acetate	ND		50	39.2	78	50	39.3	79	0	55-131/15
108-87-2	Methylcyclohexane	ND		50	52.1	104	50	54.7	109	5	57-155/13
1634-04-4	Methyl Tert Butyl Ether	ND		35	30.3	87	35	31.2	89	3	72-123/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62879-11MS	2E141959.D	1	03/29/18	SS	n/a	n/a	V2E6206
JC62879-11MSD	2E141960.D	1	03/29/18	SS	n/a	n/a	V2E6206
JC62879-11	2E141954.D	1	03/29/18	SS	n/a	n/a	V2E6206

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-11, JC62879-17, JC62879-18, JC62879-19

CAS No.	Compound	JC62879-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	175	88	200	180	90	3	66-136/13
75-09-2	Methylene chloride	ND		50	44.7	89	50	46.3	93	4	73-125/13
100-42-5	Styrene	ND		50	45.3	91	50	46.9	94	3	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	43.0	86	50	44.4	89	3	71-122/11
127-18-4	Tetrachloroethene	ND		50	46.6	93	50	48.4	97	4	61-139/11
108-88-3	Toluene	ND		50	45.9	92	50	47.6	95	4	60-135/10
87-61-6	1,2,3-Trichlorobenzene	ND		50	43.9	88	50	45.7	91	4	70-138/13
120-82-1	1,2,4-Trichlorobenzene	ND		50	45.1	90	50	46.5	93	3	72-137/13
71-55-6	1,1,1-Trichloroethane	ND		50	47.9	96	50	49.5	99	3	74-138/12
79-00-5	1,1,2-Trichloroethane	ND		50	43.7	87	50	44.9	90	3	78-121/11
79-01-6	Trichloroethene	ND		50	46.5	93	50	48.5	97	4	62-141/10
75-69-4	Trichlorofluoromethane	ND		50	50.2	100	50	51.2	102	2	57-149/14
75-01-4	Vinyl chloride	ND		50	48.6	97	50	49.2	98	1	43-146/15
	m,p-Xylene	ND		100	92.6	93	100	95.9	96	4	50-144/20
95-47-6	o-Xylene	ND		50	45.2	90	50	46.7	93	3	63-134/10
1330-20-7	Xylene (total)	ND		150	138	92	150	143	95	4	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC62879-11	Limits
1868-53-7	Dibromofluoromethane	101%	101%	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	100%	102%	81-124%
2037-26-5	Toluene-D8	102%	102%	102%	80-120%
460-00-4	4-Bromofluorobenzene	100%	101%	101%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62879-13DUP	3B145309.D	1	03/29/18	EH	n/a	n/a	V3B6426
JC62879-13	3B145280.D	1	03/29/18	EH	n/a	n/a	V3B6426

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16

CAS No.	Compound	JC62879-13 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
74-97-5	Bromochloromethane	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		0.33	J	200* [a]	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62879-13DUP	3B145309.D	1	03/29/18	EH	n/a	n/a	V3B6426
JC62879-13	3B145280.D	1	03/29/18	EH	n/a	n/a	V3B6426

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16

CAS No.	Compound	JC62879-13 ug/l	Q	DUP ug/l	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
	m,p-Xylene	ND		ND		nc	20
95-47-6	o-Xylene	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC62879-13	Limits
1868-53-7	Dibromofluoromethane	107%	107%	80-120%
17060-07-0	1,2-Dichloroethane-D4	114%	110%	81-124%
2037-26-5	Toluene-D8	97%	95%	80-120%
460-00-4	4-Bromofluorobenzene	97%	93%	80-120%

(a) RPD acceptable due to low DUP and sample concentrations.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62880-24DUP	4B80682.D	1	03/30/18	HT	n/a	n/a	V4B3335
JC62880-24	4B80677.D	1	03/30/18	HT	n/a	n/a	V4B3335

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-20

CAS No.	Compound	JC62880-24 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
74-97-5	Bromochloromethane	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC62880-24DUP	4B80682.D	1	03/30/18	HT	n/a	n/a	V4B3335
JC62880-24	4B80677.D	1	03/30/18	HT	n/a	n/a	V4B3335

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC62879-20

CAS No.	Compound	JC62880-24 ug/l	Q	DUP ug/l	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
	m,p-Xylene	ND		ND		nc	20
95-47-6	o-Xylene	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC62880-24	Limits
1868-53-7	Dibromofluoromethane	98%	96%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	100%	81-124%
2037-26-5	Toluene-D8	89%	89%	80-120%
460-00-4	4-Bromofluorobenzene	91%	92%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7334-BFB
Lab File ID: 2D174255.D
Instrument ID: GCMS2D
Injection Date: 03/17/18
Injection Time: 10:18

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	61592	18.8		Pass
75	30.0 - 60.0% of mass 95	153749	46.9		Pass
95	Base peak, 100% relative abundance	327765	100.0		Pass
96	5.0 - 9.0% of mass 95	21136	6.45		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	300202	91.6		Pass
175	5.0 - 9.0% of mass 174	22866	6.98	(7.62) [a]	Pass
176	95.0 - 101.0% of mass 174	294784	89.9	(98.2) [a]	Pass
177	5.0 - 9.0% of mass 176	19416	5.92	(6.59) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D7334-IC7334	2D174256.D	03/17/18	10:50	00:32	Initial cal 0.2
V2D7334-IC7334	2D174257.D	03/17/18	11:21	01:03	Initial cal 0.5
V2D7334-IC7334	2D174258.D	03/17/18	11:50	01:32	Initial cal 1
V2D7334-IC7334	2D174259.D	03/17/18	12:21	02:03	Initial cal 2
V2D7334-IC7334	2D174260.D	03/17/18	12:51	02:33	Initial cal 5
V2D7334-IC7334	2D174261.D	03/17/18	13:21	03:03	Initial cal 10
V2D7334-IC7334	2D174262.D	03/17/18	13:51	03:33	Initial cal 20
V2D7334-ICC7334	2D174263.D	03/17/18	14:21	04:03	Initial cal 50
V2D7334-IC7334	2D174264.D	03/17/18	14:52	04:34	Initial cal 100
V2D7334-IC7334	2D174265.D	03/17/18	15:22	05:04	Initial cal 200
V2D7334-ICV7334	2D174268.D	03/17/18	16:53	06:35	Initial cal verification 100
V2D7334-ICV7334	2D174269.D	03/17/18	17:23	07:05	Initial cal verification 100

Instrument Performance Check (BFB)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7344-BFB
Lab File ID: 2D174427.D
Instrument ID: GCMS2D
Injection Date: 03/27/18
Injection Time: 07:47

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	24373	20.3		Pass
75	30.0 - 60.0% of mass 95	59099	49.3		Pass
95	Base peak, 100% relative abundance	119931	100.0		Pass
96	5.0 - 9.0% of mass 95	7799	6.50		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	106936	89.2		Pass
175	5.0 - 9.0% of mass 174	8787	7.33	(8.22) [a]	Pass
176	95.0 - 101.0% of mass 174	104296	87.0	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	6802	5.67	(6.52) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D7344-CC7334	2D174427.D	03/27/18	07:47	00:00	Continuing cal 20
V2D7344-BS	2D174429.D	03/27/18	09:31	01:44	Blank Spike
V2D7344-MB	2D174431.D	03/27/18	11:20	03:33	Method Blank
JC62879-9MS	2D174432.D	03/27/18	11:50	04:03	Matrix Spike
JC62879-9MSD	2D174433.D	03/27/18	12:20	04:33	Matrix Spike Duplicate
JC62879-9	2D174435.D	03/27/18	13:21	05:34	PCMW-8D
JC62879-1	2D174436.D	03/27/18	13:51	06:04	PCMW-01
JC62879-2	2D174437.D	03/27/18	14:21	06:34	PCMW-04
JC62879-3	2D174438.D	03/27/18	14:51	07:04	PCMW-9S
JC62879-4	2D174439.D	03/27/18	15:21	07:34	PCMW-16D
JC62879-5	2D174440.D	03/27/18	15:51	08:04	MW-5
JC62879-6	2D174441.D	03/27/18	16:20	08:33	PCMW-15S
JC62879-7	2D174442.D	03/27/18	16:50	09:03	PCMW-15D
JC62879-8	2D174443.D	03/27/18	17:21	09:34	PCMW-8S
JC62879-10	2D174444.D	03/27/18	17:51	10:04	PCMW-17S
V2D7345-BS	2D174451.D	03/27/18	22:19	14:32	Blank Spike

Instrument Performance Check (BFB)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	V2E6202-BFB	**Injection Date:**	03/23/18
Lab File ID:	2E141861.D	**Injection Time:**	11:37
Instrument ID:	GCMS2E		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	42541	16.5		Pass
75	30.0 - 60.0% of mass 95	112648	43.8		Pass
95	Base peak, 100% relative abundance	257408	100.0		Pass
96	5.0 - 9.0% of mass 95	16893	6.56		Pass
173	Less than 2.0% of mass 174	379	0.15	(0.18) [a]	Pass
174	50.0 - 120.0% of mass 95	212971	82.7		Pass
175	5.0 - 9.0% of mass 174	14619	5.68	(6.86) [a]	Pass
176	95.0 - 101.0% of mass 174	203349	79.0	(95.5) [a]	Pass
177	5.0 - 9.0% of mass 176	13525	5.25	(6.65) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2E6202-IC6202	2E141862.D	03/23/18	12:38	01:01	Initial cal 0.2
V2E6202-IC6202	2E141863.D	03/23/18	13:06	01:29	Initial cal 0.5
V2E6202-IC6202	2E141864.D	03/23/18	13:33	01:56	Initial cal 1
V2E6202-IC6202	2E141865.D	03/23/18	14:01	02:24	Initial cal 2
V2E6202-IC6202	2E141866.D	03/23/18	14:29	02:52	Initial cal 5
V2E6202-IC6202	2E141867.D	03/23/18	14:58	03:21	Initial cal 10
V2E6202-IC6202	2E141868.D	03/23/18	15:26	03:49	Initial cal 20
V2E6202-ICC6202	2E141869.D	03/23/18	15:53	04:16	Initial cal 50
V2E6202-IC6202	2E141870.D	03/23/18	16:20	04:43	Initial cal 100
V2E6202-IC6202	2E141871.D	03/23/18	16:48	05:11	Initial cal 200
V2E6202-ICV6202	2E141874.D	03/23/18	18:12	06:35	Initial cal verification 50
V2E6202-ICV6202	2E141875.D	03/23/18	18:40	07:03	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2E6202-BFB2
Lab File ID: 2E141876.D
Instrument ID: GCMS2E
Injection Date: 03/27/18
Injection Time: 14:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	52573	17.8		Pass
75	30.0 - 60.0% of mass 95	134845	45.6		Pass
95	Base peak, 100% relative abundance	295723	100.0		Pass
96	5.0 - 9.0% of mass 95	19595	6.63		Pass
173	Less than 2.0% of mass 174	1174	0.40	(0.50) [a]	Pass
174	50.0 - 120.0% of mass 95	235477	79.6		Pass
175	5.0 - 9.0% of mass 174	16929	5.72	(7.19) [a]	Pass
176	95.0 - 101.0% of mass 174	227413	76.9	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	14941	5.05	(6.57) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2E6202-ICV6202	2E141877.D	03/27/18	15:14	00:36	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	V2E6206-BFB	**Injection Date:**	03/29/18
Lab File ID:	2E141949.D	**Injection Time:**	07:13
Instrument ID:	GCMS2E		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	37619	17.0		Pass
75	30.0 - 60.0% of mass 95	99607	44.9		Pass
95	Base peak, 100% relative abundance	221653	100.0		Pass
96	5.0 - 9.0% of mass 95	14379	6.49		Pass
173	Less than 2.0% of mass 174	366	0.17	(0.20) [a]	Pass
174	50.0 - 120.0% of mass 95	180224	81.3		Pass
175	5.0 - 9.0% of mass 174	13041	5.88	(7.24) [a]	Pass
176	95.0 - 101.0% of mass 174	177088	79.9	(98.3) [a]	Pass
177	5.0 - 9.0% of mass 176	11779	5.31	(6.65) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2E6206-CC6202	2E141949.D	03/29/18	07:13	00:00	Continuing cal 20
V2E6206-BS	2E141951.D	03/29/18	08:23	01:10	Blank Spike
V2E6206-MB	2E141953.D	03/29/18	09:36	02:23	Method Blank
JC62879-11	2E141954.D	03/29/18	10:03	02:50	PCMW-17D
JC62879-17	2E141955.D	03/29/18	11:26	04:13	PCMW-10S
JC62879-18	2E141956.D	03/29/18	11:53	04:40	PCMW-10D
JC62879-19	2E141957.D	03/29/18	12:22	05:09	TRIP BLANK
JC62879-11MS	2E141959.D	03/29/18	13:18	06:05	Matrix Spike
JC62879-11MSD	2E141960.D	03/29/18	13:46	06:33	Matrix Spike Duplicate
ZZZZZZ	2E141962.D	03/29/18	14:42	07:29	(unrelated sample)
ZZZZZZ	2E141963.D	03/29/18	15:10	07:57	(unrelated sample)
ZZZZZZ	2E141964.D	03/29/18	15:38	08:25	(unrelated sample)
ZZZZZZ	2E141965.D	03/29/18	16:05	08:52	(unrelated sample)
ZZZZZZ	2E141966.D	03/29/18	16:33	09:20	(unrelated sample)
ZZZZZZ	2E141967.D	03/29/18	17:01	09:48	(unrelated sample)
ZZZZZZ	2E141968.D	03/29/18	17:29	10:16	(unrelated sample)
ZZZZZZ	2E141969.D	03/29/18	17:57	10:44	(unrelated sample)
ZZZZZZ	2E141970.D	03/29/18	18:25	11:12	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6383-BFB
Lab File ID: 3B144366.D
Instrument ID: GCMS3B
Injection Date: 02/27/18
Injection Time: 19:47

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	31056	17.3		Pass
75	30.0 - 60.0% of mass 95	86288	48.2		Pass
95	Base peak, 100% relative abundance	179115	100.0		Pass
96	5.0 - 9.0% of mass 95	11726	6.55		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	162411	90.7		Pass
175	5.0 - 9.0% of mass 174	12305	6.87	(7.58) [a]	Pass
176	95.0 - 101.0% of mass 174	160661	89.7	(98.9) [a]	Pass
177	5.0 - 9.0% of mass 176	10491	5.86	(6.53) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B6383-IC6383	3B144367.D	02/27/18	20:27	00:40	Initial cal 0.2
V3B6383-IC6383	3B144368.D	02/27/18	20:55	01:08	Initial cal 0.5
V3B6383-IC6383	3B144369.D	02/27/18	21:24	01:37	Initial cal 1
V3B6383-IC6383	3B144370.D	02/27/18	21:52	02:05	Initial cal 2
V3B6383-IC6383	3B144371.D	02/27/18	22:20	02:33	Initial cal 5
V3B6383-IC6383	3B144372.D	02/27/18	22:49	03:02	Initial cal 10
V3B6383-IC6383	3B144373.D	02/27/18	23:17	03:30	Initial cal 20
V3B6383-ICC6383	3B144374.D	02/27/18	23:46	03:59	Initial cal 50
V3B6383-IC6383	3B144375.D	02/28/18	00:14	04:27	Initial cal 100
V3B6383-IC6383	3B144376.D	02/28/18	00:42	04:55	Initial cal 200
V3B6383-ICV6383	3B144379.D	02/28/18	02:07	06:20	Initial cal verification 50
V3B6383-ICV6383	3B144380.D	02/28/18	02:36	06:49	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	V3B6401-BFB	**Injection Date:**	03/13/18
Lab File ID:	3B144749.D	**Injection Time:**	12:52
Instrument ID:	GCMS3B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9047	16.5		Pass
75	30.0 - 60.0% of mass 95	24229	44.2		Pass
95	Base peak, 100% relative abundance	54765	100.0		Pass
96	5.0 - 9.0% of mass 95	3527	6.44		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	52784	96.4		Pass
175	5.0 - 9.0% of mass 174	3599	6.57	(6.82) [a]	Pass
176	95.0 - 101.0% of mass 174	51243	93.6	(97.1) [a]	Pass
177	5.0 - 9.0% of mass 176	3184	5.81	(6.21) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B6401-ICV6383	3B144750.D	03/13/18	13:20	00:28	Initial cal verification 50
V3B6401-CC6383	3B144751.D	03/13/18	13:49	00:57	Continuing cal 20
V3B6401-BS	3B144752.D	03/13/18	14:32	01:40	Blank Spike
V3B6401-BSD	3B144753.D	03/13/18	15:01	02:09	Blank Spike Duplicate
V3B6401-MB	3B144755.D	03/13/18	15:59	03:07	Method Blank
ZZZZZZ	3B144756.D	03/13/18	16:28	03:36	(unrelated sample)
V3B6401-ECC6383	3B144757.D	03/13/18	16:57	04:05	Ending cal 20

Instrument Performance Check (BFB)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	V3B6426-BFB	**Injection Date:**	03/28/18
Lab File ID:	3B145266.D	**Injection Time:**	17:46
Instrument ID:	GCMS3B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	7681	17.9		Pass
75	30.0 - 60.0% of mass 95	21136	49.3		Pass
95	Base peak, 100% relative abundance	42885	100.0		Pass
96	5.0 - 9.0% of mass 95	2760	6.44		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	41123	95.9		Pass
175	5.0 - 9.0% of mass 174	3068	7.15	(7.46) [a]	Pass
176	95.0 - 101.0% of mass 174	39947	93.1	(97.1) [a]	Pass
177	5.0 - 9.0% of mass 176	2644	6.17	(6.62) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B6426-CC6383	3B145266.D	03/28/18	17:46	00:00	Continuing cal 50
V3B6426-BS	3B145268.D	03/28/18	19:00	01:14	Blank Spike
V3B6426-MB	3B145270.D	03/28/18	19:56	02:10	Method Blank
ZZZZZZ	3B145271.D	03/28/18	20:24	02:38	(unrelated sample)
ZZZZZZ	3B145272.D	03/28/18	20:52	03:06	(unrelated sample)
ZZZZZZ	3B145273.D	03/28/18	21:21	03:35	(unrelated sample)
ZZZZZZ	3B145274.D	03/28/18	21:49	04:03	(unrelated sample)
ZZZZZZ	3B145275.D	03/28/18	22:18	04:32	(unrelated sample)
ZZZZZZ	3B145276.D	03/28/18	22:46	05:00	(unrelated sample)
ZZZZZZ	3B145277.D	03/28/18	23:14	05:28	(unrelated sample)
JC62879-12	3B145279.D	03/29/18	00:11	06:25	PCMW-20S
JC62879-13	3B145280.D	03/29/18	00:40	06:54	PCMW-20D
JC62879-14	3B145281.D	03/29/18	01:08	07:22	PCMW-19S
JC62879-15	3B145282.D	03/29/18	01:37	07:51	PCMW-19D
JC62879-16	3B145283.D	03/29/18	02:05	08:19	DUP-03222018
ZZZZZZ	3B145284.D	03/29/18	02:33	08:47	(unrelated sample)
ZZZZZZ	3B145285.D	03/29/18	03:02	09:16	(unrelated sample)
ZZZZZZ	3B145286.D	03/29/18	03:31	09:45	(unrelated sample)
ZZZZZZ	3B145287.D	03/29/18	03:59	10:13	(unrelated sample)
ZZZZZZ	3B145288.D	03/29/18	04:28	10:42	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	V3B6427-BFB	**Injection Date:**	03/29/18
Lab File ID:	3B145291.D	**Injection Time:**	07:38
Instrument ID:	GCMS3B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9097	20.5		Pass
75	30.0 - 60.0% of mass 95	23120	52.0		Pass
95	Base peak, 100% relative abundance	44443	100.0		Pass
96	5.0 - 9.0% of mass 95	2987	6.72		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	42237	95.0		Pass
175	5.0 - 9.0% of mass 174	3508	7.89	(8.31) [a]	Pass
176	95.0 - 101.0% of mass 174	41272	92.9	(97.7) [a]	Pass
177	5.0 - 9.0% of mass 176	2700	6.08	(6.54) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B6427-CC6383	3B145291.D	03/29/18	07:38	00:00	Continuing cal 20
V3B6426-BS2	3B145294A.D	03/29/18	11:46	04:08	Blank Spike
V3B6427-BS	3B145294.D	03/29/18	11:46	04:08	Blank Spike
V3B6427-MB	3B145297.D	03/29/18	12:57	05:19	Method Blank
V3B6426-MB2	3B145297A.D	03/29/18	12:57	05:19	Method Blank
JC62879-11	3B145298.D	03/29/18	13:25	05:47	PCMW-17D
JC62879-11MS	3B145299.D	03/29/18	13:53	06:15	Matrix Spike
JC62879-11MSD	3B145300.D	03/29/18	14:22	06:44	Matrix Spike Duplicate
ZZZZZZ	3B145302.D	03/29/18	15:18	07:40	(unrelated sample)
ZZZZZZ	3B145303.D	03/29/18	15:47	08:09	(unrelated sample)
ZZZZZZ	3B145304.D	03/29/18	16:15	08:37	(unrelated sample)
ZZZZZZ	3B145305.D	03/29/18	16:43	09:05	(unrelated sample)
ZZZZZZ	3B145306.D	03/29/18	17:11	09:33	(unrelated sample)
JC62879-12MS	3B145307.D	03/29/18	17:40	10:02	Matrix Spike
JC62879-13DUP	3B145309.D	03/29/18	18:36	10:58	Duplicate
ZZZZZZ	3B145310.D	03/29/18	19:05	11:27	(unrelated sample)
ZZZZZZ	3B145311.D	03/29/18	19:33	11:55	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V4B3310-BFB
Lab File ID: 4B80105.D
Instrument ID: GCMS4B
Injection Date: 03/15/18
Injection Time: 16:20

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	15721	18.9		Pass
75	30.0 - 60.0% of mass 95	38432	46.1		Pass
95	Base peak, 100% relative abundance	83346	100.0		Pass
96	5.0 - 9.0% of mass 95	5678	6.81		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	79264	95.1		Pass
175	5.0 - 9.0% of mass 174	6029	7.23	(7.61) [a]	Pass
176	95.0 - 101.0% of mass 174	77645	93.2	(98.0) [a]	Pass
177	5.0 - 9.0% of mass 176	5154	6.18	(6.64) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B3310-IC3310	4B80106.D	03/15/18	16:50	00:30	Initial cal 0.2
V4B3310-IC3310	4B80107.D	03/15/18	17:19	00:59	Initial cal 0.5
V4B3310-IC3310	4B80108.D	03/15/18	17:46	01:26	Initial cal 1
V4B3310-IC3310	4B80109.D	03/15/18	18:15	01:55	Initial cal 2
V4B3310-IC3310	4B80110.D	03/15/18	18:43	02:23	Initial cal 5
V4B3310-IC3310	4B80111.D	03/15/18	19:11	02:51	Initial cal 10
V4B3310-IC3310	4B80112.D	03/15/18	19:40	03:20	Initial cal 20
V4B3310-ICC3310	4B80113.D	03/15/18	20:08	03:48	Initial cal 50
V4B3310-IC3310	4B80114.D	03/15/18	20:36	04:16	Initial cal 100
V4B3310-IC3310	4B80115.D	03/15/18	21:04	04:44	Initial cal 200
V4B3310-ICV3310	4B80118.D	03/15/18	22:28	06:08	Initial cal verification 50
V4B3310-ICV3310	4B80119.D	03/15/18	22:56	06:36	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V4B3335-BFB
Lab File ID: 4B80668.D
Instrument ID: GCMS4B
Injection Date: 03/30/18
Injection Time: 07:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14798	17.8		Pass
75	30.0 - 60.0% of mass 95	37605	45.4		Pass
95	Base peak, 100% relative abundance	82904	100.0		Pass
96	5.0 - 9.0% of mass 95	5615	6.77		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	84245	101.6		Pass
175	5.0 - 9.0% of mass 174	6214	7.50	(7.38) [a]	Pass
176	95.0 - 101.0% of mass 174	82242	99.2	(97.6) [a]	Pass
177	5.0 - 9.0% of mass 176	5668	6.84	(6.89) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B3335-CC3310	4B80668.D	03/30/18	07:30	00:00	Continuing cal 20
V4B3335-BS	4B80669.D	03/30/18	08:12	00:42	Blank Spike
V4B3335-MB	4B80671.D	03/30/18	09:29	01:59	Method Blank
ZZZZZZ	4B80672.D	03/30/18	10:23	02:53	(unrelated sample)
ZZZZZZ	4B80674.D	03/30/18	11:19	03:49	(unrelated sample)
ZZZZZZ	4B80675.D	03/30/18	11:49	04:19	(unrelated sample)
JC62880-23	4B80676.D	03/30/18	12:17	04:47	(used for QC only; not part of job JC62879)
JC62880-24	4B80677.D	03/30/18	12:46	05:16	(used for QC only; not part of job JC62879)
ZZZZZZ	4B80678.D	03/30/18	13:14	05:44	(unrelated sample)
ZZZZZZ	4B80679.D	03/30/18	13:42	06:12	(unrelated sample)
JC62880-23MS	4B80680.D	03/30/18	14:10	06:40	Matrix Spike
JC62880-24DUP	4B80682.D	03/30/18	15:06	07:36	Duplicate
ZZZZZZ	4B80683.D	03/30/18	15:34	08:04	(unrelated sample)
JC62879-20	4B80684.D	03/30/18	16:02	08:32	MW-6
ZZZZZZ	4B80685.D	03/30/18	16:30	09:00	(unrelated sample)
ZZZZZZ	4B80686.D	03/30/18	16:58	09:28	(unrelated sample)
ZZZZZZ	4B80687.D	03/30/18	17:27	09:57	(unrelated sample)
ZZZZZZ	4B80688.D	03/30/18	17:55	10:25	(unrelated sample)
ZZZZZZ	4B80689.D	03/30/18	18:23	10:53	(unrelated sample)
ZZZZZZ	4B80690.D	03/30/18	18:51	11:21	(unrelated sample)

Internal Standard Area Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	V2D7344-CC7334	**Injection Date:**	03/27/18
Lab File ID:	2D174427.D	**Injection Time:**	07:47
Instrument ID:	GCMS2D	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	127893	7.35	306099	10.06	426570	11.21	428080	15.43	247038	18.23
Upper Limit [a]	255786	7.85	612198	10.56	853140	11.71	856160	15.93	494076	18.73
Lower Limit [b]	63947	6.85	153050	9.56	213285	10.71	214040	14.93	123519	17.73

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2D7344-BS	121490	7.35	316981	10.06	437826	11.21	435404	15.43	253572	18.23
V2D7344-MB	122726	7.35	322518	10.06	452594	11.21	449241	15.43	246254	18.23
JC62879-9MS	124290	7.35	314088	10.06	433840	11.21	429507	15.43	248529	18.24
JC62879-9MSD	111719	7.34	312487	10.06	428995	11.21	431569	15.43	246862	18.24
JC62879-9	108505	7.35	326427	10.06	453674	11.21	447216	15.44	249714	18.24
JC62879-1	98824	7.35	314319	10.06	436528	11.21	433338	15.44	239992	18.24
JC62879-2	109210	7.35	313928	10.06	438244	11.21	431581	15.44	241068	18.24
JC62879-3	95810	7.35	313781	10.06	438495	11.21	427211	15.44	236776	18.24
JC62879-4	101267	7.35	326974	10.06	459765	11.21	448731	15.44	247039	18.24
JC62879-5	101692	7.35	312532	10.07	437865	11.22	429272	15.44	236056	18.24
JC62879-6	109337	7.36	324230	10.07	452499	11.22	443807	15.44	243842	18.24
JC62879-7	112978	7.36	320835	10.07	449597	11.22	443031	15.44	245757	18.24
JC62879-8	116185	7.36	314124	10.07	439126	11.22	426394	15.44	236659	18.24
JC62879-10	107527	7.35	314087	10.07	443676	11.22	435377	15.45	239506	18.24
V2D7345-BS	104208	7.36	304754	10.07	420545	11.22	419342	15.45	242284	18.25

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	V2E6206-CC6202	**Injection Date:**	03/29/18
Lab File ID:	2E141949.D	**Injection Time:**	07:13
Instrument ID:	GCMS2E	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	310917	7.40	638253	9.63	957905	10.54	814682	13.68	409140	15.98
Upper Limit [a]	621834	7.90	1276506	10.13	1915810	11.04	1629364	14.18	818280	16.48
Lower Limit [b]	155459	6.90	319127	9.13	478953	10.04	407341	13.18	204570	15.48

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2E6206-BS	305462	7.40	631082	9.63	952232	10.55	808299	13.68	410225	15.98
V2E6206-MB	326066	7.41	652474	9.63	969604	10.55	823564	13.68	414380	15.98
JC62879-11	271438	7.40	597861	9.63	895326	10.55	764486	13.68	382024	15.98
JC62879-17	260335	7.40	604816	9.62	918657	10.55	788653	13.68	399624	15.98
JC62879-18	272277	7.40	593098	9.63	904844	10.55	776713	13.68	384401	15.98
JC62879-19	276031	7.39	597493	9.63	905779	10.55	769387	13.68	384875	15.98
JC62879-11MS	289558	7.40	630189	9.63	952686	10.55	816651	13.68	411612	15.98
JC62879-11MSD	298200	7.40	620152	9.63	929660	10.55	793930	13.68	404997	15.98
ZZZZZZ	286772	7.40	588239	9.63	899818	10.55	822979	13.68	396816	15.98
ZZZZZZ	296170	7.40	630090	9.63	931589	10.55	809375	13.68	417820	15.98
ZZZZZZ	290917	7.40	587840	9.63	885827	10.55	789675	13.68	391948	15.98
ZZZZZZ	306304	7.40	594342	9.63	903940	10.54	786998	13.68	397826	15.98
ZZZZZZ	310696	7.40	636531	9.63	939689	10.55	817613	13.68	419781	15.98
ZZZZZZ	312661	7.40	629804	9.63	940351	10.55	802446	13.68	411205	15.98
ZZZZZZ	295858	7.40	614698	9.63	920793	10.55	803271	13.68	411061	15.98
ZZZZZZ	302234	7.40	619892	9.63	922979	10.55	801757	13.68	408490	15.98
ZZZZZZ	304072	7.40	626278	9.63	926240	10.55	788191	13.68	398931	15.98

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	V3B6426-CC6383	**Injection Date:**	03/28/18
Lab File ID:	3B145266.D	**Injection Time:**	17:46
Instrument ID:	GCMS3B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	123799	8.01	118263	10.51	159900	11.49	157900	14.82	98353	17.32
Upper Limit [a]	247598	8.51	236526	11.01	319800	11.99	315800	15.32	196706	17.82
Lower Limit [b]	61900	7.51	59132	10.01	79950	10.99	78950	14.32	49177	16.82

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3B6426-BS	121731	8.00	120096	10.51	165010	11.49	165664	14.82	104304	17.32
V3B6426-MB	135588	8.00	122467	10.51	164673	11.49	152022	14.82	106473	17.32
ZZZZZZ	126748	8.01	122205	10.51	163794	11.49	149079	14.82	102245	17.32
ZZZZZZ	126993	8.01	117256	10.51	157398	11.49	147913	14.83	101658	17.32
ZZZZZZ	124850	8.01	111751	10.51	151924	11.49	141203	14.82	99436	17.32
ZZZZZZ	119455	8.01	111344	10.51	149213	11.49	140869	14.83	96684	17.32
ZZZZZZ	114348	7.99	106522	10.51	141949	11.49	133589	14.82	92515	17.32
ZZZZZZ	118837	8.00	107123	10.51	141206	11.49	131564	14.82	89936	17.32
ZZZZZZ	112307	8.00	107925	10.51	143032	11.49	137819	14.82	96238	17.32
JC62879-12	111538	7.99	103103	10.51	136788	11.49	130755	14.82	90123	17.32
JC62879-13	123178	8.00	104132	10.51	138926	11.49	131177	14.82	90633	17.32
JC62879-14	106262	7.99	103650	10.51	139974	11.49	133674	14.82	93179	17.32
JC62879-15	103205	7.99	96923	10.51	127996	11.49	118534	14.82	82573	17.32
JC62879-16	102630	7.99	101924	10.51	135506	11.49	123876	14.82	86089	17.32
ZZZZZZ	106141	8.00	100890	10.51	133418	11.49	125293	14.83	86483	17.32
ZZZZZZ	133918	7.99	101590	10.51	138565	11.49	128552	14.82	88074	17.32
ZZZZZZ	111881	8.00	103570	10.51	136564	11.49	133156	14.82	95011	17.32
ZZZZZZ	116557	8.00	110624	10.51	144675	11.49	138371	14.82	95084	17.32
ZZZZZZ	136929	8.00	116020	10.51	152253	11.49	144628	14.82	99195	17.32

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	V3B6427-CC6383	**Injection Date:**	03/29/18
Lab File ID:	3B145291.D	**Injection Time:**	07:38
Instrument ID:	GCMS3B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	151597	8.01	128575	10.51	173252	11.49	162475	14.82	103595	17.32
Upper Limit [a]	303194	8.51	257150	11.01	346504	11.99	324950	15.32	207190	17.82
Lower Limit [b]	75799	7.51	64288	10.01	86626	10.99	81238	14.32	51798	16.82

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3B6427-BS	166847	8.00	140232	10.51	187672	11.49	197756	14.82	123033	17.31
V3B6426-BS2	166847	8.00	140232	10.51	187672	11.49	197756	14.82	123033	17.31
V3B6427-MB	153713	8.01	127829	10.51	169499	11.49	159301	14.83	106534	17.32
V3B6426-MB2	153713	8.01	127829	10.51	169499	11.49	159301	14.83	106534	17.32
JC62879-11 [c]	148651	8.02	129251	10.51	171625	11.49	158071	14.82	107502	17.32
JC62879-11MS	141768	8.00	124632	10.51	169112	11.49	169556	14.82	109834	17.32
JC62879-11MSD	143400	8.00	126866	10.51	176344	11.49	174118	14.83	109531	17.32
ZZZZZZ	148706	8.01	129403	10.51	174396	11.49	165834	14.83	109581	17.32
ZZZZZZ	140658	7.99	122066	10.51	163522	11.49	154030	14.83	106893	17.32
ZZZZZZ	147133	8.02	129662	10.52	173364	11.49	167479	14.83	111992	17.32
ZZZZZZ	142540	8.00	127727	10.51	170946	11.49	159112	14.82	106780	17.32
ZZZZZZ	142929	8.00	129943	10.51	174016	11.49	158701	14.83	108311	17.32
JC62879-12MS	141041	8.00	123793	10.52	171261	11.49	169394	14.83	104274	17.32
JC62879-13DUP	147347	8.00	118492	10.51	160317	11.49	148380	14.83	100425	17.32
ZZZZZZ	137756	7.99	115988	10.51	157327	11.49	149052	14.83	100794	17.32
ZZZZZZ	139069	8.01	126707	10.51	169365	11.49	157079	14.83	103841	17.32

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Sample used for QC purposes only.

Internal Standard Area Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	V4B3335-CC3310	**Injection Date:**	03/30/18
Lab File ID:	4B80668.D	**Injection Time:**	07:30
Instrument ID:	GCMS4B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	131185	6.79	231664	8.77	291202	9.65	302347	12.83	202178	15.40
Upper Limit [a]	262370	7.29	463328	9.27	582404	10.15	604694	13.33	404356	15.90
Lower Limit [b]	65593	6.29	115832	8.27	145601	9.15	151174	12.33	101089	14.90

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4B3335-BS	120028	6.77	224873	8.77	287684	9.65	277821	12.83	183692	15.40
V4B3335-MB	137595	6.79	230253	8.77	284950	9.65	288005	12.83	192588	15.40
ZZZZZZ	226126	6.78	230646	8.77	286455	9.65	297207	12.83	193816	15.40
ZZZZZZ	145440	6.77	223677	8.77	283891	9.65	285154	12.83	191416	15.40
ZZZZZZ	128577	6.79	208058	8.77	254809	9.65	260350	12.83	174057	15.40
JC62880-23	128593	6.78	221417	8.77	279784	9.65	283297	12.83	191694	15.40
JC62880-24	126189	6.79	223100	8.77	287305	9.65	303387	12.83	191516	15.40
ZZZZZZ	146901	6.79	227984	8.77	291561	9.65	306314	12.83	199664	15.40
ZZZZZZ	135038	6.77	234382	8.77	294944	9.65	307008	12.83	211093	15.40
JC62880-23MS	114081	6.80	237143	8.77	302841	9.65	292344	12.83	188821	15.40
JC62880-24DUP	130952	6.79	227326	8.77	287633	9.65	292195	12.83	195338	15.40
ZZZZZZ	136017	6.79	224106	8.77	284157	9.65	289809	12.83	197322	15.40
JC62879-20	135486	6.77	228806	8.77	299742	9.65	314936	12.83	201122	15.40
ZZZZZZ	135581	6.77	231214	8.77	308663	9.65	323281	12.83	212455	15.40
ZZZZZZ	146388	6.78	233883	8.77	298771	9.65	305931	12.83	203769	15.40
ZZZZZZ	176823	6.78	236546	8.77	293640	9.65	312502	12.83	207299	15.40
ZZZZZZ	182075	6.78	240115	8.77	299618	9.65	312127	12.83	196665	15.40
ZZZZZZ	158432	6.78	241926	8.77	316753	9.65	324666	12.83	212355	15.40
ZZZZZZ	180667	6.78	243666	8.77	304204	9.65	306336	12.83	195278	15.40

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC62879-1	2D174436.D	103	106	99	98
JC62879-2	2D174437.D	102	105	99	98
JC62879-3	2D174438.D	102	105	100	99
JC62879-4	2D174439.D	103	105	98	99
JC62879-5	2D174440.D	102	105	99	99
JC62879-6	2D174441.D	103	107	99	99
JC62879-7	2D174442.D	103	107	99	98
JC62879-8	2D174443.D	102	107	100	98
JC62879-9	2D174435.D	101	105	99	98
JC62879-10	2D174444.D	104	106	99	98
JC62879-11	2E141954.D	100	102	102	101
JC62879-11	3B145298.D				
JC62879-12	3B145279.D	106	109	95	93
JC62879-13	3B145280.D	107	110	95	93
JC62879-14	3B145281.D	107	108	94	92
JC62879-15	3B145282.D	106	109	95	93
JC62879-16	3B145283.D	108	110	96	93
JC62879-17	2E141955.D	101	102	101	100
JC62879-18	2E141956.D	101	102	102	101
JC62879-19	2E141957.D	100	101	102	101
JC62879-20	4B80684.D	99	99	88	93
JC62879-11MS	2E141959.D	101	100	102	100
JC62879-11MSD	2E141960.D	101	100	102	101
JC62879-12MS	3B145307.D	104	112	95	102
JC62879-13DUP	3B145309.D	107	114	97	97
JC62879-9MS	2D174432.D	102	105	98	96
JC62879-9MSD	2D174433.D	102	105	97	96
JC62880-23MS	4B80680.D	98	94	94	93
JC62880-24DUP	4B80682.D	98	99	89	91
V2D7344-BS	2D174429.D	102	105	98	95
V2D7344-MB	2D174431.D	103	106	98	99
V2E6206-BS	2E141951.D	100	100	102	101
V2E6206-MB	2E141953.D	99	99	101	101
V3B6426-BS	3B145268.D	100	98	93	98
V3B6426-MB	3B145270.D	103	103	97	94
V4B3335-BS	4B80669.D	101	96	94	91
V4B3335-MB	4B80671.D	97	98	92	89
V3B6426-MB2	3B145297A.D	102	110	97	98

Surrogate Recovery Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Surrogate Compounds | Recovery Limits

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7334-ICC7334
Lab FileID: 2D174263.D

Response Factor Report MS2D

Method : C:\msdchem\1\METHODS\M2D7334.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri Mar 23 15:40:29 2018
Response via : Initial Calibration

Calibration Files
1 =2D174258.D 2 =2D174259.D 100 =2D174264.D 50 =2D174263.D
20 =2D174262.D 200 =2D174265.D 5 =2D174260.D 0.5 =2D174257.D
10 =2D174261.D 0.2 =2D174256.D = =

Compound	1	2	100	50	20	200	5	0.5	10	0.2	Avg	%RSD
1) I tert butyl alcohol-d9	ISTD											
2) tertiary butyl alcohol	0.884	0.945	1.031	0.996	0.996	1.050	0.985		1.075		0.995	6.09
3) ethanol	0.144	0.132	0.117	0.115	0.116	0.104	0.123		0.129		0.123	10.07
4) 1,4-dioxane			0.104	0.099	0.095	0.103	0.083		0.099		0.097	7.89
5) I pentafluorobenzene	ISTD											
6) chlorodifluoromethane	0.590	0.531	0.616	0.604	0.562	0.597	0.557	0.669	0.665		0.599	7.79
7) dichlorodifluoromethane			0.456	0.543	0.551	0.511	0.523	0.442		0.522	0.507	8.30
8) freon 142b											0.000	-1.00
9) freon 114											0.000	-1.00
10) chloromethane	0.668	0.663	0.690	0.679	0.652	0.671	0.612	0.718	0.664		0.669	4.29
11) vinyl chloride	0.543	0.573	0.645	0.638	0.604	0.629	0.550	0.538	0.604		0.591	7.07
12) bromomethane	0.382	0.379	0.381	0.375	0.369	0.355	0.353	0.467	0.369		0.381	8.86
13) chloroethane	0.303	0.298	0.324	0.322	0.314	0.313	0.287	0.274	0.315		0.306	5.50
14) trichlorofluoromethane	0.577	0.593	0.673	0.676	0.643	0.651	0.572		0.664		0.631	6.93
15) Vinyl Bromide	0.315	0.327	0.376	0.367	0.357	0.366	0.315	0.303	0.353		0.342	7.98
16) 1,3-butadiene											0.000	-1.00
17) ethyl ether	0.195	0.176	0.206	0.196	0.194	0.206	0.185	0.216	0.212		0.199	6.44
18) acrolein			0.081	0.077	0.075	0.077	0.077	0.078		0.081	0.078	2.99
19) 1,1-dichloroethene	0.347	0.313	0.357	0.352	0.332	0.364	0.326		0.380		0.346	6.34
20) freon 113	0.244	0.263	0.320	0.315	0.286	0.311	0.276	0.308	0.342		0.296	10.41
21) 2-chloropropane	0.887	0.754	0.762	0.759	0.720	0.761	0.740		0.864		0.781	7.72
22) acetone	0.059	0.061	0.066	0.065	0.065	0.064	0.065	0.075	0.071		0.066	7.39
23) acetonitrile												

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          0.058 0.058 0.058 0.056 0.056 0.057 0.057       0.063        0.058    3.99
24)  iodomethane
          0.684 0.616 0.709 0.691 0.663 0.718 0.656 0.780 0.766        0.698    7.46
25)  carbon disulfide
          1.295 1.119 1.295 1.281 1.202 1.314 1.193       1.420        1.265    7.25
26)  methylene chloride
          0.385 0.351 0.407 0.402 0.390 0.412 0.389 0.423 0.444        0.400    6.55
27)  methyl acetate
          0.309 0.304 0.307 0.296 0.293 0.313 0.294       0.322        0.305    3.34
28)  methyl tert butyl ether
          1.104 0.968 1.143 1.106 1.090 1.151 1.064 1.323 1.193        1.127    8.60
29)  trans-1,2-dichloroethene
          0.361 0.326 0.373 0.360 0.346 0.373 0.337 0.439 0.402        0.369    9.37
30)  hexane
          0.527 0.452 0.591 0.592 0.530 0.582 0.494 0.581 0.645        0.555   10.66
31)  di-isopropyl ether
          1.462 1.356 1.541 1.498 1.463 1.537 1.419 1.836 1.635        1.527    9.18
32)  2-butanone
          0.046 0.046 0.053 0.052 0.052 0.053 0.049 0.045 0.055        0.050    7.56
33)  1,1-dichloroethane
          0.711 0.652 0.744 0.725 0.696 0.747 0.684 0.879 0.808 0.841  0.749    9.70
34)  chloroprene
          0.575 0.500 0.619 0.608 0.566 0.623 0.544 0.686 0.671        0.599    9.94
35)  acrylonitrile
                0.121 0.155 0.147 0.143 0.156 0.139       0.159        0.146    9.00
36)  vinyl acetate
                      0.056 0.054 0.053 0.055 0.046       0.053        0.053    6.76
37)  ethyl tert-butyl ether
          1.290 1.198 1.379 1.340 1.301 1.386 1.260 1.580 1.434 1.557  1.372    9.00
38)  ethyl acetate
                0.044 0.053 0.051 0.058 0.054 0.050       0.058        0.053    9.31
39)  2,2-dichloropropane
          0.600 0.550 0.587 0.582 0.554 0.579 0.565       0.654        0.584    5.66
40)  cis-1,2-dichloroethene
          0.399 0.363 0.417 0.404 0.393 0.418 0.392 0.490 0.445 0.472  0.419    9.30
41)  propionitrile
          0.055 0.052 0.061 0.058 0.057 0.060 0.057 0.062 0.063        0.058    5.81
42)  tert-Butyl Formate---The compound does not meet initial criteria.
          0.302 0.271 0.331 0.315 0.313 0.338 0.295 0.364 0.319        0.316    8.36
43)  bromochloromethane
          0.183 0.174 0.205 0.199 0.195 0.207 0.186 0.215 0.219        0.198    7.65
44)  tetrahydrofuran
                    0.046 0.045 0.042 0.046 0.041       0.048        0.045    6.17
45)  chloroform
          0.680 0.629 0.678 0.663 0.647 0.679 0.646       0.734        0.669    4.80
46)  dibromofluoromethane (s)
          0.426 0.423 0.426 0.430 0.427 0.428 0.425 0.422 0.421 0.421  0.425    0.69
47)  methacrylonitrile
          0.129 0.124 0.153 0.147 0.144 0.155 0.135       0.156        0.143    8.61
48)  1,1,1-trichloroethane
          0.579 0.520 0.613 0.606 0.571 0.620 0.554       0.682        0.593    8.23
49)  cyclohexane
          0.532 0.525 0.580 0.569 0.522 0.567 0.543       0.614        0.557    5.69
50)  1,1-dichloropropene
          0.511 0.454 0.534 0.519 0.489 0.541 0.470 0.594 0.579 0.488  0.518    8.73
51)  isobutyl alcohol
          0.018 0.017 0.018 0.017 0.017 0.018 0.016       0.019        0.018    5.59
52)  carbon tetrachloride
          0.528 0.462 0.551 0.544 0.512 0.552 0.498 0.626 0.605 0.470  0.535    9.92
53)  tert-amyl alcohol
```

0.014 0.018 0.017 0.017 0.019 0.017 0.019 0.017 8.74

54) I 1,4-difluorobenzene ----------ISTD----------

55) 1,2-dichloroethane-d4 (s)
0.358 0.360 0.355 0.356 0.355 0.351 0.362 0.357 0.357 0.370 0.358 1.41

56) benzene
1.131 0.990 1.115 1.097 1.052 1.122 1.042 1.346 1.218 1.124 9.38

57) iso-octane
1.181 1.075 1.317 1.340 1.215 1.295 1.091 1.353 1.427 1.255 9.68

58) tert-amyl methyl ether
0.889 0.798 0.896 0.885 0.863 0.898 0.841 1.053 0.955 0.898 8.06

59) heptane
0.202 0.185 0.238 0.241 0.221 0.235 0.198 0.230 0.265 0.224 11.19

60) isopropyl acetate
0.043 0.050 0.048 0.048 0.051 0.043 0.052 0.048 7.68

61) 1,2-dichloroethane
0.434 0.378 0.389 0.380 0.375 0.384 0.384 0.425 0.393 5.80

62) n-butyl alcohol
0.006 0.006 0.008 0.008 0.008 0.008 0.007 0.008 0.007 10.71

63) ethyl acrylate
0.281 0.273 0.345 0.332 0.320 0.346 0.300 0.345 0.318 9.32

64) trichloroethene
0.277 0.247 0.290 0.282 0.264 0.294 0.259 0.297 0.319 0.281 0.281 7.38

65) 2-nitropropane
0.073 0.064 0.071 0.068 0.066 0.071 0.066 0.083 0.072 0.070 7.78

66) 2-chloroethyl vinyl ether
0.133 0.130 0.163 0.155 0.150 0.164 0.138 0.162 0.161 0.165 0.152 9.01

67) methyl methacrylate
0.054 0.066 0.064 0.064 0.066 0.060 0.065 0.063 6.93

68) 1,2-dichloropropane
0.305 0.276 0.313 0.307 0.297 0.314 0.299 0.360 0.338 0.312 7.77

69) dibromomethane
0.159 0.150 0.173 0.167 0.166 0.173 0.164 0.181 0.183 0.180 0.170 6.17

70) methylcyclohexane
0.509 0.435 0.550 0.550 0.500 0.544 0.475 0.604 0.521 10.04

71) bromodichloromethane
0.371 0.331 0.392 0.380 0.367 0.394 0.351 0.418 0.409 0.449 0.386 8.87

72) epichlorohydrin
0.023 0.023 0.028 0.026 0.026 0.028 0.025 0.028 0.026 7.41

73) cis-1,3-dichloropropene
0.462 0.427 0.495 0.480 0.466 0.497 0.458 0.533 0.517 0.510 0.485 6.59

74) 4-methyl-2-pentanone
0.102 0.098 0.109 0.105 0.104 0.110 0.104 0.119 0.113 0.114 0.108 5.97

75) 3-methyl-1-butanol
0.010 0.010 0.013 0.012 0.012 0.013 0.011 0.012 0.012 0.012 9.15

76) I chlorobenzene-d5 ----------ISTD----------

77) toluene-d8 (s)
1.190 1.196 1.187 1.192 1.183 1.171 1.193 1.184 1.194 1.188 1.188 0.60

78) toluene
0.705 0.608 0.700 0.682 0.648 0.698 0.652 0.830 0.759 0.698 9.36

79) trans-1,3-dichloropropene
0.391 0.387 0.457 0.437 0.416 0.454 0.408 0.508 0.453 0.506 0.442 9.66

80) ethyl methacrylate
0.321 0.297 0.386 0.364 0.351 0.384 0.331 0.377 0.382 0.319 0.351 9.18

81) 1,1,2-trichloroethane
0.213 0.200 0.221 0.214 0.210 0.218 0.207 0.260 0.234 0.225 0.220 7.65

82) tetrachloroethene
0.233 0.218 0.257 0.251 0.239 0.255 0.233 0.296 0.283 0.274 0.254 9.65

83) 1,3-dichloropropane

Initial Calibration Summary

Job Number: JC62879 **Sample:** V2D7334-ICC7334
Account: BBLNYS Arcadis **Lab FileID:** 2D174263.D
Project: National Grid, Philly Coke, Philadelphia PA

```
          0.417 0.382 0.444 0.426 0.421 0.440 0.417 0.511 0.469 0.506  0.443    9.27
 84)  2-hexanone
          0.116 0.119 0.140 0.135 0.133 0.138 0.130 0.157 0.147 0.130  0.134    8.95
 85)  butyl acetate
          0.158 0.155 0.196 0.185 0.181 0.198 0.181 0.175 0.201        0.181    9.04
 86)  dibromochloromethane
          0.275 0.255 0.316 0.301 0.286 0.317 0.279 0.352 0.321        0.300    9.83
 87)  1,2-dibromoethane
          0.265 0.247 0.282 0.271 0.263 0.281 0.263 0.296 0.292        0.273    5.80
 88)  n-butyl ether
          1.307 1.173 1.465 1.417 1.356 1.465 1.283 1.539 1.536        1.393    8.86
 89)  chlorobenzene
          0.783 0.709 0.817 0.793 0.773 0.816 0.749 0.980 0.884        0.812    9.81
 90)  1,1,1,2-tetrachloroethane
          0.280 0.262 0.313 0.302 0.294 0.319 0.282 0.353 0.329 0.294  0.303    8.77
 91)  ethylbenzene
          1.303 1.170 1.393 1.360 1.312 1.393 1.282 1.615 1.517 1.489  1.383    9.37
 92)  m,p-xylene
          1.030 0.911 1.076 1.047 1.012 1.077 0.996 1.214 1.161 1.166  1.069    8.52
 93)  o-xylene
          0.506 0.458 0.539 0.522 0.504 0.544 0.494 0.641 0.577 0.542  0.533    9.41
 94)  styrene
          0.825 0.736 0.927 0.897 0.865 0.935 0.814 0.952 0.969        0.880    8.70
 95)  butyl acrylate
                      0.642 0.604 0.568 0.665 0.512       0.597        0.598    9.07
 96)  bromoform
          0.193 0.180 0.231 0.220 0.207 0.233 0.195 0.225 0.226 0.233  0.214    9.08
 97)  isopropylbenzene
          1.300 1.161 1.414 1.383 1.334 1.439 1.270 1.515 1.544 1.363  1.372    8.35
 98)  cis-1,4-dichloro-2-butene
                      0.130 0.122 0.113 0.133 0.103       0.119        0.120    9.28

 99) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
100)  4-bromofluorobenzene (s)
          0.872 0.871 0.830 0.839 0.841 0.823 0.851 0.872 0.853 0.877  0.853    2.26
101)  bromobenzene
          0.671 0.633 0.686 0.671 0.659 0.677 0.648 0.840 0.742        0.692    9.14
102)  1,1,2,2-tetrachloroethane
          0.645 0.604 0.620 0.602 0.601 0.610 0.598       0.664        0.618    3.87
103)  trans-1,4-dichloro-2-butene---The compound does not meet initial criteria.
          0.118 0.118 0.146 0.137 0.132 0.150 0.126       0.141        0.134    9.10
104)  1,2,3-trichloropropane
          0.150 0.156 0.161 0.154 0.155 0.159 0.160       0.177        0.159    5.14
105)  n-propylbenzene
          2.874 2.540 2.975 2.924 2.810 2.962 2.710 3.353 3.324 2.987  2.946    8.44
106)  2-chlorotoluene
          0.627 0.540 0.627 0.614 0.596 0.626 0.585 0.705 0.687 0.708  0.631    8.57
107)  4-chlorotoluene
          1.768 1.593 1.773 1.730 1.704 1.772 1.690 2.134 1.954        1.791    8.97
108)  4-ethyltoluene
                                                                       0.000   -1.00
109)  1,3,5-trimethylbenzene
          1.979 1.805 2.120 2.079 2.008 2.137 1.946 2.428 2.340 2.192  2.103    8.83
110)  tert-butylbenzene
          1.800 1.570 1.845 1.809 1.741 1.882 1.671 2.126 2.022 1.775  1.824    8.81
111)  1,2,4-trimethylbenzene
          2.057 1.826 2.169 2.128 2.062 2.186 1.974 2.282 2.380 2.283  2.135    7.65
112)  sec-butylbenzene
          2.551 2.356 2.834 2.789 2.667 2.841 2.489 3.017 3.094 2.609  2.725    8.56
113)  1,3-dichlorobenzene
```

Initial Calibration Summary

Job Number: JC62879 **Sample:** V2D7334-ICC7334
Account: BBLNYS Arcadis **Lab FileID:** 2D174263.D
Project: National Grid, Philly Coke, Philadelphia PA

```
           1.238 1.130 1.295 1.260 1.231 1.292 1.197 1.537 1.401        1.287    9.29
114)  p-isopropyltoluene
           2.119 1.957 2.440 2.401 2.282 2.457 2.103 2.594 2.633 2.032  2.302   10.37
115)  1,4-dichlorobenzene
           1.317 1.173 1.314 1.270 1.244 1.327 1.210       1.376        1.279    5.25
116)  1,2-dichlorobenzene
           1.240 1.163 1.311 1.260 1.248 1.299 1.197 1.533 1.386        1.293    8.58
117)  benzyl chloride
           1.101 1.037 1.267 1.197 1.158 1.272 1.091       1.225        1.168    7.40
118)  1,4-diethylbenzene
                                                                        0.000   -1.00
119)  n-butylbenzene
           0.984 0.967 1.285 1.251 1.155 1.296 1.033 1.216 1.316 1.061  1.156   11.68
120)  1,2,4,5-tetramethylbenzene
                                                                        0.000   -1.00
121)  1,2-dibromo-3-chloropropane
                0.113 0.154 0.142 0.135 0.150 0.123       0.144        0.137   10.71
122)  nitrobenzene
                                                                        0.000   -1.00
123)  1,3,5-trichlorobenzene
           0.958 0.958 1.289 1.224 1.142 1.198 1.021       1.263        1.132   11.93
124)  hexachlorobutadiene
           0.525 0.497 0.624 0.606 0.567 0.565 0.506 0.629 0.638 0.637  0.579    9.52
125)  naphthalene
                      2.042 1.873 1.699 1.926 1.371       1.750        1.777   13.17
126)  2-ethylhexyl acrylate---The compound does not meet initial criteria.
                      0.539 0.378 0.226 0.598             0.204        0.389   45.77
            ---- Linear regression ----  Coefficient =  0.9960
              Response Ratio = -0.03299 + 0.63204 *A

127)  1,2,4-trichlorobenzene
           0.662 0.692 1.095 1.008 0.916 1.019 0.772 0.889 0.960        0.890   17.01
128)  1,2,3-trichlorobenzene
           0.611 0.639 0.957 0.894 0.811 0.897 0.687 0.833 0.847        0.797   15.41
129)  hexachloroethane
           0.415 0.389 0.475 0.457 0.416 0.486 0.396 0.465 0.483 0.399  0.438    8.86
130)  2-methylnaphthalene
                      0.934 0.770 0.575 0.980             0.509        0.754   27.82
            ---- Linear regression ----  Coefficient =  0.9960
              Response Ratio = -0.06414 + 0.99094 *A

 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M2D7334.M         Fri Mar 23 15:40:53 2018   GCMS2D
```

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7334-ICV7334
Lab FileID: 2D174268.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2D7334\2D174268.D Vial: 14
Acq On : 17 Mar 2018 4:53 pm Operator: OyinadeI
Sample : ICV7334-100 Inst : MS2D
Misc : MS24683,V2D7334,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7334.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri Mar 23 15:35:13 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	103	0.00	7.39
2		tertiary butyl alcohol	0.995	1.061	-6.6	105	0.00	7.52
3		ethanol	0.123	0.114	7.3	99	-0.01	6.01
4		1,4-dioxane	0.097	0.102	-5.2	100	0.00	12.19
5	I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.11
6		chlorodifluoromethane	0.599	0.547	8.7	93	0.00	3.90
7		dichlorodifluoromethane	0.507	0.602	-18.7	116	0.00	3.88
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane	0.669	0.695	-3.9	105	0.00	4.28
11		vinyl chloride	0.591	0.609	-3.0	99	0.00	4.51
12		bromomethane	0.381	0.367	3.7	101	0.01	5.17
13		chloroethane	0.306	0.324	-5.9	104	0.00	5.31
14		trichlorofluoromethane	0.631	0.649	-2.9	101	0.00	5.81
15		Vinyl Bromide	0.342	0.383	-12.0	106	0.00	5.68
16		1,3-butadiene		----------NA----------				
17		ethyl ether	0.199	0.207	-4.0	105	0.00	6.21
18		acrolein	0.078	0.071	9.0	96	0.00	6.45
19		1,1-dichloroethene	0.346	0.353	-2.0	103	0.00	6.64
20		freon 113	0.296	0.360	-21.6	118	0.00	6.65
21	m	2-chloropropane	0.781	0.846	-8.3	116	0.00	6.40
22		acetone	0.066	0.061	7.6	96	0.00	6.69
23		acetonitrile	0.058	0.032	44.8#	58	0.00	7.15
24		iodomethane	0.698	0.716	-2.6	105	0.00	6.93
25		carbon disulfide	1.265	1.326	-4.8	107	0.00	7.05
26		methylene chloride	0.400	0.411	-2.7	106	0.00	7.41
27		methyl acetate	0.305	0.309	-1.3	105	0.00	7.21
28		methyl tert butyl ether	1.127	1.175	-4.3	108	0.00	7.83
29		trans-1,2-dichloroethene	0.369	0.368	0.3	103	0.00	7.85
30		hexane	0.555	0.511	7.9	90	0.00	8.25
31		di-isopropyl ether	1.527	1.578	-3.3	107	0.00	8.56
32		2-butanone	0.050	0.049	2.0	96	0.00	9.39
33		1,1-dichloroethane	0.749	0.745	0.5	105	0.00	8.51
34		chloroprene	0.599	0.664	-10.9	112	0.00	8.65
35		acrylonitrile	0.146	0.166	-13.7	112	0.00	7.79
36		vinyl acetate	0.053	0.054	-1.9	100	0.00	8.53
37		ethyl tert-butyl ether	1.372	1.395	-1.7	106	0.00	9.12
38		ethyl acetate	0.053	0.055	-3.8	109	0.00	9.43
39		2,2-dichloropropane	0.584	0.563	3.6	100	0.00	9.43
40		cis-1,2-dichloroethene	0.419	0.425	-1.4	106	0.00	9.40
41		propionitrile	0.058	0.059	-1.7	102	0.00	9.49

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7334-ICV7334
Lab FileID: 2D174268.D

42		tert-Butyl Formate	0.316	0.217	31.3#	69	0.00	9.95
43		bromochloromethane	0.198	0.209	-5.6	106	0.00	9.77
44		tetrahydrofuran	0.045	0.045	0.0	102	0.00	9.85
45		chloroform	0.669	0.686	-2.5	106	0.00	9.86
46	S	dibromofluoromethane (s)	0.425	0.425	0.0	104	0.00	10.11
47		methacrylonitrile	0.143	0.147	-2.8	101	0.00	9.73
48		1,1,1-trichloroethane	0.593	0.604	-1.9	103	0.00	10.20
49		cyclohexane	0.557	0.510	8.4	92	0.00	10.30
50		1,1-dichloropropene	0.518	0.540	-4.2	106	0.00	10.42
51		isobutyl alcohol	0.018	0.018	0.0	107	0.00	10.45
52		carbon tetrachloride	0.535	0.552	-3.2	105	0.00	10.45
53		tert-amyl alcohol	0.017	0.019	-11.8	106	0.00	10.62
54	I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	11.26
55	S	1,2-dichloroethane-d4 (s)	0.358	0.349	2.5	102	0.00	10.64
56		benzene	1.124	1.133	-0.8	105	0.00	10.75
57		iso-octane	1.255	1.365	-8.8	108	0.00	10.83
58		tert-amyl methyl ether	0.898	0.913	-1.7	106	0.00	10.85
59		heptane	0.224	0.277	-23.7	121	0.00	11.05
60		isopropyl acetate	0.048	0.050	-4.2	104	0.00	10.72
61		1,2-dichloroethane	0.393	0.390	0.8	104	0.00	10.76
62		n-butyl alcohol	0.007	0.008	-14.3	103	0.00	11.43
63		ethyl acrylate	0.318	0.353	-11.0	106	0.00	11.75
64		trichloroethene	0.281	0.297	-5.7	107	0.00	11.69
65		2-nitropropane	0.070	0.069	1.4	101	0.00	12.73
66		2-chloroethyl vinyl ether	0.152	0.167	-9.9	106	0.00	12.79
67		methyl methacrylate	0.063	0.065	-3.2	102	0.00	12.10
68		1,2-dichloropropane	0.312	0.311	0.3	103	0.00	12.03
69		dibromomethane	0.170	0.177	-4.1	106	0.00	12.22
70		methylcyclohexane	0.521	0.534	-2.5	101	0.00	12.01
71		bromodichloromethane	0.386	0.387	-0.3	102	0.00	12.41
72		epichlorohydrin	0.026	0.027	-3.8	102	0.00	12.91
73		cis-1,3-dichloropropene	0.485	0.497	-2.5	104	0.00	13.05
74		4-methyl-2-pentanone	0.108	0.111	-2.8	105	0.00	13.23
75		3-methyl-1-butanol	0.012	0.013	-8.3	104	0.00	13.25
76	I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	15.47
77	S	toluene-d8 (s)	1.188	1.180	0.7	103	0.00	13.46
78		toluene	0.698	0.719	-3.0	106	0.00	13.55
79		trans-1,3-dichloropropene	0.442	0.435	1.6	98	0.00	13.82
80		ethyl methacrylate	0.351	0.367	-4.6	98	0.00	13.88
81		1,1,2-trichloroethane	0.220	0.222	-0.9	104	0.00	14.10
82		tetrachloroethene	0.254	0.417	-64.2#	168	0.00	14.34
83		1,3-dichloropropane	0.443	0.454	-2.5	106	0.00	14.35
84		2-hexanone	0.134	0.128	4.5	95	0.00	14.39
85		butyl acetate	0.181	0.204	-12.7	108	0.00	14.52
86		dibromochloromethane	0.300	0.326	-8.7	107	0.00	14.68
87		1,2-dibromoethane	0.273	0.286	-4.8	105	0.00	14.87
88	m	n-butyl ether	1.393	1.456	-4.5	103	0.00	15.52
89		chlorobenzene	0.812	0.826	-1.7	104	0.00	15.52
90		1,1,1,2-tetrachloroethane	0.303	0.322	-6.3	107	0.00	15.60
91		ethylbenzene	1.383	1.418	-2.5	105	0.00	15.63
92		m,p-xylene	1.069	1.092	-2.2	105	0.00	15.77
93		o-xylene	0.533	0.548	-2.8	105	0.00	16.32
94		styrene	0.880	0.943	-7.2	105	0.00	16.32
95		butyl acrylate	0.598	0.653	-9.2	105	0.00	16.15
96		bromoform	0.214	0.243	-13.6	109	0.00	16.61
97		isopropylbenzene	1.372	1.442	-5.1	105	0.00	16.76
98		cis-1,4-dichloro-2-butene	0.120	0.124	-3.3	98	0.00	16.83

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7334-ICV7334
Lab FileID: 2D174268.D

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	18.27
100	S	4-bromofluorobenzene (s)	0.853	0.835	2.1	103	0.00	16.98
101		bromobenzene	0.692	0.704	-1.7	105	0.00	17.19
102		1,1,2,2-tetrachloroethane	0.618	0.609	1.5	101	0.00	17.10
103		trans-1,4-dichloro-2-bute	0.134	0.183	-36.6#	128	0.00	17.17
104		1,2,3-trichloropropane	0.159	0.162	-1.9	104	0.00	17.18
105		n-propylbenzene	2.946	3.047	-3.4	105	0.00	17.26
106		2-chlorotoluene	0.631	0.629	0.3	103	0.00	17.39
107		4-chlorotoluene	1.791	1.846	-3.1	107	0.00	17.51
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.103	2.170	-3.2	105	0.00	17.43
110		tert-butylbenzene	1.824	1.908	-4.6	106	0.00	17.82
111		1,2,4-trimethylbenzene	2.135	2.277	-6.7	108	0.00	17.86
112		sec-butylbenzene	2.725	2.918	-7.1	106	0.00	18.05
113		1,3-dichlorobenzene	1.287	1.320	-2.6	105	0.00	18.21
114		p-isopropyltoluene	2.302	2.514	-9.2	106	0.00	18.18
115		1,4-dichlorobenzene	1.279	1.347	-5.3	105	0.00	18.29
116		1,2-dichlorobenzene	1.293	1.328	-2.7	104	0.00	18.68
117		benzyl chloride	1.168	0.987	15.5	80	0.00	18.42
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.156	1.323	-14.4	106	0.00	18.60
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.137	0.150	-9.5	100	0.00	19.41
122		nitrobenzene		----------NA----------				
123		1,3,5-trichlorobenzene	1.132	1.296	-14.5	103	0.00	19.59
124		hexachlorobutadiene	0.579	0.607	-4.8	100	0.00	20.29
125		naphthalene	1.777	2.035	-14.5	102	0.00	20.42
		----------	True	Calc.	% Drift	----------		
126		2-ethylhexyl acrylate	20.000	20.324	-1.6	107	0.00	20.18
		----------	AvgRF	CCRF	% Dev	----------		
127		1,2,4-trichlorobenzene	0.890	1.078	-21.1	101	0.00	20.17
128	m	1,2,3-trichlorobenzene	0.797	0.933	-17.1	100	0.00	20.64
129		hexachloroethane	0.438	0.492	-12.3	106	0.00	18.94
		----------	True	Calc.	% Drift	----------		
130		2-methylnaphthalene	50.000	48.434	3.1	98	0.00	21.48

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D174264.D M2D7334.M Fri Mar 23 15:37:05 2018 GCMS2D

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7334-ICV7334
Lab FileID: 2D174269.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2D7334\2D174269.D Vial: 15
Acq On : 17 Mar 2018 5:23 pm Operator: OyinadeI
Sample : ICV7334-100 Inst : MS2D
Misc : MS24683,V2D7334,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7334.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri Mar 23 15:38:53 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	102	0.00	7.39
2		tertiary butyl alcohol		----------NA----------				
3		ethanol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.10
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane		----------NA----------				
11		vinyl chloride		----------NA----------				
12		bromomethane		----------NA----------				
13		chloroethane		----------NA----------				
14		trichlorofluoromethane		----------NA----------				
15		Vinyl Bromide		----------NA----------				
16		1,3-butadiene		----------NA----------				
17		ethyl ether		----------NA----------				
18		acrolein		----------NA----------				
19		1,1-dichloroethene		----------NA----------				
20		freon 113		----------NA----------				
21	m	2-chloropropane		----------NA----------				
22		acetone		----------NA----------				
23		acetonitrile	0.058	0.059	-1.7	106	0.00	7.15
24		iodomethane		----------NA----------				
25		carbon disulfide		----------NA----------				
26		methylene chloride		----------NA----------				
27		methyl acetate		----------NA----------				
28		methyl tert butyl ether		----------NA----------				
29		trans-1,2-dichloroethene		----------NA----------				
30		hexane		----------NA----------				
31		di-isopropyl ether		----------NA----------				
32		2-butanone		----------NA----------				
33		1,1-dichloroethane		----------NA----------				
34		chloroprene		----------NA----------				
35		acrylonitrile		----------NA----------				
36		vinyl acetate		----------NA----------				
37		ethyl tert-butyl ether		----------NA----------				
38		ethyl acetate		----------NA----------				
39		2,2-dichloropropane		----------NA----------				
40		cis-1,2-dichloroethene		----------NA----------				
41		propionitrile		----------NA----------				

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7334-ICV7334
Lab FileID: 2D174269.D

42		tert-Butyl Formate		----------NA----------					
43		bromochloromethane		----------NA----------					
44		tetrahydrofuran		----------NA----------					
45		chloroform		----------NA----------					
46	S	dibromofluoromethane (s)	0.425	0.419	1.4	102	0.00	10.10	
47		methacrylonitrile		----------NA----------					
48		1,1,1-trichloroethane		----------NA----------					
49		cyclohexane		----------NA----------					
50		1,1-dichloropropene		----------NA----------					
51		isobutyl alcohol		----------NA----------					
52		carbon tetrachloride		----------NA----------					
53		tert-amyl alcohol		----------NA----------					
54	I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	11.25	
55	S	1,2-dichloroethane-d4 (s)	0.358	0.350	2.2	103	0.00	10.64	
56		benzene		----------NA----------					
57		iso-octane		----------NA----------					
58		tert-amyl methyl ether		----------NA----------					
59		heptane		----------NA----------					
60		isopropyl acetate		----------NA----------					
61		1,2-dichloroethane		----------NA----------					
62		n-butyl alcohol		----------NA----------					
63		ethyl acrylate		----------NA----------					
64		trichloroethene		----------NA----------					
65		2-nitropropane		----------NA----------					
66		2-chloroethyl vinyl ether		----------NA----------					
67		methyl methacrylate		----------NA----------					
68		1,2-dichloropropane		----------NA----------					
69		dibromomethane		----------NA----------					
70		methylcyclohexane		----------NA----------					
71		bromodichloromethane		----------NA----------					
72		epichlorohydrin		----------NA----------					
73		cis-1,3-dichloropropene		----------NA----------					
74		4-methyl-2-pentanone		----------NA----------					
75		3-methyl-1-butanol		----------NA----------					
76	I	chlorobenzene-d5	1.000	1.000	0.0	104	0.00	15.47	
77	S	toluene-d8 (s)	1.188	1.201	-1.1	106	0.00	13.46	
78		toluene		----------NA----------					
79		trans-1,3-dichloropropene		----------NA----------					
80		ethyl methacrylate		----------NA----------					
81		1,1,2-trichloroethane		----------NA----------					
82		tetrachloroethene	0.254	0.251	1.2	102	0.00	14.34	
83		1,3-dichloropropane		----------NA----------					
84		2-hexanone		----------NA----------					
85		butyl acetate		----------NA----------					
86		dibromochloromethane		----------NA----------					
87		1,2-dibromoethane		----------NA----------					
88	m	n-butyl ether		----------NA----------					
89		chlorobenzene		----------NA----------					
90		1,1,1,2-tetrachloroethane		----------NA----------					
91		ethylbenzene		----------NA----------					
92		m,p-xylene		----------NA----------					
93		o-xylene		----------NA----------					
94		styrene		----------NA----------					
95		butyl acrylate		----------NA----------					
96		bromoform		----------NA----------					
97		isopropylbenzene		----------NA----------					
98		cis-1,4-dichloro-2-butene		----------NA----------					

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7334-ICV7334
Lab FileID: 2D174269.D

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	18.27
100	S	4-bromofluorobenzene (s)	0.853	0.866	-1.5	103	0.00	16.98
101		bromobenzene	----------NA----------					
102		1,1,2,2-tetrachloroethane	----------NA----------					
103		trans-1,4-dichloro-2-bute	----------NA----------					
104		1,2,3-trichloropropane	----------NA----------					
105		n-propylbenzene	----------NA----------					
106		2-chlorotoluene	----------NA----------					
107		4-chlorotoluene	----------NA----------					
108		4-ethyltoluene	----------NA----------					
109		1,3,5-trimethylbenzene	----------NA----------					
110		tert-butylbenzene	----------NA----------					
111		1,2,4-trimethylbenzene	----------NA----------					
112		sec-butylbenzene	----------NA----------					
113		1,3-dichlorobenzene	----------NA----------					
114		p-isopropyltoluene	----------NA----------					
115		1,4-dichlorobenzene	----------NA----------					
116		1,2-dichlorobenzene	----------NA----------					
117		benzyl chloride	----------NA----------					
118		1,4-diethylbenzene	----------NA----------					
119		n-butylbenzene	----------NA----------					
120		1,2,4,5-tetramethylbenzen	----------NA----------					
121		1,2-dibromo-3-chloropropa	----------NA----------					
122		nitrobenzene	----------NA----------					
123		1,3,5-trichlorobenzene	----------NA----------					
124		hexachlorobutadiene	----------NA----------					
125		naphthalene	----------NA----------					
		---------- True	Calc.	% Drift ----------				
126		2-ethylhexyl acrylate	----------NA----------					
		---------- AvgRF	CCRF	% Dev ----------				
127		1,2,4-trichlorobenzene	----------NA----------					
128	m	1,2,3-trichlorobenzene	----------NA----------					
129		hexachloroethane	----------NA----------					
		---------- True	Calc.	% Drift ----------				
130		2-methylnaphthalene	----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D174264.D M2D7334.M Fri Mar 23 15:40:01 2018 GCMS2D

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7344-CC7334
Lab FileID: 2D174427.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\v2d7344\2d174427.d Vial: 2
Acq On : 27 Mar 2018 7:47 am Operator: JessicaP
Sample : cc7334-20 Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7334.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri Mar 23 15:40:29 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	96	-0.05	7.35
2		tertiary butyl alcohol	0.995	1.041	-4.6	100	-0.05	7.48
3		ethanol	0.123	0.139	-13.0	114	-0.04	5.98
4		1,4-dioxane	0.097	0.101	-4.1	102	-0.05	12.14
5	I	pentafluorobenzene	1.000	1.000	0.0	90	-0.05	10.06
6		chlorodifluoromethane	0.599	0.666	-11.2	106	-0.03	3.87
7		dichlorodifluoromethane	0.507	0.682	-34.5#	119	-0.02	3.85
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane	0.669	0.785	-17.3	108	-0.04	4.24
11		vinyl chloride	0.591	0.684	-15.7	102	-0.04	4.47
12		bromomethane	0.381	0.419	-10.0	102	-0.04	5.12
13		chloroethane	0.306	0.376	-22.9#	107	-0.04	5.27
14		trichlorofluoromethane	0.631	0.743	-17.7	104	-0.04	5.76
15		Vinyl Bromide	0.342	0.490	-43.3#	123	-0.05	5.63
16		1,3-butadiene		----------NA----------				
17		ethyl ether	0.199	0.196	1.6	90	-0.05	6.17
18		acrolein	0.078	0.090	-15.4	104	-0.05	6.40
19		1,1-dichloroethene	0.346	0.364	-5.2	98	-0.05	6.59
20		freon 113	0.296	0.335	-13.2	105	-0.05	6.60
21	m	2-chloropropane	0.781	0.884	-13.2	110	-0.05	6.35
22		acetone	0.066	0.035	47.0#	48#	-0.05	6.65
23		acetonitrile	0.058	0.068	-17.2	108	-0.04	7.12
24		iodomethane	0.698	1.323	-4.6	99	-0.05	6.87
25		carbon disulfide	1.265	1.323	-4.6	99	-0.05	7.00
26		methylene chloride	0.400	0.430	-7.5	99	-0.05	7.37
27		methyl acetate	0.305	0.350	-14.8	107	-0.05	7.17
28		methyl tert butyl ether	1.127	1.196	-6.1	99	-0.05	7.78
29		trans-1,2-dichloroethene	0.369	0.388	-5.1	100	-0.05	7.80
30		hexane	0.555	0.621	-11.9	105	-0.05	8.20
31		di-isopropyl ether	1.527	1.733	-13.5	106	-0.05	8.51
32		2-butanone	0.050	0.039	22.0#	67	-0.05	9.33
33		1,1-dichloroethane	0.749	0.811	-8.3	104	-0.05	8.46
34		chloroprene	0.599	0.672	-12.2	106	-0.05	8.60
35		acrylonitrile	0.146	0.163	-11.6	103	-0.04	7.74
36		vinyl acetate	0.053	0.063	-18.9	106	-0.05	8.48
37		ethyl tert-butyl ether	1.372	1.491	-8.7	103	-0.05	9.07
38		ethyl acetate		----------NA----------				
39		2,2-dichloropropane	0.584	0.699	-19.7	113	-0.06	9.37
40		cis-1,2-dichloroethene	0.419	0.433	-3.3	99	-0.05	9.35
41		propionitrile	0.058	0.091	-57.7#	143	-0.05	9.44

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7344-CC7334
Lab FileID: 2D174427.D

42		tert-Butyl Formate	0.316	0.415	-31.3#	119	-0.05	9.90
43		bromochloromethane	0.198	0.213	-7.6	98	-0.05	9.73
44		tetrahydrofuran	0.045	0.050	-11.1	106	-0.05	9.80
45		chloroform	0.669	0.750	-12.1	104	-0.06	9.81
46	S	dibromofluoromethane (s)	0.425	0.440	-3.5	92	-0.05	10.06
47		methacrylonitrile	0.143	0.107	25.2#	67	-0.04	9.68
48		1,1,1-trichloroethane	0.593	0.682	-15.0	107	-0.06	10.14
49		cyclohexane	0.557	0.613	-10.1	105	-0.05	10.25
50		1,1-dichloropropene	0.518	0.570	-10.0	104	-0.05	10.37
51		isobutyl alcohol	0.018	0.020	-11.1	104	-0.05	10.40
52		carbon tetrachloride	0.535	0.609	-13.8	106	-0.05	10.40
53		tert-amyl alcohol	0.017	0.019	-11.8	102	-0.06	10.57
54	I	1,4-difluorobenzene	1.000	1.000	0.0	92	-0.05	11.21
55	S	1,2-dichloroethane-d4 (s)	0.358	0.383	-7.0	99	-0.05	10.59
56		benzene	1.124	1.170	-4.1	102	-0.05	10.70
57		iso-octane	1.255	1.416	-12.8	107	-0.05	10.78
58		tert-amyl methyl ether	0.898	0.948	-5.6	101	-0.05	10.80
59		heptane	0.224	0.257	-14.7	107	-0.05	11.00
60		isopropyl acetate	0.048	0.051	-6.2	96	-0.05	10.67
61		1,2-dichloroethane	0.393	0.442	-12.5	108	-0.05	10.71
62		n-butyl alcohol	0.007	0.008	-14.3	104	-0.05	11.38
63		ethyl acrylate	0.318	0.357	-12.3	102	-0.04	11.70
64		trichloroethene	0.281	0.296	-5.3	103	-0.05	11.64
65		2-nitropropane	0.070	0.079	-12.3	110	-0.04	12.68
66		2-chloroethyl vinyl ether	0.152	0.182	-19.7	111	-0.05	12.74
67		methyl methacrylate	0.063	0.063	0.2	91	-0.05	12.05
68		1,2-dichloropropane	0.312	0.336	-7.7	104	-0.05	11.98
69		dibromomethane	0.170	0.187	-10.0	103	-0.05	12.17
70		methylcyclohexane	0.521	0.558	-7.1	102	-0.05	11.96
71		bromodichloromethane	0.386	0.421	-9.1	105	-0.05	12.36
72		epichlorohydrin	0.026	0.029	-11.5	104	-0.04	12.87
73		cis-1,3-dichloropropene	0.485	0.518	-6.8	102	-0.05	13.00
74		4-methyl-2-pentanone	0.108	0.115	-6.5	101	-0.05	13.18
75		3-methyl-1-butanol	0.012	0.013	-8.3	104	-0.04	13.21
76	I	chlorobenzene-d5	1.000	1.000	0.0	93	-0.04	15.43
77	S	toluene-d8 (s)	1.188	1.153	2.9	90	-0.05	13.41
78		toluene	0.698	0.708	-1.4	101	-0.05	13.51
79		trans-1,3-dichloropropene	0.442	0.467	-5.7	104	-0.04	13.77
80		ethyl methacrylate	0.351	0.363	-3.4	96	-0.04	13.84
81		1,1,2-trichloroethane	0.220	0.233	-5.9	103	-0.04	14.05
82		tetrachloroethene	0.254	0.260	-2.4	101	-0.04	14.29
83		1,3-dichloropropane	0.443	0.460	-3.8	101	-0.05	14.30
84		2-hexanone	0.134	0.108	19.4	75	-0.04	14.35
85		butyl acetate	0.181	0.200	-10.5	103	-0.04	14.48
86		dibromochloromethane	0.300	0.316	-5.3	102	-0.05	14.63
87		1,2-dibromoethane	0.273	0.290	-6.2	102	-0.04	14.83
88	m	n-butyl ether	1.393	1.552	-11.4	106	-0.04	15.48
89		chlorobenzene	0.812	0.852	-4.9	102	-0.04	15.47
90		1,1,1,2-tetrachloroethane	0.303	0.320	-5.6	101	-0.04	15.56
91		ethylbenzene	1.383	1.474	-6.6	104	-0.04	15.58
92		m,p-xylene	1.069	1.135	-6.2	104	-0.04	15.73
93		o-xylene	0.533	0.551	-3.4	101	-0.04	16.27
94		styrene	0.880	0.934	-6.1	100	-0.04	16.28
95		butyl acrylate	0.598	0.639	-6.9	104	-0.04	16.11
96		bromoform	0.214	0.219	-2.3	98	-0.04	16.57
97		isopropylbenzene	1.372	1.482	-8.0	103	-0.04	16.73
98		cis-1,4-dichloro-2-butene	0.120	0.113	5.8	92	-0.04	16.79

Continuing Calibration Summary

Job Number: JC62879 **Sample:** V2D7344-CC7334
Account: BBLNYS Arcadis **Lab FileID:** 2D174427.D
Project: National Grid, Philly Coke, Philadelphia PA

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	94	-0.04	18.23
100	S	4-bromofluorobenzene (s)	0.853	0.831	2.6	92	-0.04	16.94
101		bromobenzene	0.692	0.709	-2.5	101	-0.04	17.15
102		1,1,2,2-tetrachloroethane	0.618	0.691	-11.8	108	-0.04	17.07
103		trans-1,4-dichloro-2-bute	0.134	0.137	-2.4	97	-0.04	17.13
104		1,2,3-trichloropropane	0.159	0.174	-9.4	105	-0.04	17.15
105		n-propylbenzene	2.946	3.177	-7.8	106	-0.04	17.21
106		2-chlorotoluene	0.631	0.661	-4.8	104	-0.04	17.36
107		4-chlorotoluene	1.791	1.897	-5.9	104	-0.04	17.47
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.103	2.241	-6.6	105	-0.04	17.40
110		tert-butylbenzene	1.824	1.922	-5.4	103	-0.04	17.78
111		1,2,4-trimethylbenzene	2.135	2.293	-7.4	104	-0.04	17.83
112		sec-butylbenzene	2.725	2.983	-9.5	105	-0.04	18.01
113		1,3-dichlorobenzene	1.287	1.360	-5.7	104	-0.03	18.17
114		p-isopropyltoluene	2.302	2.549	-10.7	105	-0.04	18.15
115		1,4-dichlorobenzene	1.279	1.359	-6.3	102	-0.04	18.26
116		1,2-dichlorobenzene	1.293	1.369	-5.9	103	-0.04	18.65
117		benzyl chloride	1.168	1.349	-15.5	109	-0.03	18.38
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.156	1.336	-15.6	108	-0.04	18.56
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.137	0.155	-13.1	107	-0.04	19.37
122		nitrobenzene		----------NA----------				
123		1,3,5-trichlorobenzene	1.132	1.291	-14.0	106	-0.04	19.56
124		hexachlorobutadiene	0.579	0.639	-10.4	105	-0.04	20.25
125		naphthalene	1.777	2.087	-17.4	115	-0.04	20.39
		----------	True	Calc.	% Drift		----------	
126		2-ethylhexyl acrylate	4.000	5.427	-35.7#	184	-0.03	20.15
		----------	AvgRF	CCRF	% Dev		----------	
127		1,2,4-trichlorobenzene	0.890	1.076	-20.9#	110	-0.04	20.13
128	m	1,2,3-trichlorobenzene	0.797	0.992	-24.5#	114	-0.04	20.61
129		hexachloroethane	0.438	0.470	-7.3	106	-0.03	18.91
		----------	True	Calc.	% Drift		----------	
130		2-methylnaphthalene	10.000	11.946	-19.5	141	-0.04	21.45

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D174262.D M2D7334.M Fri Mar 30 11:04:42 2018

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2E6202-ICC6202
Lab FileID: 2E141869.D

Response Factor Report VOAMS2E

Method : C:\MSDCHEM\1\METHODS\M2E6202.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
Last Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Calibration Files
5 =2E141866.D 2 =2E141865.D 0.5 =2E141863.D 50 =2E141869.D
100 =2E141870.D 1 =2E141864.D 200 =2E141871.D 20 =2E141868.D
10 =2E141867.D 0.2 =2E141862.D = =

Compound	5	2	0.5	50	100	1	200	20	10	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9	----------ISTD----------											
2) ethanol	0.119	0.122	0.114	0.105	0.132	0.102	0.113	0.115			0.115	8.24
3) tertiary butyl alcohol	1.366	1.383	1.341	1.338	1.311	1.275	1.328	1.319	1.360		1.336	2.43
4) 1,4-dioxane	0.107	0.098	0.090	0.104	0.095	0.111	0.097	0.103	0.105		0.101	6.57
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane	0.661	0.653	0.639	0.706	0.677	0.652	0.708	0.686	0.669		0.672	3.60
7) dichlorodifluoromethane	0.711	0.691	0.659	0.723	0.701	0.698	0.715	0.704	0.710	0.547	0.686	7.58
8) freon 114											0.000#	-1.00
9) freon 142b	0.680	0.652	0.703	0.742	0.694	0.681	0.758	0.702	0.702	0.730	0.705	4.47
10) chloromethane	0.879	0.879	1.162	0.946	0.916	1.012	0.958	0.900	0.908		0.951	9.44
11) vinyl chloride	0.877	0.847	0.909	0.950	0.911	0.922	0.955	0.900	0.913	0.966	0.915	3.95
12) bromomethane	0.544	0.548	0.679	0.554	0.527	0.631	0.517	0.531	0.557		0.565	9.54
13) chloroethane	0.524	0.545	0.597	0.550	0.523	0.588	0.533	0.532	0.546	0.657	0.560	7.59
14) trichlorofluoromethane	0.755	0.743	0.747	0.799	0.761	0.803	0.789	0.768	0.778		0.771	2.87
15) 1,3-butadiene	0.777	0.750	0.911	0.842	0.787	0.812	0.856	0.804	0.804	0.861	0.820	5.79
16) vinyl bromide	0.621	0.602	0.685	0.648	0.614	0.693	0.633	0.622	0.635	0.787	0.654	8.46
17) ethyl ether	0.356	0.365	0.404	0.357	0.343	0.393	0.359	0.341	0.354		0.363	5.82
18) 2-chloropropane	0.944	0.919	0.908	1.001	0.952	1.062	1.044	0.978	0.967		0.975	5.40
19) acrolein	0.159		0.133	0.122		0.129	0.130	0.143			0.136	9.67
20) freon 113	0.365	0.330	0.321	0.361	0.342	0.340	0.366	0.358	0.350	0.299	0.343	6.29
21) 1,1-dichloroethene	0.785	0.737	0.777	0.829	0.785	0.785	0.865	0.808	0.803	0.810	0.798	4.25
22) acetone	0.065	0.077	0.060	0.056	0.077	0.058	0.061	0.059			0.064	13.18
23) acetonitrile												

Initial Calibration Summary

Job Number: JC62879 **Sample:** V2E6202-ICC6202
Account: BBLNYS Arcadis **Lab FileID:** 2E141869.D
Project: National Grid, Philly Coke, Philadelphia PA

	0.077	0.081	0.087	0.078	0.072	0.094	0.075	0.076	0.077		0.080	8.36
24)	iodomethane											
	0.840	0.789	0.804	0.843	0.808	0.836	0.853	0.831	0.820	0.827	0.825	2.40
25)	carbon disulfide											
	1.697	1.622	1.768	1.749	1.656	1.769	1.788	1.735	1.718	2.343	1.784	11.38
26)	methylene chloride											
	0.590	0.592	0.603	0.599	0.572	0.611	0.612	0.592	0.588	0.642	0.600	3.16
27)	methyl acetate											
	0.423	0.426	0.451	0.440	0.412	0.454	0.431	0.414	0.419		0.430	3.58
28)	methyl tert butyl ether											
	1.572	1.577	1.557	1.712	1.641	1.664	1.731	1.629	1.632	1.648	1.636	3.50
29)	trans-1,2-dichloroethene											
	0.784	0.753	0.768	0.821	0.791	0.810	0.862	0.794	0.809	0.792	0.799	3.76
30)	hexane											
	0.413	0.403	0.370	0.420	0.399	0.376	0.438	0.412	0.402	0.455	0.409	6.26
31)	di-isopropyl ether											
	2.055	2.037	1.952	2.241	2.163	2.114	2.335	2.122	2.107	1.982	2.111	5.48
32)	ethyl tert-butyl ether											
	1.893	1.850	1.783	2.050	1.982	1.812	2.122	1.949	1.907	1.725	1.907	6.42
33)	2-butanone											
	0.061	0.059	0.045	0.065	0.062	0.059	0.064	0.063	0.062		0.060	9.73
34)	1,1-dichloroethane											
	1.009	1.030	0.978	1.060	1.023	1.039	1.100	1.036	1.046	1.075	1.040	3.27
35)	chloroprene											
	0.802	0.769	0.796	0.864	0.832	0.818	0.921	0.831	0.814	0.752	0.820	5.84
36)	acrylonitrile											
	0.230	0.225	0.231	0.236	0.224	0.246	0.238	0.228	0.229		0.232	2.98
37)	vinyl acetate											
	0.116	0.097		0.120	0.111	0.105	0.122	0.112	0.112		0.112	7.20
38)	ethyl acetate											
	0.092	0.074		0.086	0.082	0.098	0.088	0.082	0.094		0.087	8.63
39)	2,2-dichloropropane											
	0.789	0.787	0.954	0.817	0.772	0.876	0.830	0.791	0.807		0.825	6.98
40)	cis-1,2-dichloroethene											
	0.607	0.605	0.651	0.616	0.595	0.614	0.633	0.606	0.612	0.555	0.609	4.08
41)	propionitrile											
	0.089	0.088	0.071	0.092	0.086	0.086	0.089	0.089	0.089	0.074	0.085	8.31
42)	methyl acrylate											
	0.071	0.062		0.084	0.080		0.083	0.077	0.076		0.076	9.67
43)	bromochloromethane											
	0.280	0.281	0.287	0.282	0.272	0.264	0.286	0.275	0.274	0.236	0.274	5.45
44)	tetrahydrofuran											
	0.074	0.079	0.056	0.076	0.072	0.069	0.074	0.074	0.071		0.072	9.14
45)	chloroform											
	0.894	0.908	0.865	0.926	0.896	0.923	0.947	0.902	0.908	0.893	0.906	2.47
46)	t-butyl formate											
	0.443	0.452	0.426	0.505	0.477	0.469	0.527	0.457	0.460	0.436	0.465	6.70
47)	1,1-dichloropropene											
	0.720	0.714	0.716	0.766	0.737	0.719	0.807	0.744	0.746	0.685	0.735	4.57
48)	carbon tetrachloride											
	0.612	0.568	0.576	0.646	0.625	0.611	0.678	0.637	0.614	0.555	0.612	6.13
49)	isopropyl acetate											
	0.116	0.123	0.096	0.124	0.120	0.118	0.127	0.115	0.116		0.117	7.62
50)	dibromofluoromethane (s)											
	0.412	0.417	0.404	0.423	0.422	0.413	0.429	0.416	0.415	0.405	0.416	1.83
51)	methacrylonitrile											
	0.225	0.217	0.201	0.246	0.235	0.199	0.247	0.233	0.226		0.226	7.70
52)	1,1,1-trichloroethane											
	0.741	0.713	0.738	0.777	0.744	0.739	0.801	0.760	0.751	0.747	0.751	3.18
53)	Cyclohexane											

```
      0.891 0.818 0.837 0.917 0.865 0.850 0.951 0.899 0.887 0.774  0.869    5.93
54)  iso-butyl alcohol
      0.023 0.022       0.026 0.024       0.025 0.024 0.024        0.024    5.02
55)  Tert Amyl Alcohol
      0.031 0.035       0.030 0.027       0.027 0.029 0.030        0.030    9.79

56) I   1,4-difluorobenzene   ----------------ISTD--------------------
57)  1,2-dichloroethane-d4 (s)
      0.309 0.313 0.305 0.311 0.317 0.309 0.324 0.307 0.310 0.309  0.311    1.81
58)  2,2,4-trimethylpentane
      1.564 1.470 1.402 1.617 1.562 1.421 1.672 1.590 1.504 1.379  1.518    6.49
59)  n-butyl alcohol
      0.010 0.010 0.009 0.011 0.010 0.010 0.010 0.011 0.010        0.010    5.11
60)  benzene
      1.552 1.483 1.651 1.528 1.486 1.584 1.530 1.513 1.504 1.636  1.547    3.82
61)  tert-amyl methyl ether
      1.207 1.207 1.198 1.247 1.213 1.195 1.248 1.209 1.205 1.191  1.212    1.65
62)  heptane
      0.297 0.280 0.276 0.308 0.299 0.284 0.320 0.308 0.291 0.317  0.298    5.17
63)  1,2-dichloroethane
      0.463 0.482 0.558 0.458 0.446 0.518 0.459 0.453 0.449        0.476    7.97
64)  ethyl acrylate
      0.416 0.407 0.333 0.462 0.454 0.400 0.470 0.434 0.436        0.424    9.84
65)  trichloroethene
      0.350 0.336 0.313 0.354 0.348 0.343 0.361 0.353 0.345 0.342  0.344    3.77
66)  2-nitropropane
      0.122 0.128       0.119 0.115 0.126 0.121 0.112 0.113        0.120    5.06
67)  2-chloroethyl vinyl ether
      0.236 0.225 0.207 0.251 0.246 0.218 0.247 0.241 0.236 0.203  0.231    7.37
68)  methyl methacrylate
      0.086 0.087       0.096 0.095 0.072 0.097 0.097 0.092        0.090    9.53
69)  1,2-dichloropropane
      0.418 0.398 0.399 0.428 0.422 0.419 0.440 0.418 0.417 0.390  0.415    3.66
70)  methylcyclohexane
      0.680 0.628 0.650 0.702 0.675 0.617 0.725 0.706 0.660 0.537  0.658    8.29
71)  dibromomethane
      0.210 0.191 0.203 0.213 0.208 0.200 0.213 0.206 0.210 0.220  0.207    3.83
72)  bromodichloromethane
      0.455 0.441 0.441 0.478 0.469 0.443 0.488 0.455 0.453 0.427  0.455    4.08
73)  epichlorohydrin
      0.038 0.036 0.028 0.039 0.038 0.035 0.038 0.037 0.035        0.036    9.25
74)  cis-1,3-dichloropropene
      0.623 0.596 0.553 0.652 0.641 0.597 0.666 0.628 0.624 0.587  0.617    5.48
75)  4-methyl-2-pentanone
      0.140 0.131 0.118 0.147 0.142 0.132 0.142 0.142 0.136 0.113  0.134    8.25
76)  3-methyl-1-butanol
      0.011 0.010 0.007 0.011 0.010 0.010 0.009 0.011 0.010        0.010#  10.95

77) I   chlorobenzene-d5      ----------------ISTD--------------------
78)  toluene-d8 (s)
      1.268 1.282 1.257 1.276 1.284 1.278 1.282 1.286 1.276 1.258  1.275    0.82
79)  toluene
      1.007 0.970 0.969 1.032 1.004 1.017 1.039 1.027 1.022 1.069  1.016    2.99
80)  ethyl methacrylate
      0.526 0.506 0.450 0.582 0.572 0.491 0.584 0.554 0.548 0.468  0.528    9.06
81)  trans-1,3-dichloropropene
      0.617 0.562 0.502 0.637 0.626 0.556 0.642 0.616 0.607 0.584  0.595    7.41
82)  1,1,2-trichloroethane
      0.297 0.284 0.274 0.309 0.301 0.306 0.308 0.302 0.305 0.265  0.295    5.28
83)  tetrachloroethene
```

Initial Calibration Summary

Job Number: JC62879 **Sample:** V2E6202-ICC6202
Account: BBLNYS Arcadis **Lab FileID:** 2E141869.D
Project: National Grid, Philly Coke, Philadelphia PA

```
      0.313 0.292 0.315 0.315 0.305 0.295 0.320 0.320 0.315 0.344  0.313    4.69
 84)  2-hexanone
      0.153 0.136       0.163 0.157 0.137 0.155 0.158 0.153        0.151    6.43
 85)  1,3-dichloropropane
      0.632 0.625 0.581 0.653 0.635 0.620 0.646 0.641 0.647 0.617  0.630    3.33
 86)  butyl acetate
      0.291 0.267 0.241 0.296 0.284 0.269 0.290 0.288 0.289 0.286  0.280    5.92
 87)  3,3-dimethyl-1-butanol
                                                                   0.000#  -1.00
 88)  dibromochloromethane
      0.350 0.330 0.297 0.375 0.373 0.331 0.385 0.358 0.349 0.323  0.347    7.83
 89)  1,2-dibromoethane
      0.362 0.336 0.333 0.374 0.363 0.353 0.367 0.364 0.359 0.323  0.353    4.78
 90)  n-butyl ether
      1.988 1.821 1.800 2.137 2.071 1.820 2.137 2.068 2.007 1.768  1.962    7.42
 91)  chlorobenzene
      1.104 1.061 1.066 1.097 1.074 1.120 1.101 1.094 1.082 1.091  1.089    1.67
 92)  1,1,1,2-tetrachloroethane
      0.381 0.361 0.330 0.391 0.383 0.343 0.394 0.379 0.372 0.308  0.364    7.81
 93)  ethylbenzene
      1.876 1.779 1.845 1.903 1.849 1.831 1.897 1.885 1.864 1.914  1.864    2.16
 94)  m,p-xylene
      0.719 0.671 0.682 0.735 0.715 0.691 0.731 0.726 0.721 0.665  0.706    3.67
 95)  o-xylene
      1.530 1.449 1.439 1.549 1.500 1.461 1.541 1.528 1.505 1.458  1.496    2.75
 96)  styrene
      1.181 1.102 1.026 1.245 1.222 1.106 1.254 1.223 1.192 1.126  1.168    6.40
 97)  butyl acrylate
      0.786 0.729 0.628 0.875 0.856 0.695 0.882 0.825 0.789        0.785   11.04
 98)  bromoform
      0.223 0.213 0.180 0.242 0.243 0.190 0.248 0.226 0.222        0.221   10.58
 99)  isopropylbenzene
      1.797 1.671 1.650 1.864 1.796 1.694 1.846 1.853 1.799 1.623  1.759    5.17
100)  cis-1,4-dichloro-2-butene
      0.165 0.154 0.175 0.188 0.186 0.164 0.193 0.175 0.166 0.182  0.175    7.12

101) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
102)  4-bromofluorobenzene (s)
      0.902 0.926 0.912 0.922 0.925 0.919 0.929 0.919 0.910 0.919  0.918    0.89
103)  bromobenzene
      0.910 0.868 0.851 0.908 0.892 0.884 0.907 0.885 0.885 0.908  0.890    2.20
104)  1,1,2,2-tetrachloroethane
      0.901 0.905 0.812 0.934 0.903 0.881 0.925 0.912 0.908 0.788  0.887    5.43
105)  trans-1,4-dichloro-2-butene
      0.195 0.195 0.219 0.213 0.208 0.195 0.216 0.205 0.195 0.238  0.208    6.80
106)  1,2,3-trichloropropane
      0.243 0.233 0.226 0.242 0.235 0.252 0.235 0.236 0.240 0.191  0.233    7.00
107)  n-propylbenzene
      4.228 4.035 4.079 4.353 4.217 4.099 4.273 4.314 4.254 4.287  4.214    2.54
108)  2-chlorotoluene
      0.875 0.838 0.822 0.876 0.876 0.793 0.895 0.867 0.877 0.879  0.860    3.70
109)  4-chlorotoluene
      2.544 2.446 2.422 2.597 2.538 2.530 2.619 2.538 2.547 2.754  2.553    3.61
110)  4-ethyltoluene
                                                                   0.000#  -1.00
111)  1,3,5-trimethylbenzene
      2.949 2.704 2.655 3.090 3.006 2.819 3.073 3.018 3.003 2.892  2.921    5.17
112)  tert-butylbenzene
      2.521 2.338 2.342 2.646 2.572 2.363 2.655 2.606 2.531 2.420  2.499    4.98
113)  1,2,4-trimethylbenzene
```

Initial Calibration Summary

Job Number: JC62879 **Sample:** V2E6202-ICC6202
Account: BBLNYS Arcadis **Lab FileID:** 2E141869.D
Project: National Grid, Philly Coke, Philadelphia PA

```
       3.029 2.809 2.756 3.108 3.019 2.934 3.090 3.042 2.992 2.785  2.956    4.37
114)  sec-butylbenzene
       3.735 3.488 3.525 3.974 3.833 3.616 3.923 3.880 3.845 3.716  3.753    4.45
115)  1,3-dichlorobenzene
       1.713 1.626 1.617 1.699 1.671 1.637 1.713 1.677 1.664 2.065  1.708    7.60
116)  p-isopropyltoluene
       3.189 2.939 2.914 3.331 3.236 3.073 3.296 3.260 3.217 2.886  3.134    5.34
117)  1,4-dichlorobenzene
       1.738 1.721 1.728 1.718 1.702 1.726 1.736 1.699 1.701 2.253  1.772    9.56
118)  1,2-dichlorobenzene
       1.684 1.607 1.577 1.684 1.657 1.626 1.673 1.632 1.632 1.859  1.663    4.62
119)  1,4-diethylbenzene
                                                                    0.000#  -1.00
120)  n-butylbenzene
       1.674 1.540 1.525 1.807 1.752 1.667 1.837 1.739 1.690 1.734  1.697    6.01
121)  1,2,4,5-tetramethylbenzene
                                                                    0.000#  -1.00
122)  1,2-dibromo-3-chloropropane
       0.162 0.175       0.170 0.167       0.169 0.161 0.157        0.166    3.74
123)  1,3,5-trichlorobenzene
       1.477 1.382 1.417 1.533 1.520 1.445 1.500 1.473 1.449 1.881  1.508    9.22
124)  1,2,4-trichlorobenzene
       1.227 1.166 1.241 1.340 1.325 1.265 1.296 1.264 1.238        1.262    4.21
125)  2-ethylhexyl acrylate
       0.849             1.081 1.148       1.236 0.933 0.847        1.016   16.10
126)  hexachlorobutadiene
       0.593 0.560 0.634 0.634 0.635 0.580 0.626 0.615 0.608 0.691  0.618    5.83
127)  naphthalene
       2.647 2.580 2.487 2.907 2.818 2.691 2.645 2.758 2.684        2.691    4.65
128)  1,2,3-trichlorobenzene
       1.116 1.051 1.247 1.198 1.189 1.071 1.147 1.135 1.121        1.142    5.44
129)  hexachloroethane
       0.476 0.433 0.443 0.542 0.548 0.439 0.571 0.506 0.489        0.494   10.36
130)  Benzyl chloride
       1.687 1.706 1.697 1.844 1.792 1.757 1.812 1.740 1.676 2.200  1.791    8.62
131)  2-methylnaphthalene
       1.319 1.203 1.310 1.633 1.653 1.321 1.619 1.493 1.383        1.437   11.60
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M2E6202.M         Wed Mar 28 08:28:58 2018
```

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2E6202-ICV6202
Lab FileID: 2E141874.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2E6202\2E141874.D Vial: 14
Acq On : 23 Mar 2018 6:12 pm Operator: sydneys
Sample : ICV6202-50 Inst : VOAMS2E
Misc : MS24904,V2E6202,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6202.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
Last Update : Wed Mar 28 08:04:49 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	101	0.00	7.40
2		ethanol	0.115	0.114	0.9	101	0.00	6.14
3	M	tertiary butyl alcohol	1.336	1.393	-4.3	105	0.00	7.53
4		1,4-dioxane	0.101	0.100	1.0	97	0.00	11.27
5	I	pentafluorobenzene	1.000	1.000	0.0	94	0.00	9.63
6	M	chlorodifluoromethane	0.672	0.850	-26.5	114	0.00	4.02
7	M	dichlorodifluoromethane	0.686	0.806	-17.5	105	0.00	4.00
8		freon 114		----------NA----------				
9		freon 142b		----------NA----------				
10	M	chloromethane	0.951	1.049	-10.3	105	0.00	4.41
11	M	vinyl chloride	0.915	0.951	-3.9	95	0.00	4.65
12	M	bromomethane	0.565	0.579	-2.5	98	0.00	5.30
13	M	chloroethane	0.560	0.584	-4.3	100	0.00	5.45
14	M	trichlorofluoromethane	0.771	0.803	-4.2	95	0.00	5.91
15		1,3-butadiene		----------NA----------				
16		vinyl bromide	0.654	0.612	6.4	89	0.00	5.80
17	M	ethyl ether	0.363	0.406	-11.8	107	0.00	6.29
18		2-chloropropane	0.975	1.319	-35.3#	124	0.00	6.50
19	M	acrolein	0.136	0.152	-11.8	108	0.00	6.56
20		freon 113	0.343	0.460	-34.1#	120	-0.01	6.69
21	M	1,1-dichloroethene	0.798	0.925	-15.9	105	0.00	6.72
22	M	acetone	0.064	0.074	-15.6	117	0.00	6.78
23		acetonitrile		----------NA----------				
24	M	iodomethane	0.825	0.908	-10.1	102	0.00	7.01
25	M	carbon disulfide	1.784	2.103	-17.9	113	0.00	7.13
26	M	methylene chloride	0.600	0.658	-9.7	103	0.00	7.45
27	M	methyl acetate	0.430	0.510	-18.6	109	0.00	7.24
28	M	methyl tert butyl ether	1.636	1.939	-18.5	107	0.00	7.77
29	M	trans-1,2-dichloroethene	0.799	0.927	-16.0	107	0.00	7.81
30		hexane	0.409	0.449	-9.8	101	0.00	8.10
31	M	di-isopropyl ether	2.111	2.595	-22.9	109	0.00	8.35
32	M	ethyl tert-butyl ether	1.907	2.298	-20.5	106	0.00	8.81
33	M	2-butanone	0.060	0.075	-25.0	109	0.00	9.08
34	M	1,1-dichloroethane	1.040	1.190	-14.4	106	0.00	8.39
35	M	chloroprene	0.820	1.070	-30.5#	117	0.00	8.48
36	M	acrylonitrile	0.232	0.291	-25.4	116	0.00	7.78
37	M	vinyl acetate	0.112	0.139	-24.1	109	0.00	8.36
38	M	ethyl acetate	0.087	0.113	-29.9	123	0.00	9.10
39	M	2,2-dichloropropane	0.825	0.924	-12.0	107	0.00	9.12
40	M	cis-1,2-dichloroethene	0.609	0.679	-11.5	104	0.00	9.12
41	M	propionitrile	0.085	0.104	-22.4	106	0.00	9.19

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2E6202-ICV6202
Lab FileID: 2E141874.D

42		methyl acrylate	0.076	0.090	-18.4	101	0.00	9.18
43	M	bromochloromethane	0.274	0.303	-10.6	102	0.00	9.43
44	M	tetrahydrofuran	0.072	0.085	-18.1	105	0.00	9.48
45	M	chloroform	0.906	1.014	-11.9	103	0.00	9.49
46		t-butyl formate	0.465	0.421	9.5	79	0.00	9.52
47		1,1-dichloropropene	0.735	0.873	-18.8	108	0.00	9.92
48		carbon tetrachloride	0.612	0.709	-15.8	104	0.00	9.94
49		isopropyl acetate	0.117	0.141	-20.5	108	0.00	10.09
50	S	dibromofluoromethane (s)	0.416	0.433	-4.1	97	0.00	9.69
51	M	methacrylonitrile	0.226	0.262	-15.9	100	0.00	9.38
52	M	1,1,1-trichloroethane	0.751	0.837	-11.5	102	0.00	9.74
53		Cyclohexane	0.869	0.984	-13.2	101	0.00	9.81
54		iso-butyl alcohol	0.024	0.030	-25.0	109	0.00	9.92
55		Tert Amyl Alcohol	0.030	0.034	-13.3	106	0.00	10.05
56	I	1,4-difluorobenzene	1.000	1.000	0.0	96	0.00	10.55
57	S	1,2-dichloroethane-d4 (s)	0.311	0.325	-4.5	101	0.00	10.11
58		2,2,4-trimethylpentane	1.518	1.906	-25.6	114	0.00	10.16
59	M	n-butyl alcohol	0.010	0.012	-20.0	103	0.00	10.67
60	M	benzene	1.547	1.663	-7.5	105	0.00	10.18
61		tert-amyl methyl ether	1.212	1.338	-10.4	104	0.00	10.20
62	M	heptane	0.298	0.410	-37.6#	129	0.00	10.33
63	M	1,2-dichloroethane	0.476	0.504	-5.9	106	0.00	10.20
64		ethyl acrylate	0.424	0.523	-23.3	109	0.00	10.89
65	M	trichloroethene	0.344	0.381	-10.8	104	0.00	10.89
66	M	2-nitropropane	0.120	0.135	-12.5	109	0.00	11.67
67	M	2-chloroethyl vinyl ether	0.231	0.291	-26.0	112	0.00	11.67
68	M	methyl methacrylate	0.090	0.103	-14.4	103	0.00	11.15
69	M	1,2-dichloropropane	0.415	0.462	-11.3	104	0.00	11.16
70	M	methylcyclohexane	0.658	0.758	-15.2	104	0.00	11.10
71	M	dibromomethane	0.207	0.230	-11.1	104	0.00	11.32
72	M	bromodichloromethane	0.455	0.499	-9.7	101	0.00	11.45
73		epichlorohydrin	0.036	0.044	-22.2	111	0.00	11.80
74	M	cis-1,3-dichloropropene	0.617	0.706	-14.4	105	0.00	11.89
75	M	4-methyl-2-pentanone	0.134	0.168	-25.4	110	0.00	11.99
76	M	3-methyl-1-butanol	0.010	0.012	-20.0	106	0.00	12.00
77	I	chlorobenzene-d5	1.000	1.000	0.0	96	0.00	13.68
78	S	toluene-d8 (s)	1.275	1.295	-1.6	97	0.00	12.18
79		toluene	1.016	1.112	-9.4	103	0.00	12.25
80		ethyl methacrylate	0.528	0.616	-16.7	102	0.00	12.43
81		trans-1,3-dichloropropene	0.595	0.666	-11.9	100	0.00	12.45
82		1,1,2-trichloroethane	0.295	0.328	-11.2	102	0.00	12.67
83	M	tetrachloroethene		----------NA----------				
84		2-hexanone	0.151	0.191	-26.5	113	0.00	12.83
85	M	1,3-dichloropropane	0.630	0.713	-13.2	105	0.00	12.85
86	M	butyl acetate	0.280	0.345	-23.2	112	0.00	12.90
87		3,3-dimethyl-1-butanol		----------NA----------				
88	M	dibromochloromethane	0.347	0.405	-16.7	104	0.00	13.11
89	M	1,2-dibromoethane	0.353	0.395	-11.9	101	0.00	13.26
90		n-butyl ether	1.962	2.319	-18.2	104	0.00	13.61
91	M	chlorobenzene	1.089	1.157	-6.2	101	0.00	13.71
92	M	1,1,1,2-tetrachloroethane	0.364	0.418	-14.8	103	0.00	13.77
93	M	ethylbenzene	1.864	2.061	-10.6	104	0.00	13.76
94	M	m,p-xylene	0.706	0.785	-11.2	103	0.00	13.86
95	M	o-xylene	1.496	1.660	-11.0	103	0.00	14.28
96	M	styrene	1.168	1.333	-14.1	103	0.00	14.29
97		butyl acrylate	0.785	0.991	-26.2	109	0.00	14.11
98	M	bromoform	0.221	0.263	-19.0	104	0.00	14.57
99		isopropylbenzene	1.759	1.986	-12.9	102	0.00	14.62

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2E6202-ICV6202
Lab FileID: 2E141874.D

100		cis-1,4-dichloro-2-butene	0.175	0.199	-13.7	101	0.00	14.70
101	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	15.98
102	S	4-bromofluorobenzene (s)	0.918	0.948	-3.3	97	0.00	14.83
103	M	bromobenzene	0.890	0.957	-7.5	99	0.00	15.02
104	M	1,1,2,2-tetrachloroethane	0.887	1.018	-14.8	103	0.00	14.93
105	M	trans-1,4-dichloro-2-bute	0.208	0.300	-44.2#	133	0.00	14.97
106	M	1,2,3-trichloropropane	0.233	0.260	-11.6	101	0.00	15.01
107	M	n-propylbenzene	4.214	4.819	-14.4	104	0.00	15.03
108	M	2-chlorotoluene	0.860	0.932	-8.4	100	0.00	15.18
109	M	4-chlorotoluene	2.553	2.909	-13.9	106	0.00	15.27
110		4-ethyltoluene	0.000	0.009#	0.0	0#	0.00	15.10
111	M	1,3,5-trimethylbenzene	2.921	3.345	-14.5	102	0.00	15.17
112	M	tert-butylbenzene	2.499	2.839	-13.6	101	0.00	15.52
113	M	1,2,4-trimethylbenzene	2.956	3.426	-15.9	104	0.00	15.57
114	M	sec-butylbenzene	3.753	4.338	-15.6	103	0.00	15.73
115	M	1,3-dichlorobenzene	1.708	1.810	-6.0	100	0.00	15.92
116	M	p-isopropyltoluene	3.134	3.625	-15.7	103	0.00	15.85
117	M	1,4-dichlorobenzene	1.772	1.839	-3.8	101	0.00	16.00
118	M	1,2-dichlorobenzene	1.663	1.771	-6.5	99	0.00	16.38
119		1,4-diethylbenzene	0.000	0.037	0.0	0#	0.00	16.25
120	M	n-butylbenzene	1.697	1.976	-16.4	103	0.00	16.25
121		1,2,4,5-tetramethylbenzen	0.000	0.001#	0.0	0#	-0.15	16.80
122	M	1,2-dibromo-3-chloropropa	0.166	0.185	-11.4	102	0.00	17.11
123		1,3,5-trichlorobenzene	1.508	1.630	-8.1	100	0.00	17.27
124	M	1,2,4-trichlorobenzene	1.262	1.405	-11.3	99	0.00	17.85
125		2-ethylhexyl acrylate	1.016	1.268	-24.8	111	0.00	17.81
126	M	hexachlorobutadiene	0.618	0.653	-5.7	97	0.00	17.95
127	M	naphthalene	2.691	3.135	-16.5	102	0.00	18.11
128	M	1,2,3-trichlorobenzene	1.142	1.244	-8.9	98	0.00	18.34
129	M	hexachloroethane	0.494	0.578	-17.0	101	0.00	16.63
130		Benzyl chloride	1.791	1.677	6.4	86	0.00	16.11
131		2-methylnaphthalene	1.437	1.730	-20.4	100	0.00	19.21

(#) = Out of Range SPCC's out = 0 CCC's out = 0

2E141869.D M2E6202.M Wed Mar 28 08:29:09 2018

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2E6202-ICV6202
Lab FileID: 2E141875.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2E6202\2E141875.D Vial: 15
Acq On : 23 Mar 2018 6:40 pm Operator: sydneys
Sample : ICV6202-50 Inst : VOAMS2E
Misc : MS24904,V2E6202,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6202.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
Last Update : Wed Mar 28 08:04:49 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	112	0.00	7.40
2		ethanol		----------NA----------				
3	M	tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	9.63
6	M	chlorodifluoromethane		----------NA----------				
7	M	dichlorodifluoromethane		----------NA----------				
8		freon 114		----------NA----------				
9		freon 142b	0.705	0.689	2.3	99	0.00	4.32
10	M	chloromethane		----------NA----------				
11	M	vinyl chloride		----------NA----------				
12	M	bromomethane		----------NA----------				
13	M	chloroethane		----------NA----------				
14	M	trichlorofluoromethane		----------NA----------				
15		1,3-butadiene	0.820	0.775	5.5	98	0.00	4.68
16		vinyl bromide		----------NA----------				
17	M	ethyl ether		----------NA----------				
18		2-chloropropane		----------NA----------				
19	M	acrolein		----------NA----------				
20		freon 113		----------NA----------				
21	M	1,1-dichloroethene		----------NA----------				
22	M	acetone		----------NA----------				
23		acetonitrile	0.080	0.089	-11.2	122	0.00	7.23
24	M	iodomethane		----------NA----------				
25	M	carbon disulfide		----------NA----------				
26	M	methylene chloride		----------NA----------				
27	M	methyl acetate		----------NA----------				
28	M	methyl tert butyl ether		----------NA----------				
29	M	trans-1,2-dichloroethene		----------NA----------				
30		hexane		----------NA----------				
31	M	di-isopropyl ether		----------NA----------				
32	M	ethyl tert-butyl ether		----------NA----------				
33	M	2-butanone		----------NA----------				
34	M	1,1-dichloroethane		----------NA----------				
35	M	chloroprene		----------NA----------				
36	M	acrylonitrile		----------NA----------				
37	M	vinyl acetate		----------NA----------				
38	M	ethyl acetate		----------NA----------				
39	M	2,2-dichloropropane		----------NA----------				
40	M	cis-1,2-dichloroethene		----------NA----------				
41	M	propionitrile		----------NA----------				

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2E6202-ICV6202
Lab FileID: 2E141875.D

42		methyl acrylate		----------NA----------					
43	M	bromochloromethane		----------NA----------					
44	M	tetrahydrofuran		----------NA----------					
45	M	chloroform		----------NA----------					
46		t-butyl formate		----------NA----------					
47		1,1-dichloropropene		----------NA----------					
48		carbon tetrachloride		----------NA----------					
49		isopropyl acetate		----------NA----------					
50	S	dibromofluoromethane (s)	0.416	0.416	0.0	105	0.00	9.69	
51	M	methacrylonitrile		----------NA----------					
52	M	1,1,1-trichloroethane		----------NA----------					
53		Cyclohexane		----------NA----------					
54		iso-butyl alcohol		----------NA----------					
55		Tert Amyl Alcohol		----------NA----------					
56	I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	10.55	
57	S	1,2-dichloroethane-d4 (s)	0.311	0.320	-2.9	109	0.00	10.11	
58		2,2,4-trimethylpentane		----------NA----------					
59	M	n-butyl alcohol		----------NA----------					
60	M	benzene		----------NA----------					
61		tert-amyl methyl ether		----------NA----------					
62	M	heptane		----------NA----------					
63	M	1,2-dichloroethane		----------NA----------					
64		ethyl acrylate		----------NA----------					
65	M	trichloroethene		----------NA----------					
66	M	2-nitropropane		----------NA----------					
67	M	2-chloroethyl vinyl ether		----------NA----------					
68	M	methyl methacrylate		----------NA----------					
69	M	1,2-dichloropropane		----------NA----------					
70	M	methylcyclohexane		----------NA----------					
71	M	dibromomethane		----------NA----------					
72	M	bromodichloromethane		----------NA----------					
73		epichlorohydrin		----------NA----------					
74	M	cis-1,3-dichloropropene		----------NA----------					
75	M	4-methyl-2-pentanone		----------NA----------					
76	M	3-methyl-1-butanol		----------NA----------					
77	I	chlorobenzene-d5	1.000	1.000	0.0	104	0.00	13.68	
78	S	toluene-d8 (s)	1.275	1.290	-1.2	105	0.00	12.18	
79		toluene		----------NA----------					
80		ethyl methacrylate		----------NA----------					
81		trans-1,3-dichloropropene		----------NA----------					
82		1,1,2-trichloroethane		----------NA----------					
83	M	tetrachloroethene	0.313	0.286	8.6	94	0.00	12.83	
84		2-hexanone		----------NA----------					
85	M	1,3-dichloropropane		----------NA----------					
86	M	butyl acetate		----------NA----------					
87		3,3-dimethyl-1-butanol		----------NA----------					
88	M	dibromochloromethane		----------NA----------					
89	M	1,2-dibromoethane		----------NA----------					
90		n-butyl ether		----------NA----------					
91	M	chlorobenzene		----------NA----------					
92	M	1,1,1,2-tetrachloroethane		----------NA----------					
93	M	ethylbenzene		----------NA----------					
94	M	m,p-xylene		----------NA----------					
95	M	o-xylene		----------NA----------					
96	M	styrene		----------NA----------					
97		butyl acrylate		----------NA----------					
98	M	bromoform		----------NA----------					
99		isopropylbenzene		----------NA----------					

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2E6202-ICV6202
Lab FileID: 2E141875.D

100		cis-1,4-dichloro-2-butene		----------NA----------				
101	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	15.98
102	S	4-bromofluorobenzene (s)	0.918	0.941	-2.5	105	0.00	14.83
103	M	bromobenzene		----------NA----------				
104	M	1,1,2,2-tetrachloroethane		----------NA----------				
105	M	trans-1,4-dichloro-2-bute		----------NA----------				
106	M	1,2,3-trichloropropane		----------NA----------				
107	M	n-propylbenzene		----------NA----------				
108	M	2-chlorotoluene		----------NA----------				
109	M	4-chlorotoluene		----------NA----------				
110		4-ethyltoluene		----------NA----------				
111	M	1,3,5-trimethylbenzene		----------NA----------				
112	M	tert-butylbenzene		----------NA----------				
113	M	1,2,4-trimethylbenzene		----------NA----------				
114	M	sec-butylbenzene		----------NA----------				
115	M	1,3-dichlorobenzene		----------NA----------				
116	M	p-isopropyltoluene		----------NA----------				
117	M	1,4-dichlorobenzene		----------NA----------				
118	M	1,2-dichlorobenzene		----------NA----------				
119		1,4-diethylbenzene		----------NA----------				
120	M	n-butylbenzene		----------NA----------				
121		1,2,4,5-tetramethylbenzen		----------NA----------				
122	M	1,2-dibromo-3-chloropropa		----------NA----------				
123		1,3,5-trichlorobenzene		----------NA----------				
124	M	1,2,4-trichlorobenzene		----------NA----------				
125		2-ethylhexyl acrylate		----------NA----------				
126	M	hexachlorobutadiene		----------NA----------				
127	M	naphthalene		----------NA----------				
128	M	1,2,3-trichlorobenzene		----------NA----------				
129	M	hexachloroethane		----------NA----------				
130		Benzyl chloride		----------NA----------				
131		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0

2E141869.D M2E6202.M Wed Mar 28 08:29:11 2018

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2E6202-ICV6202
Lab FileID: 2E141877.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2E6202\2E141877.D Vial: 2
Acq On : 27 Mar 2018 3:14 pm Operator: sydneys
Sample : ICV6202-50 Inst : VOAMS2E
Misc : MS24904,V2E6202,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6202.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
Last Update : Wed Mar 28 08:04:49 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	143	-0.01	7.39
2		ethanol	0.115	0.106	7.8	132	-0.01	6.14
3	M	tertiary butyl alcohol	1.336	1.002	25.0	107	0.00	7.51
4		1,4-dioxane	0.101	0.091	9.9	125	0.00	11.27
5	I	pentafluorobenzene	1.000	1.000	0.0	119	0.00	9.63
6	M	chlorodifluoromethane	0.672	0.510	24.1	86	0.00	4.03
7	M	dichlorodifluoromethane		----------NA----------				
8		freon 114		----------NA----------				
9		freon 142b		----------NA----------				
10	M	chloromethane		----------NA----------				
11	M	vinyl chloride		----------NA----------				
12	M	bromomethane		----------NA----------				
13	M	chloroethane		----------NA----------				
14	M	trichlorofluoromethane		----------NA----------				
15		1,3-butadiene		----------NA----------				
16		vinyl bromide		----------NA----------				
17	M	ethyl ether	0.363	0.290	20.1	97	0.00	6.29
18		2-chloropropane	0.975	0.981	-0.6	117	0.00	6.49
19	M	acrolein		----------NA----------				
20		freon 113	0.343	0.324	5.5	107	-0.01	6.69
21	M	1,1-dichloroethene	0.798	0.673	15.7	97	0.00	6.72
22	M	acetone	0.064	0.049	23.4	97	0.00	6.78
23		acetonitrile		----------NA----------				
24	M	iodomethane	0.825	0.660	20.0	93	0.00	7.01
25	M	carbon disulfide	1.784	1.464	17.9	100	0.00	7.13
26	M	methylene chloride	0.600	0.489	18.5	97	0.00	7.45
27	M	methyl acetate	0.430	0.374	13.0	101	0.00	7.23
28	M	methyl tert butyl ether	1.636	1.463	10.6	102	0.00	7.76
29	M	trans-1,2-dichloroethene	0.799	0.695	13.0	101	0.00	7.81
30		hexane		----------NA----------				
31	M	di-isopropyl ether	2.111	1.983	6.1	105	0.00	8.35
32	M	ethyl tert-butyl ether	1.907	1.747	8.4	101	0.00	8.81
33	M	2-butanone	0.060	0.054	10.0	98	0.00	9.09
34	M	1,1-dichloroethane	1.040	0.912	12.3	102	0.00	8.38
35	M	chloroprene	0.820	0.810	1.2	111	0.00	8.48
36	M	acrylonitrile	0.232	0.210	9.5	106	0.00	7.78
37	M	vinyl acetate	0.112	0.104	7.1	102	0.00	8.36
38	M	ethyl acetate	0.087	0.075	13.8	103	-0.01	9.09
39	M	2,2-dichloropropane	0.825	0.754	8.6	110	0.00	9.12
40	M	cis-1,2-dichloroethene	0.609	0.520	14.6	100	0.00	9.12
41	M	propionitrile	0.085	0.079	7.1	102	0.00	9.19

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2E6202-ICV6202
Lab FileID: 2E141877.D

42		methyl acrylate	0.076	0.067	11.8	95	0.00	9.19
43	M	bromochloromethane	0.274	0.231	15.7	97	0.00	9.43
44	M	tetrahydrofuran	0.072	0.063	12.5	97	-0.01	9.46
45	M	chloroform	0.906	0.780	13.9	100	0.00	9.49
46		t-butyl formate	0.465	0.327	29.7	77	-0.01	9.51
47		1,1-dichloropropene	0.735	0.675	8.2	105	0.00	9.91
48		carbon tetrachloride	0.612	0.566	7.5	104	0.00	9.94
49		isopropyl acetate	0.117	0.103	12.0	99	0.00	10.09
50	S	dibromofluoromethane (s)	0.416	0.414	0.5	116	0.00	9.69
51	M	methacrylonitrile	0.226	0.194	14.2	94	0.00	9.37
52	M	1,1,1-trichloroethane	0.751	0.653	13.0	100	0.00	9.74
53		Cyclohexane		----------NA----------				
54		iso-butyl alcohol	0.024	0.024	0.0	111	0.00	9.92
55		Tert Amyl Alcohol	0.030	0.026	13.3	104	-0.01	10.04
56	I	1,4-difluorobenzene	1.000	1.000	0.0	117	0.00	10.54
57	S	1,2-dichloroethane-d4 (s)	0.311	0.329	-5.8	124	0.00	10.11
58		2,2,4-trimethylpentane	1.518	1.477	2.7	107	0.00	10.16
59	M	n-butyl alcohol	0.010	0.010	0.0	110	0.00	10.67
60	M	benzene	1.547	1.325	14.4	101	0.00	10.18
61		tert-amyl methyl ether	1.212	1.068	11.9	100	0.00	10.20
62	M	heptane	0.298	0.318	-6.7	121	0.00	10.33
63	M	1,2-dichloroethane	0.476	0.396	16.8	101	0.00	10.20
64		ethyl acrylate	0.424	0.397	6.4	101	0.00	10.89
65	M	trichloroethene	0.344	0.302	12.2	100	0.00	10.89
66	M	2-nitropropane	0.120	0.111	7.5	109	0.00	11.67
67	M	2-chloroethyl vinyl ether	0.231	0.221	4.3	103	0.00	11.67
68	M	methyl methacrylate	0.090	0.077	14.4	94	0.00	11.15
69	M	1,2-dichloropropane	0.415	0.369	11.1	101	0.00	11.16
70	M	methylcyclohexane	0.658	0.603	8.4	100	0.00	11.10
71	M	dibromomethane	0.207	0.182	12.1	100	0.00	11.32
72	M	bromodichloromethane	0.455	0.403	11.4	99	0.00	11.44
73		epichlorohydrin	0.036	0.035	2.8	107	0.00	11.80
74	M	cis-1,3-dichloropropene	0.617	0.572	7.3	103	0.00	11.89
75	M	4-methyl-2-pentanone	0.134	0.129	3.7	103	0.00	11.98
76	M	3-methyl-1-butanol	0.010	0.010#	0.0	101	0.00	12.00
77	I	chlorobenzene-d5	1.000	1.000	0.0	120	0.00	13.68
78	S	toluene-d8 (s)	1.275	1.268	0.5	120	0.00	12.18
79		toluene	1.016	0.882	13.2	103	0.00	12.25
80		ethyl methacrylate	0.528	0.455	13.8	94	0.00	12.43
81		trans-1,3-dichloropropene	0.595	0.517	13.1	98	0.00	12.45
82		1,1,2-trichloroethane	0.295	0.253	14.2	98	0.00	12.67
83	M	tetrachloroethene		----------NA----------				
84		2-hexanone	0.151	0.141	6.6	105	0.00	12.83
85	M	1,3-dichloropropane	0.630	0.548	13.0	101	0.00	12.85
86	M	butyl acetate	0.280	0.260	7.1	106	0.00	12.89
87		3,3-dimethyl-1-butanol		----------NA----------				
88	M	dibromochloromethane	0.347	0.321	7.5	103	0.00	13.11
89	M	1,2-dibromoethane	0.353	0.283	19.8	91	0.00	13.26
90		n-butyl ether	1.962	1.803	8.1	101	0.00	13.61
91	M	chlorobenzene	1.089	0.913	16.2	100	0.00	13.71
92	M	1,1,1,2-tetrachloroethane	0.364	0.329	9.6	101	0.00	13.77
93	M	ethylbenzene	1.864	1.626	12.8	103	0.00	13.76
94	M	m,p-xylene	0.706	0.625	11.5	102	0.00	13.86
95	M	o-xylene	1.496	1.316	12.0	102	0.00	14.28
96	M	styrene	1.168	1.043	10.7	101	0.00	14.29
97		butyl acrylate	0.785	0.724	7.8	100	0.00	14.10
98	M	bromoform	0.221	0.208	5.9	104	0.00	14.57
99		isopropylbenzene	1.759	1.595	9.3	103	0.00	14.62

Initial Calibration Verification

Job Number: JC62879 **Sample:** V2E6202-ICV6202
Account: BBLNYS Arcadis **Lab FileID:** 2E141877.D
Project: National Grid, Philly Coke, Philadelphia PA

100		cis-1,4-dichloro-2-butene	0.175	0.159	9.1	101	0.00	14.70
101	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	122	0.00	15.98
102	S	4-bromofluorobenzene (s)	0.918	0.920	-0.2	122	0.00	14.83
103	M	bromobenzene	0.890	0.720	19.1	97	0.00	15.02
104	M	1,1,2,2-tetrachloroethane	0.887	0.746	15.9	98	0.00	14.93
105	M	trans-1,4-dichloro-2-bute	0.208	0.225	-8.2	129	0.00	14.97
106	M	1,2,3-trichloropropane	0.233	0.194	16.7	98	0.00	15.01
107	M	n-propylbenzene	4.214	3.678	12.7	103	0.00	15.03
108	M	2-chlorotoluene	0.860	0.720	16.3	101	0.00	15.17
109	M	4-chlorotoluene	2.553	2.208	13.5	104	0.00	15.27
110		4-ethyltoluene		----------NA----------				
111	M	1,3,5-trimethylbenzene	2.921	2.564	12.2	102	0.00	15.17
112	M	tert-butylbenzene	2.499	2.206	11.7	102	0.00	15.52
113	M	1,2,4-trimethylbenzene	2.956	2.651	10.3	104	0.00	15.57
114	M	sec-butylbenzene	3.753	3.352	10.7	103	0.00	15.73
115	M	1,3-dichlorobenzene	1.708	1.380	19.2	99	0.00	15.92
116	M	p-isopropyltoluene	3.134	2.800	10.7	103	0.00	15.85
117	M	1,4-dichlorobenzene	1.772	1.399	21.0	100	0.00	16.00
118	M	1,2-dichlorobenzene	1.663	1.353	18.6	98	0.00	16.38
119		1,4-diethylbenzene		----------NA----------				
120	M	n-butylbenzene	1.697	1.511	11.0	102	0.00	16.25
121		1,2,4,5-tetramethylbenzen		----------NA----------				
122	M	1,2-dibromo-3-chloropropa	0.166	0.134	19.3	97	0.00	17.11
123		1,3,5-trichlorobenzene	1.508	1.233	18.2	98	0.00	17.27
124	M	1,2,4-trichlorobenzene	1.262	1.046	17.1	96	0.00	17.85
125		2-ethylhexyl acrylate	1.016	0.830	18.3	94	0.00	17.81
126	M	hexachlorobutadiene	0.618	0.496	19.7	96	0.00	17.95
127	M	naphthalene	2.691	2.283	15.2	96	0.00	18.11
128	M	1,2,3-trichlorobenzene	1.142	0.921	19.4	94	0.00	18.34
129	M	hexachloroethane	0.494	0.455	7.9	103	0.00	16.62
130		Benzyl chloride	1.791	1.376	23.2	91	0.00	16.11
131		2-methylnaphthalene	1.437	1.202	16.4	90	0.00	19.21

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2E141869.D M2E6202.M Wed Mar 28 08:31:11 2018

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2E6206-CC6202
Lab FileID: 2E141949.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\v2e6206\2e141949.d Vial: 47
Acq On : 29 Mar 2018 7:13 am Operator: sydneys
Sample : cc6202-20 Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6202.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
Last Update : Wed Mar 28 08:23:52 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	101	0.00	7.40
2		ethanol	0.115	0.145	-26.1#	130	-0.01	6.14
3	M	tertiary butyl alcohol	1.336	1.292	3.3	99	0.00	7.52
4		1,4-dioxane	0.101	0.120	-18.8	118	0.00	11.27
5	I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	9.63
6	M	chlorodifluoromethane	0.672	0.902	-34.2#	126	0.00	4.02
7	M	dichlorodifluoromethane	0.686	0.756	-10.2	103	0.00	4.00
8		freon 114		----------NA----------				
9		freon 142b		----------NA----------				
10	M	chloromethane	0.951	1.010	-6.2	107	0.00	4.41
11	M	vinyl chloride	0.915	0.992	-8.4	105	0.00	4.65
12	M	bromomethane	0.565	0.576	-1.9	104	0.00	5.30
13	M	chloroethane	0.560	0.583	-4.1	105	0.00	5.45
14	M	trichlorofluoromethane	0.771	0.826	-7.1	103	0.00	5.91
15		1,3-butadiene		----------NA----------				
16		vinyl bromide	0.654	0.670	-2.4	103	-0.01	5.79
17	M	ethyl ether	0.363	0.372	-2.4	104	0.00	6.29
18		2-chloropropane	0.975	1.124	-15.3	110	0.00	6.50
19	M	acrolein	0.136	0.131	3.7	96	0.00	6.57
20		freon 113	0.343	0.403	-17.5	108	0.00	6.69
21	M	1,1-dichloroethene	0.798	0.927	-16.2	110	0.00	6.72
22	M	acetone	0.064	0.051	20.3#	79	0.00	6.78
23		acetonitrile	0.080	0.085	-6.3	107	0.00	7.22
24	M	iodomethane	0.825	0.916	-11.0	106	0.00	7.01
25	M	carbon disulfide	1.784	1.999	-12.1	110	0.00	7.13
26	M	methylene chloride	0.600	0.655	-9.2	106	0.00	7.44
27	M	methyl acetate	0.430	0.449	-4.4	104	0.00	7.23
28	M	methyl tert butyl ether	1.636	1.749	-6.9	103	0.00	7.77
29	M	trans-1,2-dichloroethene	0.799	0.910	-13.9	110	0.00	7.81
30		hexane	0.409	0.482	-17.8	112	0.00	8.10
31	M	di-isopropyl ether	2.111	2.269	-7.5	102	0.00	8.35
32	M	ethyl tert-butyl ether	1.907	2.102	-10.2	103	0.00	8.81
33	M	2-butanone	0.060	0.061	-1.7	94	0.00	9.09
34	M	1,1-dichloroethane	1.040	1.133	-8.9	104	0.00	8.38
35	M	chloroprene	0.820	0.916	-11.7	105	0.00	8.48
36	M	acrylonitrile	0.232	0.244	-5.3	103	0.00	7.78
37	M	vinyl acetate	0.112	0.118	-5.4	101	0.00	8.37
38	M	ethyl acetate	0.087	0.091	-4.6	107	0.00	9.10
39	M	2,2-dichloropropane	0.825	0.910	-10.3	110	0.00	9.12
40	M	cis-1,2-dichloroethene	0.609	0.657	-7.9	104	0.00	9.12
41	M	propionitrile	0.085	0.130	-53.0#	140	0.00	9.19

Continuing Calibration Summary

Job Number: JC62879 **Sample:** V2E6206-CC6202
Account: BBLNYS Arcadis **Lab FileID:** 2E141949.D
Project: National Grid, Philly Coke, Philadelphia PA

42		methyl acrylate	0.076	0.077	-1.5	96	0.00	9.19
43	M	bromochloromethane	0.274	0.292	-6.6	101	0.00	9.43
44	M	tetrahydrofuran	0.072	0.080	-11.1	103	0.00	9.47
45	M	chloroform	0.906	0.968	-6.8	103	0.00	9.49
46		t-butyl formate	0.465	0.544	-17.0	114	-0.01	9.51
47		1,1-dichloropropene	0.735	0.812	-10.5	104	0.00	9.91
48		carbon tetrachloride	0.612	0.692	-13.1	104	0.00	9.94
49		isopropyl acetate	0.117	0.120	-2.6	99	0.00	10.09
50	S	dibromofluoromethane (s)	0.416	0.416	0.0	96	0.00	9.69
51	M	methacrylonitrile	0.226	0.236	-4.3	97	0.00	9.38
52	M	1,1,1-trichloroethane	0.751	0.834	-11.1	105	0.00	9.74
53		Cyclohexane	0.869	0.903	-3.9	96	-0.01	9.80
54		iso-butyl alcohol	0.024	0.025	-4.2	100	0.00	9.92
55		Tert Amyl Alcohol	0.030	0.030	0.0	100	0.00	10.05
56	I	1,4-difluorobenzene	1.000	1.000	0.0	96	0.00	10.54
57	S	1,2-dichloroethane-d4 (s)	0.311	0.310	0.3	96	0.00	10.10
58		2,2,4-trimethylpentane	1.518	1.781	-17.3	107	0.00	10.16
59	M	n-butyl alcohol	0.010	0.011	-10.0	104	0.00	10.67
60	M	benzene	1.547	1.638	-5.9	103	0.00	10.18
61		tert-amyl methyl ether	1.212	1.288	-6.3	102	0.00	10.20
62	M	heptane	0.298	0.334	-12.1	104	0.00	10.33
63	M	1,2-dichloroethane	0.476	0.482	-1.3	102	0.00	10.20
64		ethyl acrylate	0.424	0.442	-4.2	97	0.00	10.89
65	M	trichloroethene	0.344	0.370	-7.6	100	0.00	10.89
66	M	2-nitropropane	0.120	0.131	-9.6	111	0.00	11.67
67	M	2-chloroethyl vinyl ether	0.231	0.246	-6.5	97	0.00	11.67
68	M	methyl methacrylate	0.090	0.093	-3.2	91	0.00	11.15
69	M	1,2-dichloropropane	0.415	0.436	-5.1	100	0.00	11.16
70	M	methylcyclohexane	0.658	0.766	-16.4	104	0.00	11.10
71	M	dibromomethane	0.207	0.217	-4.8	101	0.00	11.32
72	M	bromodichloromethane	0.455	0.468	-2.9	98	0.00	11.44
73		epichlorohydrin	0.036	0.037	-2.8	96	0.00	11.80
74	M	cis-1,3-dichloropropene	0.617	0.643	-4.2	98	0.00	11.89
75	M	4-methyl-2-pentanone	0.134	0.144	-7.5	97	0.00	11.98
76	M	3-methyl-1-butanol	0.010	0.011	-10.0	95	0.00	12.00
77	I	chlorobenzene-d5	1.000	1.000	0.0	93	0.00	13.68
78	S	toluene-d8 (s)	1.275	1.295	-1.6	94	0.00	12.18
79		toluene	1.016	1.105	-8.8	100	0.00	12.25
80		ethyl methacrylate	0.528	0.560	-6.1	94	0.00	12.44
81		trans-1,3-dichloropropene	0.595	0.631	-6.1	96	0.00	12.45
82		1,1,2-trichloroethane	0.295	0.315	-6.8	97	0.00	12.66
83	M	tetrachloroethene	0.313	0.340	-8.6	99	0.00	12.83
84		2-hexanone	0.151	0.152	-0.7	90	0.00	12.83
85	M	1,3-dichloropropane	0.630	0.670	-6.3	98	0.00	12.85
86	M	butyl acetate	0.280	0.295	-5.4	96	0.00	12.90
87		3,3-dimethyl-1-butanol		----------NA----------				
88	M	dibromochloromethane	0.347	0.359	-3.5	93	0.00	13.11
89	M	1,2-dibromoethane	0.353	0.369	-4.5	94	0.00	13.26
90		n-butyl ether	1.962	2.151	-9.6	97	0.00	13.61
91	M	chlorobenzene	1.089	1.153	-5.9	98	0.00	13.71
92	M	1,1,1,2-tetrachloroethane	0.364	0.392	-7.7	96	0.00	13.77
93	M	ethylbenzene	1.864	1.991	-6.8	99	0.00	13.76
94	M	m,p-xylene	0.706	0.767	-8.6	98	0.00	13.86
95	M	o-xylene	1.496	1.593	-6.5	97	0.00	14.28
96	M	styrene	1.168	1.249	-6.9	95	0.00	14.29
97		butyl acrylate	0.785	0.812	-3.4	92	0.00	14.11
98	M	bromoform	0.221	0.221	0.0	92	0.00	14.57
99		isopropylbenzene	1.759	1.937	-10.1	97	0.00	14.62

Continuing Calibration Summary

Job Number: JC62879 **Sample:** V2E6206-CC6202
Account: BBLNYS Arcadis **Lab FileID:** 2E141949.D
Project: National Grid, Philly Coke, Philadelphia PA

100		cis-1,4-dichloro-2-butene	0.175	0.168	4.0	89	0.00	14.70	
101	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	91	0.00	15.98	
102	S	4-bromofluorobenzene (s)	0.918	0.925	-0.8	92	0.00	14.83	
103	M	bromobenzene	0.890	0.937	-5.3	97	0.00	15.02	
104	M	1,1,2,2-tetrachloroethane	0.887	0.930	-4.8	93	0.00	14.93	
105	M	trans-1,4-dichloro-2-bute	0.208	0.206	1.1	91	0.00	14.98	
106	M	1,2,3-trichloropropane	0.233	0.243	-4.3	94	0.00	15.01	
107	M	n-propylbenzene	4.214	4.600	-9.2	97	0.00	15.02	
108	M	2-chlorotoluene	0.860	0.921	-7.1	97	0.00	15.17	
109	M	4-chlorotoluene	2.553	2.710	-6.1	97	0.00	15.27	
110		4-ethyltoluene		----------NA----------					
111	M	1,3,5-trimethylbenzene	2.921	3.234	-10.7	98	0.00	15.17	
112	M	tert-butylbenzene	2.499	2.768	-10.8	97	0.00	15.52	
113	M	1,2,4-trimethylbenzene	2.956	3.239	-9.6	97	0.00	15.57	
114	M	sec-butylbenzene	3.753	4.180	-11.4	98	0.00	15.73	
115	M	1,3-dichlorobenzene	1.708	1.782	-4.3	97	0.00	15.92	
116	M	p-isopropyltoluene	3.134	3.490	-11.4	98	0.00	15.85	
117	M	1,4-dichlorobenzene	1.772	1.798	-1.5	96	0.00	16.00	
118	M	1,2-dichlorobenzene	1.663	1.736	-4.4	97	0.00	16.38	
119		1,4-diethylbenzene		----------NA----------					
120	M	n-butylbenzene	1.697	1.863	-9.8	98	0.00	16.25	
121		1,2,4,5-tetramethylbenzen		----------NA----------					
122	M	1,2-dibromo-3-chloropropa	0.166	0.173	-4.2	98	0.00	17.10	
123		1,3,5-trichlorobenzene	1.508	1.617	-7.2	100	0.00	17.27	
124	M	1,2,4-trichlorobenzene	1.262	1.398	-10.8	101	0.00	17.85	
125		2-ethylhexyl acrylate	1.016	0.880	13.4	86	0.00	17.81	
126	M	hexachlorobutadiene	0.618	0.693	-12.1	103	0.00	17.95	
127	M	naphthalene	2.691	2.962	-10.1	98	0.00	18.11	
128	M	1,2,3-trichlorobenzene	1.142	1.240	-8.6	99	0.00	18.34	
129	M	hexachloroethane	0.494	0.543	-9.9	97	0.00	16.63	
130		Benzyl chloride	1.791	1.838	-2.6	96	0.00	16.11	
131		2-methylnaphthalene	1.437	1.453	-1.1	89	0.00	19.21	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2E141868.D M2E6202.M Tue Apr 03 05:11:01 2018

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6383-ICC6383
Lab FileID: 3B144374.D

Response Factor Report MS3B

Method : C:\MSDCHEM\1\METHODS\M3B6383.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

Calibration Files
1 =3b144369.D 5 =3b144371.D 100 =3b144375.D 50 =3b144374.D
20 =3b144373.D 200 =3b144376.D 10 =3b144372.D 0.5 =3b144368.D
2 =3b144370.D 0.2 =3b144367.D = =

Compound	1	5	100	50	20	200	10	0.5	2	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9	----------ISTD----------											
2) ethanol											0.000	-1.00
3) tertiary butyl alcohol	1.364	1.407	1.511	1.446	1.444	1.395	1.496		1.353		1.427	4.05
4) 1,4-dioxane		0.092	0.107	0.099	0.101	0.104	0.104				0.101	5.30
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane		1.078	1.204	1.163	1.183	1.060	1.134		1.187		1.144	4.91
7) dichlorodifluoromethane	0.870	1.094	1.180	1.172	1.191	1.052	1.124		1.053		1.092	9.62
8) chloromethane	1.026	0.920	1.028	0.964	0.979	0.938	0.959	1.047	1.032	1.042	0.993	4.71
9) vinyl chloride	0.934	0.942	1.055	1.002	1.015	0.987	0.987	0.773	1.024		0.969	8.55
10) 1,3-Butadiene **This compound does not meet initial calibration criteria	0.771	0.694	0.860	0.745	0.755	0.749	0.748	0.711	0.719		0.750	6.37
11) bromomethane	0.668	0.682	0.720	0.696	0.713	0.631	0.704		0.697		0.689	4.16
12) chloroethane	0.478	0.474	0.495	0.477	0.488	0.430	0.488		0.532		0.483	5.83
13) trichlorofluoromethane	1.353	1.244	1.319	1.309	1.347	1.191	1.308		1.306		1.297	4.17
14) vinyl bromide	0.694	0.703	0.786	0.750	0.766	0.713	0.762	0.614	0.803		0.732	7.92
15) ethyl ether	0.179	0.271	0.281	0.267	0.270	0.258	0.273		0.262		0.258	12.59
16) 2-chloropropane	1.057	0.936	1.026	0.971	0.983	0.947	1.020		1.137		1.010	6.53
17) acrolein		0.120	0.131	0.122	0.127	0.127	0.128		0.080		0.119	14.76
18) freon 113	0.570	0.574	0.636	0.620	0.630	0.578	0.608	0.342	0.596		0.573	15.67
19) 1,1-dichloroethene	0.508	0.527	0.610	0.574	0.567	0.557	0.579	0.547	0.577		0.561	5.40
20) acetone		0.069	0.082	0.072	0.072	0.080	0.070		0.058		0.072	11.12
21) acetonitrile	0.122	0.110	0.110	0.102	0.107	0.105	0.113		0.108		0.110	5.42
22) iodomethane	1.188	1.173	1.340	1.265	1.218	1.191	1.296	1.128	1.322		1.236	5.93
23) carbon disulfide												

2.176 2.036 2.322 2.202 2.151 2.112 2.198 2.387 2.324 2.474 2.238 6.02

24) methylene chloride
0.601 0.588 0.657 0.619 0.617 0.596 0.652 0.544 0.667 0.616 6.33

25) methyl acetate
0.454 0.490 0.509 0.469 0.481 0.490 0.500 0.517 0.409 0.480 6.86

26) methyl tert butyl ether
1.939 1.958 2.113 2.014 2.063 1.900 2.071 2.133 2.029 2.026 2.025 3.70

27) trans-1,2-dichloroethene
0.494 0.538 0.552 0.536 0.530 0.497 0.539 0.692 0.585 0.552 10.80

28) hexane
0.317 0.329 0.350 0.346 0.344 0.334 0.348 0.353 0.340 3.64

29) di-isopropyl ether
1.710 1.712 1.842 1.764 1.741 1.740 1.781 1.907 1.788 1.545 1.753 5.41

30) 2-butanone
0.079 0.091 0.081 0.080 0.089 0.078 0.071 0.081 8.40

31) 1,1-dichloroethane
0.999 0.991 1.005 0.980 0.984 0.916 1.020 1.067 1.064 0.859 0.988 6.33

32) chloroprene
0.836 0.830 0.867 0.859 0.853 0.805 0.849 0.837 0.892 0.848 2.93

33) acrylonitrile
0.233 0.274 0.254 0.264 0.261 0.270 0.242 0.257 5.82

34) vinyl acetate
0.071 0.089 0.086 0.081 0.084 0.084 0.082 7.72

35) ethyl tert-butyl ether
1.904 1.871 2.086 1.979 1.941 1.914 1.973 2.103 1.974 1.656 1.940 6.41

36) ethyl acetate
0.079 0.098 0.093 0.089 0.097 0.088 0.091 7.80

37) 2,2-dichloropropane
1.072 1.073 1.128 1.123 1.141 1.012 1.147 1.261 1.213 1.130 6.64

38) cis-1,2-dichloroethene
0.639 0.627 0.633 0.626 0.618 0.580 0.652 0.745 0.685 0.645 7.26

39) propionitrile
0.125 0.122 0.127 0.120 0.123 0.123 0.122 0.137 0.118 0.108 0.123 5.88

40) methyl acrylate
0.080 0.105 0.097 0.095 0.101 0.097 0.077 0.093 11.37

41) methacrylonitrile
0.191 0.253 0.282 0.257 0.263 0.268 0.253 0.239 0.251 10.86

42) bromochloromethane
0.289 0.337 0.340 0.327 0.334 0.311 0.344 0.249 0.347 0.320 10.02

43) tetrahydrofuran
0.213 0.242 0.221 0.228 0.233 0.218 0.212 0.224 4.89

44) chloroform
1.124 1.082 1.079 1.058 1.052 0.983 1.071 1.261 1.141 1.426 1.128 11.30

45) tert-Butyl Formate **This compound does not meet initial calibration criteria
0.245 0.289 0.321 0.289 0.289 0.292 0.301 0.252 0.285 8.69

46) dibromofluoromethane (s)
0.483 0.482 0.480 0.474 0.474 0.475 0.482 0.472 0.485 0.463 0.477 1.36

47) 1,1,1-trichloroethane
1.122 1.162 1.209 1.188 1.189 1.099 1.163 1.235 1.199 0.909 1.147 8.09

48) cyclohexane
0.884 0.923 0.990 0.983 0.970 0.972 0.967 0.856 0.958 0.945 4.95

49) isobutyl alcohol
0.051 0.049 0.050 0.046 0.049 0.049 0.050 0.044 0.049 4.88

50) 1,1-dichloropropene
0.667 0.726 0.797 0.772 0.757 0.732 0.756 0.822 0.814 0.665 0.751 7.30

51) carbon tetrachloride
1.062 1.029 1.089 1.082 1.091 0.983 1.098 0.957 1.092 0.832 1.032 8.32

52) tert-amyl alcohol
0.095 0.080 0.082 0.076 0.078 0.087 0.079 0.083 0.082 7.22

53) isopropyl acetate

```
            0.119 0.146 0.135 0.132 0.140 0.129       0.097        0.128   12.62

54) I   1,4-difluorobenzene   ----------------ISTD---------------------
55)  1,2-dichloroethane-d4 (s)
      0.424 0.432 0.400 0.411 0.416 0.377 0.431 0.418 0.435 0.415  0.416    4.16
56)  n-butyl alcohol
      0.023 0.022 0.024 0.022 0.023 0.023 0.023 0.022 0.022        0.023    2.83
57)  2,2,4-Trimethylpentane
      1.349 1.368 1.701 1.604 1.504 1.574 1.524 1.418 1.386 1.247  1.468    9.39
58)  benzene
      1.544 1.532 1.545 1.520 1.510 1.407 1.585 1.746 1.648 1.612  1.565    5.81
59)  tert-amyl methyl ether
      1.425 1.407 1.419 1.406 1.425 1.251 1.463 1.570 1.451 1.469  1.428    5.51
60)  heptane
      0.234 0.249 0.278 0.271 0.273 0.259 0.263 0.205 0.238        0.252    9.25
61)  1,2-dichloroethane
      0.709 0.646 0.598 0.605 0.621 0.520 0.654 0.759 0.676        0.643   10.71
62)  ethyl acrylate
      0.399 0.439 0.521 0.480 0.478 0.494 0.485 0.452 0.433        0.465    7.99
63)  trichloroethene
      0.423 0.424 0.426 0.419 0.416 0.385 0.430 0.435 0.424 0.315  0.410    8.72
64)  2-chloroethyl vinyl ether
      0.203 0.211 0.251 0.237 0.235 0.242 0.236 0.229 0.211 0.220  0.228    6.92
65)  methyl methacrylate
      0.090 0.096 0.121 0.112 0.108 0.116 0.108       0.082        0.104   12.71
66)  methylcyclohexane
      0.822 0.841 0.868 0.862 0.869 0.791 0.875 0.862 0.873 0.564  0.823   11.51
67)  1,2-dichloropropane
      0.346 0.366 0.399 0.383 0.383 0.363 0.398 0.428 0.389        0.384    6.23
68)  dibromomethane
      0.239 0.271 0.278 0.265 0.272 0.251 0.281 0.212 0.271        0.260    8.62
69)  bromodichloromethane
      0.639 0.590 0.613 0.594 0.601 0.554 0.608 0.538 0.608        0.594    5.19
70)  2-nitropropane
      0.114 0.190 0.203 0.195 0.197 0.187 0.198 0.162 0.201        0.183   15.61
71)  epichlorohydrin
      0.050 0.051 0.057 0.052 0.054 0.053 0.055       0.047        0.052    5.75
72)  cis-1,3-dichloropropene
      0.555 0.576 0.669 0.639 0.627 0.628 0.637 0.622 0.616 0.589  0.616    5.45
73)  4-methyl-2-pentanone
      0.187 0.195 0.215 0.201 0.203 0.200 0.201 0.191 0.179 0.150  0.192    9.27
74)  isoamyl alcohol
      0.021 0.024 0.026 0.024 0.026 0.024 0.025 0.019 0.023        0.024    9.85

75) I   chlorobenzene-d5      ----------------ISTD---------------------
76)  toluene-d8 (s)
      1.319 1.332 1.270 1.274 1.303 1.217 1.290 1.284 1.300 1.328  1.292    2.63
77)  toluene
      1.051 1.047 1.069 1.032 1.038 0.934 1.051 1.073 1.056 0.973  1.032    4.31
78)  ethyl methacrylate
      0.525 0.567 0.602 0.574 0.585 0.534 0.579 0.574 0.573        0.568    4.25
79)  trans-1,3-dichloropropene
      0.604 0.663 0.675 0.667 0.688 0.592 0.714 0.644 0.685 0.604  0.654    6.32
80)  1,1,2-trichloroethane
      0.325 0.327 0.333 0.313 0.319 0.294 0.338 0.278 0.313        0.316    6.04
81)  tetrachloroethene
      0.401 0.395 0.403 0.391 0.404 0.351 0.411 0.350 0.434        0.393    6.88
82)  2-hexanone
      0.191 0.193 0.208 0.194 0.202 0.187 0.201 0.199 0.187 0.159  0.192    6.94
83)  1,3-dichloropropane
```

```
      0.614 0.629 0.634 0.614 0.625 0.557 0.634 0.664 0.620 0.455  0.605    9.76
 84)  butyl acetate
      0.323 0.283 0.298 0.288 0.298 0.274 0.295 0.221 0.284        0.285    9.67
 85)  3,3-Dimethyl-1-Butanol
      0.084 0.084 0.082 0.080 0.086 0.068 0.082 0.069 0.074 0.077  0.078    8.18
 86)  dibromochloromethane
      0.517 0.510 0.523 0.510 0.528 0.460 0.519 0.503 0.512        0.509    3.93
 87)  1,2-dibromoethane
      0.426 0.421 0.438 0.416 0.423 0.397 0.449 0.410 0.417        0.422    3.62
 88)  n-butyl ether
      1.821 1.824 1.815 1.756 1.810 1.673 1.822 1.929 1.821 1.903  1.818    3.87
 89)  chlorobenzene
      1.175 1.107 1.192 1.165 1.177 1.093 1.173 1.252 1.210 1.273  1.182    4.72
 90)  1,1,1,2-tetrachloroethane
      0.627 0.641 0.608 0.613 0.629 0.507 0.616 0.542 0.649        0.604    7.90
 91)  ethylbenzene
      2.103 2.057 2.072 2.030 2.046 1.870 2.063 2.204 2.193 1.999  2.064    4.60
 92)  m,p-xylene
      0.779 0.763 0.787 0.769 0.769 0.713 0.787 0.737 0.782 0.767  0.765    3.08
 93)  o-xylene
      1.831 1.859 1.902 1.876 1.921 1.684 1.855 1.904 1.952 1.798  1.858    4.09
 94)  styrene
      1.261 1.279 1.268 1.251 1.274 1.178 1.295 1.300 1.284 1.177  1.257    3.51
 95)  butyl acrylate
      0.872 0.936 0.856 0.833 0.890 0.781 0.883 0.885 0.840 1.010  0.879    7.05
 96)  isopropylbenzene
      2.296 2.467 2.536 2.487 2.505 2.197 2.454 2.359 2.483 1.938  2.372    7.83
 97)  bromoform
      0.352 0.400 0.399 0.389 0.400 0.356 0.403 0.405 0.376        0.387    5.30
 98)  cis-1,4-dichloro-2-butene
      0.235 0.279 0.252 0.256 0.285 0.216 0.292 0.264 0.274 0.255  0.261    8.95

 99) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
100)  4-bromofluorobenzene (s)
      0.739 0.734 0.803 0.777 0.747 0.831 0.731 0.733 0.731 0.737  0.756    4.70
101)  1,1,2,2-tetrachloroethane
      1.002 1.004 1.145 1.037 1.010 1.057 1.032 0.924 1.046 1.045  1.030    5.38
102)  trans-1,4-dichloro-2-butene  **This compound does not meet initial calibration criteria
            0.234 0.256 0.246 0.243 0.228 0.255       0.245        0.244    4.11
103)  1,2,3-trichloropropane
      0.242 0.278 0.332 0.311 0.304 0.304 0.321 0.296 0.309        0.300    8.81
104)  bromobenzene
      0.837 0.888 0.970 0.916 0.879 0.921 0.907 0.880 0.910 0.746  0.886    6.76
105)  n-propylbenzene
      3.811 3.868 4.406 4.164 3.989 4.180 3.976 4.205 3.972 3.658  4.023    5.45
106)  2-chlorotoluene
      0.808 0.836 0.980 0.932 0.888 0.916 0.850 0.950 0.859        0.891    6.45
107)  4-chlorotoluene
      2.248 2.222 2.518 2.401 2.350 2.401 2.331 2.638 2.433 2.362  2.390    5.11
108)  1,3,5-trimethylbenzene
      3.052 3.037 3.799 3.559 3.387 3.485 3.247 3.091 3.166 2.993  3.282    8.15
109)  tert-butylbenzene
      2.514 2.597 3.505 3.231 3.006 3.079 2.808 2.531 2.641        2.879   12.08
110)  1,2,4-trimethylbenzene
      3.116 3.126 3.693 3.489 3.321 3.422 3.275 3.284 3.206 3.020  3.295    6.05
111)  sec-butylbenzene
      3.856 3.916 5.100 4.710 4.426 4.596 4.173 4.051 4.003        4.315    9.77
112)  p-isopropyltoluene
      3.483 3.547 4.327 4.018 3.841 3.985 3.725 3.474 3.703 3.392  3.750    7.89
113)  1,3-dichlorobenzene
```

Initial Calibration Summary

Job Number: JC62879 **Sample:** V3B6383-ICC6383
Account: BBLNYS Arcadis **Lab FileID:** 3B144374.D
Project: National Grid, Philly Coke, Philadelphia PA

```
       1.715 1.840 1.895 1.841 1.868 1.737 1.828 1.873 2.074 2.002  1.867    5.79
114)  1,4-dichlorobenzene
       1.924 1.833 1.915 1.870 1.833 1.756 1.921 2.181 1.956        1.910    6.23
115)  1,2-dichlorobenzene
       1.836 2.011 2.122 2.059 2.064 1.925 2.042 2.253 2.119 2.175  2.061    5.81
116)  Benzyl Chloride
       2.404 2.378 2.351 2.304 2.371 2.053 2.414 2.529 2.419 2.544  2.377    5.71
117)  n-butylbenzene
       1.716 1.809 2.016 1.922 1.880 1.877 1.817 1.959 1.817 2.255  1.907    7.82
118)  hexachloroethane
       0.679 0.667 0.919 0.852 0.773 0.801 0.763 0.586 0.696        0.749   13.70
119)  1,2-dibromo-3-chloropropane
       0.420 0.424 0.468 0.435 0.448 0.408 0.422 0.337 0.438        0.422    8.59
120)  1,3,5-trichlorobenzene
       2.214 2.187 2.390 2.315 2.265 2.068 2.273 2.258 2.226 2.809  2.301    8.58
121)  2-ethylhexyl acrylate
                   1.493 1.299 1.157 1.329 1.051                    1.266   13.39
122)  1,2,4-trichlorobenzene
       1.972 2.024 2.431 2.326 2.289 2.006 2.216 2.185 2.117        2.174    7.25
123)  hexachlorobutadiene
       0.952 0.924 1.128 1.055 1.024 0.965 0.994 0.906 1.029 0.734  0.971   10.93
124)  naphthalene
       5.410 5.313 6.389 5.995 5.990 5.221 5.824 5.845 5.638        5.736    6.58
125)  1,2,3-trichlorobenzene
       2.026 2.059 2.464 2.310 2.295 2.019 2.197 2.349 2.139        2.207    7.14
126)  2-methylnaphthalene
       3.049 3.031 4.292 3.822 3.611 3.595 3.344 3.671 3.130        3.505   11.79
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M3B6383.M         Thu Mar 15 09:03:48 2018   M3B
```

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6383-ICV6383
Lab FileID: 3B144379.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V3B6383\3b144379.D Vial: 14
Acq On : 28 Feb 2018 2:07 am Operator: EddieH
Sample : icv6383-50 Inst : MS3B
Misc : MS24260,V3B6383,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6383.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Mar 02 08:44:43 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	122	0.00	8.02
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.427	1.519	-6.4	128	0.01	8.15
4		1,4-dioxane	0.101	0.104	-3.0	128	0.00	12.17
5	I	pentafluorobenzene	1.000	1.000	0.0	115	0.00	10.52
6		chlorodifluoromethane	1.144	1.102	3.7	109	0.01	4.22
7		dichlorodifluoromethane	1.092	1.326	-21.4	130	0.00	4.20
8		chloromethane	0.993	1.167	-17.5	139	0.00	4.62
9		vinyl chloride	0.969	1.087	-12.2	125	0.00	4.89
10		1,3-Butadiene		----------NA----------				
11		bromomethane	0.689	0.770	-11.8	127	0.00	5.59
12		chloroethane	0.483	0.550	-13.9	133	0.00	5.79
13		trichlorofluoromethane	1.297	1.308	-0.8	115	0.00	6.32
14		vinyl bromide	0.732	0.824	-12.6	127	0.00	6.17
15		ethyl ether	0.258	0.289	-12.0	125	0.00	6.75
16		2-chloropropane	1.010	1.039	-2.9	123	0.00	6.99
17		acrolein	0.119	0.141	-18.5	133	0.00	7.01
18		freon 113	0.573	0.710	-23.9	132	0.00	7.25
19		1,1-dichloroethene	0.561	0.596	-6.2	119	0.00	7.22
20		acetone	0.072	0.088	-22.2	141	0.00	7.25
21		acetonitrile	0.110	0.088	20.0	100	0.00	7.73
22		iodomethane	1.236	1.314	-6.3	120	0.00	7.50
23		carbon disulfide	2.238	2.344	-4.7	123	0.00	7.66
24		methylene chloride	0.616	0.667	-8.3	124	0.00	8.05
25		methyl acetate	0.480	0.542	-12.9	133	0.00	7.78
26		methyl tert butyl ether	2.025	1.189	-8.1	125	0.00	8.46
27		trans-1,2-dichloroethene	0.552	0.562	-1.8	121	0.00	8.48
28		hexane	0.340	0.316	7.1	105	0.00	8.89
29		di-isopropyl ether	1.753	1.970	-12.4	129	0.00	9.14
30		2-butanone	0.081	0.097	-19.8	138	0.00	9.86
31		1,1-dichloroethane	0.988	1.050	-6.3	123	0.00	9.14
32		chloroprene	0.848	0.921	-8.6	124	0.00	9.25
33		acrylonitrile	0.257	0.316	-23.0	143	0.00	8.39
34		vinyl acetate	0.082	0.083	-1.2	112	0.00	9.09
35		ethyl tert-butyl ether	1.940	2.175	-12.1	127	0.00	9.66
36		ethyl acetate	0.091	0.108	-18.7	134	0.00	9.89
37		2,2-dichloropropane	1.130	1.112	1.6	114	0.00	9.96
38		cis-1,2-dichloroethene	0.645	0.674	-4.5	124	0.00	9.92
39		propionitrile	0.123	0.126	-2.4	121	0.00	9.95
40		methyl acrylate	0.093	0.108	-16.1	129	0.00	9.97
41		methacrylonitrile	0.251	0.283	-12.7	126	0.00	10.16

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6383-ICV6383
Lab FileID: 3B144379.D

42		bromochloromethane	0.320	0.349	-9.1	123	0.00	10.24
43		tetrahydrofuran	0.224	0.249	-11.2	130	0.00	10.26
44		chloroform	1.128	1.118	0.9	122	0.00	10.35
45		tert-Butyl Formate	0.285	0.384	-34.7#	153	0.00	10.38
46	S	dibromofluoromethane (s)	0.477	0.475	0.4	115	0.00	10.55
47		1,1,1-trichloroethane	1.147	1.174	-2.4	114	0.00	10.61
48		cyclohexane	0.945	1.050	-11.1	123	0.00	10.73
49		isobutyl alcohol	0.049	0.055	-12.2	136	0.00	10.79
50		1,1-dichloropropene	0.751	0.820	-9.2	122	0.00	10.79
51		carbon tetrachloride	1.032	1.081	-4.7	115	0.00	10.82
52		tert-amyl alcohol	0.082	0.085	-3.7	130	0.00	10.96
53		isopropyl acetate	0.128	0.157	-22.7	134	0.00	10.98
54	I	1,4-difluorobenzene	1.000	1.000	0.0	119	0.00	11.50
55	S	1,2-dichloroethane-d4 (s)	0.416	0.382	8.2	110	0.00	10.99
56		n-butyl alcohol	0.023	0.025	-8.7	132	0.00	11.57
57		2,2,4-Trimethylpentane	1.468	1.745	-18.9	129	0.00	11.16
58		benzene	1.565	1.599	-2.2	125	0.00	11.05
59		tert-amyl methyl ether	1.428	1.473	-3.2	124	0.00	11.15
60		heptane	0.252	0.314	-24.6	137	0.00	11.33
61		1,2-dichloroethane	0.643	0.606	5.8	119	0.00	11.08
62		ethyl acrylate	0.465	0.544	-17.0	134	0.00	11.82
63		trichloroethene	0.410	0.438	-6.8	124	0.00	11.82
64		2-chloroethyl vinyl ether	0.228	0.261	-14.5	131	0.00	12.66
65		methyl methacrylate	0.104	0.121	-16.3	128	0.00	12.09
66		methylcyclohexane	0.823	0.841	-2.2	116	0.00	12.12
67		1,2-dichloropropane	0.384	0.405	-5.5	125	0.00	12.12
68		dibromomethane	0.260	0.284	-9.2	127	0.00	12.23
69		bromodichloromethane	0.594	0.599	-0.8	119	0.00	12.40
70		2-nitropropane	0.183	0.200	-9.3	121	0.00	12.62
71		epichlorohydrin	0.052	0.060	-15.4	138	0.00	12.75
72		cis-1,3-dichloropropene	0.616	0.678	-10.1	126	0.00	12.89
73		4-methyl-2-pentanone	0.192	0.228	-18.8	135	0.00	13.00
74		isoamyl alcohol	0.024	0.027	-12.5	130	0.00	13.01
75	I	chlorobenzene-d5	1.000	1.000	0.0	119	0.00	14.83
76	S	toluene-d8 (s)	1.292	1.262	2.3	118	0.00	13.21
77		toluene	1.032	1.096	-6.2	126	0.00	13.29
78		ethyl methacrylate	0.568	0.588	-3.5	122	0.00	13.48
79		trans-1,3-dichloropropene	0.654	0.656	-0.3	117	0.00	13.49
80		1,1,2-trichloroethane	0.316	0.338	-7.0	129	0.00	13.73
81		tetrachloroethene	0.393	0.695	-76.8#	212#	0.00	13.88
82		2-hexanone	0.192	0.219	-14.1	134	0.00	13.91
83		1,3-dichloropropane	0.605	0.662	-9.4	128	0.00	13.92
84		butyl acetate	0.285	0.331	-16.1	137	0.00	13.99
85		3,3-Dimethyl-1-Butanol	0.078	0.089	-14.1	131	0.00	14.10
86		dibromochloromethane	0.509	0.537	-5.5	125	0.00	14.19
87		1,2-dibromoethane	0.422	0.450	-6.6	129	0.00	14.35
88		n-butyl ether	1.818	1.892	-4.1	128	0.00	14.82
89		chlorobenzene	1.182	1.230	-4.1	126	0.00	14.86
90		1,1,1,2-tetrachloroethane	0.604	0.627	-3.8	122	0.00	14.94
91		ethylbenzene	2.064	2.149	-4.1	126	0.00	14.93
92		m,p-xylene	0.765	0.823	-7.6	127	0.00	15.06
93		o-xylene	1.858	1.962	-5.6	124	0.00	15.49
94		styrene	1.257	1.333	-6.0	127	0.00	15.50
95		butyl acrylate	0.879	0.893	-1.6	128	0.00	15.31
96		isopropylbenzene	2.372	2.601	-9.7	124	0.00	15.87
97		bromoform	0.387	0.414	-7.0	127	0.00	15.75
98		cis-1,4-dichloro-2-butene	0.261	0.246	5.7	114	0.00	15.91

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6383-ICV6383
Lab FileID: 3B144379.D

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	112	0.00	17.32
100	S	4-bromofluorobenzene (s)	0.756	0.781	-3.3	113	0.00	16.08
101		1,1,2,2-tetrachloroethane	1.030	1.137	-10.4	123	0.00	16.17
102		trans-1,4-dichloro-2-bute	0.244	0.322	-32.0#	147	0.00	16.20
103		1,2,3-trichloropropane	0.300	0.336	-12.0	122	0.00	16.26
104		bromobenzene	0.886	1.003	-13.2	123	0.00	16.28
105		n-propylbenzene	4.023	4.616	-14.7	125	0.00	16.31
106		2-chlorotoluene	0.891	1.003	-12.6	121	0.00	16.45
107		4-chlorotoluene	2.390	2.662	-11.4	125	0.00	16.58
108		1,3,5-trimethylbenzene	3.282	3.896	-18.7	123	0.00	16.48
109		tert-butylbenzene	2.879	3.498	-21.5	122	0.00	16.84
110		1,2,4-trimethylbenzene	3.295	3.904	-18.5	126	0.00	16.89
111		sec-butylbenzene	4.315	5.216	-20.9	124	0.00	17.07
112		p-isopropyltoluene	3.750	4.504	-20.1	126	0.00	17.21
113		1,3-dichlorobenzene	1.867	1.980	-6.1	121	0.00	17.25
114		1,4-dichlorobenzene	1.910	1.987	-4.0	119	0.00	17.35
115		1,2-dichlorobenzene	2.061	2.158	-4.7	118	0.00	17.74
116		Benzyl Chloride	2.377	2.069	13.0	101	0.00	17.44
117		n-butylbenzene	1.907	2.188	-14.7	128	0.00	17.63
118		hexachloroethane	0.749	0.911	-21.6	120	0.00	18.04
119		1,2-dibromo-3-chloropropa	0.422	0.463	-9.7	120	0.00	18.51
120		1,3,5-trichlorobenzene	2.301	2.418	-5.1	117	0.00	18.69
121		2-ethylhexyl acrylate	1.266	1.624	-28.3	140	0.00	19.31
122		1,2,4-trichlorobenzene	2.174	2.424	-11.5	117	0.00	19.32
123		hexachlorobutadiene	0.971	1.089	-12.2	116	0.00	19.42
124		naphthalene	5.736	6.415	-11.8	120	0.00	19.60
125		1,2,3-trichlorobenzene	2.207	2.405	-9.0	117	0.00	19.82
126		2-methylnaphthalene	3.505	3.896	-11.2	114	0.00	20.76

(#) = Out of Range SPCC's out = 0 CCC's out = 0

3b144374.D M3B6383.M Fri Mar 02 08:47:17 2018 M3B

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6383-ICV6383
Lab FileID: 3B144380.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V3B6383\3b144380.D Vial: 15
Acq On : 28 Feb 2018 2:36 am Operator: EddieH
Sample : icv6383-50 Inst : MS3B
Misc : MS24260,V3B6383,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6383.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Wed Feb 28 15:40:12 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	123	0.00	8.01
2		ethanol		----------NA----------				
3		tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	119	0.00	10.52
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		1,3-Butadiene		----------NA----------				
11		bromomethane		----------NA----------				
12		chloroethane		----------NA----------				
13		trichlorofluoromethane		----------NA----------				
14		vinyl bromide		----------NA----------				
15		ethyl ether		----------NA----------				
16		2-chloropropane		----------NA----------				
17		acrolein		----------NA----------				
18		freon 113		----------NA----------				
19		1,1-dichloroethene		----------NA----------				
20		acetone		----------NA----------				
21		acetonitrile	0.110	0.108	1.8	126	0.00	7.73
22		iodomethane		----------NA----------				
23		carbon disulfide		----------NA----------				
24		methylene chloride		----------NA----------				
25		methyl acetate		----------NA----------				
26		methyl tert butyl ether		----------NA----------				
27		trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29		di-isopropyl ether		----------NA----------				
30		2-butanone		----------NA----------				
31		1,1-dichloroethane		----------NA----------				
32		chloroprene		----------NA----------				
33		acrylonitrile		----------NA----------				
34		vinyl acetate		----------NA----------				
35		ethyl tert-butyl ether		----------NA----------				
36		ethyl acetate		----------NA----------				
37		2,2-dichloropropane		----------NA----------				
38		cis-1,2-dichloroethene		----------NA----------				
39		propionitrile		----------NA----------				
40		methyl acrylate		----------NA----------				
41		methacrylonitrile		----------NA----------				

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6383-ICV6383
Lab FileID: 3B144380.D

42		bromochloromethane			----------NA----------				
43		tetrahydrofuran			----------NA----------				
44		chloroform			----------NA----------				
45		tert-Butyl Formate			----------NA----------				
46	S	dibromofluoromethane (s)	0.477	0.470	1.5	118	0.00	10.54	
47		1,1,1-trichloroethane			----------NA----------				
48		cyclohexane			----------NA----------				
49		isobutyl alcohol			----------NA----------				
50		1,1-dichloropropene			----------NA----------				
51		carbon tetrachloride			----------NA----------				
52		tert-amyl alcohol			----------NA----------				
53		isopropyl acetate			----------NA----------				
54	I	1,4-difluorobenzene	1.000	1.000	0.0	115	0.00	11.50	
55	S	1,2-dichloroethane-d4 (s)	0.416	0.392	5.8	109	0.00	10.99	
56		n-butyl alcohol			----------NA----------				
57		2,2,4-Trimethylpentane			----------NA----------				
58		benzene			----------NA----------				
59		tert-amyl methyl ether			----------NA----------				
60		heptane			----------NA----------				
61		1,2-dichloroethane			----------NA----------				
62		ethyl acrylate			----------NA----------				
63		trichloroethene			----------NA----------				
64		2-chloroethyl vinyl ether			----------NA----------				
65		methyl methacrylate			----------NA----------				
66		methylcyclohexane			----------NA----------				
67		1,2-dichloropropane			----------NA----------				
68		dibromomethane			----------NA----------				
69		bromodichloromethane			----------NA----------				
70		2-nitropropane			----------NA----------				
71		epichlorohydrin			----------NA----------				
72		cis-1,3-dichloropropene			----------NA----------				
73		4-methyl-2-pentanone			----------NA----------				
74		isoamyl alcohol			----------NA----------				
75	I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	14.83	
76	S	toluene-d8 (s)	1.292	1.295	-0.2	110	0.00	13.21	
77		toluene			----------NA----------				
78		ethyl methacrylate			----------NA----------				
79		trans-1,3-dichloropropene			----------NA----------				
80		1,1,2-trichloroethane			----------NA----------				
81		tetrachloroethene	0.393	0.382	2.8	106	0.00	13.88	
82		2-hexanone			----------NA----------				
83		1,3-dichloropropane			----------NA----------				
84		butyl acetate			----------NA----------				
85		3,3-Dimethyl-1-Butanol			----------NA----------				
86		dibromochloromethane			----------NA----------				
87		1,2-dibromoethane			----------NA----------				
88		n-butyl ether			----------NA----------				
89		chlorobenzene			----------NA----------				
90		1,1,1,2-tetrachloroethane			----------NA----------				
91		ethylbenzene			----------NA----------				
92		m,p-xylene			----------NA----------				
93		o-xylene			----------NA----------				
94		styrene			----------NA----------				
95		butyl acrylate			----------NA----------				
96		isopropylbenzene			----------NA----------				
97		bromoform			----------NA----------				
98		cis-1,4-dichloro-2-butene			----------NA----------				

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6383-ICV6383
Lab FileID: 3B144380.D

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	124	0.00	17.32
100	S	4-bromofluorobenzene (s)	0.756	0.725	4.1	116	0.00	16.08
101		1,1,2,2-tetrachloroethane	----------NA----------					
102		trans-1,4-dichloro-2-bute	----------NA----------					
103		1,2,3-trichloropropane	----------NA----------					
104		bromobenzene	----------NA----------					
105		n-propylbenzene	----------NA----------					
106		2-chlorotoluene	----------NA----------					
107		4-chlorotoluene	----------NA----------					
108		1,3,5-trimethylbenzene	----------NA----------					
109		tert-butylbenzene	----------NA----------					
110		1,2,4-trimethylbenzene	----------NA----------					
111		sec-butylbenzene	----------NA----------					
112		p-isopropyltoluene	----------NA----------					
113		1,3-dichlorobenzene	----------NA----------					
114		1,4-dichlorobenzene	----------NA----------					
115		1,2-dichlorobenzene	----------NA----------					
116		Benzyl Chloride	----------NA----------					
117		n-butylbenzene	----------NA----------					
118		hexachloroethane	----------NA----------					
119		1,2-dibromo-3-chloropropa	----------NA----------					
120		1,3,5-trichlorobenzene	----------NA----------					
121		2-ethylhexyl acrylate	----------NA----------					
122		1,2,4-trichlorobenzene	----------NA----------					
123		hexachlorobutadiene	----------NA----------					
124		naphthalene	----------NA----------					
125		1,2,3-trichlorobenzene	----------NA----------					
126		2-methylnaphthalene	----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

3b144374.D M3B6383.M Wed Feb 28 15:41:31 2018 M3B

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6401-ICV6383
Lab FileID: 3B144750.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V3B6401\3b144750.D Vial: 2
Acq On : 13 Mar 2018 1:20 pm Operator: EddieH
Sample : icv6383-50 Inst : MS3B
Misc : MS24844,V3B6401,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6383.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Mar 02 08:44:43 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	120	0.00	8.01
2		ethanol		----------	NA	----------		
3		tertiary butyl alcohol		----------	NA	----------		
4		1,4-dioxane		----------	NA	----------		
5	I	pentafluorobenzene	1.000	1.000	0.0	118	-0.01	10.51
6		chlorodifluoromethane		----------	NA	----------		
7		dichlorodifluoromethane		----------	NA	----------		
8		chloromethane		----------	NA	----------		
9		vinyl chloride		----------	NA	----------		
10		1,3-Butadiene	0.750	0.978	-30.4#	155	0.00	4.92
11		bromomethane		----------	NA	----------		
12		chloroethane		----------	NA	----------		
13		trichlorofluoromethane		----------	NA	----------		
14		vinyl bromide		----------	NA	----------		
15		ethyl ether		----------	NA	----------		
16		2-chloropropane		----------	NA	----------		
17		acrolein		----------	NA	----------		
18		freon 113		----------	NA	----------		
19		1,1-dichloroethene		----------	NA	----------		
20		acetone		----------	NA	----------		
21		acetonitrile		----------	NA	----------		
22		iodomethane		----------	NA	----------		
23		carbon disulfide		----------	NA	----------		
24		methylene chloride		----------	NA	----------		
25		methyl acetate		----------	NA	----------		
26		methyl tert butyl ether		----------	NA	----------		
27		trans-1,2-dichloroethene		----------	NA	----------		
28		hexane		----------	NA	----------		
29		di-isopropyl ether		----------	NA	----------		
30		2-butanone		----------	NA	----------		
31		1,1-dichloroethane		----------	NA	----------		
32		chloroprene		----------	NA	----------		
33		acrylonitrile		----------	NA	----------		
34		vinyl acetate		----------	NA	----------		
35		ethyl tert-butyl ether		----------	NA	----------		
36		ethyl acetate		----------	NA	----------		
37		2,2-dichloropropane		----------	NA	----------		
38		cis-1,2-dichloroethene		----------	NA	----------		
39		propionitrile		----------	NA	----------		
40		methyl acrylate		----------	NA	----------		
41		methacrylonitrile		----------	NA	----------		

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6401-ICV6383
Lab FileID: 3B144750.D

42		bromochloromethane			----------NA----------				
43		tetrahydrofuran			----------NA----------				
44		chloroform			----------NA----------				
45		tert-Butyl Formate			----------NA----------				
46	S	dibromofluoromethane (s)	0.477	0.472	1.0	117	-0.01	10.54	
47		1,1,1-trichloroethane			----------NA----------				
48		cyclohexane			----------NA----------				
49		isobutyl alcohol			----------NA----------				
50		1,1-dichloropropene			----------NA----------				
51		carbon tetrachloride			----------NA----------				
52		tert-amyl alcohol			----------NA----------				
53		isopropyl acetate			----------NA----------				
54	I	1,4-difluorobenzene	1.000	1.000	0.0	115	0.00	11.49	
55	S	1,2-dichloroethane-d4 (s)	0.416	0.345	17.1	96	0.00	10.98	
56		n-butyl alcohol			----------NA----------				
57		2,2,4-Trimethylpentane			----------NA----------				
58		benzene			----------NA----------				
59		tert-amyl methyl ether			----------NA----------				
60		heptane			----------NA----------				
61		1,2-dichloroethane			----------NA----------				
62		ethyl acrylate			----------NA----------				
63		trichloroethene			----------NA----------				
64		2-chloroethyl vinyl ether			----------NA----------				
65		methyl methacrylate			----------NA----------				
66		methylcyclohexane			----------NA----------				
67		1,2-dichloropropane			----------NA----------				
68		dibromomethane			----------NA----------				
69		bromodichloromethane			----------NA----------				
70		2-nitropropane			----------NA----------				
71		epichlorohydrin			----------NA----------				
72		cis-1,3-dichloropropene			----------NA----------				
73		4-methyl-2-pentanone			----------NA----------				
74		isoamyl alcohol			----------NA----------				
75	I	chlorobenzene-d5	1.000	1.000	0.0	117	0.00	14.83	
76	S	toluene-d8 (s)	1.292	1.241	3.9	114	0.00	13.21	
77		toluene			----------NA----------				
78		ethyl methacrylate			----------NA----------				
79		trans-1,3-dichloropropene			----------NA----------				
80		1,1,2-trichloroethane			----------NA----------				
81		tetrachloroethene			----------NA----------				
82		2-hexanone			----------NA----------				
83		1,3-dichloropropane			----------NA----------				
84		butyl acetate			----------NA----------				
85		3,3-Dimethyl-1-Butanol			----------NA----------				
86		dibromochloromethane			----------NA----------				
87		1,2-dibromoethane			----------NA----------				
88		n-butyl ether			----------NA----------				
89		chlorobenzene			----------NA----------				
90		1,1,1,2-tetrachloroethane			----------NA----------				
91		ethylbenzene			----------NA----------				
92		m,p-xylene			----------NA----------				
93		o-xylene			----------NA----------				
94		styrene			----------NA----------				
95		butyl acrylate			----------NA----------				
96		isopropylbenzene			----------NA----------				
97		bromoform			----------NA----------				
98		cis-1,4-dichloro-2-butene			----------NA----------				

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6401-ICV6383
Lab FileID: 3B144750.D

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	129	0.00	17.32
100	S	4-bromofluorobenzene (s)	0.756	0.722	4.5	120	0.00	16.08
101		1,1,2,2-tetrachloroethane	----------NA----------					
102		trans-1,4-dichloro-2-bute	----------NA----------					
103		1,2,3-trichloropropane	----------NA----------					
104		bromobenzene	----------NA----------					
105		n-propylbenzene	----------NA----------					
106		2-chlorotoluene	----------NA----------					
107		4-chlorotoluene	----------NA----------					
108		1,3,5-trimethylbenzene	----------NA----------					
109		tert-butylbenzene	----------NA----------					
110		1,2,4-trimethylbenzene	----------NA----------					
111		sec-butylbenzene	----------NA----------					
112		p-isopropyltoluene	----------NA----------					
113		1,3-dichlorobenzene	----------NA----------					
114		1,4-dichlorobenzene	----------NA----------					
115		1,2-dichlorobenzene	----------NA----------					
116		Benzyl Chloride	----------NA----------					
117		n-butylbenzene	----------NA----------					
118		hexachloroethane	----------NA----------					
119		1,2-dibromo-3-chloropropa	----------NA----------					
120		1,3,5-trichlorobenzene	----------NA----------					
121		2-ethylhexyl acrylate	----------NA----------					
122		1,2,4-trichlorobenzene	----------NA----------					
123		hexachlorobutadiene	----------NA----------					
124		naphthalene	----------NA----------					
125		1,2,3-trichlorobenzene	----------NA----------					
126		2-methylnaphthalene	----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

3b144374.D M3B6383.M Thu Mar 15 09:01:36 2018 M3B

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6426-CC6383
Lab FileID: 3B145266.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\v3b6426\3b145266.d Vial: 23
Acq On : 28 Mar 2018 5:46 pm Operator: EddieH
Sample : CC6383-50 Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6383.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Mar 02 08:44:43 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	81	-0.01	8.01
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.427	1.312	8.1	73	0.00	8.14
4		1,4-dioxane	0.101	0.080	20.8#	65	-0.01	12.17
5	I	pentafluorobenzene	1.000	1.000	0.0	84	-0.01	10.51
6		chlorodifluoromethane	1.144	1.176	-2.8	85	0.02	4.22
7		dichlorodifluoromethane	1.092	1.225	-12.2	88	0.00	4.20
8		chloromethane	0.993	1.129	-13.7	99	0.00	4.62
9		vinyl chloride	0.969	1.133	-16.9	95	0.00	4.89
10		1,3-Butadiene	0.750	0.058	92.3#	7#	-0.02	4.91
11		bromomethane	0.689	0.849	-23.2#	103	0.00	5.59
12		chloroethane	0.483	0.574	-18.8	101	0.00	5.78
13		trichlorofluoromethane	1.297	1.404	-8.2	90	0.00	6.32
14		vinyl bromide	0.732	0.881	-20.4#	99	0.00	6.16
15		ethyl ether		----------NA----------				
16		2-chloropropane	1.010	0.904	10.5	78	-0.01	6.98
17		acrolein	0.119	0.129	-8.4	89	-0.01	7.00
18		freon 113	0.573	0.647	-12.9	88	0.00	7.25
19		1,1-dichloroethene	0.561	0.526	6.2	77	0.00	7.21
20		acetone	0.072	0.063	12.5	74	-0.02	7.23
21		acetonitrile	0.110	0.102	7.3	84	-0.02	7.71
22		iodomethane		----------NA----------				
23		carbon disulfide	2.238	2.070	7.5	79	0.00	7.65
24		methylene chloride	0.616	0.597	3.1	81	-0.02	8.03
25		methyl acetate	0.480	0.459	4.4	82	-0.01	7.77
26		methyl tert butyl ether	2.025	1.981	2.2	83	-0.02	8.45
27		trans-1,2-dichloroethene	0.552	0.536	2.9	84	0.00	8.48
28		hexane	0.340	0.336	1.2	82	0.00	8.89
29		di-isopropyl ether	1.753	1.801	-2.7	86	-0.02	9.13
30		2-butanone	0.081	0.076	6.2	79	-0.01	9.85
31		1,1-dichloroethane	0.988	0.994	-0.6	85	-0.01	9.13
32		chloroprene	0.848	0.815	3.9	80	-0.01	9.24
33		acrylonitrile		----------NA----------				
34		vinyl acetate	0.082	0.092	-12.2	90	-0.02	9.07
35		ethyl tert-butyl ether	1.940	1.960	-1.0	83	-0.01	9.64
36		ethyl acetate	0.091	0.086	5.5	78	-0.02	9.88
37		2,2-dichloropropane	1.130	1.252	-10.8	94	-0.01	9.95
38		cis-1,2-dichloroethene	0.645	0.615	4.7	83	-0.01	9.91
39		propionitrile		----------NA----------				
40		methyl acrylate		----------NA----------				
41		methacrylonitrile	0.251	0.239	5.0	79	-0.02	10.14

Continuing Calibration Summary

Job Number: JC62879 **Sample:** V3B6426-CC6383
Account: BBLNYS Arcadis **Lab FileID:** 3B145266.D
Project: National Grid, Philly Coke, Philadelphia PA

42		bromochloromethane	0.320	0.326	-1.9	84	-0.01	10.23
43		tetrahydrofuran		----------NA----------				
44		chloroform	1.128	1.043	7.5	83	-0.01	10.33
45		tert-Butyl Formate	0.285	0.667	-134.0#	194	0.00	10.38
46	S	dibromofluoromethane (s)	0.477	0.470	1.5	83	-0.02	10.53
47		1,1,1-trichloroethane	1.147	1.222	-6.5	87	0.00	10.61
48		cyclohexane	0.945	0.912	3.5	78	-0.01	10.72
49		isobutyl alcohol	0.049	0.045	8.2	82	-0.01	10.77
50		1,1-dichloropropene	0.751	0.733	2.4	80	0.00	10.79
51		carbon tetrachloride	1.032	1.118	-8.3	87	-0.01	10.81
52		tert-amyl alcohol	0.082	0.069	15.9	77	-0.01	10.95
53		isopropyl acetate	0.128	0.134	-4.7	84	-0.01	10.97
54	I	1,4-difluorobenzene	1.000	1.000	0.0	82	-0.01	11.49
55	S	1,2-dichloroethane-d4 (s)	0.416	0.410	1.4	81	-0.01	10.98
56		n-butyl alcohol	0.023	0.020	13.0	75	-0.01	11.56
57		2,2,4-Trimethylpentane	1.468	1.663	-13.3	85	-0.01	11.15
58		benzene	1.565	1.526	2.5	82	-0.01	11.04
59		tert-amyl methyl ether	1.428	1.451	-1.6	84	-0.01	11.14
60		heptane	0.252	0.279	-10.7	84	0.00	11.33
61		1,2-dichloroethane	0.643	0.613	4.7	83	-0.01	11.07
62		ethyl acrylate	0.465	0.490	-5.4	83	-0.01	11.81
63		trichloroethene	0.410	0.408	0.5	79	0.00	11.81
64		2-chloroethyl vinyl ether	0.228	0.183	19.7	63	-0.01	12.65
65		methyl methacrylate		----------NA----------				
66		methylcyclohexane	0.823	0.843	-2.4	80	0.00	12.12
67		1,2-dichloropropane	0.384	0.405	-5.5	86	-0.01	12.11
68		dibromomethane	0.260	0.270	-3.8	83	-0.01	12.22
69		bromodichloromethane	0.594	0.616	-3.7	85	-0.01	12.39
70		2-nitropropane		----------NA----------				
71		epichlorohydrin	0.052	0.052	0.0	83	-0.01	12.74
72		cis-1,3-dichloropropene	0.616	0.660	-7.1	84	0.00	12.88
73		4-methyl-2-pentanone	0.192	0.219	-14.1	89	-0.01	12.99
74		isoamyl alcohol	0.024	0.024	0.0	80	0.00	13.00
75	I	chlorobenzene-d5	1.000	1.000	0.0	91	-0.01	14.82
76	S	toluene-d8 (s)	1.292	1.232	4.6	88	-0.01	13.20
77		toluene	1.032	0.990	4.1	87	0.00	13.29
78		ethyl methacrylate		----------NA----------				
79		trans-1,3-dichloropropene	0.654	0.628	4.0	85	-0.01	13.48
80		1,1,2-trichloroethane	0.316	0.303	4.1	88	0.00	13.72
81		tetrachloroethene	0.393	0.389	1.0	90	0.00	13.88
82		2-hexanone	0.192	0.187	2.6	88	0.00	13.90
83		1,3-dichloropropane	0.605	0.586	3.1	87	0.00	13.91
84		butyl acetate	0.285	0.285	0.0	90	0.00	13.99
85		3,3-Dimethyl-1-Butanol		----------NA----------				
86		dibromochloromethane	0.509	0.495	2.8	88	0.00	14.18
87		1,2-dibromoethane	0.422	0.411	2.6	89	0.00	14.34
88		n-butyl ether	1.818	1.842	-1.3	95	0.00	14.82
89		chlorobenzene	1.182	1.165	1.4	91	0.00	14.86
90		1,1,1,2-tetrachloroethane	0.604	0.603	0.2	89	0.00	14.93
91		ethylbenzene	2.064	2.102	-1.8	94	0.00	14.93
92		m,p-xylene	0.765	0.803	-5.0	95	-0.01	15.05
93		o-xylene	1.858	1.937	-4.3	94	0.00	15.49
94		styrene	1.257	1.299	-3.3	94	0.00	15.50
95		butyl acrylate	0.879	0.862	1.9	94	0.00	15.30
96		isopropylbenzene	2.372	2.515	-6.0	92	0.00	15.86
97		bromoform	0.387	0.392	-1.3	91	0.00	15.75
98		cis-1,4-dichloro-2-butene	0.261	0.221	15.3	78	-0.01	15.90

Continuing Calibration Summary

Job Number: JC62879 **Sample:** V3B6426-CC6383
Account: BBLNYS Arcadis **Lab FileID:** 3B145266.D
Project: National Grid, Philly Coke, Philadelphia PA

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	17.32
100	S	4-bromofluorobenzene (s)	0.756	0.753	0.4	89	0.00	16.08
101		1,1,2,2-tetrachloroethane	1.030	1.109	-7.7	98	0.00	16.16
102		trans-1,4-dichloro-2-bute		----------NA----------				
103		1,2,3-trichloropropane	0.300	0.319	-6.3	94	0.00	16.26
104		bromobenzene	0.886	0.955	-7.8	96	0.00	16.28
105		n-propylbenzene	4.023	4.403	-9.4	97	0.00	16.31
106		2-chlorotoluene	0.891	0.978	-9.8	96	0.00	16.45
107		4-chlorotoluene	2.390	2.450	-2.5	94	0.00	16.57
108		1,3,5-trimethylbenzene	3.282	3.666	-11.7	95	0.00	16.48
109		tert-butylbenzene	2.879	3.036	-5.5	86	0.00	16.84
110		1,2,4-trimethylbenzene	3.295	3.615	-9.7	95	0.00	16.89
111		sec-butylbenzene	4.315	4.715	-9.3	92	0.00	17.07
112		p-isopropyltoluene	3.750	4.171	-11.2	95	0.00	17.20
113		1,3-dichlorobenzene	1.867	1.911	-2.4	95	0.00	17.24
114		1,4-dichlorobenzene	1.910	1.903	0.4	94	0.00	17.34
115		1,2-dichlorobenzene	2.061	2.109	-2.3	94	0.00	17.73
116		Benzyl Chloride	2.377	2.563	-7.8	102	0.00	17.44
117		n-butylbenzene	1.907	1.984	-4.0	95	0.00	17.63
118		hexachloroethane		----------NA----------				
119		1,2-dibromo-3-chloropropa	0.422	0.404	4.3	85	0.00	18.51
120		1,3,5-trichlorobenzene	2.301	2.300	0.0	91	0.00	18.69
121		2-ethylhexyl acrylate	1.266	1.118	11.7	79	0.00	19.30
122		1,2,4-trichlorobenzene	2.174	2.237	-2.9	88	0.00	19.31
123		hexachlorobutadiene	0.971	1.014	-4.4	88	0.00	19.42
124		naphthalene	5.736	5.547	3.3	85	0.00	19.60
125		1,2,3-trichlorobenzene	2.207	2.256	-2.2	90	0.00	19.81
126		2-methylnaphthalene	3.505	3.306	5.7	79	0.00	20.76

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3b144374.D M3B6383.M Fri Mar 30 06:19:28 2018

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V3B6427-CC6383
Lab FileID: 3B145291.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\04...18\v3b6427\3b145291.d Vial: 1
Acq On : 29 Mar 2018 7:38 am Operator: EddieH
Sample : cc6383-20 Inst : MS3B
Misc : MS25138,V3B6427,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6383.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Mar 02 08:44:43 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	97	0.00	8.01
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.427	1.422	0.4	96	0.00	8.13
4		1,4-dioxane	0.101	0.084	16.8	82	0.00	12.17
5	I	pentafluorobenzene	1.000	1.000	0.0	95	-0.01	10.51
6		chlorodifluoromethane	1.144	1.287	-12.5	104	0.01	4.22
7		dichlorodifluoromethane	1.092	1.314	-20.3#	105	0.00	4.19
8		chloromethane	0.993	1.235	-24.4#	120	0.00	4.62
9		vinyl chloride	0.969	1.183	-22.1#	111	0.00	4.89
10		1,3-Butadiene		----------NA----------				
11		bromomethane	0.689	0.868	-26.0#	116	0.01	5.60
12		chloroethane	0.483	0.601	-24.4#	117	0.00	5.79
13		trichlorofluoromethane	1.297	1.485	-14.5	105	0.00	6.32
14		vinyl bromide	0.732	0.943	-28.8#	118	0.01	6.17
15		ethyl ether		----------NA----------				
16		2-chloropropane	1.010	1.030	-2.0	100	0.00	6.98
17		acrolein	0.119	0.158	-32.8#	119	-0.01	7.00
18		freon 113	0.573	0.640	-11.7	97	0.01	7.26
19		1,1-dichloroethene	0.561	0.550	2.0	93	0.00	7.21
20		acetone	0.072	0.073	-1.4	98	-0.02	7.23
21		acetonitrile	0.110	0.122	-10.9	109	0.00	7.73
22		iodomethane	1.236	1.296	-4.8	101	-0.01	7.50
23		carbon disulfide	2.238	2.191	2.1	97	0.00	7.65
24		methylene chloride	0.616	0.654	-6.2	101	-0.02	8.03
25		methyl acetate	0.480	0.551	-14.8	109	-0.01	7.77
26		methyl tert butyl ether	2.025	2.113	-4.3	97	-0.01	8.46
27		trans-1,2-dichloroethene	0.552	0.535	3.1	96	0.00	8.48
28		hexane	0.340	0.324	4.7	90	-0.01	8.88
29		di-isopropyl ether	1.753	1.915	-9.2	105	-0.02	9.13
30		2-butanone	0.081	0.089	-9.9	105	-0.01	9.85
31		1,1-dichloroethane	0.988	1.047	-6.0	102	0.00	9.13
32		chloroprene	0.848	0.862	-1.7	97	-0.01	9.24
33		acrylonitrile		----------NA----------				
34		vinyl acetate	0.082	0.096	-17.1	113	0.00	9.08
35		ethyl tert-butyl ether	1.940	2.040	-5.2	100	-0.01	9.64
36		ethyl acetate	0.091	0.100	-9.9	108	-0.02	9.87
37		2,2-dichloropropane	1.130	1.265	-11.9	106	-0.02	9.95
38		cis-1,2-dichloroethene	0.645	0.632	2.0	98	-0.01	9.91
39		propionitrile		----------NA----------				
40		methyl acrylate		----------NA----------				
41		methacrylonitrile	0.251	0.176	29.9#	64	-0.02	10.14

Continuing Calibration Summary

Job Number: JC62879 **Sample:** V3B6427-CC6383
Account: BBLNYS Arcadis **Lab FileID:** 3B145291.D
Project: National Grid, Philly Coke, Philadelphia PA

42		bromochloromethane	0.320	0.339	-5.9	97	-0.01	10.23
43		tetrahydrofuran		----------NA----------				
44		chloroform	1.128	1.110	1.6	101	0.00	10.34
45		tert-Butyl Formate	0.285	0.675	-136.8#	223#	0.00	10.38
46	S	dibromofluoromethane (s)	0.477	0.486	-1.9	98	-0.02	10.53
47		1,1,1-trichloroethane	1.147	1.249	-8.9	100	-0.01	10.60
48		cyclohexane	0.945	0.839	11.2	83	-0.01	10.72
49		isobutyl alcohol	0.049	0.053	-8.2	102	0.00	10.79
50		1,1-dichloropropene	0.751	0.735	2.1	93	0.00	10.79
51		carbon tetrachloride	1.032	1.139	-10.4	100	0.00	10.81
52		tert-amyl alcohol	0.082	0.079	3.7	97	-0.02	10.94
53		isopropyl acetate	0.128	0.138	-7.8	100	-0.01	10.97
54	I	1,4-difluorobenzene	1.000	1.000	0.0	94	-0.01	11.49
55	S	1,2-dichloroethane-d4 (s)	0.416	0.458	-10.1	103	-0.01	10.98
56		n-butyl alcohol	0.023	0.023	0.0	93	-0.01	11.56
57		2,2,4-Trimethylpentane	1.468	1.464	0.3	92	0.00	11.16
58		benzene	1.565	1.532	2.1	95	-0.01	11.04
59		tert-amyl methyl ether	1.428	1.505	-5.4	99	0.00	11.14
60		heptane	0.252	0.246	2.4	85	0.00	11.33
61		1,2-dichloroethane	0.643	0.688	-7.0	104	0.00	11.07
62		ethyl acrylate	0.465	0.521	-12.0	103	-0.01	11.81
63		trichloroethene	0.410	0.411	-0.2	93	0.00	11.81
64		2-chloroethyl vinyl ether	0.228	0.161	29.4#	64	-0.01	12.65
65		methyl methacrylate		----------NA----------				
66		methylcyclohexane	0.823	0.751	8.7	81	0.00	12.12
67		1,2-dichloropropane	0.384	0.413	-7.6	101	-0.01	12.11
68		dibromomethane	0.260	0.292	-12.3	101	0.00	12.23
69		bromodichloromethane	0.594	0.645	-8.6	101	0.00	12.39
70		2-nitropropane		----------NA----------				
71		epichlorohydrin	0.052	0.059	-13.5	102	0.00	12.74
72		cis-1,3-dichloropropene	0.616	0.656	-6.5	98	0.00	12.88
73		4-methyl-2-pentanone	0.192	0.231	-20.3#	107	-0.01	12.99
74		isoamyl alcohol	0.024	0.027	-12.5	98	0.00	13.00
75	I	chlorobenzene-d5	1.000	1.000	0.0	104	-0.01	14.82
76	S	toluene-d8 (s)	1.292	1.264	2.2	101	-0.01	13.20
77		toluene	1.032	0.984	4.7	98	-0.01	13.28
78		ethyl methacrylate		----------NA----------				
79		trans-1,3-dichloropropene	0.654	0.656	-0.3	99	-0.01	13.48
80		1,1,2-trichloroethane	0.316	0.319	-0.9	104	-0.01	13.72
81		tetrachloroethene	0.393	0.390	0.8	100	0.00	13.88
82		2-hexanone	0.192	0.212	-10.4	109	-0.01	13.90
83		1,3-dichloropropane	0.605	0.627	-3.6	104	0.00	13.91
84		butyl acetate	0.285	0.311	-9.1	108	0.00	13.99
85		3,3-Dimethyl-1-Butanol		----------NA----------				
86		dibromochloromethane	0.509	0.517	-1.6	101	-0.01	14.17
87		1,2-dibromoethane	0.422	0.439	-4.0	108	-0.01	14.34
88		n-butyl ether	1.818	1.776	2.3	102	0.00	14.82
89		chlorobenzene	1.182	1.151	2.6	102	0.00	14.86
90		1,1,1,2-tetrachloroethane	0.604	0.629	-4.1	104	0.00	14.93
91		ethylbenzene	2.064	2.050	0.7	104	0.00	14.93
92		m,p-xylene	0.765	0.773	-1.0	104	0.00	15.06
93		o-xylene	1.858	1.892	-1.8	102	0.00	15.49
94		styrene	1.257	1.289	-2.5	105	0.00	15.50
95		butyl acrylate	0.879	0.923	-5.0	108	0.00	15.30
96		isopropylbenzene	2.372	2.395	-1.0	99	0.00	15.86
97		bromoform	0.387	0.409	-5.7	106	0.00	15.75
98		cis-1,4-dichloro-2-butene	0.261	0.250	4.2	91	-0.01	15.90

Continuing Calibration Summary

Job Number: JC62879 **Sample:** V3B6427-CC6383
Account: BBLNYS Arcadis **Lab FileID:** 3B145291.D
Project: National Grid, Philly Coke, Philadelphia PA

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	17.32
100	S	4-bromofluorobenzene (s)	0.756	0.749	0.9	101	0.00	16.08
101		1,1,2,2-tetrachloroethane	1.030	1.125	-9.2	112	0.00	16.16
102		trans-1,4-dichloro-2-bute		----------NA----------				
103		1,2,3-trichloropropane	0.300	0.336	-12.0	111	0.00	16.26
104		bromobenzene	0.886	0.932	-5.2	107	0.00	16.28
105		n-propylbenzene	4.023	4.143	-3.0	105	0.00	16.31
106		2-chlorotoluene	0.891	0.913	-2.5	104	0.00	16.45
107		4-chlorotoluene	2.390	2.397	-0.3	103	0.00	16.57
108		1,3,5-trimethylbenzene	3.282	3.443	-4.9	102	0.00	16.48
109		tert-butylbenzene	2.879	2.767	3.9	93	0.00	16.84
110		1,2,4-trimethylbenzene	3.295	3.441	-4.4	104	0.00	16.89
111		sec-butylbenzene	4.315	4.199	2.7	96	0.00	17.07
112		p-isopropyltoluene	3.750	3.771	-0.6	99	0.00	17.20
113		1,3-dichlorobenzene	1.867	1.895	-1.5	102	0.00	17.24
114		1,4-dichlorobenzene	1.910	1.913	-0.2	105	0.00	17.34
115		1,2-dichlorobenzene	2.061	2.076	-0.7	101	0.00	17.73
116		Benzyl Chloride	2.377	2.598	-9.3	110	0.00	17.44
117		n-butylbenzene	1.907	1.847	3.1	99	0.00	17.63
118		hexachloroethane		----------NA----------				
119		1,2-dibromo-3-chloropropa	0.422	0.429	-1.7	97	0.00	18.51
120		1,3,5-trichlorobenzene	2.301	2.190	4.8	97	0.00	18.69
121		2-ethylhexyl acrylate	1.266	1.066	15.8	93	-0.01	19.29
122		1,2,4-trichlorobenzene	2.174	2.152	1.0	95	0.00	19.31
123		hexachlorobutadiene	0.971	0.939	3.3	92	0.00	19.42
124		naphthalene	5.736	5.540	3.4	93	0.00	19.60
125		1,2,3-trichlorobenzene	2.207	2.199	0.4	97	0.00	19.81
126		2-methylnaphthalene	3.505	3.062	12.6	85	0.00	20.76

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3b144373.D M3B6383.M Tue Apr 03 01:56:01 2018

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V4B3310-ICC3310
Lab FileID: 4B80113.D

Response Factor Report MS4B

Method : C:\MSDCHEM\1\METHODS\M4B3310.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

Calibration Files
1 =4B80108.D 5 =4B80110.D 100 =4B80114.D 50 =4B80113.D
20 =4B80112.D 200 =4B80115.D 10 =4B80111.D 0.5 =4B80107.D
2 =4B80109.D 0.2 =4B80106.D = =

Compound	1	5	100	50	20	200	10	0.5	2	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 ----------ISTD----------												
2) ethanol											0.000	-1.00
3) tertiary butyl alcohol												
	1.272	1.297	1.330	1.338	1.269	1.345		1.215			1.295	3.62
4) 1,4-dioxane												
	0.116	0.117	0.116	0.115	0.118	0.119					0.117	1.19
5) I pentafluorobenzene ----------ISTD----------												
6) chlorodifluoromethane												
	1.137	1.183	1.168	1.220	1.241	1.155	1.222	1.187	1.189		1.189	2.83
7) dichlorodifluoromethane												
	1.070	1.193	1.285	1.297	1.284	1.207	1.280		1.116		1.217	7.08
8) chloromethane												
	1.465	1.466	1.383	1.415	1.439	1.349	1.440	1.458	1.421		1.426	2.76
9) vinyl chloride												
	1.349	1.331	1.297	1.342	1.375	1.263	1.380	1.145	1.311		1.310	5.51
10) 1,3-butadiene												
	1.076	1.106	1.105	1.127	1.158	1.033	1.162	1.093	1.076		1.104	3.73
11) bromomethane												
	1.018	0.881	0.814	0.846	0.872	0.702	0.901		0.922		0.870	10.42
12) chloroethane												
	0.670	0.674	0.642	0.666	0.672	0.587	0.680	0.706	0.659		0.662	4.95
13) trichlorofluoromethane												
	1.199	1.177	1.175	1.202	1.234	1.123	1.243		1.143		1.187	3.48
14) vinyl bromide												
	0.765	0.795	0.803	0.817	0.820	0.780	0.827	0.744	0.753		0.789	3.85
15) ethyl ether												
	0.253	0.272	0.270	0.279	0.282	0.272	0.280		0.258		0.271	3.90
16) 2-chloropropane												
	1.294	1.212	1.122	1.171	1.202	1.108	1.209	1.494	1.260		1.230	9.36
17) acrolein												
	0.110	0.107	0.108	0.113	0.102	0.109					0.108	3.36
18) freon 113												
	0.509	0.595	0.578	0.609	0.605	0.556	0.624	0.479	0.580		0.571	8.45
19) 1,1-dichloroethene												
	1.001	1.078	0.998	1.064	1.101	0.955	1.112	1.056	1.074	1.031	1.047	4.78
20) acetone												
	0.072	0.063	0.068	0.070	0.060	0.071		0.066			0.067	6.57
21) acetonitrile												
	0.092	0.078	0.080	0.086	0.076	0.088		0.095			0.085	8.59
22) iodomethane												
	1.222	1.289	1.273	1.301	1.303	1.257	1.304	1.278	1.250		1.275	2.18
23) carbon disulfide												

Initial Calibration Summary

Job Number: JC62879 **Sample:** V4B3310-ICC3310
Account: BBLNYS Arcadis **Lab FileID:** 4B80113.D
Project: National Grid, Philly Coke, Philadelphia PA

	2.236	2.240	2.341	2.424	2.409	2.306	2.354	2.212	2.170	2.305	2.300	3.68
24)	methylene chloride											
	0.639	0.698	0.684	0.695	0.705	0.667	0.704	0.640	0.685		0.680	3.79
25)	methyl acetate											
		0.381	0.339	0.374	0.384	0.339	0.384		0.409		0.373	6.91
26)	methyl tert butyl ether											
	1.749	1.804	1.756	1.827	1.823	1.703	1.847	1.765	1.770	1.757	1.780	2.48
27)	trans-1,2-dichloroethene											
	0.873	0.915	0.838	0.889	0.905	0.814	0.930	0.867	0.863		0.877	4.22
28)	hexane											
	0.497	0.459	0.448	0.468	0.456	0.431	0.479	0.397	0.465		0.456	6.32
29)	di-isopropyl ether											
	2.237	2.307	2.218	2.325	2.326	2.169	2.392	2.358	2.265	2.618	2.322	5.35
30)	2-butanone											
		0.055	0.055	0.058	0.057	0.055	0.058		0.049		0.055	5.48
31)	1,1-dichloroethane											
	1.043	1.080	1.017	1.081	1.103	0.998	1.135	1.063	1.075	0.988	1.058	4.40
32)	chloroprene											
	0.798	0.837	0.819	0.864	0.878	0.820	0.893	0.770	0.841		0.836	4.68
33)	acrylonitrile											
		0.187	0.202	0.203	0.209	0.201	0.208		0.159		0.195	9.13
34)	vinyl acetate											
		0.055	0.066	0.068	0.061	0.066	0.064				0.063	7.53
35)	ethyl tert-butyl ether											
	2.012	2.028	2.082	2.120	2.081	2.065	2.120	2.007	2.029	2.057	2.060	2.00
36)	ethyl acetate											
		0.067	0.072	0.071	0.074	0.071	0.065				0.070	4.86
37)	2,2-dichloropropane											
	0.987	1.018	0.938	0.990	1.010	0.919	1.025	1.023	0.991	0.971	0.987	3.63
38)	cis-1,2-dichloroethene											
	0.585	0.634	0.612	0.641	0.648	0.603	0.653	0.600	0.625		0.622	3.83
39)	propionitrile											
	0.069	0.076	0.071	0.074	0.078	0.069	0.079	0.067	0.073		0.073	5.75
40)	methyl acrylate											
		0.052	0.063	0.064	0.063	0.061	0.066				0.062	8.02
41)	methacrylonitrile											
		0.176	0.185	0.192	0.189	0.186	0.191		0.175		0.185	3.69
42)	bromochloromethane											
	0.271	0.289	0.291	0.303	0.295	0.290	0.307	0.263	0.279		0.288	5.02
43)	tetrahydrofuran											
		0.144	0.139	0.144	0.146	0.135	0.154		0.149		0.144	4.21
44)	chloroform											
	0.982	0.973	0.948	0.988	0.994	0.944	1.007	0.993	0.987	1.060	0.987	3.29
45)	tert-Butyl Formate--The compound does not meet initial criteria.											
	0.397	0.429	0.464	0.460	0.437	0.473	0.441	0.405	0.421		0.436	6.04
46)	dibromofluoromethane (s)											
	0.432	0.435	0.447	0.443	0.440	0.452	0.442	0.439	0.437	0.435	0.440	1.40
47)	1,1,1-trichloroethane											
	0.954	1.004	1.011	1.041	1.027	1.014	1.029	0.950	0.991		1.002	3.21
48)	cyclohexane											
	1.043	1.096	1.025	1.064	1.105	1.008	1.143	1.062	1.072		1.069	3.90
49)	isobutyl alcohol											
											0.000	-1.00
50)	1,1-dichloropropene											
	0.748	0.730	0.684	0.729	0.744	0.676	0.753	0.714	0.721		0.722	3.74
51)	carbon tetrachloride											
	0.803	0.838	0.827	0.856	0.866	0.825	0.856	0.782	0.827	0.866	0.835	3.32
52)	tert-amyl alcohol											
		0.026	0.024	0.025	0.027	0.025	0.028		0.028		0.026	6.28
53)	isopropyl acetate											

Initial Calibration Summary

Job Number: JC62879 **Sample:** V4B3310-ICC3310
Account: BBLNYS Arcadis **Lab FileID:** 4B80113.D
Project: National Grid, Philly Coke, Philadelphia PA

```
            0.077 0.086 0.089 0.088 0.088 0.090       0.069        0.084    9.38

54) I   1,4-difluorobenzene   ----------------ISTD--------------------
55)  1,2-dichloroethane-d4 (s)
      0.332 0.335 0.314 0.318 0.325 0.306 0.332 0.329 0.334 0.331  0.325    3.01
56)  n-butyl alcohol
            0.013 0.010 0.010 0.011 0.010 0.012                    0.011   13.42
57)  2,2,4-Trimethylpentane
      1.835 1.956 2.054 2.108 2.052 1.919 2.101 1.893 2.017 1.925  1.986    4.71
58)  benzene
      1.568 1.624 1.519 1.633 1.623 1.496 1.656 1.647 1.603 1.667  1.604    3.63
59)  tert-amyl methyl ether
      1.235 1.329 1.257 1.319 1.329 1.233 1.360 1.304 1.283 1.416  1.307    4.39
60)  heptane
      0.362 0.361 0.339 0.365 0.361 0.322 0.380 0.324 0.350        0.352    5.57
61)  1,2-dichloroethane
      0.519 0.478 0.424 0.462 0.475 0.404 0.491       0.509        0.470    8.40
62)  ethyl acrylate
      0.328 0.380 0.389 0.405 0.392 0.383 0.398       0.355        0.379    6.68
63)  trichloroethene
      0.405 0.396 0.385 0.410 0.413 0.376 0.414 0.405 0.394        0.400    3.27
64)  2-chloroethyl vinyl ether
      0.205 0.219 0.209 0.225 0.222 0.201 0.222 0.211 0.211 0.197  0.212    4.52
65)  methyl methacrylate
            0.076 0.083 0.087 0.082 0.084 0.083       0.070        0.081    7.12
66)  methylcyclohexane
      0.920 0.953 0.900 0.970 0.968 0.866 0.979 0.902 0.922        0.931    4.14
67)  1,2-dichloropropane
      0.420 0.428 0.397 0.434 0.434 0.384 0.444 0.424 0.429        0.422    4.60
68)  dibromomethane
      0.198 0.220 0.222 0.233 0.232 0.217 0.233 0.229 0.223        0.223    4.96
69)  bromodichloromethane
      0.431 0.480 0.512 0.531 0.511 0.515 0.505 0.446 0.472 0.461  0.486    6.87
70)  2-nitropropane
            0.123 0.118 0.125 0.121 0.114 0.127       0.132        0.123    4.95
71)  epichlorohydrin
      0.029 0.033 0.032 0.034 0.033 0.032 0.034       0.032        0.032    4.82
72)  cis-1,3-dichloropropene
      0.598 0.592 0.611 0.641 0.618 0.605 0.614 0.566 0.595 0.591  0.603    3.31
73)  4-methyl-2-pentanone
      0.132 0.141 0.126 0.138 0.138 0.121 0.144 0.123 0.134        0.133    6.04
74)  isoamyl alcohol
      0.007 0.008 0.008 0.009 0.009 0.008 0.009       0.008        0.008    9.18

75) I   chlorobenzene-d5      ----------------ISTD--------------------
76)  toluene-d8 (s)
      1.218 1.220 1.273 1.241 1.241 1.301 1.226 1.224 1.229 1.219  1.239    2.19
77)  toluene
      0.978 1.002 1.006 1.055 1.028 1.026 1.043 1.014 1.009 0.972  1.013    2.59
78)  ethyl methacrylate
      0.397 0.453 0.470 0.490 0.481 0.473 0.478 0.421 0.440        0.456    6.79
79)  trans-1,3-dichloropropene
      0.510 0.505 0.543 0.563 0.550 0.541 0.551 0.479 0.518        0.529    5.19
80)  1,1,2-trichloroethane
      0.256 0.299 0.293 0.301 0.296 0.297 0.297 0.246 0.283        0.285    7.15
81)  tetrachloroethene
      0.380 0.372 0.372 0.390 0.391 0.375 0.383 0.373 0.359        0.377    2.65
82)  2-hexanone
      0.151 0.147 0.134 0.145 0.150 0.130 0.150 0.133 0.144        0.143    5.79
83)  1,3-dichloropropane
```

	0.548	0.543	0.516	0.543	0.552	0.515	0.568	0.554	0.555		0.544	3.24
84)	butyl acetate												
	0.205	0.242	0.217	0.233	0.232	0.216	0.237		0.228		0.226	5.55
85)	dibromochloromethane												
	0.319	0.334	0.411	0.405	0.374	0.429	0.362		0.329		0.370	11.22
86)	1,2-dibromoethane												
	0.336	0.360	0.376	0.383	0.369	0.385	0.362	0.320	0.337		0.359	6.39
87)	n-butyl ether												
	2.001	2.001	2.119	2.066	2.001	2.062		1.937			2.027	2.96
88)	chlorobenzene												
	1.092	1.118	1.088	1.142	1.117	1.093	1.137	1.073	1.086	1.106	1.105	2.07
89)	1,1,1,2-tetrachloroethane												
	0.398	0.443	0.453	0.469	0.466	0.465	0.451	0.432	0.430		0.445	5.12
90)	ethylbenzene												
	1.945	1.984	1.889	2.015	2.019	1.871	2.047	2.054	1.974	2.035	1.983	3.23
91)	m,p-xylene												
	0.729	0.765	0.738	0.779	0.773	0.745	0.794	0.744	0.754	0.716	0.754	3.20
92)	o-xylene												
	1.656	1.709	1.687	1.778	1.757	1.677	1.790	1.657	1.664	1.803	1.718	3.40
93)	styrene												
	1.212	1.288	1.236	1.328	1.324	1.246	1.318	1.225	1.212	1.278	1.267	3.67
94)	butyl acrylate												
	0.684	0.765	0.774	0.817	0.806	0.786	0.785	0.674	0.697		0.754	7.21
95)	isopropylbenzene												
	2.084	2.223	2.238	2.348	2.320	2.248	2.309	2.104	2.195	2.160	2.223	4.01
96)	bromoform												
	0.211	0.212	0.279	0.276	0.247	0.301	0.224		0.199		0.244	15.56
97)	cis-1,4-dichloro-2-butene												
	0.118	0.138	0.143	0.135	0.144	0.128			0.115		0.132	8.84
98)	I 1,4-dichlorobenzene-d ----------ISTD----------												
99)	4-bromofluorobenzene (s)												
	0.780	0.778	0.806	0.798	0.786	0.798	0.803	0.790	0.786	0.773	0.790	1.38
100)	1,1,2,2-tetrachloroethane												
	0.725	0.781	0.809	0.838	0.810	0.778	0.833	0.719	0.825	0.787	0.790	5.26
101)	trans-1,4-dichloro-2-butene												
	0.144	0.157	0.165	0.163	0.152	0.160					0.157	5.01
102)	1,2,3-trichloropropane												
	0.175	0.202	0.195	0.205	0.201	0.187	0.207		0.190		0.195	5.58
103)	bromobenzene												
	0.873	0.913	0.890	0.942	0.924	0.851	0.952	0.864	0.911	0.863	0.898	3.91
104)	n-propylbenzene												
	3.952	4.167	3.953	4.263	4.256	3.733	4.469	4.308	4.051	4.095	4.125	5.17
105)	2-chlorotoluene												
	0.841	0.870	0.877	0.912	0.896	0.836	0.917	0.838	0.860		0.872	3.59
106)	4-chlorotoluene												
	2.346	2.401	2.313	2.453	2.430	2.235	2.526	2.490	2.382	2.422	2.400	3.57
107)	4-Ethyltoluene												
											0.000	-1.00
108)	1,3,5-trimethylbenzene												
	2.926	3.093	3.003	3.184	3.199	2.868	3.288	3.028	3.117	2.821	3.053	4.97
109)	tert-butylbenzene												
	2.424	2.545	2.775	2.843	2.784	2.702	2.804	2.475	2.557		2.656	5.92
110)	1,2,4-trimethylbenzene												
	2.978	3.142	3.074	3.251	3.258	2.928	3.341	3.026	3.087		3.120	4.45
111)	sec-butylbenzene												
	3.828	4.195	4.386	4.552	4.492	4.167	4.567	4.097	4.088		4.263	5.89
112)	p-isopropyltoluene												
	3.229	3.588	3.672	3.849	3.794	3.515	3.908	3.478	3.522	3.360	3.591	6.04
113)	1,3-dichlorobenzene												

Initial Calibration Summary

Job Number: JC62879 **Sample:** V4B3310-ICC3310
Account: BBLNYS Arcadis **Lab FileID:** 4B80113.D
Project: National Grid, Philly Coke, Philadelphia PA

```
       1.786 1.813 1.726 1.847 1.849 1.677 1.902 1.877 1.815 1.877  1.817    3.90
114)  1,4-dichlorobenzene
       1.782 1.775 1.740 1.831 1.829 1.720 1.858 1.804 1.729 1.977  1.804    4.22
115)  1,2-dichlorobenzene
       1.809 1.928 1.840 1.945 1.944 1.783 1.983 1.903 1.832 1.864  1.883    3.55
116)  Benzyl Chloride
       1.362 1.388 1.519 1.578 1.507 1.509 1.464 1.406 1.278        1.446    6.50
117)  1,4-Diethylbenzene
                                                                    0.000   -1.00
118)  n-butylbenzene
       1.755 1.859 1.969 2.043 2.001 1.903 2.002 1.918 1.798        1.916    5.11
119)  1,2,4,5-Tetramethylbenzene
                                                                    0.000   -1.00
120)  hexachloroethane
             0.494 0.719 0.684 0.614 0.739 0.581       0.515        0.621   15.64
121)  1,2-dibromo-3-chloropropane
       0.167 0.179 0.221 0.211 0.204 0.222 0.197       0.166        0.196   11.66
122)  1,3,5-trichlorobenzene
       1.859 1.947 2.078 2.111 2.107 1.937 2.108 1.983 1.964 2.188  2.028    5.13
123)  1,2,4-trichlorobenzene
       1.636 1.674 1.834 1.860 1.824 1.674 1.813 1.673 1.653 2.151  1.779    8.80
124)  2-ethylhexyl acrylate
                   1.113 1.013 0.919 1.102 0.875                    1.004   10.62
125)  hexachlorobutadiene
       0.853 0.919 0.943 0.969 0.981 0.870 1.000 0.940 0.927        0.934    5.18
126)  naphthalene
       2.823 3.068 3.319 3.389 3.319 3.028 3.338 3.123 2.930        3.149    6.42
127)  1,2,3-trichlorobenzene
       1.410 1.496 1.615 1.656 1.621 1.478 1.654 1.553 1.503        1.554    5.63
128)  2-methylnaphthalene
                   1.944 1.854 1.706 1.858 1.653                    1.803    6.65
 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M4B3310.M         Fri Mar 16 11:54:13 2018   GCMS4B
```

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V4B3310-ICV3310
Lab FileID: 4B80118.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V4B3310\4B80118.D Vial: 15
Acq On : 15 Mar 2018 10:28 pm Operator: HueanhT
Sample : ICV3310-50 Inst : MS4B
Misc : MS24804,V4B3310,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B3310.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Mar 16 11:52:17 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	100	0.00	6.79
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.295	1.303	-0.6	98	0.00	6.88
4		1,4-dioxane	0.117	0.111	5.1	95	0.00	10.27
5	I	pentafluorobenzene	1.000	1.000	0.0	100	0.00	8.78
6		chlorodifluoromethane	1.189	0.897	24.6	73	0.00	3.90
7		dichlorodifluoromethane	1.217	1.308	-7.5	101	0.00	3.89
8		chloromethane	1.426	1.414	0.8	100	0.00	4.24
9		vinyl chloride	1.310	1.263	3.6	94	0.00	4.45
10		1,3-butadiene	1.104	0.984	10.9	87	0.00	4.47
11		bromomethane	0.870	0.843	3.1	99	0.00	4.99
12		chloroethane	0.662	0.655	1.1	98	0.00	5.12
13		trichlorofluoromethane	1.187	1.158	2.4	96	0.00	5.53
14		vinyl bromide	0.789	0.799	-1.3	98	0.00	5.43
15		ethyl ether	0.271	0.263	3.0	94	-0.01	5.81
16		2-chloropropane	1.230	1.175	4.5	100	0.00	6.03
17		acrolein	0.108	0.104	3.7	96	0.00	6.04
18		freon 113	0.571	0.627	-9.8	103	0.00	6.22
19		1,1-dichloroethene	1.047	0.932	11.0	87	0.00	6.21
20		acetone	0.067	0.047	29.9	69	-0.01	6.20
21		acetonitrile	0.085	0.056	34.1#	70	0.00	6.58
22		iodomethane	1.275	1.199	6.0	92	0.00	6.45
23		carbon disulfide	2.300	2.178	5.3	90	0.00	6.58
24		methylene chloride	0.680	0.658	3.2	94	0.00	6.83
25		methyl acetate	0.373	0.350	6.2	94	0.00	6.59
26		methyl tert butyl ether	1.780	1.769	0.6	97	0.00	7.14
27		trans-1,2-dichloroethene	0.877	0.819	6.6	92	0.00	7.16
28		hexane	0.456	0.397	12.9	85	0.00	7.46
29		di-isopropyl ether	2.322	2.294	1.2	99	0.00	7.65
30		2-butanone	0.055	0.048	12.7	83	0.00	8.23
31		1,1-dichloroethane	1.058	1.035	2.2	96	0.00	7.67
32		chloroprene	0.836	0.880	-5.3	102	0.00	7.76
33		acrylonitrile	0.195	0.216	-10.8	107	0.00	7.07
34		vinyl acetate	0.063	0.063	0.0	91	0.00	7.59
35		ethyl tert-butyl ether	2.060	2.090	-1.5	98	0.00	8.06
36		ethyl acetate	0.070	0.066	5.7	94	0.00	8.24
37		2,2-dichloropropane	0.987	0.936	5.2	94	0.00	8.35
38		cis-1,2-dichloroethene	0.622	0.631	-1.4	98	0.00	8.31
39		propionitrile	0.073	0.072	1.4	97	0.00	8.31
40		methyl acrylate	0.062	0.062	0.0	96	0.00	8.32
41		methacrylonitrile	0.185	0.178	3.8	92	0.00	8.49

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V4B3310-ICV3310
Lab FileID: 4B80118.D

42		bromochloromethane	0.288	0.297	-3.1	98	0.00	8.58
43		tetrahydrofuran	0.144	0.139	3.5	96	0.00	8.59
44		chloroform	0.987	0.974	1.3	98	0.00	8.65
45		tert-Butyl Formate	0.436	0.305	30.0#	66	0.00	8.69
46	S	dibromofluoromethane (s)	0.440	0.441	-0.2	99	0.00	8.83
47		1,1,1-trichloroethane	1.002	0.999	0.3	96	0.00	8.90
48		cyclohexane	1.069	1.007	5.8	94	0.00	9.01
49		isobutyl alcohol		----------NA----------				
50		1,1-dichloropropene	0.722	0.710	1.7	97	0.00	9.04
51		carbon tetrachloride	0.835	0.831	0.5	97	0.00	9.09
52		tert-amyl alcohol	0.026	0.025	3.8	98	0.00	9.15
53		isopropyl acetate	0.084	0.087	-3.6	98	0.00	9.17
54	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00	9.65
55	S	1,2-dichloroethane-d4 (s)	0.325	0.313	3.7	98	0.00	9.22
56		n-butyl alcohol	0.011	0.009	18.2	95	0.00	9.68
57		2,2,4-Trimethylpentane	1.986	2.011	-1.3	95	0.00	9.35
58		benzene	1.604	1.588	1.0	97	0.00	9.27
59		tert-amyl methyl ether	1.307	1.301	0.5	99	0.00	9.34
60		heptane	0.352	0.381	-8.2	104	0.00	9.49
61		1,2-dichloroethane	0.470	0.451	4.0	98	0.00	9.30
62		ethyl acrylate	0.379	0.404	-6.6	100	0.00	9.92
63		trichloroethene	0.400	0.408	-2.0	100	0.00	9.95
64		2-chloroethyl vinyl ether	0.212	0.223	-5.2	99	0.00	10.70
65		methyl methacrylate	0.081	0.083	-2.5	95	0.00	10.17
66		methylcyclohexane	0.931	0.898	3.5	93	0.00	10.24
67		1,2-dichloropropane	0.422	0.405	4.0	93	0.00	10.23
68		dibromomethane	0.223	0.231	-3.6	99	0.00	10.34
69		bromodichloromethane	0.486	0.508	-4.5	96	0.00	10.48
70		2-nitropropane	0.123	0.119	3.3	95	0.00	10.68
71		epichlorohydrin	0.032	0.032	0.0	95	0.00	10.80
72		cis-1,3-dichloropropene	0.603	0.625	-3.6	98	0.00	10.93
73		4-methyl-2-pentanone	0.133	0.134	-0.8	97	0.00	11.02
74		isoamyl alcohol	0.008	0.008	0.0	97	0.00	11.02
75	I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	12.83
76	S	toluene-d8 (s)	1.239	1.236	0.2	99	0.00	11.24
77		toluene	1.013	1.035	-2.2	98	0.00	11.32
78		ethyl methacrylate	0.456	0.452	0.9	92	0.00	11.48
79		trans-1,3-dichloropropene	0.529	0.529	0.0	94	0.00	11.50
80		1,1,2-trichloroethane	0.285	0.294	-3.2	98	0.00	11.74
81		tetrachloroethene	0.377	0.593	-57.3#	152	0.00	11.89
82		2-hexanone	0.143	0.125	12.6	86	0.00	11.90
83		1,3-dichloropropane	0.544	0.538	1.1	99	0.00	11.93
84		butyl acetate	0.226	0.233	-3.1	100	0.00	11.98
85		dibromochloromethane	0.370	0.406	-9.7	100	0.00	12.19
86		1,2-dibromoethane	0.359	0.379	-5.6	99	0.00	12.36
87		n-butyl ether	2.027	2.034	-0.3	96	0.00	12.81
88		chlorobenzene	1.105	1.124	-1.7	98	0.00	12.87
89		1,1,1,2-tetrachloroethane	0.445	0.470	-5.6	100	0.00	12.94
90		ethylbenzene	1.983	1.997	-0.7	99	0.00	12.93
91		m,p-xylene	0.754	0.772	-2.4	99	0.00	13.06
92		o-xylene	1.718	1.754	-2.1	99	0.00	13.50
93		styrene	1.267	1.318	-4.0	99	0.00	13.51
94		butyl acrylate	0.754	0.805	-6.8	98	0.00	13.31
95		isopropylbenzene	2.223	2.325	-4.6	99	0.00	13.88
96		bromoform	0.244	0.285	-16.8	103	0.00	13.77
97		cis-1,4-dichloro-2-butene	0.132	0.134	-1.5	94	0.00	13.92
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	15.40

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V4B3310-ICV3310
Lab FileID: 4B80118.D

99	S	4-bromofluorobenzene (s)	0.790	0.790	0.0	100	0.00	14.11
100		1,1,2,2-tetrachloroethane	0.790	0.789	0.1	95	0.00	14.19
101		trans-1,4-dichloro-2-bute	0.157	0.195	-24.2	120	0.00	14.23
102		1,2,3-trichloropropane	0.195	0.202	-3.6	100	0.00	14.29
103		bromobenzene	0.898	0.927	-3.2	99	0.00	14.31
104		n-propylbenzene	4.125	4.185	-1.5	99	0.00	14.34
105		2-chlorotoluene	0.872	0.874	-0.2	97	0.00	14.49
106		4-chlorotoluene	2.400	2.465	-2.7	102	0.00	14.62
107		4-Ethyltoluene		----------NA----------				
108		1,3,5-trimethylbenzene	3.053	3.092	-1.3	98	0.00	14.52
109		tert-butylbenzene	2.656	2.813	-5.9	100	0.00	14.89
110		1,2,4-trimethylbenzene	3.120	3.254	-4.3	101	0.00	14.95
111		sec-butylbenzene	4.263	4.509	-5.8	100	0.00	15.14
112		p-isopropyltoluene	3.591	3.825	-6.5	100	0.00	15.28
113		1,3-dichlorobenzene	1.817	1.815	0.1	99	0.00	15.33
114		1,4-dichlorobenzene	1.804	1.807	-0.2	100	0.00	15.44
115		1,2-dichlorobenzene	1.883	1.903	-1.1	99	0.00	15.85
116		Benzyl Chloride	1.446	1.200	17.0	77	0.00	15.54
117		1,4-Diethylbenzene		----------NA----------				
118		n-butylbenzene	1.916	2.033	-6.1	101	0.00	15.74
119		1,2,4,5-Tetramethylbenzen		----------NA----------				
120		hexachloroethane	0.621	0.694	-11.8	103	0.00	16.17
121		1,2-dibromo-3-chloropropa	0.196	0.209	-6.6	100	0.00	16.69
122		1,3,5-trichlorobenzene	2.028	2.121	-4.6	102	0.00	16.90
123		1,2,4-trichlorobenzene	1.779	1.832	-3.0	100	0.00	17.58
124		2-ethylhexyl acrylate	1.004	1.058	-5.4	106	0.00	17.58
125		hexachlorobutadiene	0.934	0.950	-1.7	99	0.00	17.69
126		naphthalene	3.149	3.345	-6.2	100	0.00	17.88
127		1,2,3-trichlorobenzene	1.554	1.609	-3.5	98	0.00	18.12
128		2-methylnaphthalene	1.803	1.797	0.3	98	0.00	19.18

(#) = Out of Range SPCC's out = 0 CCC's out = 0

4B80113.D M4B3310.M Fri Mar 16 11:53:02 2018 GCMS4B

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V4B3310-ICV3310
Lab FileID: 4B80119.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V4B3310\4B80119.D Vial: 16
Acq On : 15 Mar 2018 10:56 pm Operator: HueanhT
Sample : ICV3310-50 Inst : MS4B
Misc : MS24804,V4B3310,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B3310.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Mar 16 11:45:10 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	116	0.00	6.79
2		ethanol		----------NA----------				
3		tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	101	0.00	8.78
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		1,3-butadiene		----------NA----------				
11		bromomethane		----------NA----------				
12		chloroethane		----------NA----------				
13		trichlorofluoromethane		----------NA----------				
14		vinyl bromide		----------NA----------				
15		ethyl ether		----------NA----------				
16		2-chloropropane		----------NA----------				
17		acrolein		----------NA----------				
18		freon 113		----------NA----------				
19		1,1-dichloroethene		----------NA----------				
20		acetone		----------NA----------				
21		acetonitrile	0.085	0.089	-4.7	113	0.00	6.59
22		iodomethane		----------NA----------				
23		carbon disulfide		----------NA----------				
24		methylene chloride		----------NA----------				
25		methyl acetate		----------NA----------				
26		methyl tert butyl ether		----------NA----------				
27		trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29		di-isopropyl ether		----------NA----------				
30		2-butanone		----------NA----------				
31		1,1-dichloroethane		----------NA----------				
32		chloroprene		----------NA----------				
33		acrylonitrile		----------NA----------				
34		vinyl acetate		----------NA----------				
35		ethyl tert-butyl ether		----------NA----------				
36		ethyl acetate		----------NA----------				
37		2,2-dichloropropane		----------NA----------				
38		cis-1,2-dichloroethene		----------NA----------				
39		propionitrile		----------NA----------				
40		methyl acrylate		----------NA----------				
41		methacrylonitrile		----------NA----------				

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V4B3310-ICV3310
Lab FileID: 4B80119.D

42		bromochloromethane		----------NA----------					
43		tetrahydrofuran		----------NA----------					
44		chloroform		----------NA----------					
45		tert-Butyl Formate		----------NA----------					
46	S	dibromofluoromethane (s)	0.440	0.432	1.8	99	0.00	8.83	
47		1,1,1-trichloroethane		----------NA----------					
48		cyclohexane		----------NA----------					
49		isobutyl alcohol		----------NA----------					
50		1,1-dichloropropene		----------NA----------					
51		carbon tetrachloride		----------NA----------					
52		tert-amyl alcohol		----------NA----------					
53		isopropyl acetate		----------NA----------					
54	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00	9.65	
55	S	1,2-dichloroethane-d4 (s)	0.325	0.324	0.3	102	0.00	9.21	
56		n-butyl alcohol		----------NA----------					
57		2,2,4-Trimethylpentane		----------NA----------					
58		benzene		----------NA----------					
59		tert-amyl methyl ether		----------NA----------					
60		heptane		----------NA----------					
61		1,2-dichloroethane		----------NA----------					
62		ethyl acrylate		----------NA----------					
63		trichloroethene		----------NA----------					
64		2-chloroethyl vinyl ether		----------NA----------					
65		methyl methacrylate		----------NA----------					
66		methylcyclohexane		----------NA----------					
67		1,2-dichloropropane		----------NA----------					
68		dibromomethane		----------NA----------					
69		bromodichloromethane		----------NA----------					
70		2-nitropropane		----------NA----------					
71		epichlorohydrin		----------NA----------					
72		cis-1,3-dichloropropene		----------NA----------					
73		4-methyl-2-pentanone		----------NA----------					
74		isoamyl alcohol		----------NA----------					
75	I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	12.83	
76	S	toluene-d8 (s)	1.239	1.206	2.7	97	0.00	11.24	
77		toluene		----------NA----------					
78		ethyl methacrylate		----------NA----------					
79		trans-1,3-dichloropropene		----------NA----------					
80		1,1,2-trichloroethane		----------NA----------					
81		tetrachloroethene	0.377	0.354	6.1	91	0.00	11.89	
82		2-hexanone		----------NA----------					
83		1,3-dichloropropane		----------NA----------					
84		butyl acetate		----------NA----------					
85		dibromochloromethane		----------NA----------					
86		1,2-dibromoethane		----------NA----------					
87		n-butyl ether		----------NA----------					
88		chlorobenzene		----------NA----------					
89		1,1,1,2-tetrachloroethane		----------NA----------					
90		ethylbenzene		----------NA----------					
91		m,p-xylene		----------NA----------					
92		o-xylene		----------NA----------					
93		styrene		----------NA----------					
94		butyl acrylate		----------NA----------					
95		isopropylbenzene		----------NA----------					
96		bromoform		----------NA----------					
97		cis-1,4-dichloro-2-butene		----------NA----------					
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	15.40	

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V4B3310-ICV3310
Lab FileID: 4B80119.D

99	S	4-bromofluorobenzene (s)	0.790	0.782	1.0	99	0.00	14.11	
100		1,1,2,2-tetrachloroethane		----------NA----------					
101		trans-1,4-dichloro-2-bute		----------NA----------					
102		1,2,3-trichloropropane		----------NA----------					
103		bromobenzene		----------NA----------					
104		n-propylbenzene		----------NA----------					
105		2-chlorotoluene		----------NA----------					
106		4-chlorotoluene		----------NA----------					
107		4-Ethyltoluene		----------NA----------					
108		1,3,5-trimethylbenzene		----------NA----------					
109		tert-butylbenzene		----------NA----------					
110		1,2,4-trimethylbenzene		----------NA----------					
111		sec-butylbenzene		----------NA----------					
112		p-isopropyltoluene		----------NA----------					
113		1,3-dichlorobenzene		----------NA----------					
114		1,4-dichlorobenzene		----------NA----------					
115		1,2-dichlorobenzene		----------NA----------					
116		Benzyl Chloride		----------NA----------					
117		1,4-Diethylbenzene		----------NA----------					
118		n-butylbenzene		----------NA----------					
119		1,2,4,5-Tetramethylbenzen		----------NA----------					
120		hexachloroethane		----------NA----------					
121		1,2-dibromo-3-chloropropa		----------NA----------					
122		1,3,5-trichlorobenzene		----------NA----------					
123		1,2,4-trichlorobenzene		----------NA----------					
124		2-ethylhexyl acrylate		----------NA----------					
125		hexachlorobutadiene		----------NA----------					
126		naphthalene		----------NA----------					
127		1,2,3-trichlorobenzene		----------NA----------					
128		2-methylnaphthalene		----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B80113.D M4B3310.M Fri Mar 16 11:46:21 2018 GCMS4B

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V4B3335-CC3310
Lab FileID: 4B80668.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V4B3335\4B80668.D Vial: 3
Acq On : 30 Mar 2018 7:30 am Operator: HueanhT
Sample : CC3310-20 Inst : MS4B
Misc : MS25149,V4B3335,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B3310.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Mar 16 11:53:44 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	128	0.00	6.79
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.295	1.318	-1.8	126	-0.03	6.86
4		1,4-dioxane	0.117	0.116	0.9	128	-0.01	10.26
5	I	pentafluorobenzene	1.000	1.000	0.0	102	0.00	8.77
6		chlorodifluoromethane	1.189	1.079	9.3	89	0.00	3.91
7		dichlorodifluoromethane	1.217	1.067	12.3	85	0.01	3.90
8		chloromethane	1.426	1.376	3.5	98	0.00	4.24
9		vinyl chloride	1.310	1.243	5.1	92	0.00	4.45
10		1,3-butadiene		----------NA----------				
11		bromomethane	0.870	0.904	-3.9	106	0.00	4.99
12		chloroethane	0.662	0.650	1.8	99	0.00	5.12
13		trichlorofluoromethane	1.187	1.084	8.7	90	0.00	5.54
14		vinyl bromide	0.789	0.722	8.5	90	0.00	5.42
15		ethyl ether		----------NA----------				
16		2-chloropropane	1.230	1.042	15.3	89	0.00	6.03
17		acrolein	0.108	0.124	-14.8	112	0.00	6.04
18		freon 113	0.571	0.553	3.2	93	0.00	6.22
19		1,1-dichloroethene	1.047	0.929	11.3	86	-0.01	6.20
20		acetone	0.067	0.078	-16.4	114	-0.01	6.20
21		acetonitrile	0.085	0.099	-16.5	117	-0.01	6.58
22		iodomethane		----------NA----------				
23		carbon disulfide	2.300	2.111	8.2	90	-0.01	6.57
24		methylene chloride	0.680	0.725	-6.6	105	0.00	6.82
25		methyl acetate	0.373	0.418	-12.1	111	0.00	6.58
26		methyl tert butyl ether	1.780	1.939	-8.9	109	-0.02	7.13
27		trans-1,2-dichloroethene	0.877	0.841	4.1	95	0.00	7.16
28		hexane	0.456	0.364	20.2#	81	-0.01	7.45
29		di-isopropyl ether	2.322	2.328	-0.3	102	0.00	7.65
30		2-butanone	0.055	0.059	-7.3	106	0.00	8.23
31		1,1-dichloroethane	1.058	1.048	0.9	97	0.00	7.67
32		chloroprene	0.836	0.712	14.8	83	0.00	7.75
33		acrylonitrile	0.195	0.236	-21.0#	116	0.00	7.07
34		vinyl acetate	0.063	0.079	-25.4#	131	0.00	7.59
35		ethyl tert-butyl ether	2.060	2.149	-4.3	105	0.00	8.05
36		ethyl acetate	0.070	0.067	4.3	93	0.00	8.23
37		2,2-dichloropropane	0.987	0.990	-0.3	100	0.00	8.34
38		cis-1,2-dichloroethene	0.622	0.631	-1.4	100	0.00	8.31
39		propionitrile		----------NA----------				
40		methyl acrylate		----------NA----------				
41		methacrylonitrile		----------NA----------				

Continuing Calibration Summary

Job Number: JC62879 **Sample:** V4B3335-CC3310
Account: BBLNYS Arcadis **Lab FileID:** 4B80668.D
Project: National Grid, Philly Coke, Philadelphia PA

42		bromochloromethane	0.288	0.316	-9.7	109	0.00	8.58
43		tetrahydrofuran		----------NA----------				
44		chloroform	0.987	0.954	3.3	98	0.00	8.65
45		tert-Butyl Formate	0.436	0.550	-26.1#	128	-0.01	8.68
46	S	dibromofluoromethane (s)	0.440	0.421	4.3	98	0.00	8.82
47		1,1,1-trichloroethane	1.002	0.970	3.2	96	0.00	8.90
48		cyclohexane	1.069	0.867	18.9	80	0.00	9.00
49		isobutyl alcohol		----------NA----------				
50		1,1-dichloropropene	0.722	0.575	20.4#	79	0.00	9.04
51		carbon tetrachloride	0.835	0.818	2.0	96	0.00	9.08
52		tert-amyl alcohol	0.026	0.035	-34.6#	129	0.00	9.15
53		isopropyl acetate	0.084	0.091	-8.3	106	0.00	9.17
54	I	1,4-difluorobenzene	1.000	1.000	0.0	93	0.00	9.65
55	S	1,2-dichloroethane-d4 (s)	0.325	0.312	4.0	89	-0.01	9.21
56		n-butyl alcohol	0.011	0.014	-27.3#	118	0.00	9.68
57		2,2,4-Trimethylpentane	1.986	1.749	11.9	79	0.00	9.35
58		benzene	1.604	1.516	5.5	87	0.00	9.27
59		tert-amyl methyl ether	1.307	1.523	-16.5	107	0.00	9.34
60		heptane	0.352	0.300	14.8	77	0.00	9.49
61		1,2-dichloroethane	0.470	0.465	1.1	91	0.00	9.30
62		ethyl acrylate	0.379	0.444	-17.2	106	0.00	9.91
63		trichloroethene	0.400	0.351	12.3	79	0.00	9.94
64		2-chloroethyl vinyl ether	0.212	0.249	-17.5	104	0.00	10.70
65		methyl methacrylate		----------NA----------				
66		methylcyclohexane	0.931	0.880	5.5	85	0.00	10.24
67		1,2-dichloropropane	0.422	0.427	-1.2	92	0.00	10.23
68		dibromomethane	0.223	0.242	-8.5	97	0.00	10.33
69		bromodichloromethane	0.486	0.520	-7.0	95	0.00	10.48
70		2-nitropropane		----------NA----------				
71		epichlorohydrin	0.032	0.039	-21.9#	110	0.00	10.79
72		cis-1,3-dichloropropene	0.603	0.640	-6.1	96	0.00	10.93
73		4-methyl-2-pentanone	0.133	0.172	-29.3#	115	0.00	11.02
74		isoamyl alcohol	0.008	0.014	-75.0#	140	0.00	11.02
75	I	chlorobenzene-d5	1.000	1.000	0.0	104	0.00	12.83
76	S	toluene-d8 (s)	1.239	1.133	8.6	95	0.00	11.24
77		toluene	1.013	0.897	11.5	90	0.00	11.31
78		ethyl methacrylate		----------NA----------				
79		trans-1,3-dichloropropene	0.529	0.539	-1.9	102	0.00	11.50
80		1,1,2-trichloroethane	0.285	0.302	-6.0	106	0.00	11.74
81		tetrachloroethene	0.377	0.324	14.1	86	0.00	11.89
82		2-hexanone	0.143	0.161	-12.6	112	0.00	11.90
83		1,3-dichloropropane	0.544	0.558	-2.6	105	0.00	11.93
84		butyl acetate	0.226	0.253	-11.9	113	0.00	11.98
85		dibromochloromethane	0.370	0.405	-9.5	112	0.00	12.19
86		1,2-dibromoethane	0.359	0.397	-10.6	111	0.00	12.36
87		n-butyl ether	2.027	1.943	4.1	97	0.00	12.81
88		chlorobenzene	1.105	1.075	2.7	100	0.00	12.87
89		1,1,1,2-tetrachloroethane	0.445	0.460	-3.4	102	0.00	12.94
90		ethylbenzene	1.983	1.841	7.2	94	0.00	12.93
91		m,p-xylene	0.754	0.726	3.7	97	0.00	13.06
92		o-xylene	1.718	1.648	4.1	97	0.00	13.50
93		styrene	1.267	1.285	-1.4	101	0.00	13.51
94		butyl acrylate	0.754	0.850	-12.7	109	0.00	13.31
95		isopropylbenzene	2.223	2.098	5.6	94	0.00	13.88
96		bromoform	0.244	0.306	-25.4#	129	0.00	13.77
97		cis-1,4-dichloro-2-butene	0.132	0.129	2.3	99	0.00	13.92
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	113	0.00	15.40

Continuing Calibration Summary

Job Number: JC62879 **Sample:** V4B3335-CC3310
Account: BBLNYS Arcadis **Lab FileID:** 4B80668.D
Project: National Grid, Philly Coke, Philadelphia PA

99	S	4-bromofluorobenzene (s)	0.790	0.711	10.0	102	0.00	14.11
100		1,1,2,2-tetrachloroethane	0.790	0.874	-10.6	122	0.00	14.19
101		trans-1,4-dichloro-2-bute		----------NA----------				
102		1,2,3-trichloropropane	0.195	0.221	-13.3	124	0.00	14.29
103		bromobenzene	0.898	0.899	-0.1	110	0.00	14.31
104		n-propylbenzene	4.125	3.666	11.1	98	0.00	14.34
105		2-chlorotoluene	0.872	0.812	6.9	103	0.00	14.49
106		4-chlorotoluene	2.400	2.193	8.6	102	0.00	14.61
107		4-Ethyltoluene		----------NA----------				
108		1,3,5-trimethylbenzene	3.053	2.750	9.9	97	0.00	14.52
109		tert-butylbenzene	2.656	2.213	16.7	90	0.00	14.89
110		1,2,4-trimethylbenzene	3.120	2.886	7.5	100	0.00	14.95
111		sec-butylbenzene	4.263	3.734	12.4	94	0.00	15.14
112		p-isopropyltoluene	3.591	3.299	8.1	99	0.00	15.28
113		1,3-dichlorobenzene	1.817	1.810	0.4	111	0.00	15.33
114		1,4-dichlorobenzene	1.804	1.775	1.6	110	0.00	15.43
115		1,2-dichlorobenzene	1.883	1.936	-2.8	113	0.00	15.85
116		Benzyl Chloride	1.446	1.733	-19.8	130	0.00	15.54
117		1,4-Diethylbenzene		----------NA----------				
118		n-butylbenzene	1.916	1.749	8.7	99	0.00	15.74
119		1,2,4,5-Tetramethylbenzen		----------NA----------				
120		hexachloroethane		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.196	0.243	-24.0#	135	0.00	16.69
122		1,3,5-trichlorobenzene	2.028	2.025	0.1	109	0.00	16.89
123		1,2,4-trichlorobenzene	1.779	1.761	1.0	109	0.00	17.58
124		2-ethylhexyl acrylate	1.004	0.568	43.4#	70	0.00	17.58
125		hexachlorobutadiene	0.934	0.811	13.2	94	0.00	17.69
126		naphthalene	3.149	3.340	-6.1	114	0.00	17.88
127		1,2,3-trichlorobenzene	1.554	1.606	-3.3	112	0.00	18.12
128		2-methylnaphthalene	1.803	1.336	25.9#	89	0.00	19.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B80112.D M4B3310.M Fri Mar 30 16:49:39 2018 GCMS4B

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174436.d
Acq On : 27 Mar 2018 1:51 pm
Operator : JessicaP
Sample : jc62879-1 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:27:01 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

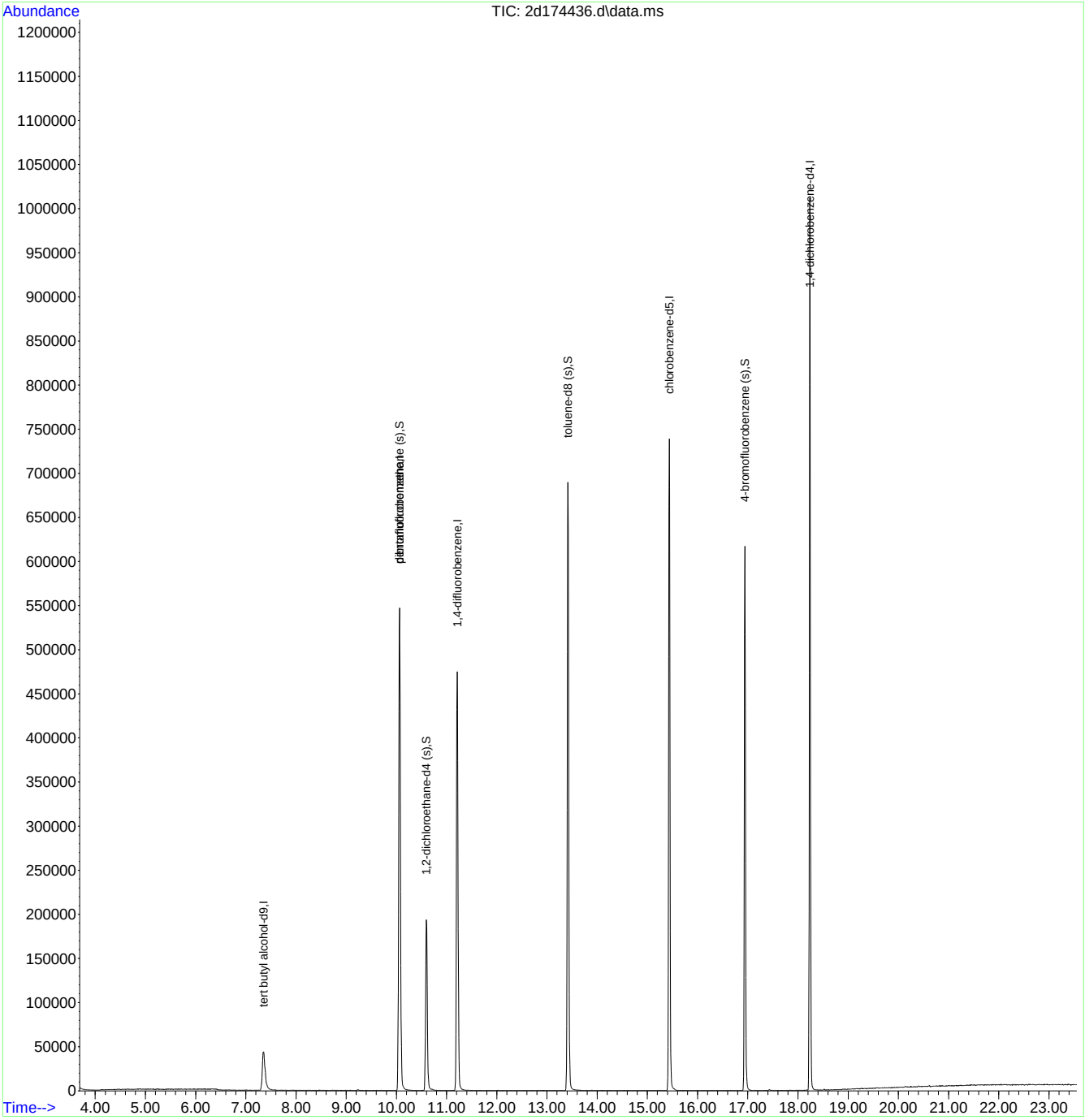
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.352	65	98824	500.00	ug/L	-0.05
5) pentafluorobenzene	10.062	168	314319	50.00	ug/L	-0.04
54) 1,4-difluorobenzene	11.211	114	436528	50.00	ug/L	-0.04
76) chlorobenzene-d5	15.436	117	433338	50.00	ug/L	-0.04
99) 1,4-dichlorobenzene-d4	18.236	152	239992	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.062	113	137615	51.52	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.04%			
55) 1,2-dichloroethane-d4 (s)	10.597	65	165127	52.80	ug/L	0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.60%			
77) toluene-d8 (s)	13.418	98	508039	49.36	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.72%			
100) 4-bromofluorobenzene (s)	16.941	95	201125	49.13	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.26%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174436.d
Acq On : 27 Mar 2018 1:51 pm
Operator : JessicaP
Sample : jc62879-1 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:27:01 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174437.d
Acq On : 27 Mar 2018 2:21 pm
Operator : JessicaP
Sample : jc62879-2 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:27:47 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

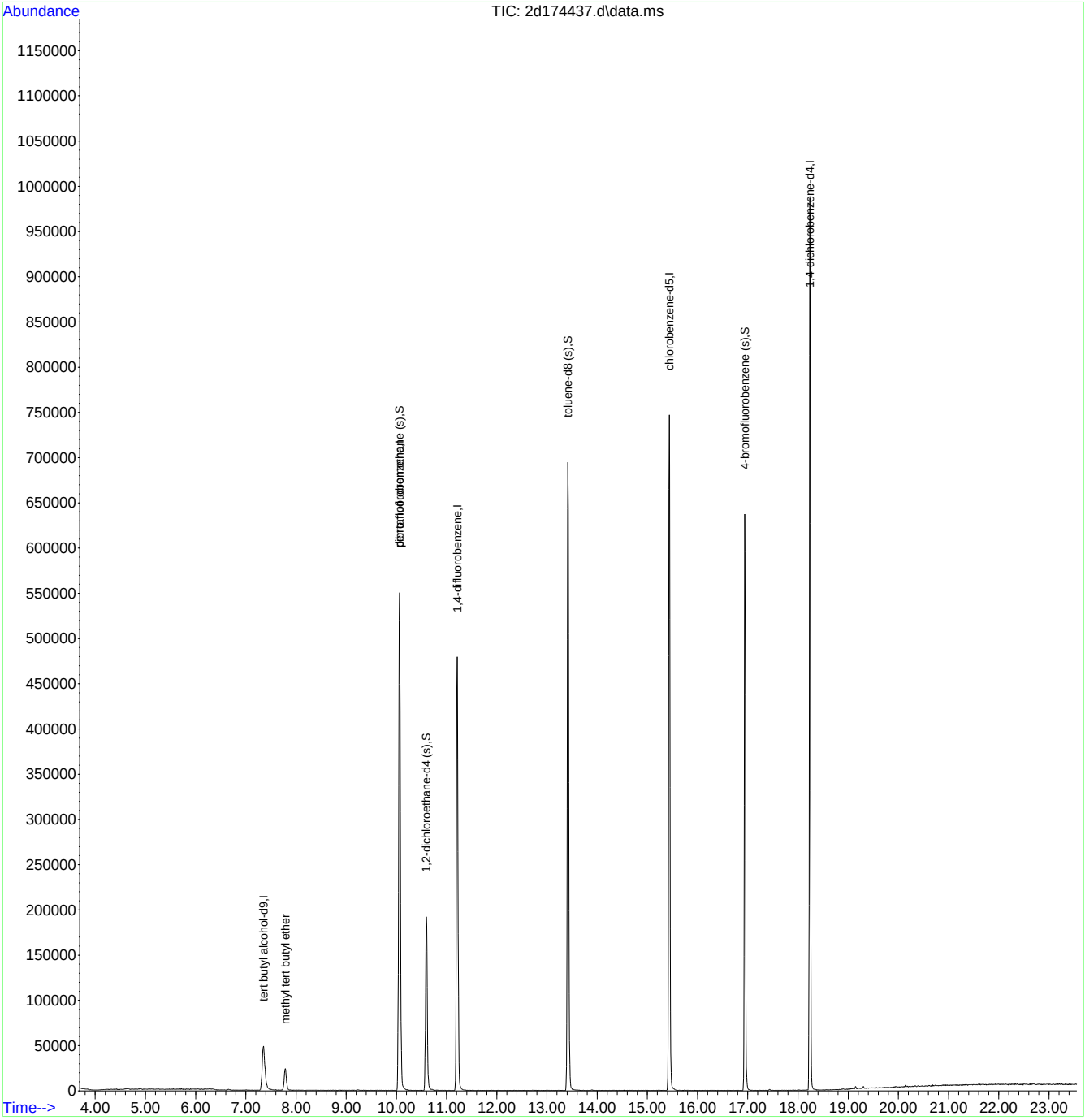
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.352	65	109210	500.00	ug/L	-0.05
5) pentafluorobenzene	10.062	168	313928	50.00	ug/L	-0.04
54) 1,4-difluorobenzene	11.210	114	438244	50.00	ug/L	-0.04
76) chlorobenzene-d5	15.436	117	431581	50.00	ug/L	-0.04
99) 1,4-dichlorobenzene-d4	18.236	152	241068	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.062	113	136494	51.17	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.34%			
55) 1,2-dichloroethane-d4 (s)	10.597	65	165091	52.58	ug/L	0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.16%			
77) toluene-d8 (s)	13.418	98	509071	49.66	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.32%			
100) 4-bromofluorobenzene (s)	16.941	95	201370	48.97	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.94%			
Target Compounds						Qvalue
28) methyl tert butyl ether	7.787	73	33842	4.78	ug/L	100

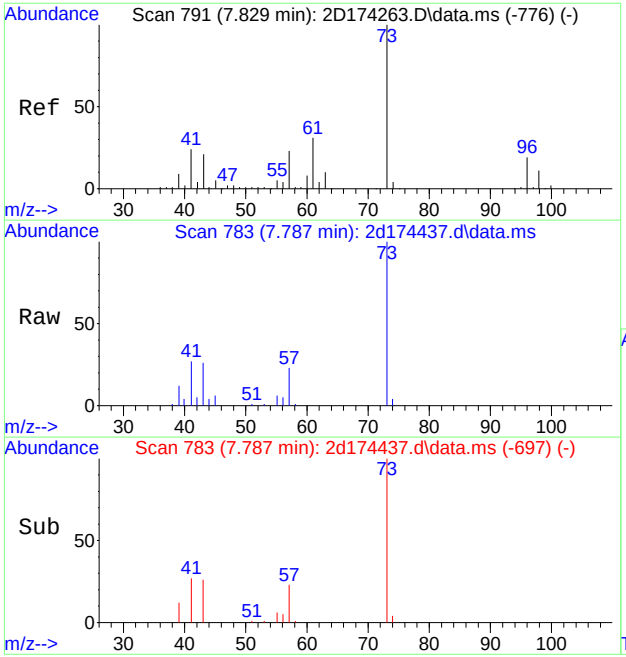
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174437.d
Acq On : 27 Mar 2018 2:21 pm
Operator : JessicaP
Sample : jc62879-2 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:27:47 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

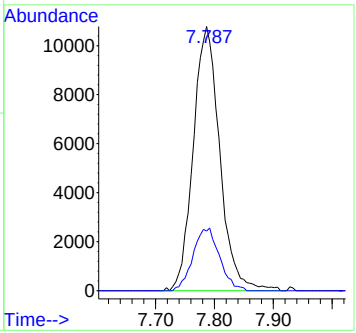




#28
methyl tert butyl ether
Concen: 4.78 ug/L
RT: 7.787 min Scan# 783
Delta R.T. -0.047 min
Lab File: 2d174437.d
Acq: 27 Mar 2018 2:21 pm

Tgt Ion: 73 Resp: 33842

Ion	Ratio	Lower	Upper
73	100		
57	22.6	0.0	52.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174438.d
Acq On : 27 Mar 2018 2:51 pm
Operator : JessicaP
Sample : jc62879-3 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:28:29 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

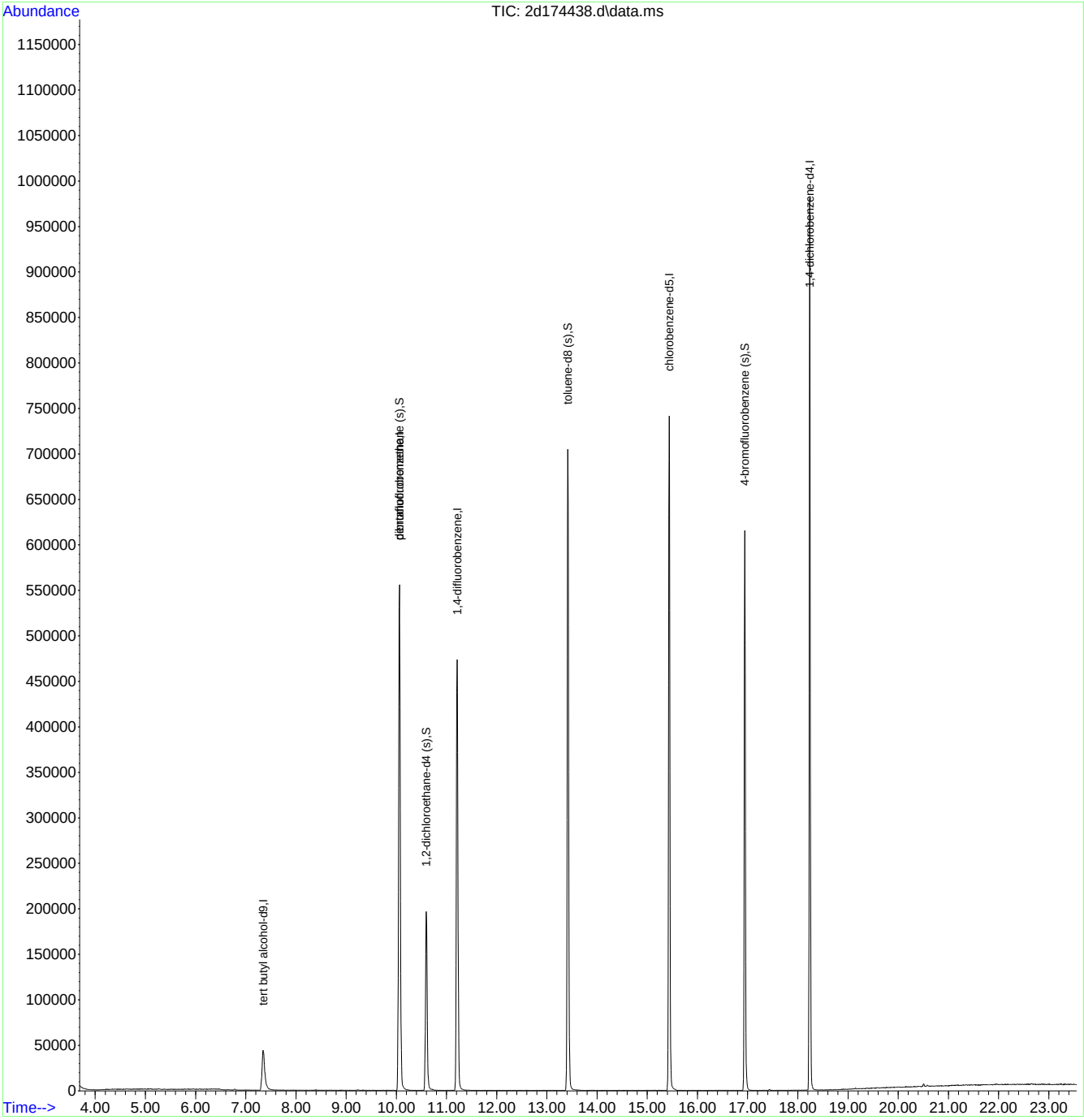
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.346	65	95810	500.00	ug/L	-0.05
5) pentafluorobenzene	10.062	168	313781	50.00	ug/L	-0.04
54) 1,4-difluorobenzene	11.211	114	438495	50.00	ug/L	-0.04
76) chlorobenzene-d5	15.436	117	427211	50.00	ug/L	-0.04
99) 1,4-dichlorobenzene-d4	18.236	152	236776	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.062	113	136496	51.19	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.38%			
55) 1,2-dichloroethane-d4 (s)	10.597	65	165499	52.68	ug/L	0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.36%			
77) toluene-d8 (s)	13.418	98	505983	49.86	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.72%			
100) 4-bromofluorobenzene (s)	16.941	95	199780	49.46	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.92%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174438.d
Acq On : 27 Mar 2018 2:51 pm
Operator : JessicaP
Sample : jc62879-3 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:28:29 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174439.d
Acq On : 27 Mar 2018 3:21 pm
Operator : JessicaP
Sample : jc62879-4 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:29:13 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

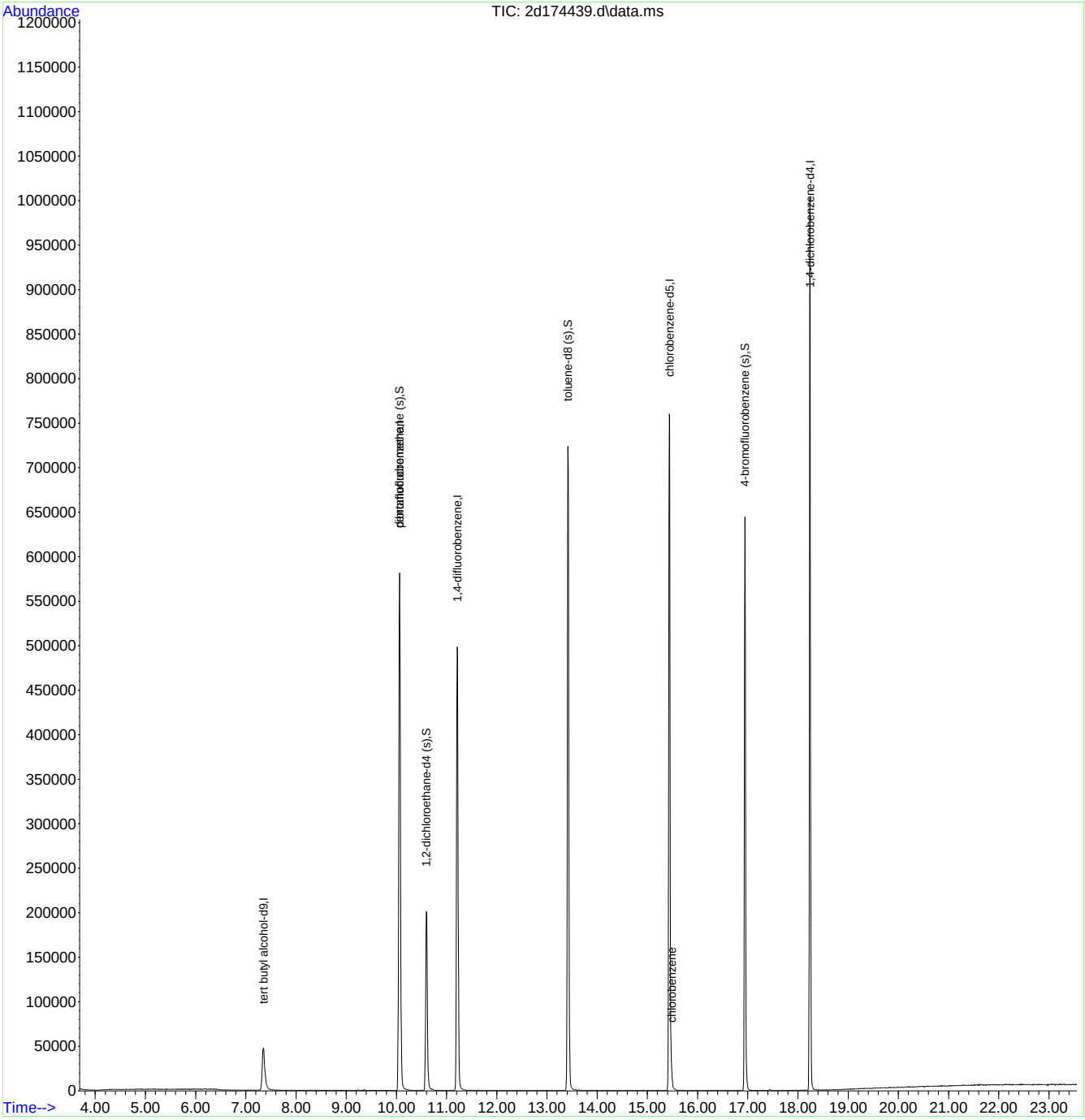
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.352	65	101267	500.00	ug/L	-0.05
5) pentafluorobenzene	10.062	168	326974	50.00	ug/L	-0.04
54) 1,4-difluorobenzene	11.210	114	459765	50.00	ug/L	-0.04
76) chlorobenzene-d5	15.442	117	448731	50.00	ug/L	-0.03
99) 1,4-dichlorobenzene-d4	18.241	152	247039	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.062	113	142713	51.37	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.74%			
55) 1,2-dichloroethane-d4 (s)	10.597	65	173424	52.65	ug/L	0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.30%			
77) toluene-d8 (s)	13.418	98	524890	49.25	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.50%			
100) 4-bromofluorobenzene (s)	16.941	95	207699	49.29	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.58%			
Target Compounds						Qvalue
89) chlorobenzene	15.483	112	10325	1.42	ug/L	98

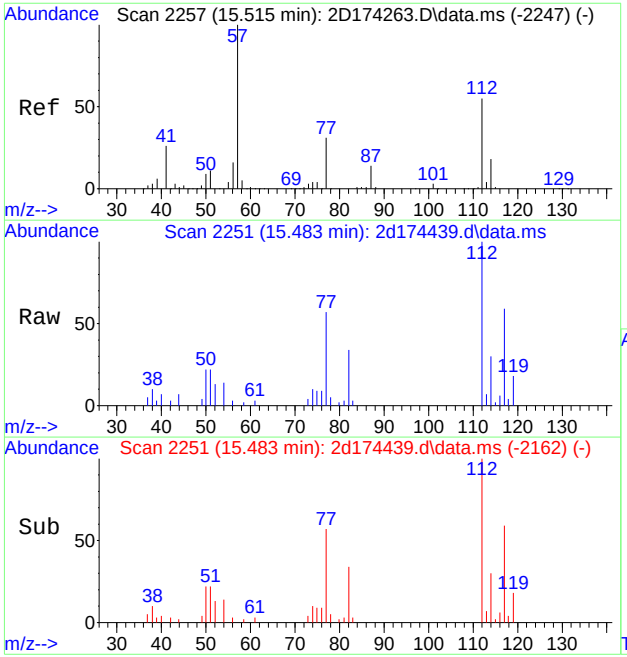
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174439.d
Acq On : 27 Mar 2018 3:21 pm
Operator : JessicaP
Sample : jc62879-4 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:29:13 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

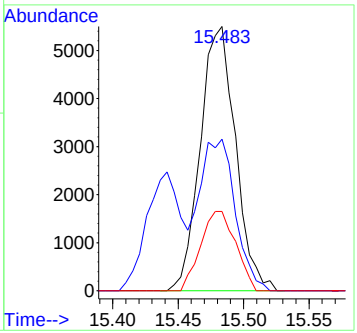




#89
chlorobenzene
Concen: 1.42 ug/L
RT: 15.483 min Scan# 2251
Delta R.T. -0.032 min
Lab File: 2d174439.d
Acq: 27 Mar 2018 3:21 pm

Tgt Ion:112 Resp: 10325

Ion	Ratio	Lower	Upper
112	100		
77	57.3	27.0	87.0
114	30.0	2.2	62.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174440.d
Acq On : 27 Mar 2018 3:51 pm
Operator : JessicaP
Sample : jc62879-5 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:30:08 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

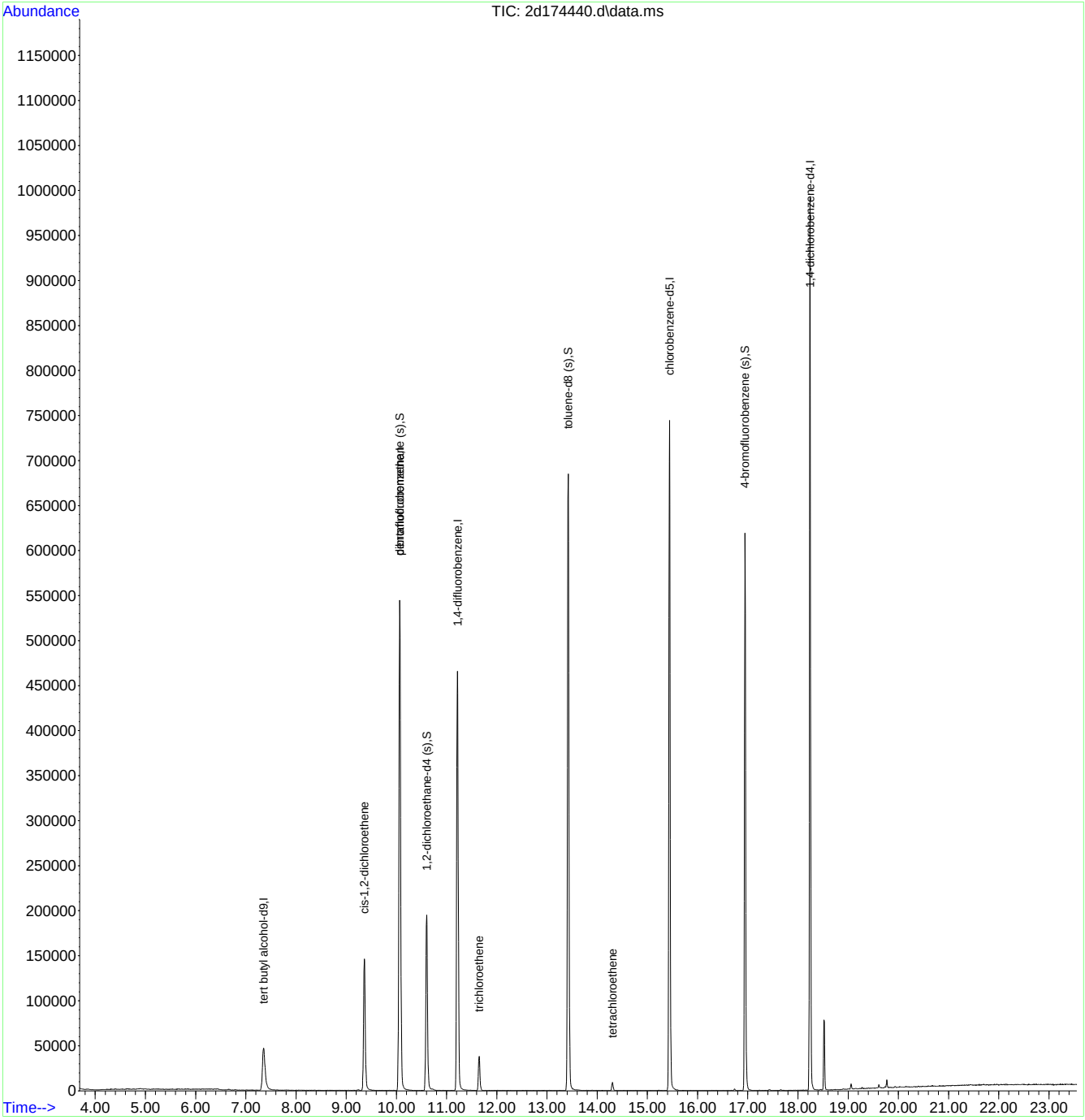
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.352	65	101692	500.00	ug/L	-0.05
5) pentafluorobenzene	10.067	168	312532	50.00	ug/L	-0.04
54) 1,4-difluorobenzene	11.216	114	437865	50.00	ug/L	-0.04
76) chlorobenzene-d5	15.442	117	429272	50.00	ug/L	-0.03
99) 1,4-dichlorobenzene-d4	18.241	152	236056	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.067	113	134874	50.79	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.58%			
55) 1,2-dichloroethane-d4 (s)	10.602	65	163948	52.26	ug/L	0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.52%			
77) toluene-d8 (s)	13.423	98	504920	49.52	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.04%			
100) 4-bromofluorobenzene (s)	16.946	95	198370	49.26	ug/L	-0.03
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.52%			
Target Compounds						Qvalue
40) cis-1,2-dichloroethene	9.360	96	74207	28.31	ug/L	97
64) trichloroethene	11.646	130	14969	6.08	ug/L	96
82) tetrachloroethene	14.304	164	2370	1.09	ug/L	92

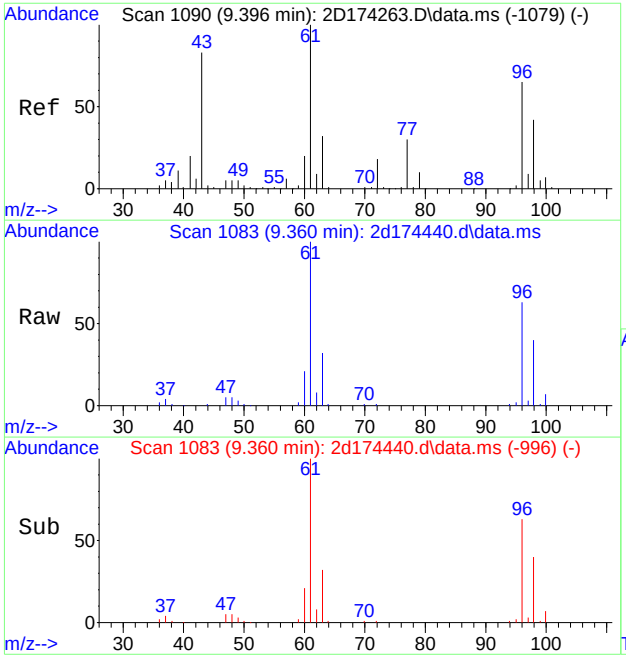
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174440.d
Acq On : 27 Mar 2018 3:51 pm
Operator : JessicaP
Sample : jc62879-5 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:30:08 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

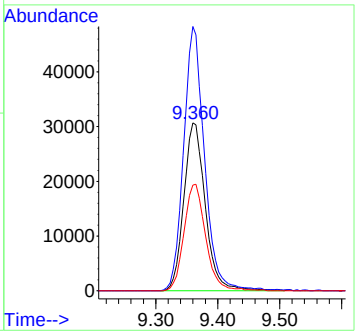


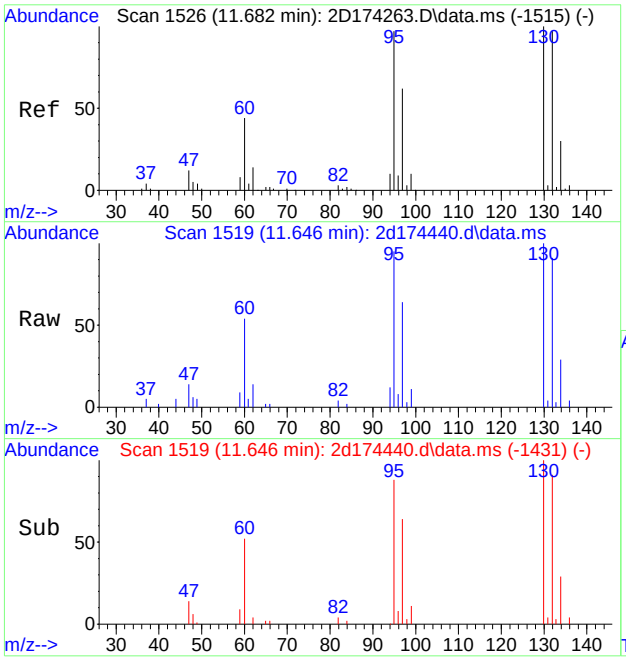


#40
cis-1,2-dichloroethene
Concen: 28.31 ug/L
RT: 9.360 min Scan# 1083
Delta R.T. -0.042 min
Lab File: 2d174440.d
Acq: 27 Mar 2018 3:51 pm

Tgt Ion: 96 Resp: 74207

Ion	Ratio	Lower	Upper
96	100		
61	157.6	123.2	183.2
98	62.9	34.1	94.1

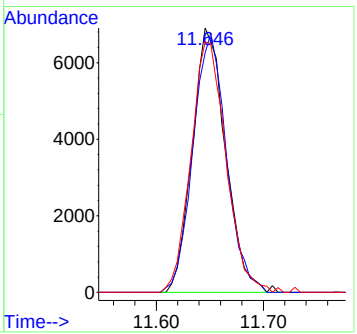


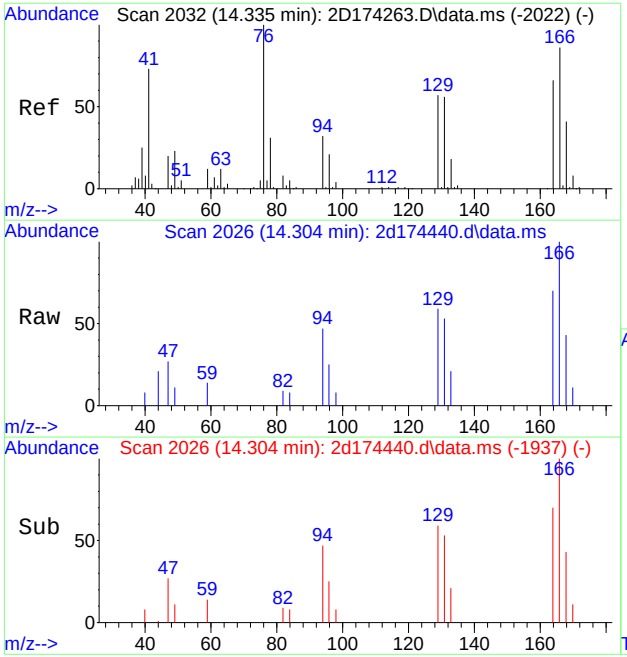


#64
trichloroethene
Concen: 6.08 ug/L
RT: 11.646 min Scan# 1519
Delta R.T. -0.037 min
Lab File: 2d174440.d
Acq: 27 Mar 2018 3:51 pm

Tgt Ion:130 Resp: 14969

Ion	Ratio	Lower	Upper
130	100		
132	90.6	66.6	126.6
95	94.8	67.5	127.5

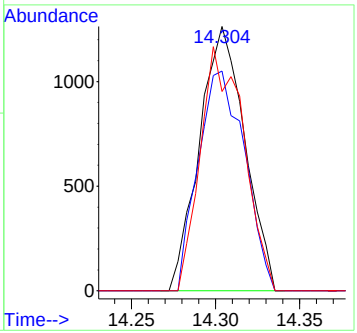




#82
tetrachloroethene
Concen: 1.09 ug/L
RT: 14.304 min Scan# 2026
Delta R.T. -0.032 min
Lab File: 2d174440.d
Acq: 27 Mar 2018 3:51 pm

Tgt Ion:164 Resp: 2370

Ion	Ratio	Lower	Upper
164	100		
129	83.1	57.5	117.5
131	75.3	56.0	116.0



7.1.5

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174441.d
Acq On : 27 Mar 2018 4:20 pm
Operator : JessicaP
Sample : jc62879-6 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:30:42 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

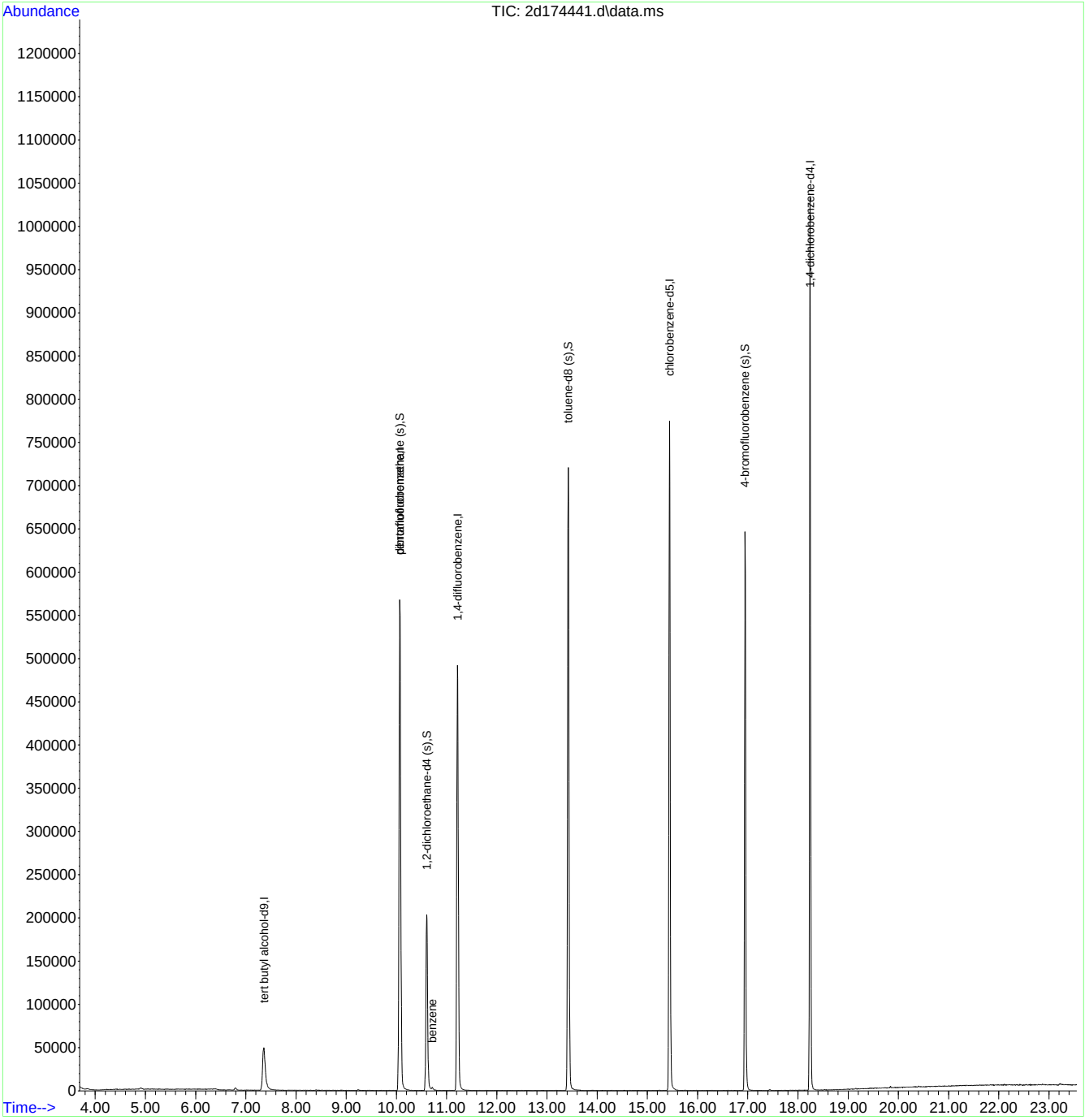
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.362	65	109337	500.00	ug/L	-0.04
5) pentafluorobenzene	10.067	168	324230	50.00	ug/L	-0.04
54) 1,4-difluorobenzene	11.216	114	452499	50.00	ug/L	-0.04
76) chlorobenzene-d5	15.442	117	443807	50.00	ug/L	-0.03
99) 1,4-dichlorobenzene-d4	18.241	152	243842	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.067	113	142321	51.66	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.32%			
55) 1,2-dichloroethane-d4 (s)	10.602	65	172869	53.33	ug/L	0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 106.66%			
77) toluene-d8 (s)	13.423	98	523896	49.70	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.40%			
100) 4-bromofluorobenzene (s)	16.946	95	206044	49.54	ug/L	-0.03
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.08%			
Target Compounds						Qvalue
56) benzene	10.712	78	2077	0.20	ug/L	98

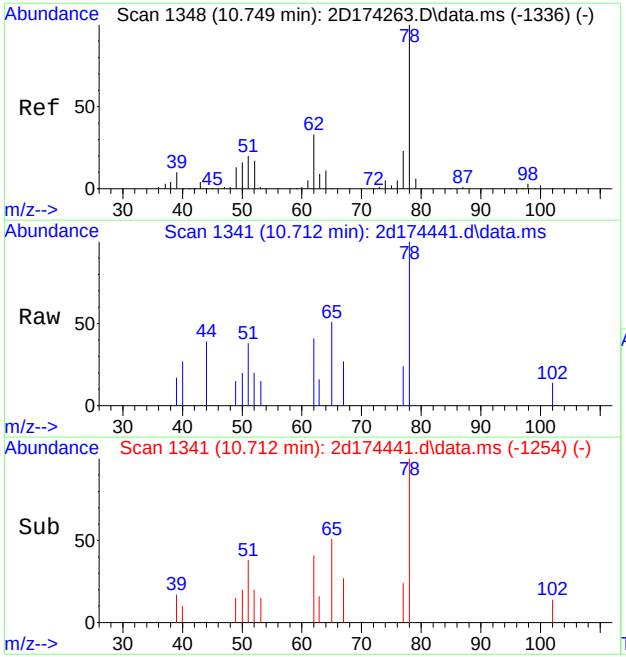
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174441.d
Acq On : 27 Mar 2018 4:20 pm
Operator : JessicaP
Sample : jc62879-6 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:30:42 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

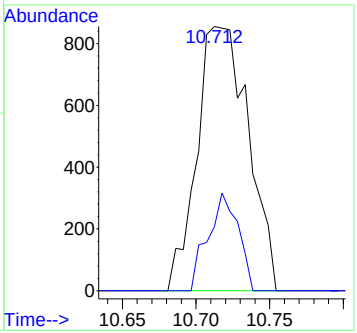




#56
benzene
Concen: 0.20 ug/L
RT: 10.712 min Scan# 1341
Delta R.T. -0.042 min
Lab File: 2d174441.d
Acq: 27 Mar 2018 4:20 pm

Tgt Ion: 78 Resp: 2077

Ion	Ratio	Lower	Upper
78	100		
77	24.3	0.0	53.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174442.d
Acq On : 27 Mar 2018 4:50 pm
Operator : JessicaP
Sample : jc62879-7 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:31:16 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

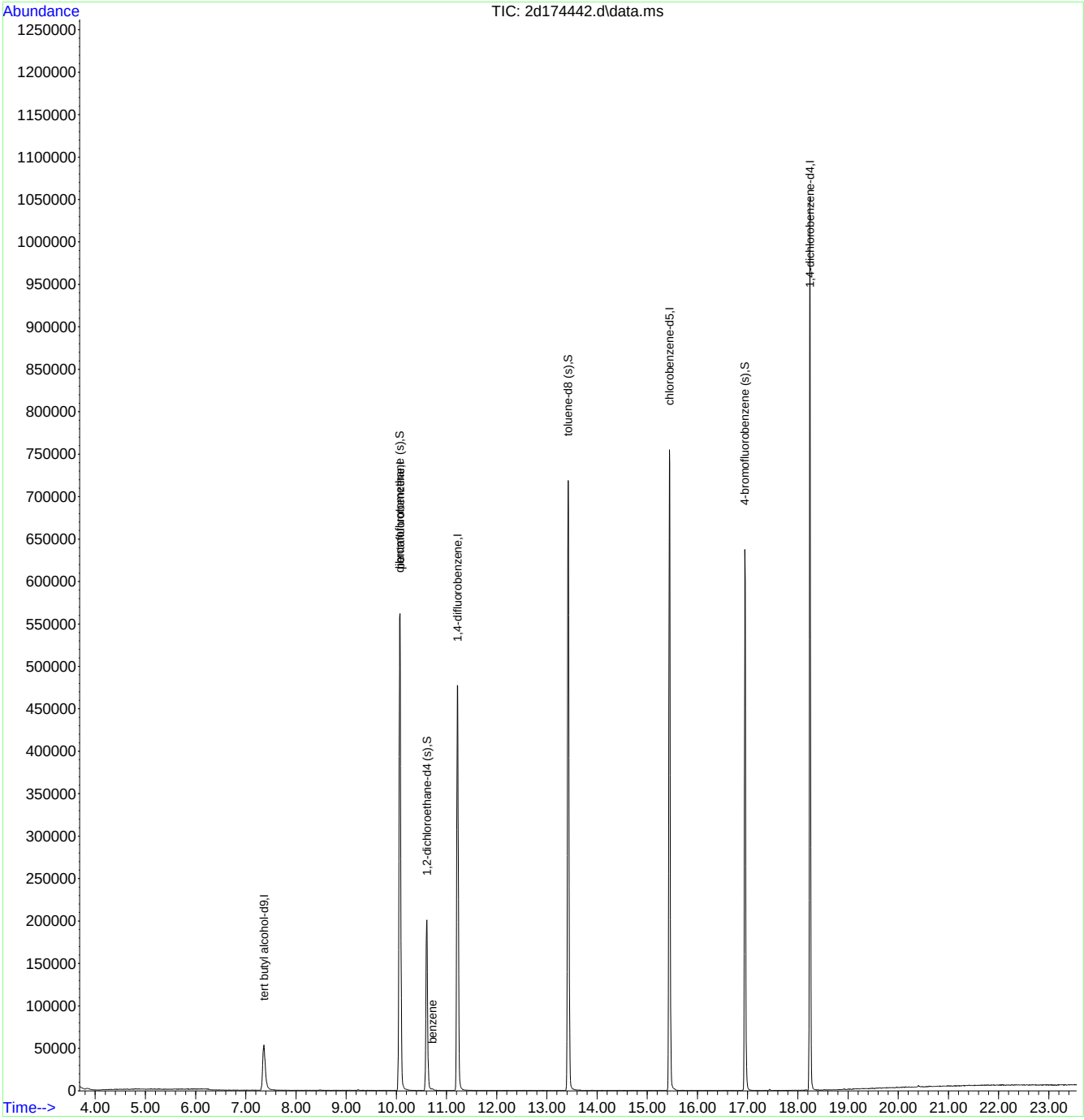
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.362	65	112978	500.00	ug/L	-0.04
5) pentafluorobenzene	10.073	168	320835	50.00	ug/L	-0.03
54) 1,4-difluorobenzene	11.221	114	449597	50.00	ug/L	-0.03
76) chlorobenzene-d5	15.442	117	443031	50.00	ug/L	-0.03
99) 1,4-dichlorobenzene-d4	18.242	152	245757	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.068	113	140219	51.43	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.86%			
55) 1,2-dichloroethane-d4 (s)	10.608	65	171906	53.37	ug/L	0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 106.74%			
77) toluene-d8 (s)	13.423	98	522799	49.68	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.36%			
100) 4-bromofluorobenzene (s)	16.946	95	205387	48.99	ug/L	-0.03
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.98%			
Target Compounds						Qvalue
56) benzene	10.718	78	1132	0.11	ug/L	96

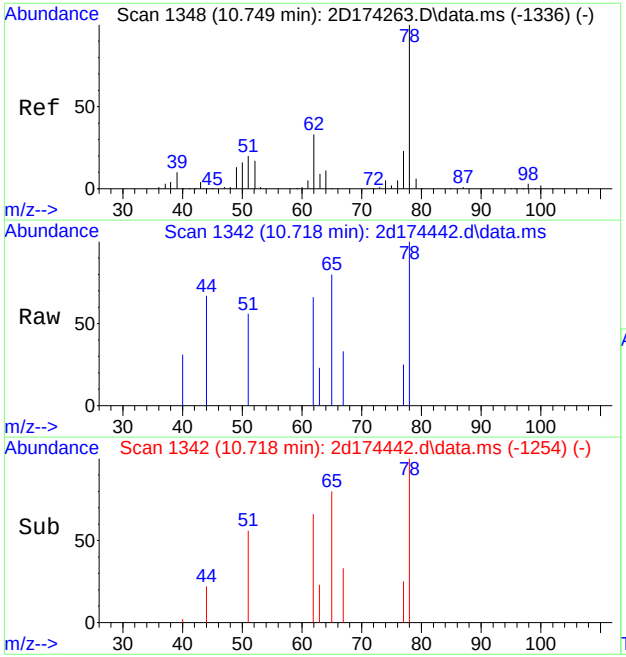
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174442.d
Acq On : 27 Mar 2018 4:50 pm
Operator : JessicaP
Sample : jc62879-7 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:31:16 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

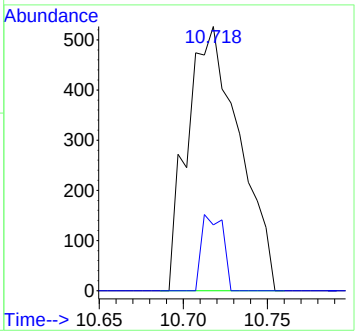




#56
benzene
Concen: 0.11 ug/L
RT: 10.718 min Scan# 1342
Delta R.T. -0.037 min
Lab File: 2d174442.d
Acq: 27 Mar 2018 4:50 pm

Tgt Ion: 78 Resp: 1132

Ion	Ratio	Lower	Upper
78	100		
77	24.9	0.0	53.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174443.d
Acq On : 27 Mar 2018 5:21 pm
Operator : JessicaP
Sample : jc62879-8 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:31:58 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

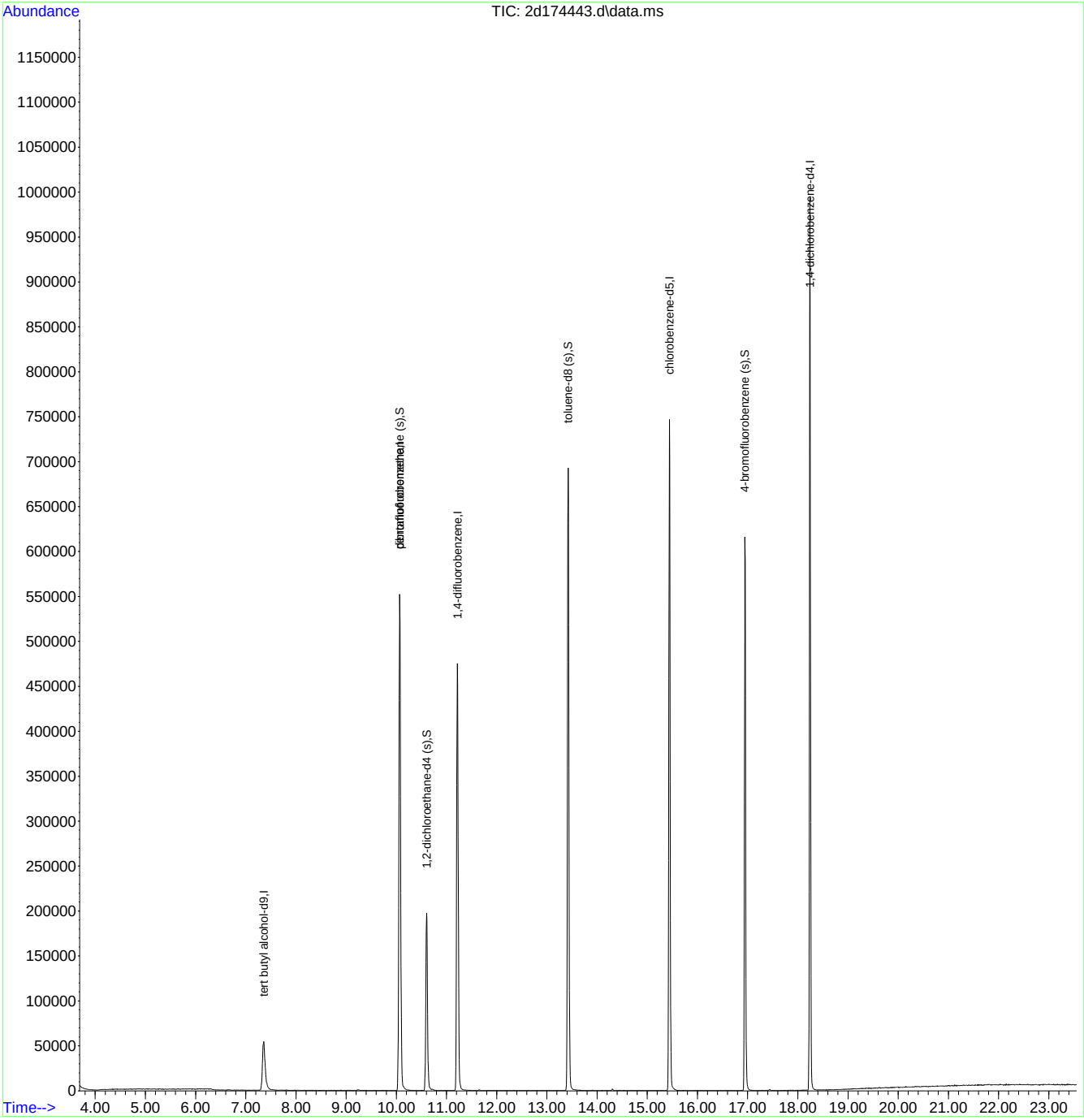
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.357	65	116185	500.00	ug/L	-0.04
5) pentafluorobenzene	10.068	168	314124	50.00	ug/L	-0.04
54) 1,4-difluorobenzene	11.216	114	439126	50.00	ug/L	-0.04
76) chlorobenzene-d5	15.442	117	426394	50.00	ug/L	-0.03
99) 1,4-dichlorobenzene-d4	18.242	152	236659	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.068	113	136042	50.97	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.94%			
55) 1,2-dichloroethane-d4 (s)	10.602	65	167758	53.33	ug/L	0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 106.66%			
77) toluene-d8 (s)	13.423	98	507264	50.09	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.18%			
100) 4-bromofluorobenzene (s)	16.947	95	198216	49.10	ug/L	-0.03
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174443.d
Acq On : 27 Mar 2018 5:21 pm
Operator : JessicaP
Sample : jc62879-8 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:31:58 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174435.d
Acq On : 27 Mar 2018 1:21 pm
Operator : JessicaP
Sample : jc62879-9 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:26:02 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

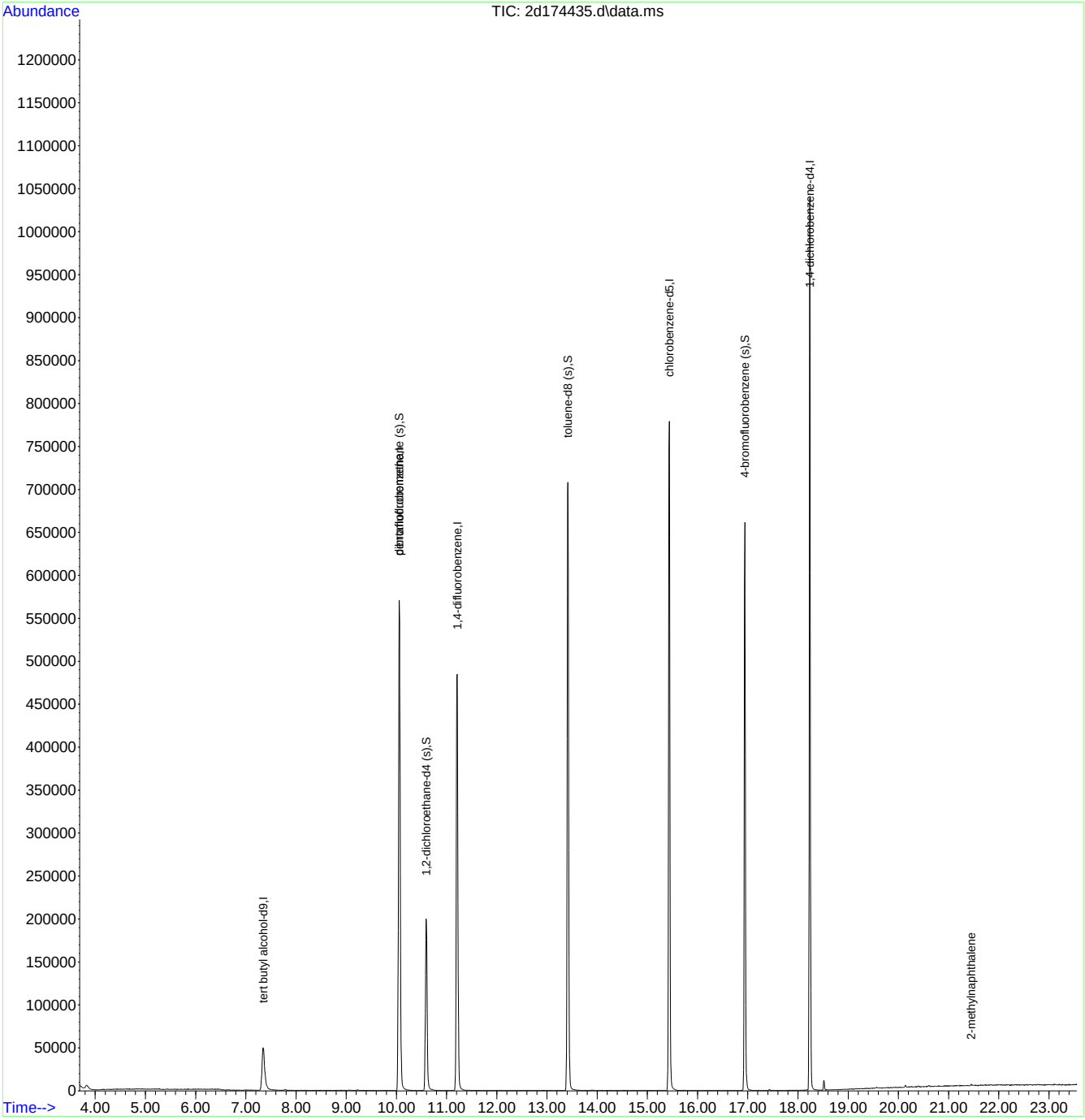
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.347	65	108505	500.00	ug/L	-0.05
5) pentafluorobenzene	10.057	168	326427	50.00	ug/L	-0.05
54) 1,4-difluorobenzene	11.211	114	453674	50.00	ug/L	-0.04
76) chlorobenzene-d5	15.437	117	447216	50.00	ug/L	-0.04
99) 1,4-dichlorobenzene-d4	18.236	152	249714	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.057	113	140540	50.67	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.34%			
55) 1,2-dichloroethane-d4 (s)	10.597	65	170474	52.45	ug/L	0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.90%			
77) toluene-d8 (s)	13.418	98	524206	49.35	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.70%			
100) 4-bromofluorobenzene (s)	16.941	95	208804	49.02	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.04%			
Target Compounds						Qvalue
130) 2-methylnaphthalene	21.450	142	465	3.33	ug/L	# 80

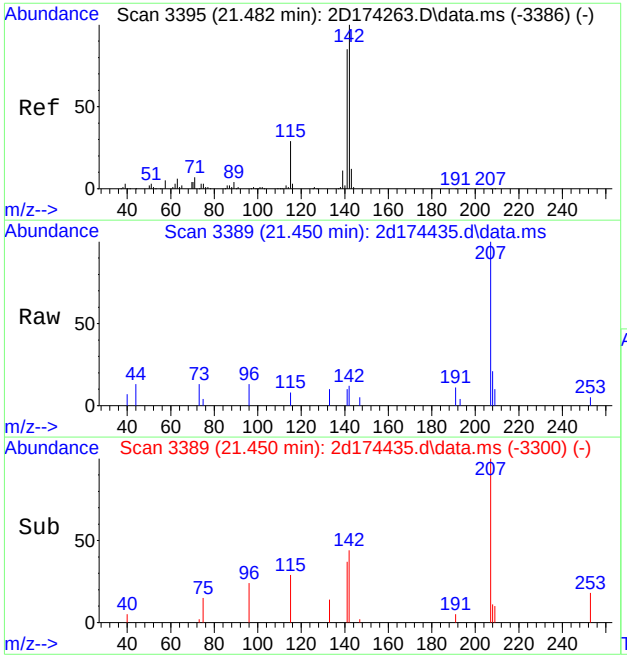
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174435.d
Acq On : 27 Mar 2018 1:21 pm
Operator : JessicaP
Sample : jc62879-9 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:26:02 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

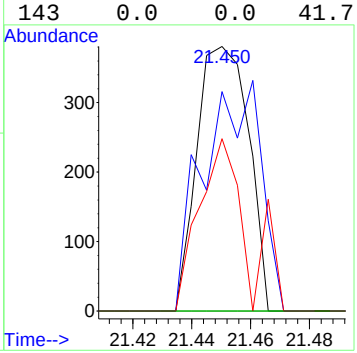




#130
2-methylnaphthalene
Concen: 3.33 ug/L
RT: 21.450 min Scan# 3389
Delta R.T. -0.031 min
Lab File: 2d174435.d
Acq: 27 Mar 2018 1:21 pm

Tgt Ion:142 Resp: 465

Ion	Ratio	Lower	Upper
142	100		
141	82.9	65.3	105.3
115	65.1	0.0	59.3#
143	0.0	0.0	41.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174444.d
Acq On : 27 Mar 2018 5:51 pm
Operator : JessicaP
Sample : jc62879-10 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:32:44 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

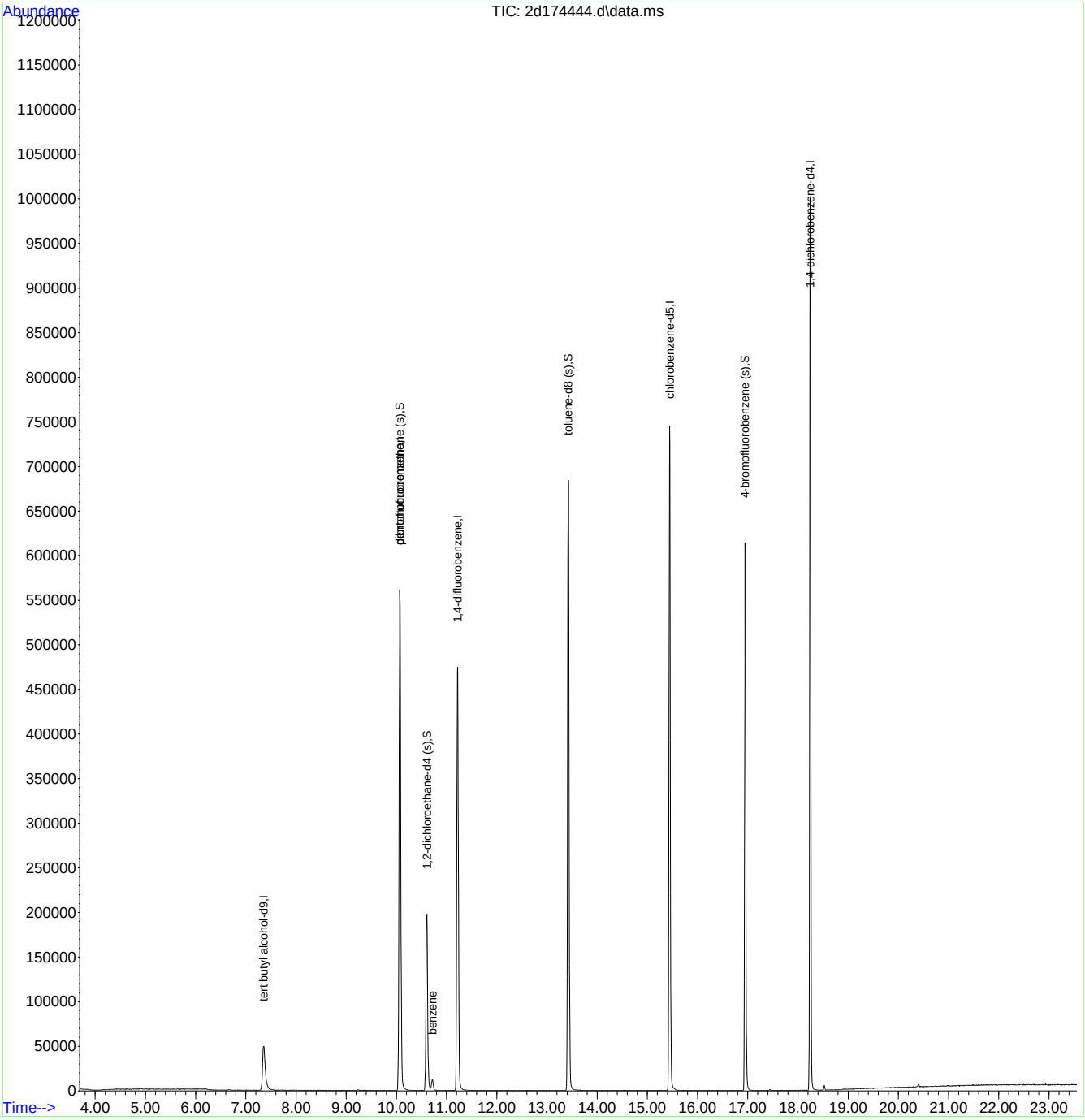
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.352	65	107527	500.00	ug/L	-0.05
5) pentafluorobenzene	10.068	168	314087	50.00	ug/L	-0.04
54) 1,4-difluorobenzene	11.221	114	443676	50.00	ug/L	-0.03
76) chlorobenzene-d5	15.447	117	435377	50.00	ug/L	-0.03
99) 1,4-dichlorobenzene-d4	18.241	152	239506	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.068	113	138580	51.92	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.84%			
55) 1,2-dichloroethane-d4 (s)	10.608	65	169056	53.19	ug/L	0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 106.38%			
77) toluene-d8 (s)	13.423	98	509802	49.30	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.60%			
100) 4-bromofluorobenzene (s)	16.946	95	200392	49.05	ug/L	-0.03
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.10%			
Target Compounds						Qvalue
56) benzene	10.718	78	11072	1.11	ug/L	90

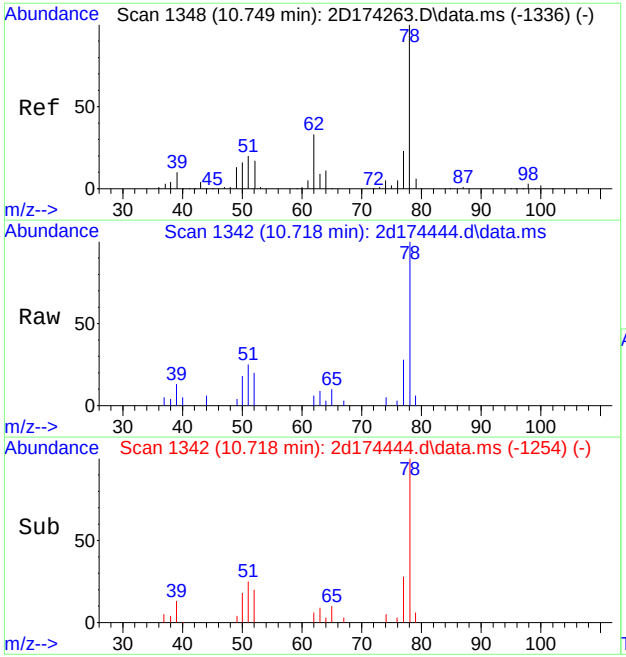
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174444.d
Acq On : 27 Mar 2018 5:51 pm
Operator : JessicaP
Sample : jc62879-10 Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:32:44 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

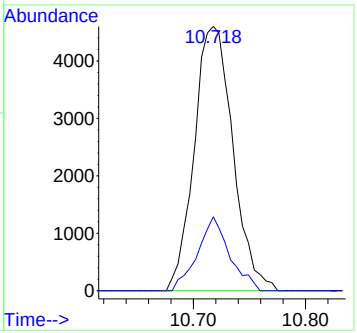




#56
benzene
Concen: 1.11 ug/L
RT: 10.718 min Scan# 1342
Delta R.T. -0.037 min
Lab File: 2d174444.d
Acq: 27 Mar 2018 5:51 pm

Tgt Ion: 78 Resp: 11072

Ion	Ratio	Lower	Upper
78	100		
77	28.0	0.0	53.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141954.d
Acq On : 29 Mar 2018 10:03 am
Operator : sydneys
Sample : JC62879-11 Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:32:45 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

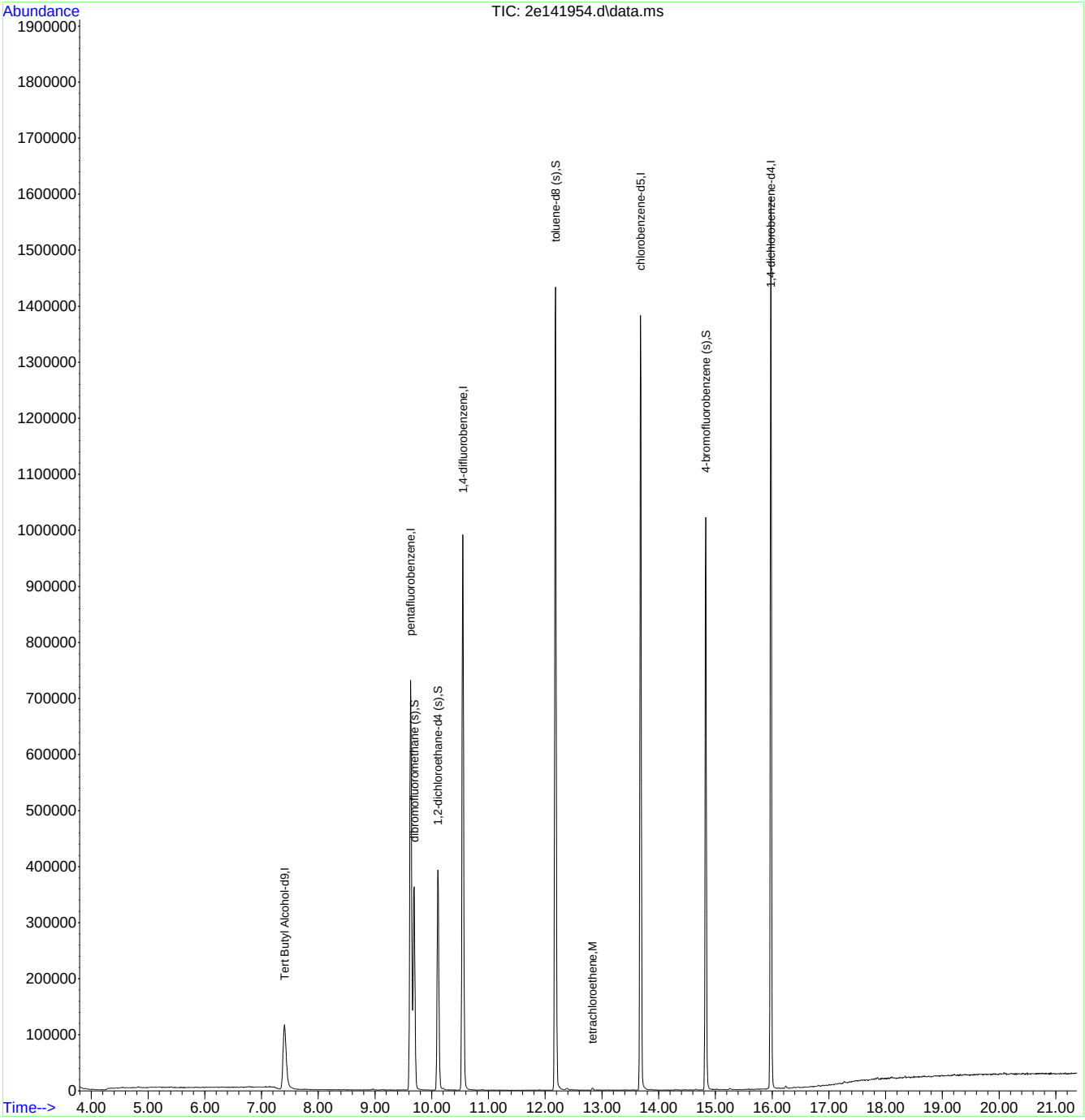
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.404	65	271438	500.00	ug/L	0.00
5) pentafluorobenzene	9.628	168	597861	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.550	114	895326	50.00	ug/L	0.00
77) chlorobenzene-d5	13.680	117	764486	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	382024	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.690	113	249051	50.11	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.22%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	284388	50.99	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.98%			
78) toluene-d8 (s)	12.181	98	993714	50.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.98%			
102) 4-bromofluorobenzene (s)	14.829	95	355167	50.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.24%			
Target Compounds						Qvalue
83) tetrachloroethene	12.831	164	966	0.20	ug/L	89

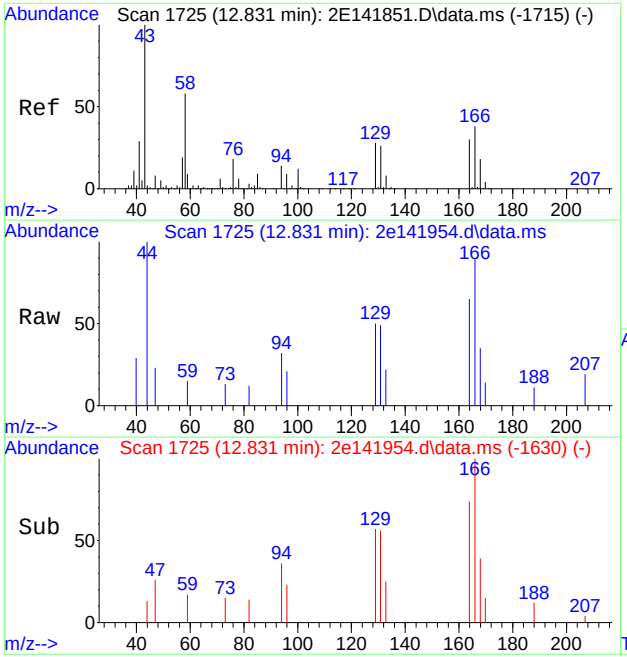
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141954.d
Acq On : 29 Mar 2018 10:03 am
Operator : sydneys
Sample : JC62879-11 Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:32:45 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

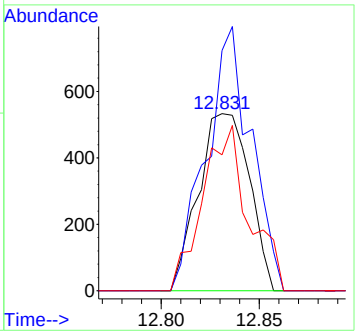




#83
tetrachloroethene
Concen: 0.20 ug/L
RT: 12.831 min Scan# 1725
Delta R.T. -0.000 min
Lab File: 2e141954.d
Acq: 29 Mar 2018 10:03 am

Tgt Ion:164 Resp: 966

Ion	Ratio	Lower	Upper
164	100		
166	135.6	96.7	156.7
129	76.7	62.0	122.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145298.d
Acq On : 29 Mar 2018 1:25 pm
Operator : EddieH
Sample : JC62879-11 Inst : MS3B
Misc : MS25160,V3B6427,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:28:15 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

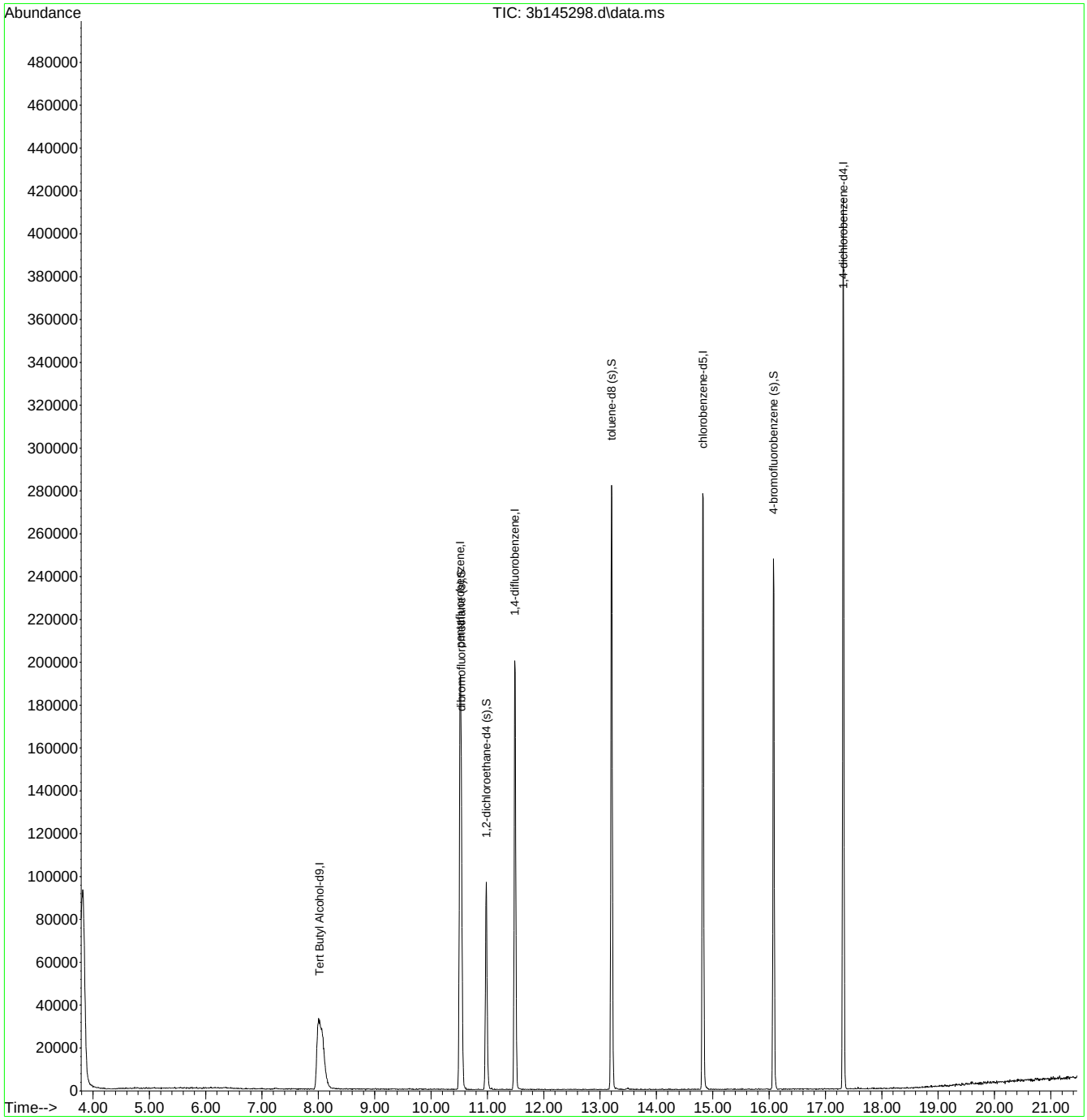
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.019	65	148651	500.00	ug/L	0.00
5) pentafluorobenzene	10.513	168	129251	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.486	114	171625	50.00	ug/L	-0.01
75) chlorobenzene-d5	14.823	117	158071	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	17.318	152	107502	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.534	113	63298	51.33	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.66%			
55) 1,2-dichloroethane-d4 (s)	10.979	65	79726	55.85	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 111.70%			
76) toluene-d8 (s)	13.202	98	196712	48.17	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.34%			
100) 4-bromofluorobenzene (s)	16.078	95	80056	49.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.46%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145298.d
Acq On : 29 Mar 2018 1:25 pm
Operator : EddieH
Sample : JC62879-11 Inst : MS3B
Misc : MS25160,V3B6427,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:28:15 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145279.d
Acq On : 29 Mar 2018 12:11 am
Operator : EddieH
Sample : jc62879-12 Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:41:24 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

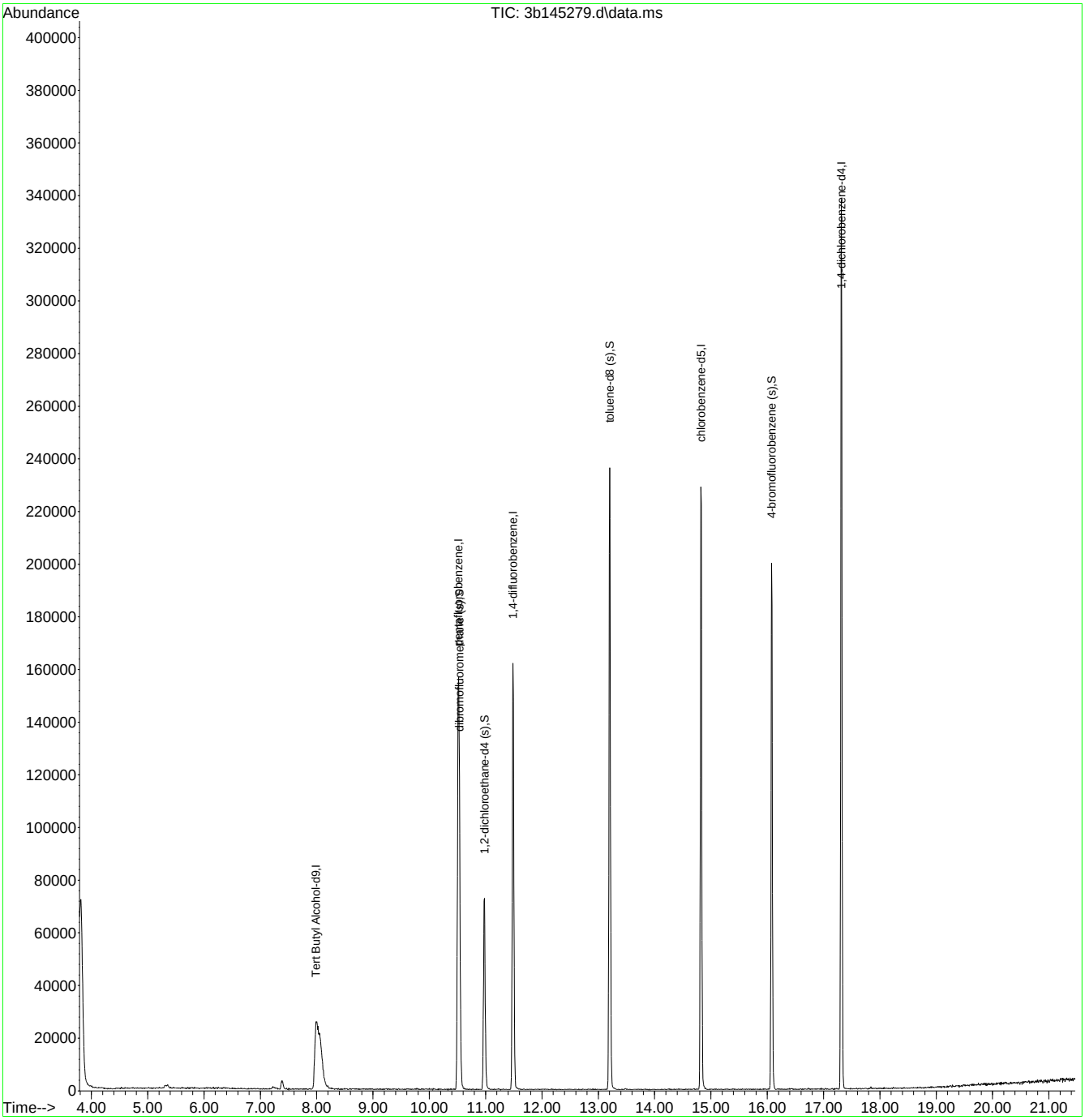
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.987	65	111538	500.00	ug/L	-0.03
5) pentafluorobenzene	10.513	168	103103	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.486	114	136788	50.00	ug/L	-0.01
75) chlorobenzene-d5	14.823	117	130755	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	17.318	152	90123	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.534	113	52243	53.11	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.22%			
55) 1,2-dichloroethane-d4 (s)	10.979	65	61740	54.27	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 108.54%			
76) toluene-d8 (s)	13.202	98	160905	47.63	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.26%			
100) 4-bromofluorobenzene (s)	16.078	95	63535	46.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145279.d
Acq On : 29 Mar 2018 12:11 am
Operator : EddieH
Sample : jc62879-12 Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:41:24 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145280.d
Acq On : 29 Mar 2018 12:40 am
Operator : EddieH
Sample : jc62879-13 Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:42:23 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

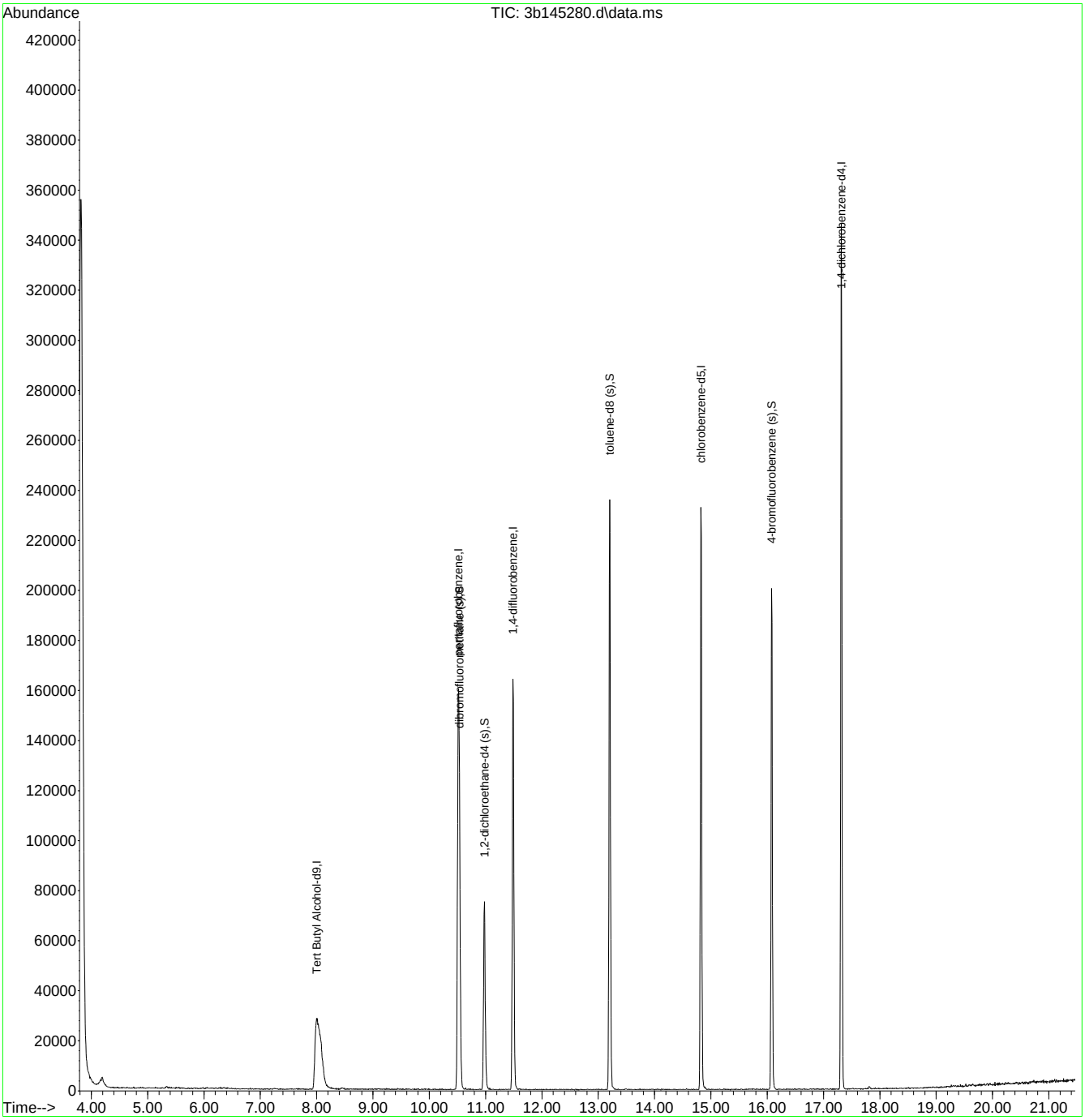
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.998	65	123178	500.00	ug/L	-0.02
5) pentafluorobenzene	10.513	168	104132	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.486	114	138926	50.00	ug/L	-0.01
75) chlorobenzene-d5	14.823	117	131177	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	17.318	152	90633	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.534	113	53061	53.41	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.82%			
55) 1,2-dichloroethane-d4 (s)	10.979	65	63468	54.93	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.86%			
76) toluene-d8 (s)	13.202	98	160336	47.31	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.62%			
100) 4-bromofluorobenzene (s)	16.078	95	63600	46.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.78%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145280.d
Acq On : 29 Mar 2018 12:40 am
Operator : EddieH
Sample : jc62879-13 Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:42:23 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145281.d
Acq On : 29 Mar 2018 1:08 am
Operator : EddieH
Sample : jc62879-14 Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:43:01 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

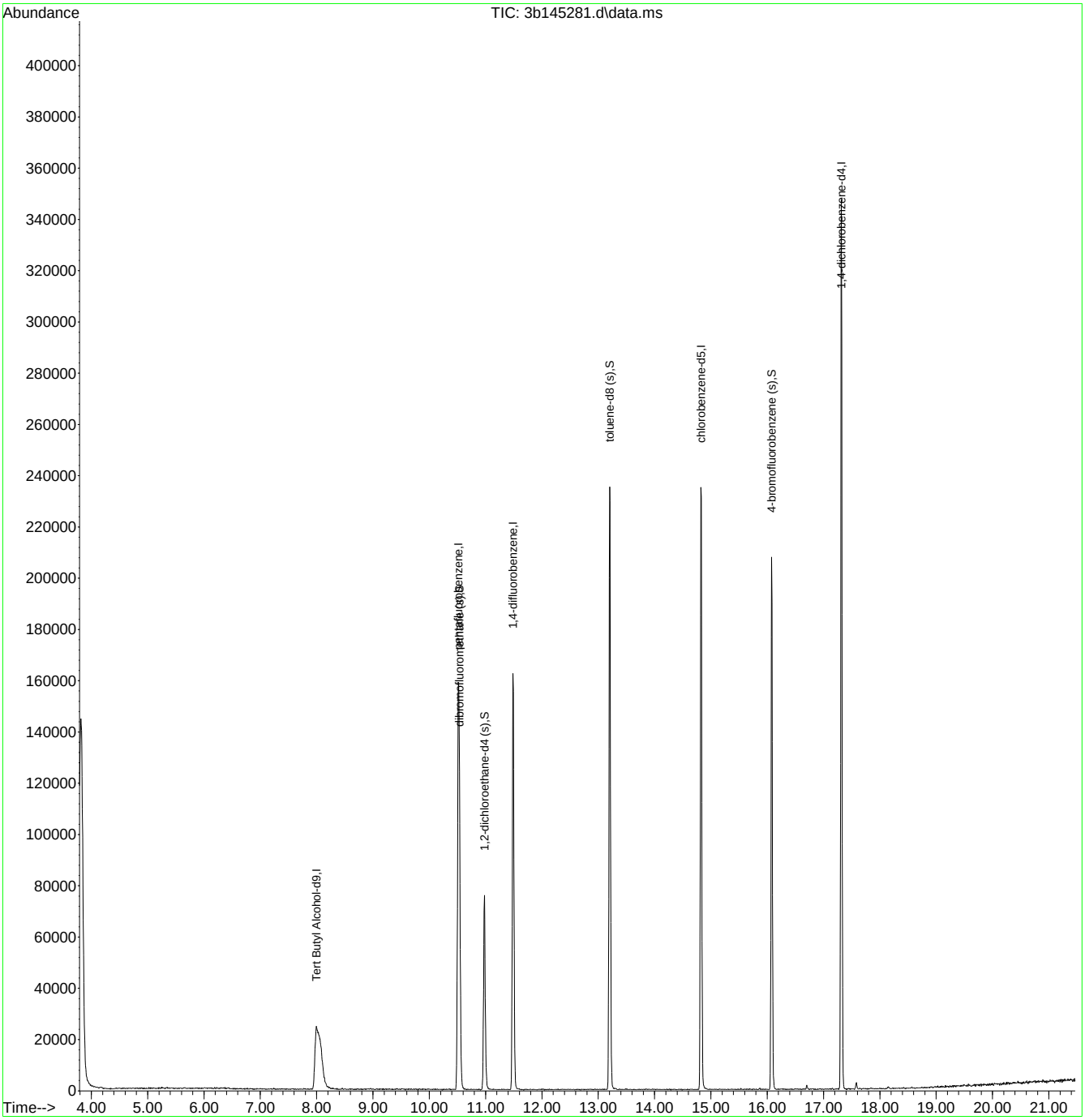
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.992	65	106262	500.00	ug/L	-0.03
5) pentafluorobenzene	10.513	168	103650	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.486	114	139974	50.00	ug/L	-0.01
75) chlorobenzene-d5	14.823	117	133674	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	17.318	152	93179	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.534	113	53091	53.69	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.38%			
55) 1,2-dichloroethane-d4 (s)	10.979	65	63035	54.15	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 108.30%			
76) toluene-d8 (s)	13.202	98	162660	47.10	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.20%			
100) 4-bromofluorobenzene (s)	16.078	95	65166	46.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.46%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145281.d
Acq On : 29 Mar 2018 1:08 am
Operator : EddieH
Sample : jc62879-14 Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:43:01 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145282.d
Acq On : 29 Mar 2018 1:37 am
Operator : EddieH
Sample : jc62879-15 Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:43:56 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

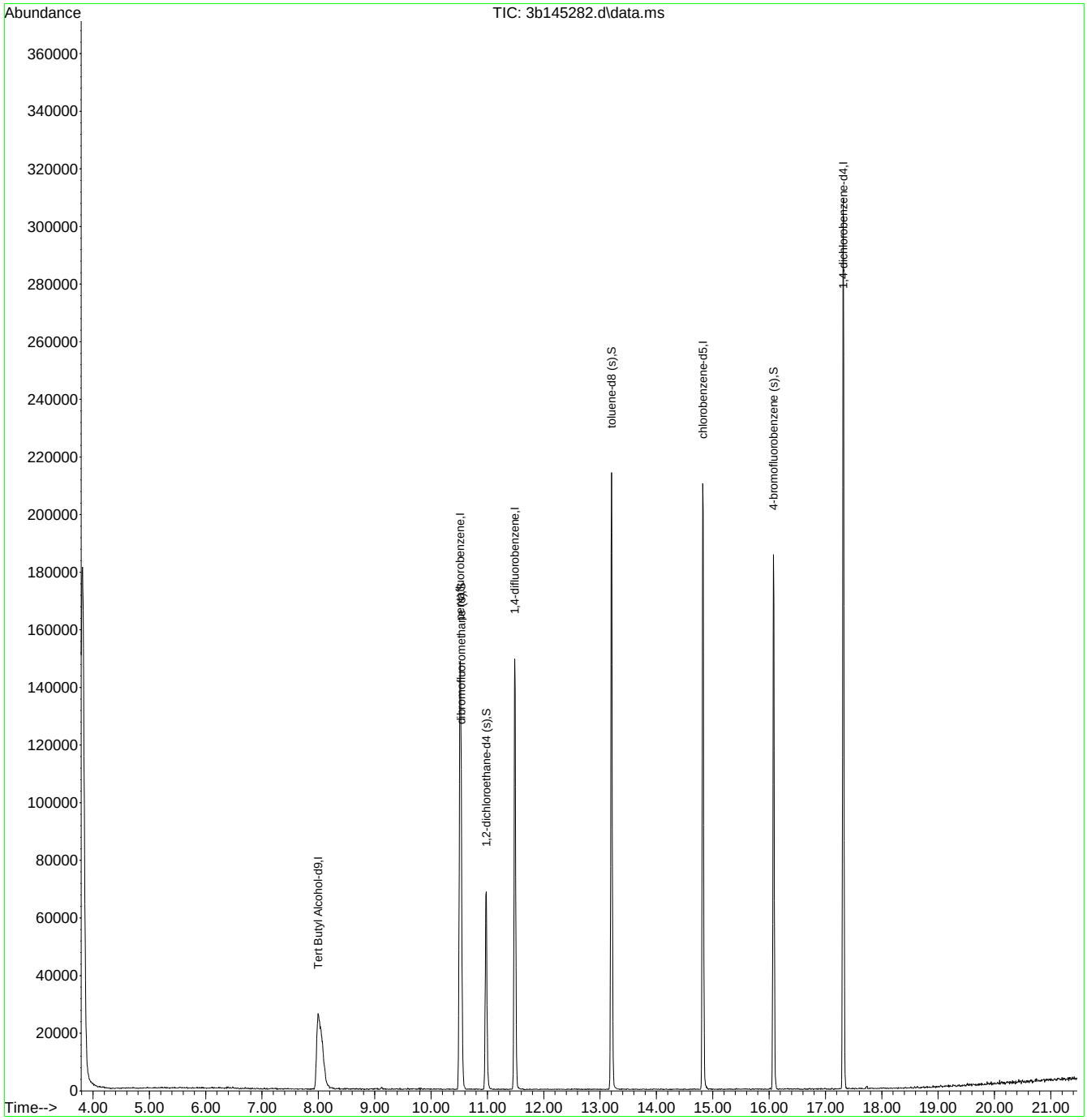
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.992	65	103205	500.00	ug/L	-0.03
5) pentafluorobenzene	10.513	168	96923	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.486	114	127996	50.00	ug/L	-0.01
75) chlorobenzene-d5	14.823	117	118534	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	17.318	152	82573	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.534	113	48995	52.98	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.96%			
55) 1,2-dichloroethane-d4 (s)	10.979	65	58256	54.72	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.44%			
76) toluene-d8 (s)	13.202	98	144694	47.25	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.50%			
100) 4-bromofluorobenzene (s)	16.078	95	58325	46.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.38%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145282.d
Acq On : 29 Mar 2018 1:37 am
Operator : EddieH
Sample : jc62879-15 Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:43:56 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145283.d
Acq On : 29 Mar 2018 2:05 am
Operator : EddieH
Sample : jc62879-16 Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:44:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

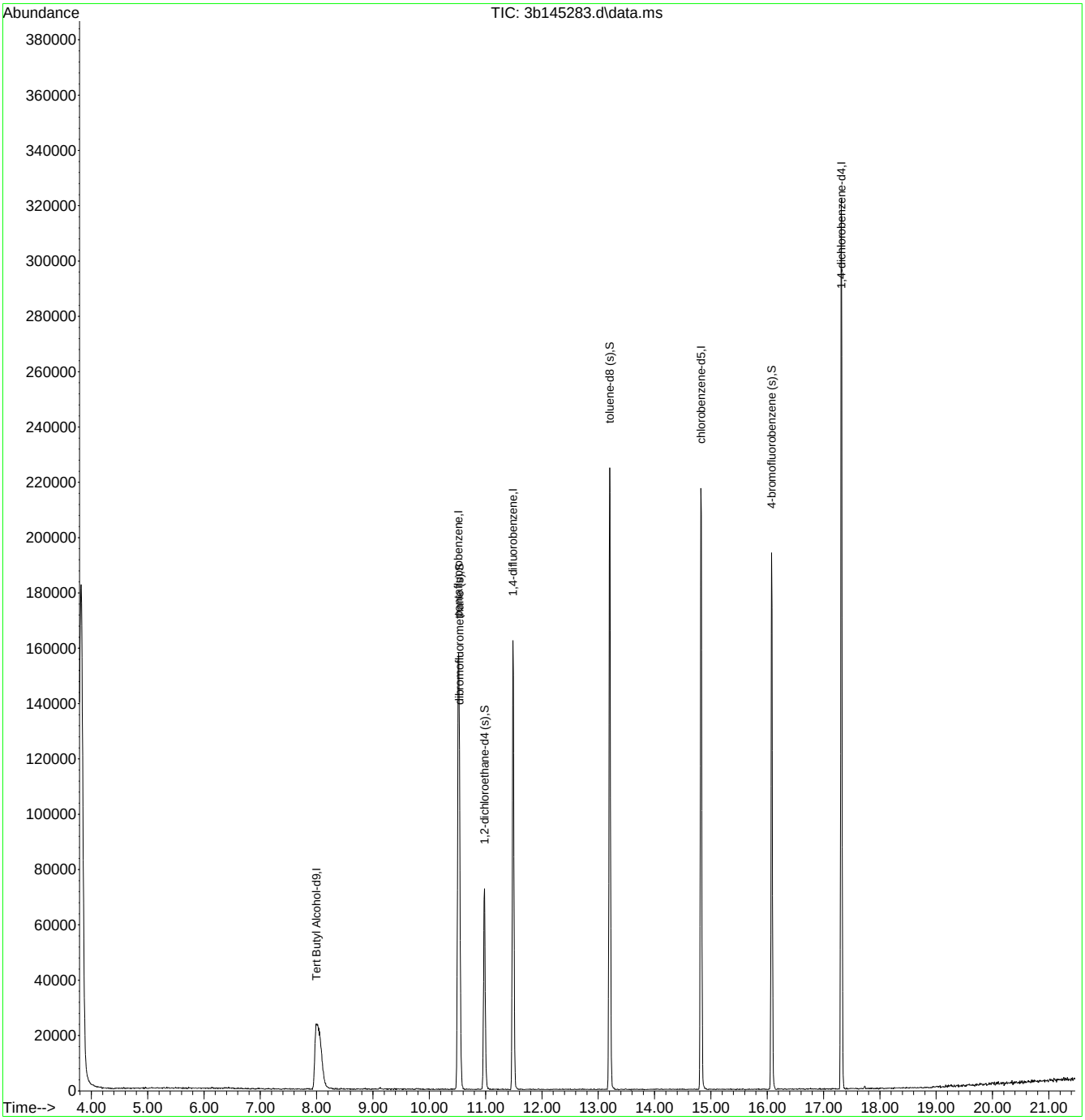
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.992	65	102630	500.00	ug/L	-0.03
5) pentafluorobenzene	10.513	168	101924	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.486	114	135506	50.00	ug/L	-0.01
75) chlorobenzene-d5	14.823	117	123876	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	17.318	152	86089	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.534	113	52661	54.15	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.30%			
55) 1,2-dichloroethane-d4 (s)	10.979	65	61868	54.90	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.80%			
76) toluene-d8 (s)	13.202	98	153617	48.00	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.00%			
100) 4-bromofluorobenzene (s)	16.078	95	60360	46.35	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.70%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145283.d
Acq On : 29 Mar 2018 2:05 am
Operator : EddieH
Sample : jc62879-16 Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:44:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141955.d
Acq On : 29 Mar 2018 11:26 am
Operator : sydneys
Sample : JC62879-17 Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:33:24 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.399	65	260335	500.00	ug/L	0.00
5) pentafluorobenzene	9.622	168	604816	50.00	ug/L	-0.01
56) 1,4-difluorobenzene	10.545	114	918657	50.00	ug/L	0.00
77) chlorobenzene-d5	13.681	117	788653	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	399624	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.685	113	252817	50.28	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.56%			
57) 1,2-dichloroethane-d4 (s)	10.105	65	291411	50.93	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.86%			
78) toluene-d8 (s)	12.176	98	1018775	50.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.34%			
102) 4-bromofluorobenzene (s)	14.829	95	368389	50.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.38%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

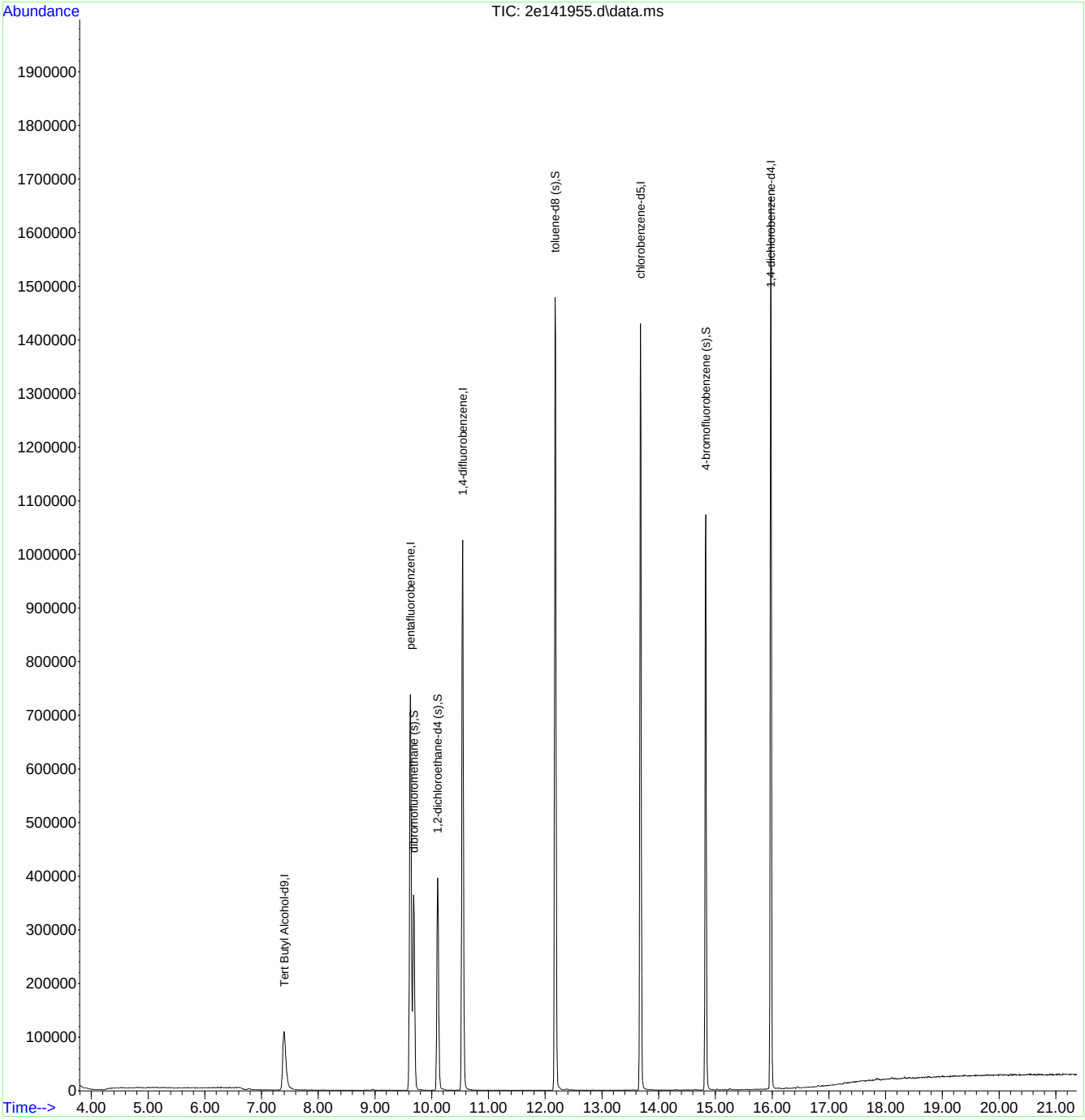
7.1.18

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141955.d
Acq On : 29 Mar 2018 11:26 am
Operator : sydneys
Sample : JC62879-17 Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:33:24 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141956.d
Acq On : 29 Mar 2018 11:53 am
Operator : sydneys
Sample : JC62879-18 Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:34:05 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

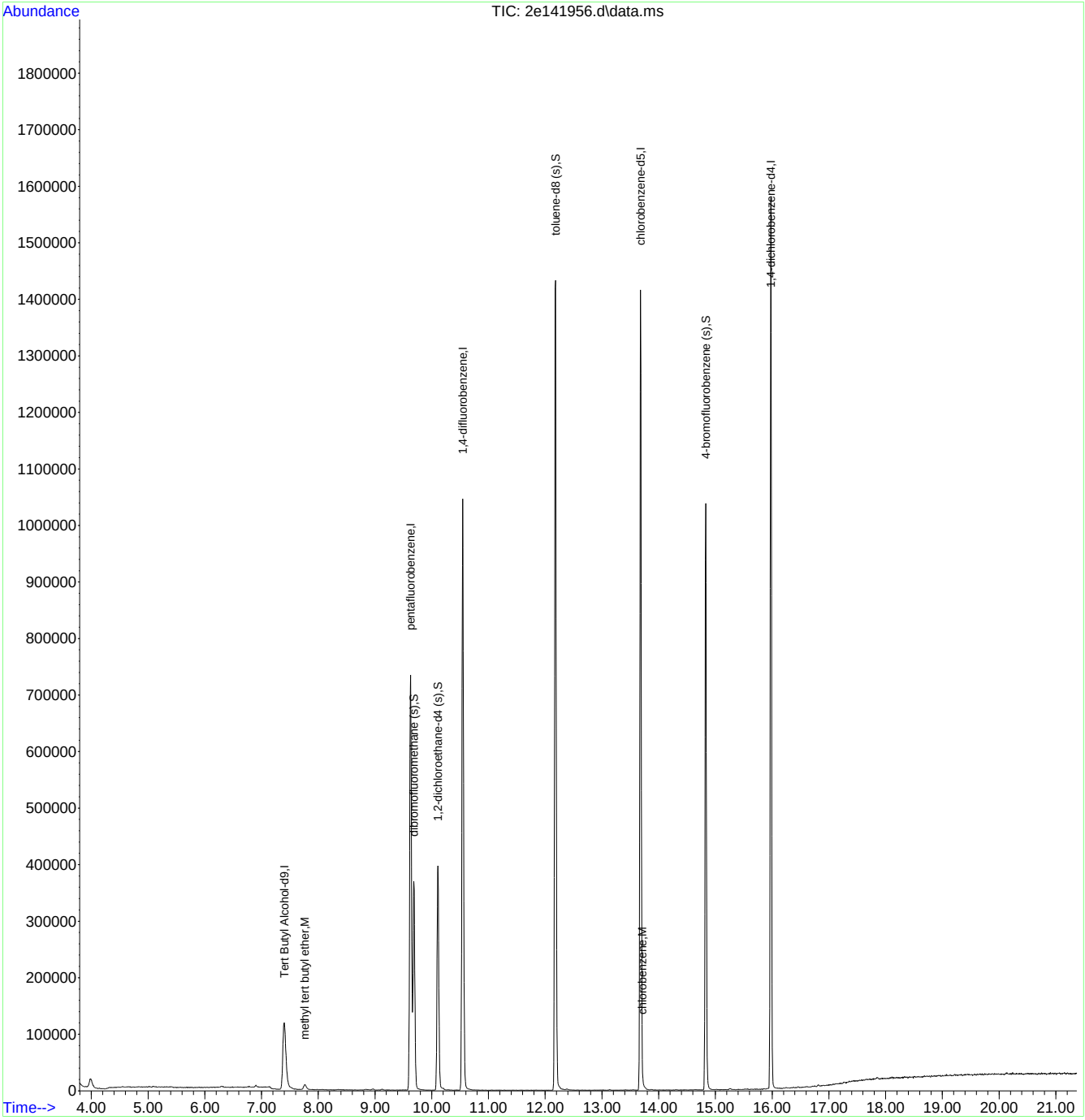
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.399	65	272277	500.00	ug/L	0.00
5) pentafluorobenzene	9.628	168	593098	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.545	114	904844	50.00	ug/L	0.00
77) chlorobenzene-d5	13.681	117	776713	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	384401	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.685	113	248397	50.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.76%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	286607	50.85	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.70%			
78) toluene-d8 (s)	12.181	98	1005084	50.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.52%			
102) 4-bromofluorobenzene (s)	14.829	95	357126	50.58	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.16%			
Target Compounds						Qvalue
28) methyl tert butyl ether	7.761	73	15475	0.80	ug/L	96
91) chlorobenzene	13.712	112	4673	0.28	ug/L	90

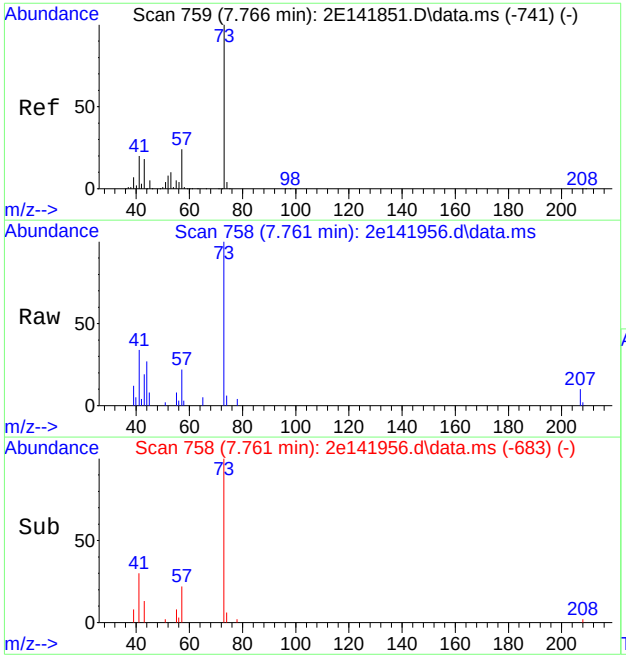
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141956.d
Acq On : 29 Mar 2018 11:53 am
Operator : sydneys
Sample : JC62879-18 Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:34:05 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

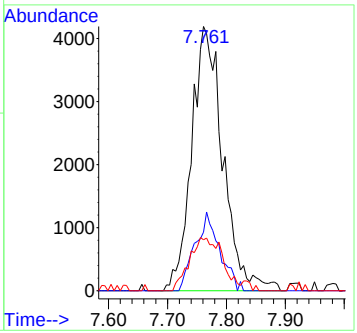


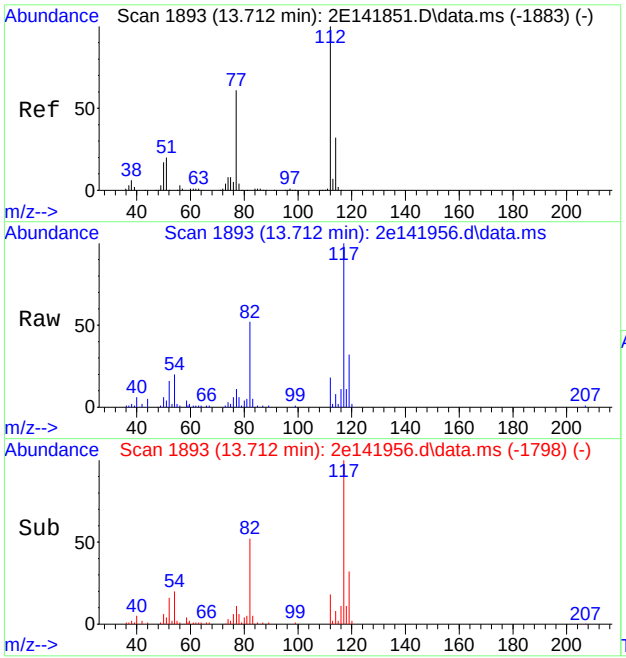


#28
methyl tert butyl ether
Concen: 0.80 ug/L
RT: 7.761 min Scan# 758
Delta R.T. -0.005 min
Lab File: 2e141956.d
Acq: 29 Mar 2018 11:53 am

Tgt Ion: 73 Resp: 15475

Ion	Ratio	Lower	Upper
73	100		
57	22.1	0.0	54.8
43	19.3	0.0	48.4

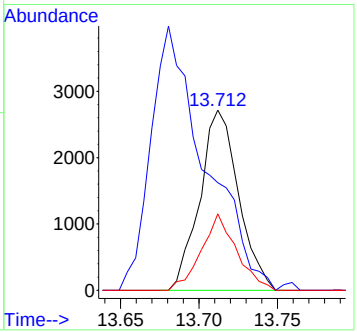




#91
chlorobenzene
Concen: 0.28 ug/L
RT: 13.712 min Scan# 1893
Delta R.T. 0.000 min
Lab File: 2e141956.d
Acq: 29 Mar 2018 11:53 am

Tgt Ion:112 Resp: 4673

Ion	Ratio	Lower	Upper
112	100		
77	56.7	31.2	91.2
114	42.4	2.0	62.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141957.d
Acq On : 29 Mar 2018 12:22 pm
Operator : sydneys
Sample : JC62879-19 Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:35:15 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

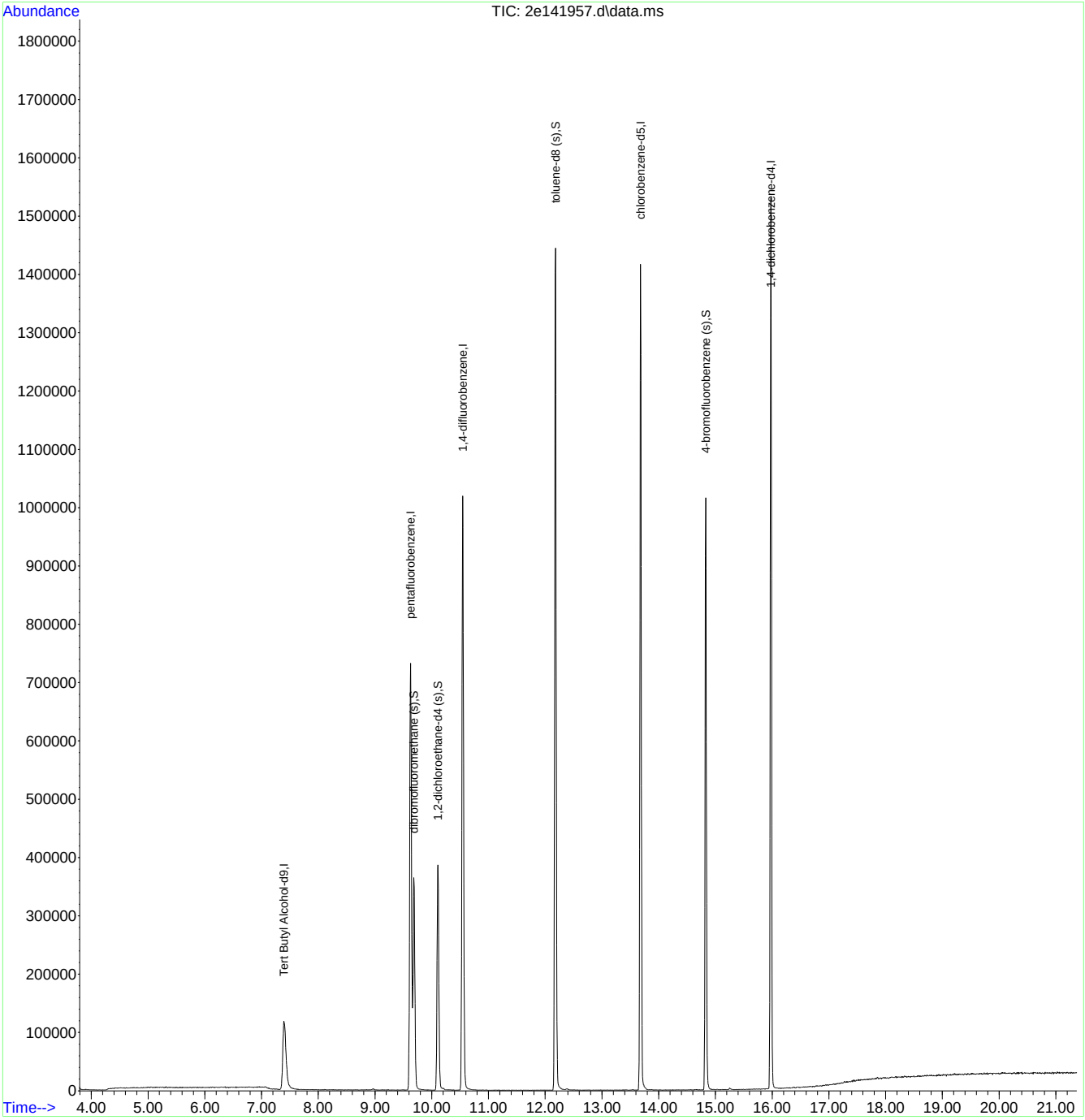
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.394	65	276031	500.00	ug/L	-0.01
5) pentafluorobenzene	9.628	168	597493	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.545	114	905779	50.00	ug/L	0.00
77) chlorobenzene-d5	13.680	117	769387	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	384875	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.685	113	248225	49.97	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.94%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	283624	50.27	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.54%			
78) toluene-d8 (s)	12.181	98	997562	50.86	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.72%			
102) 4-bromofluorobenzene (s)	14.829	95	356610	50.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.88%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141957.d
Acq On : 29 Mar 2018 12:22 pm
Operator : sydneys
Sample : JC62879-19 Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:35:15 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-02-18\v4b3335\
Data File : 4b80684.d
Acq On : 30 Mar 2018 4:02 pm
Operator : HueanhT
Sample : jc62879-20 Inst : MS4B
Misc : MS25160,V4B3335,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Results File: M4B3310.RES
Quant Time: Apr 02 01:15:23 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

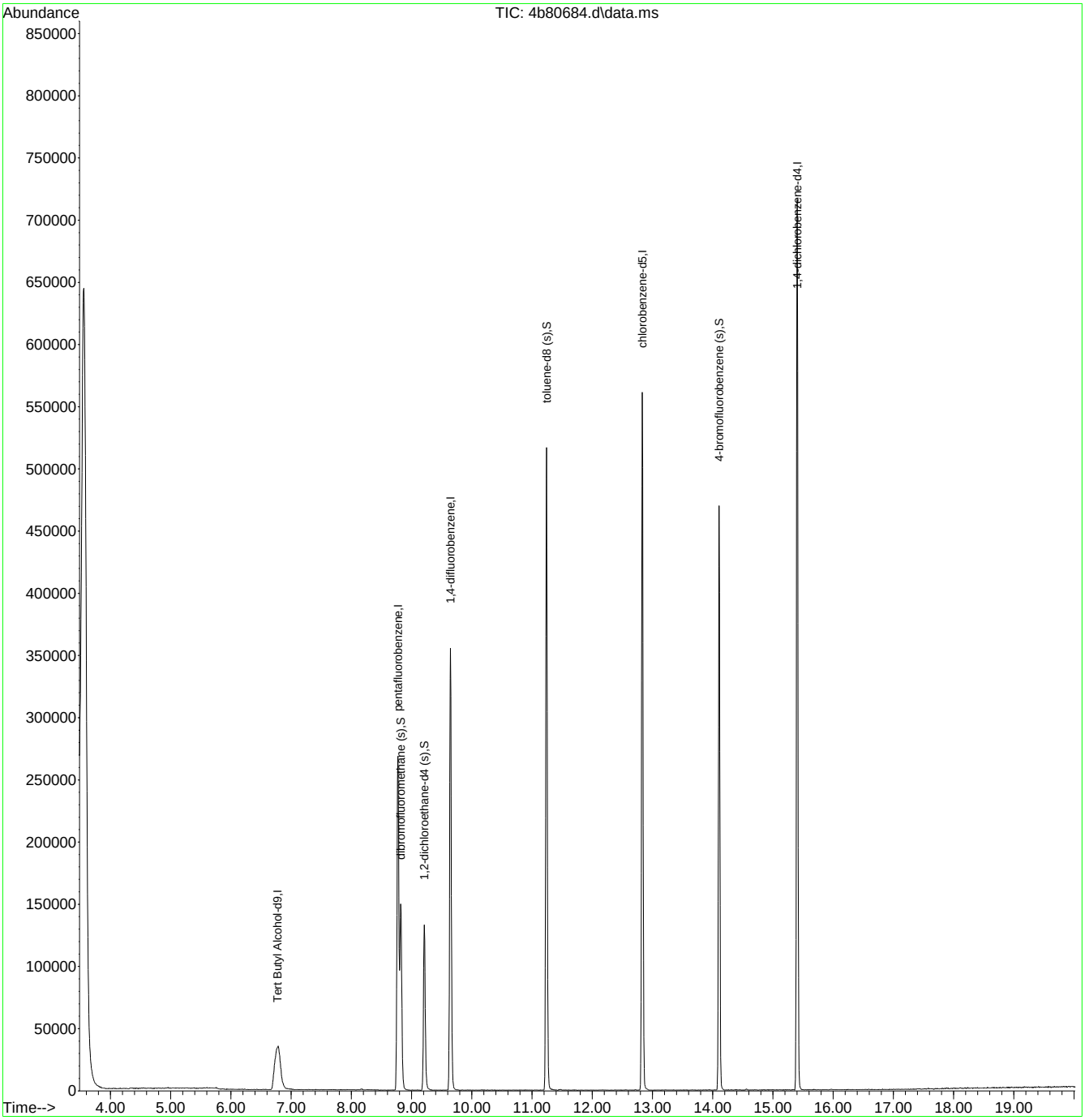
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.775	65	135486	500.00	ug/L	-0.01
5) pentafluorobenzene	8.773	168	228806	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.646	114	299742	50.00	ug/L	0.00
75) chlorobenzene-d5	12.832	117	314936	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.405	152	201122	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.820	113	99348	49.33	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.66%			
55) 1,2-dichloroethane-d4 (s)	9.212	65	96671	49.54	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.08%			
76) toluene-d8 (s)	11.242	98	343297	43.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 87.96%			
99) 4-bromofluorobenzene (s)	14.108	95	147905	46.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.10%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-02-18\v4b3335\
Data File : 4b80684.d
Acq On : 30 Mar 2018 4:02 pm
Operator : HueanhT
Sample : jc62879-20 Inst : MS4B
Misc : MS25160,V4B3335,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Results File: M4B3310.RES
Quant Time: Apr 02 01:15:23 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174431.d
Acq On : 27 Mar 2018 11:20 am
Operator : JessicaP
Sample : mb Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:22:31 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

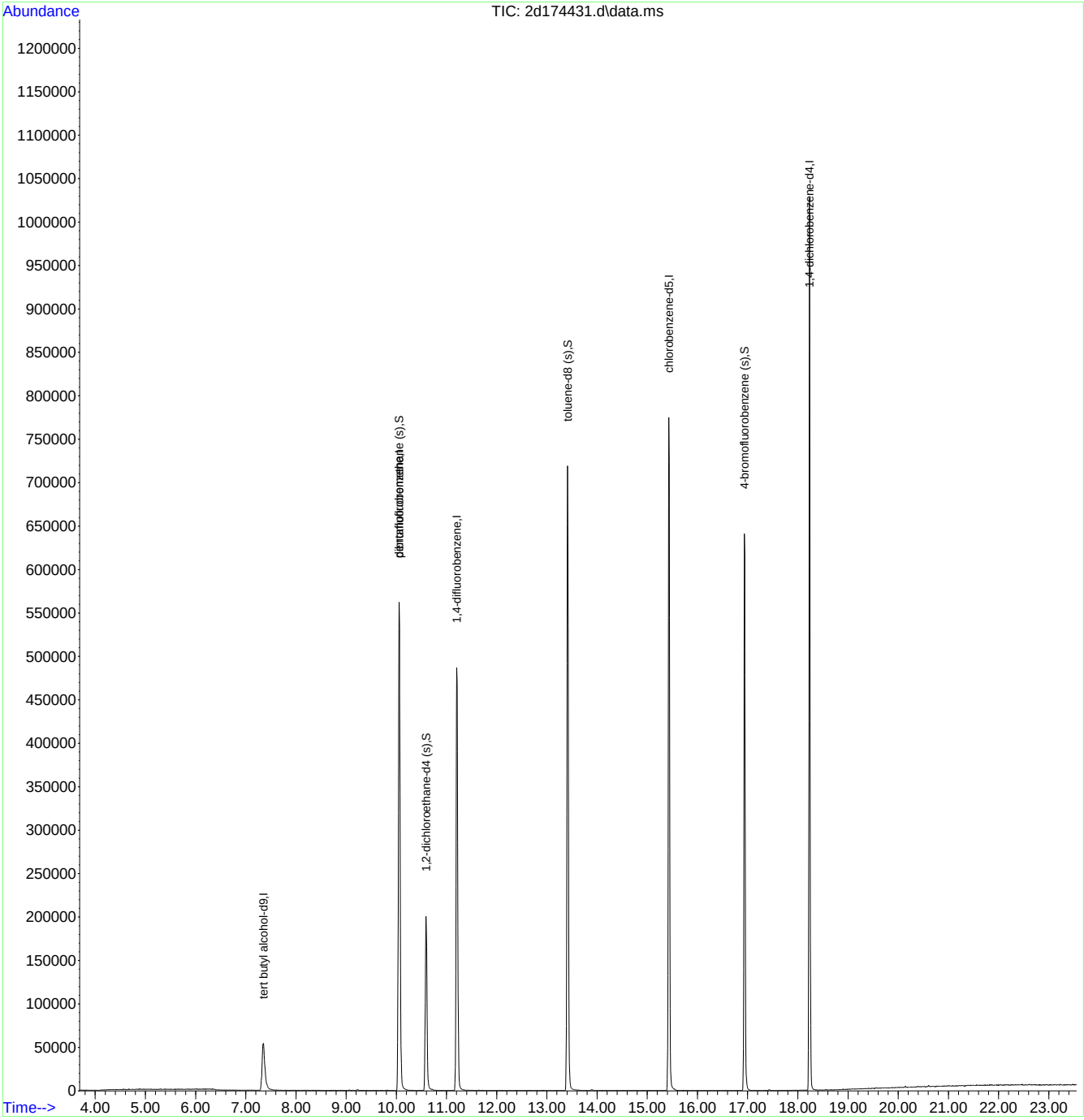
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.352	65	122726	500.00	ug/L	-0.05
5) pentafluorobenzene	10.057	168	322518	50.00	ug/L	-0.05
54) 1,4-difluorobenzene	11.205	114	452594	50.00	ug/L	-0.05
76) chlorobenzene-d5	15.431	117	449241	50.00	ug/L	-0.04
99) 1,4-dichlorobenzene-d4	18.231	152	246254	50.00	ug/L	-0.04
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.057	113	141138	51.50	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.00%			
55) 1,2-dichloroethane-d4 (s)	10.592	65	171936	53.03	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 106.06%			
77) toluene-d8 (s)	13.413	98	522247	48.94	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.88%			
100) 4-bromofluorobenzene (s)	16.936	95	207256	49.34	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.68%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174431.d
Acq On : 27 Mar 2018 11:20 am
Operator : JessicaP
Sample : mb Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:22:31 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145270.d
Acq On : 28 Mar 2018 7:56 pm
Operator : EddieH
Sample : MB Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:29:58 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

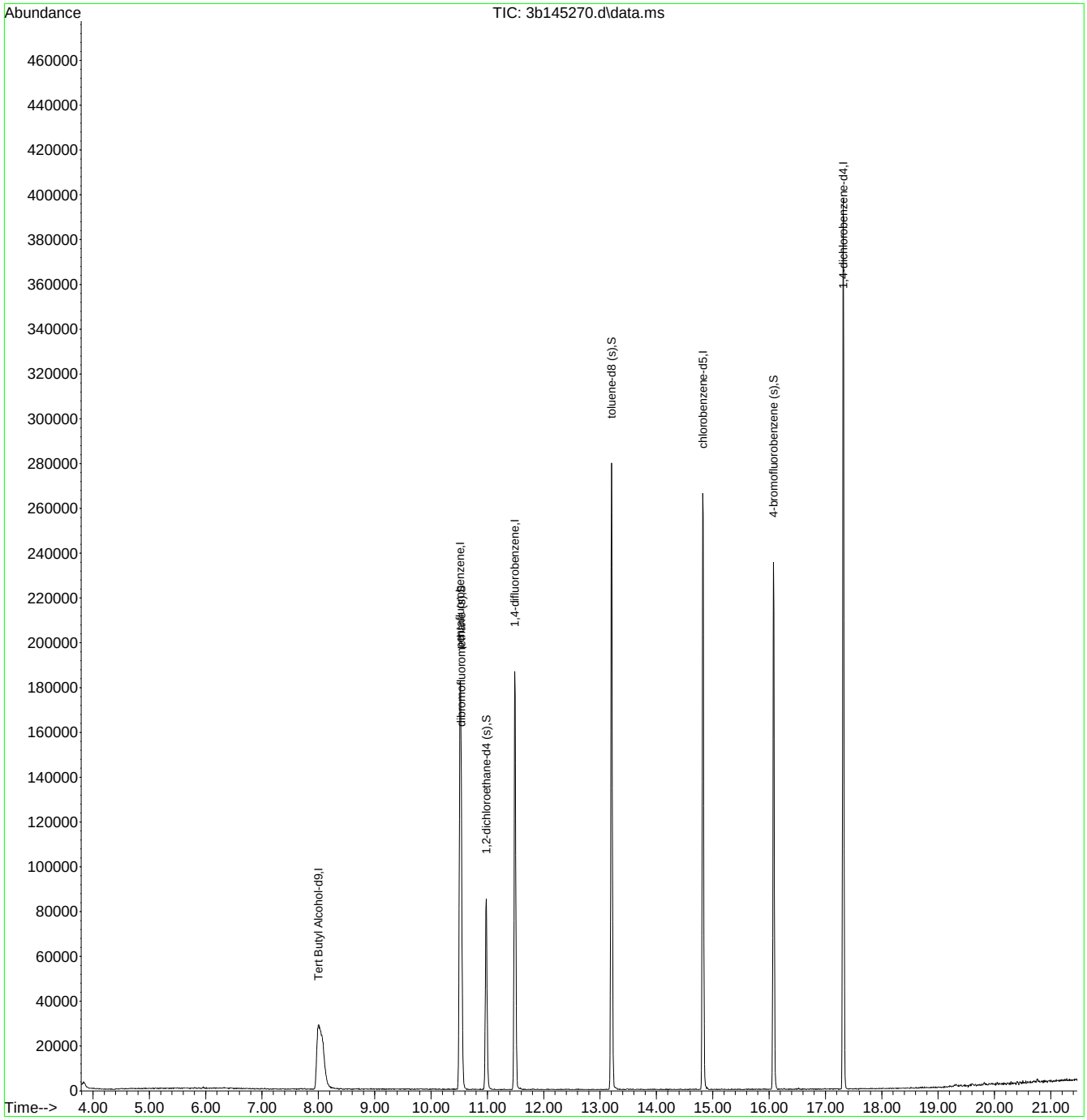
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.998	65	135588	500.00	ug/L	-0.02
5) pentafluorobenzene	10.513	168	122467	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.486	114	164673	50.00	ug/L	-0.01
75) chlorobenzene-d5	14.823	117	152022	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	17.318	152	106473	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.534	113	60010	51.36	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.72%			
55) 1,2-dichloroethane-d4 (s)	10.979	65	70807	51.70	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.40%			
76) toluene-d8 (s)	13.202	98	190443	48.49	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.98%			
100) 4-bromofluorobenzene (s)	16.078	95	75459	46.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.70%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145270.d
Acq On : 28 Mar 2018 7:56 pm
Operator : EddieH
Sample : MB Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:29:58 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141953.d
Acq On : 29 Mar 2018 9:36 am
Operator : sydneys
Sample : mb Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:30:30 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

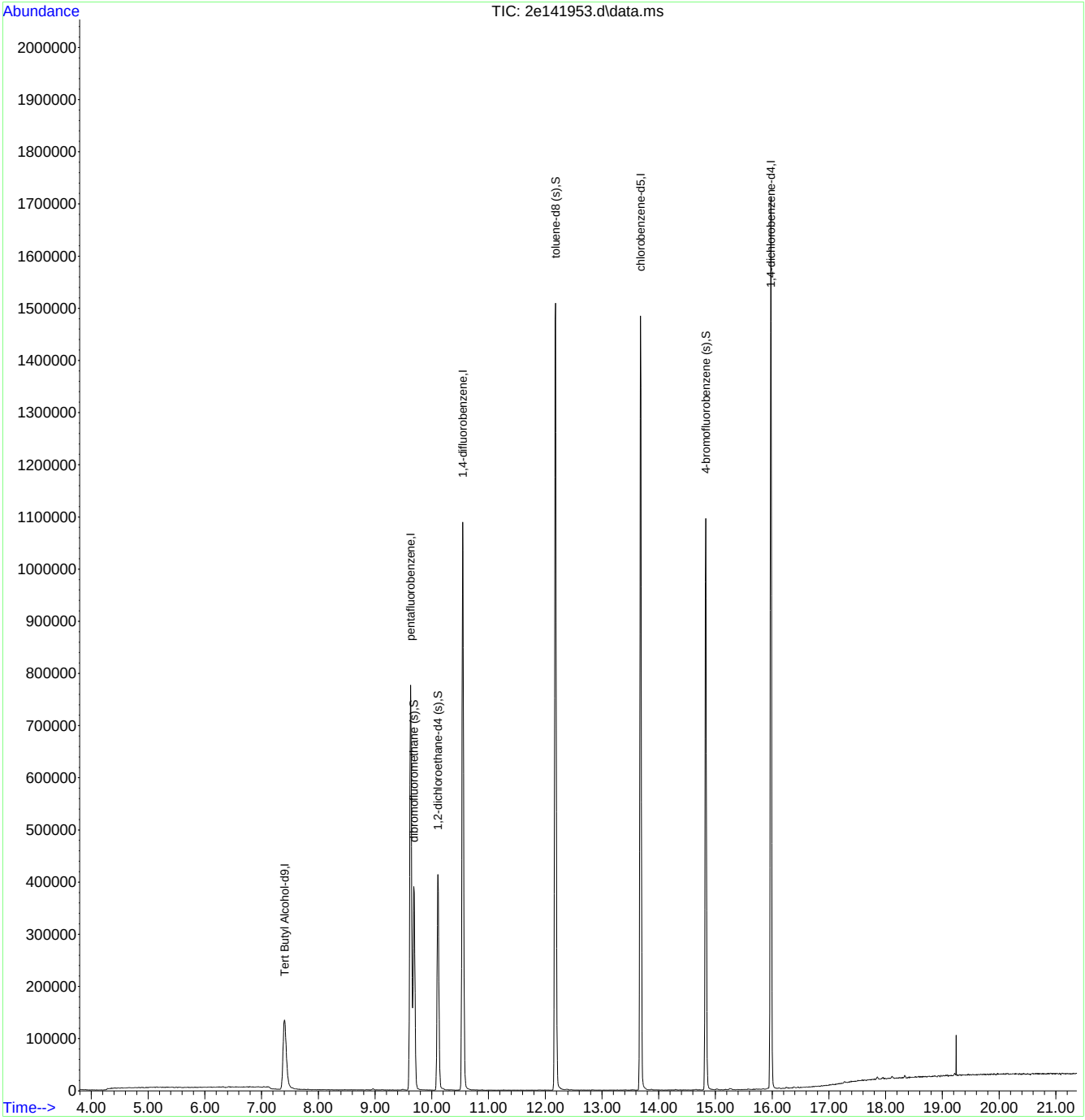
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.410	65	326066	500.00	ug/L	0.00
5) pentafluorobenzene	9.627	168	652474	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.545	114	969604	50.00	ug/L	0.00
77) chlorobenzene-d5	13.680	117	823564	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	414380	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.685	113	268074	49.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.84%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	299123	49.53	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.06%			
78) toluene-d8 (s)	12.181	98	1061765	50.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.14%			
102) 4-bromofluorobenzene (s)	14.829	95	382519	50.26	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.52%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141953.d
Acq On : 29 Mar 2018 9:36 am
Operator : sydneys
Sample : mb Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:30:30 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3335\
Data File : 4B80671.D
Acq On : 30 Mar 2018 9:29 am
Operator : HueanhT
Sample : MB
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 30 16:54:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

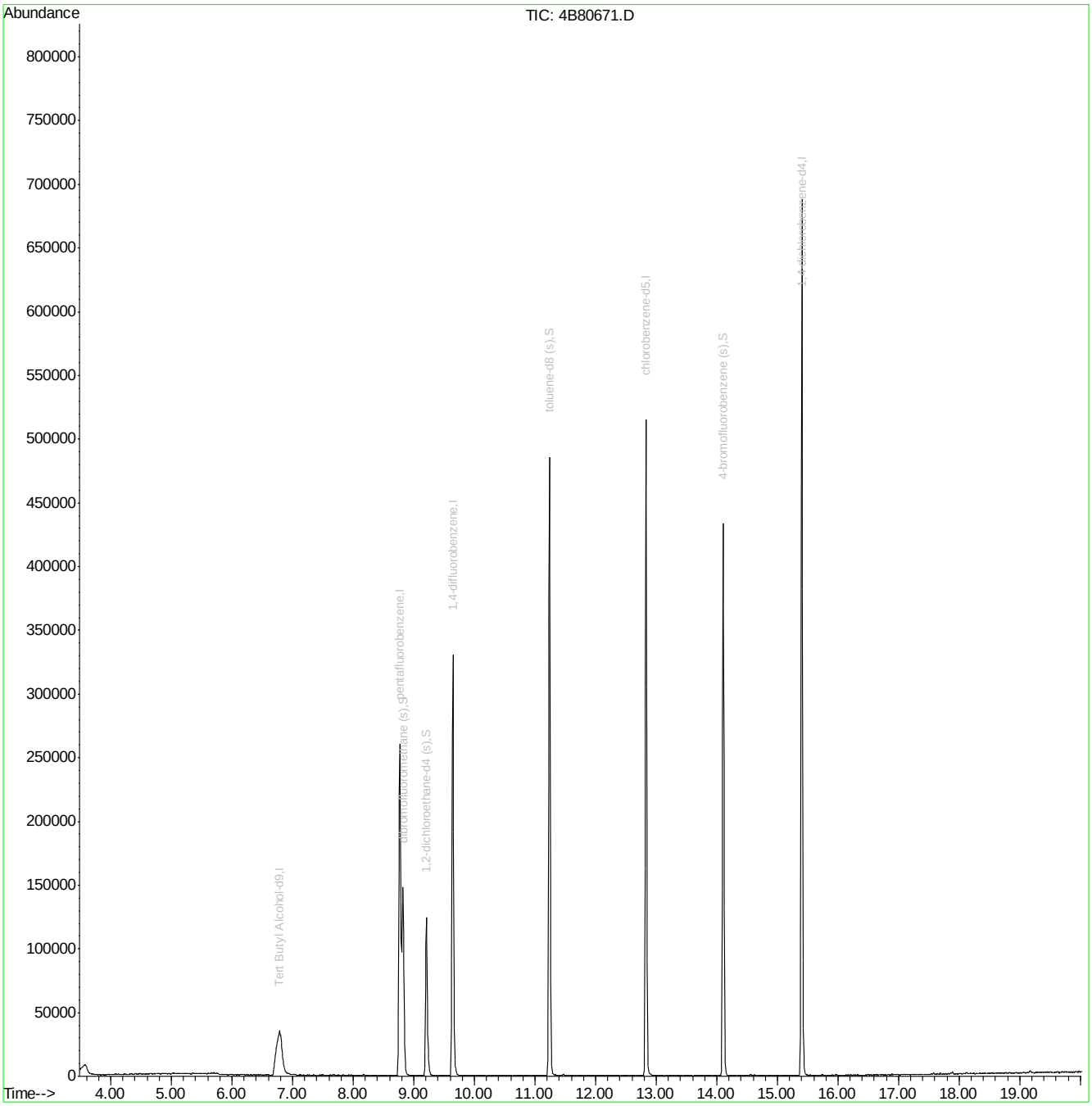
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	6.79	65	137595	500.00	ug/L	0.00
5) pentafluorobenzene	8.77	168	230253	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	284950	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	288005	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	192588	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.82	113	97866	48.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.58%			
55) 1,2-dichloroethane-d4 (s)	9.21	65	90730	48.91	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.82%			
76) toluene-d8 (s)	11.24	98	327630	45.90	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.80%			
99) 4-bromofluorobenzene (s)	14.11	95	136091	44.73	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.46%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3335\
Data File : 4B80671.D
Acq On : 30 Mar 2018 9:29 am
Operator : HueanhT
Sample : MB
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 30 16:54:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145297a.d
Acq On : 29 Mar 2018 12:57 pm
Operator : EddieH
Sample : mb2 Inst : MS3B
Misc : MS25160,V3B6426,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:27:46 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

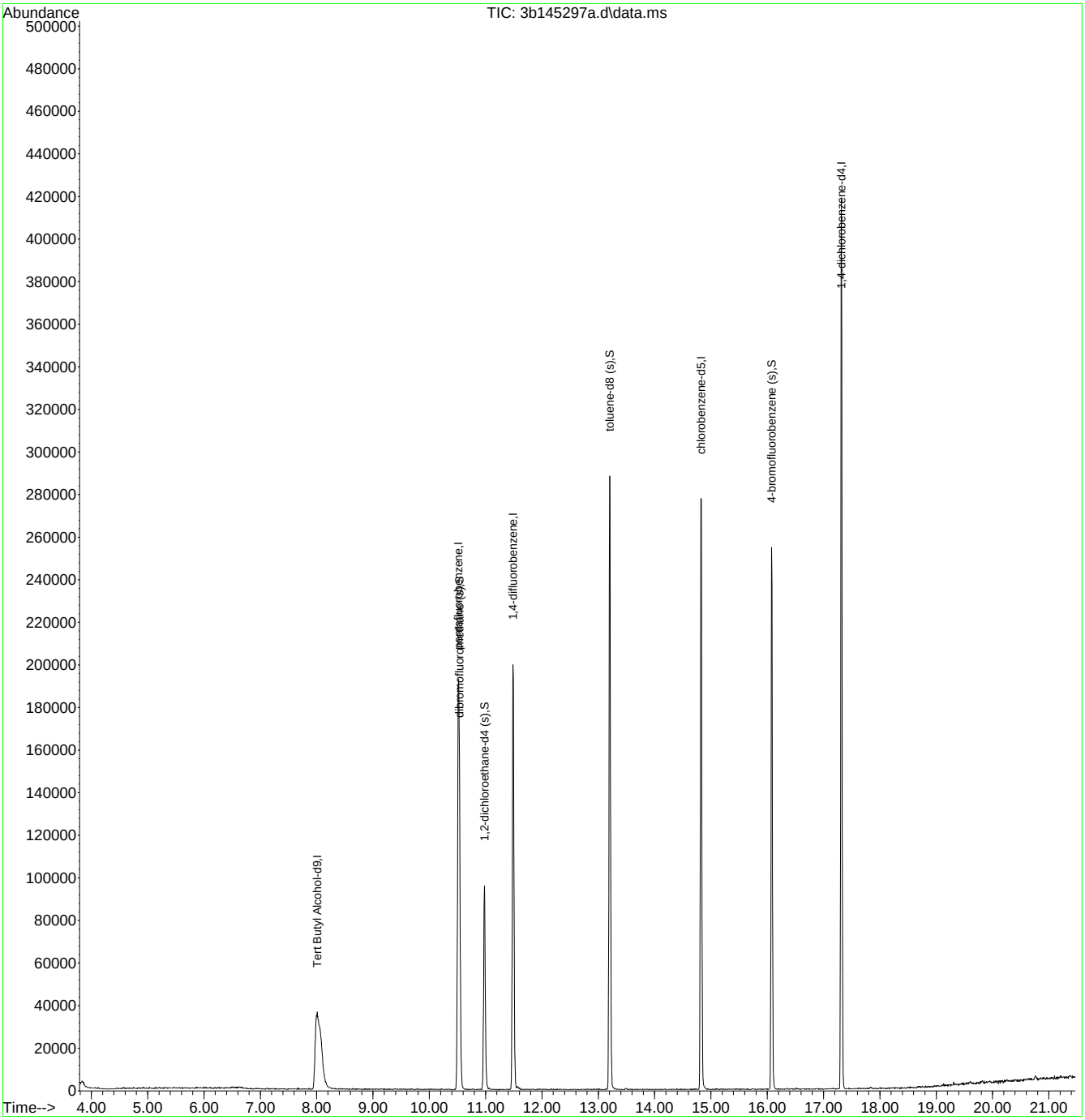
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.008	65	153713	500.00	ug/L	-0.01
5) pentafluorobenzene	10.513	168	127829	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.486	114	169499	50.00	ug/L	-0.01
75) chlorobenzene-d5	14.828	117	159301	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.318	152	106534	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.534	113	61974	50.82	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.64%			
55) 1,2-dichloroethane-d4 (s)	10.979	65	77811	55.20	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 110.40%			
76) toluene-d8 (s)	13.201	98	198798	48.31	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.62%			
100) 4-bromofluorobenzene (s)	16.078	95	79295	49.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145297a.d
Acq On : 29 Mar 2018 12:57 pm
Operator : EddieH
Sample : mb2 Inst : MS3B
Misc : MS25160,V3B6426,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:27:46 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174429.d
Acq On : 27 Mar 2018 9:31 am
Operator : JessicaP
Sample : bs Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:21:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.346	65	121490	500.00	ug/L	-0.05
5) pentafluorobenzene	10.057	168	316981	50.00	ug/L	-0.05
54) 1,4-difluorobenzene	11.205	114	437826	50.00	ug/L	-0.05
76) chlorobenzene-d5	15.431	117	435404	50.00	ug/L	-0.04
99) 1,4-dichlorobenzene-d4	18.231	152	253572	50.00	ug/L	-0.04
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.057	113	137490	51.05	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.10%			
55) 1,2-dichloroethane-d4 (s)	10.592	65	165301	52.70	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.40%			
77) toluene-d8 (s)	13.413	98	505486	48.88	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.76%			
100) 4-bromofluorobenzene (s)	16.936	95	205846	47.59	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.18%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.483	59	61867	255.86	ug/L	96
3) ethanol	5.968	45	145030	4868.39	ug/L	97
4) 1,4-dioxane	12.144	88	27760	1177.19	ug/L	93
6) chlorodifluoromethane	3.870	51	190544	50.17	ug/L	98
7) dichlorodifluoromethane	3.849	85	146622	45.65	ug/L	99
10) chloromethane	4.248	50	206239	48.65	ug/L	99
11) vinyl chloride	4.478	62	180732	48.20	ug/L	99
12) bromomethane	5.123	94	112712	46.66	ug/L	99
13) chloroethane	5.275	64	97684	50.43	ug/L	99
14) trichlorofluoromethane	5.763	101	194443	48.60	ug/L	100
15) Vinyl Bromide	5.632	106	130050	59.96	ug/L	97
17) ethyl ether	6.172	74	43562	34.60	ug/L	98
18) acrolein	6.408	56	24858	50.33	ug/L	97
19) 1,1-dichloroethene	6.591	96	102970	46.90	ug/L	94
20) freon 113	6.607	151	83354	44.41	ug/L	97
21) 2-chloropropane	6.356	43	246563	49.82	ug/L	97
22) acetone	6.644	58	65112	155.82	ug/L	91
23) acetonitrile	7.111	41	193471	526.83	ug/L	98
24) iodomethane	6.875	142	147804	33.39	ug/L	97
25) carbon disulfide	7.006	76	263832	32.90	ug/L	98
26) methylene chloride	7.367	84	130028	51.25	ug/L	90
27) methyl acetate	7.168	43	103451	53.52	ug/L	98
28) methyl tert butyl ether	7.787	73	258888	36.24	ug/L	99
29) trans-1,2-dichloroethene	7.803	96	112324	48.07	ug/L	94
30) hexane	8.201	57	159803	45.43	ug/L	97
31) di-isopropyl ether	8.505	45	530580	54.79	ug/L	92
32) 2-butanone	9.334	72	57764	181.64	ug/L #	83
33) 1,1-dichloroethane	8.463	63	242790	51.15	ug/L	99
34) chloroprene	8.600	53	194959	51.33	ug/L	95
35) acrylonitrile	7.740	53	35334	38.24	ug/L	99
36) vinyl acetate	8.484	86	19472	58.03	ug/L #	84
37) ethyl tert-butyl ether	9.066	59	458658	52.71	ug/L	98
39) 2,2-dichloropropane	9.375	77	197551	53.37	ug/L	94
40) cis-1,2-dichloroethene	9.355	96	131791	49.57	ug/L	95
41) propionitrile	9.438	54	191720	518.18	ug/L	92
42) tert-Butyl Formate	9.900	59	128110	63.87	ug/L	97
43) bromochloromethane	9.727	128	65393	52.06	ug/L	93
44) tetrahydrofuran	9.805	72	10892	38.40	ug/L	87
45) chloroform	9.811	83	223206	52.60	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174429.d
Acq On : 27 Mar 2018 9:31 am
Operator : JessicaP
Sample : bs Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:21:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	methacrylonitrile	9.680	67	33990	37.52	ug/L		97
48)	1,1,1-trichloroethane	10.146	97	194444	51.72	ug/L		97
49)	cyclohexane	10.251	84	145695	41.29	ug/L		87
50)	1,1-dichloropropene	10.377	75	162572	49.53	ug/L		99
51)	isobutyl alcohol	10.398	43	56778	511.46	ug/L		98
52)	carbon tetrachloride	10.398	117	170637	50.32	ug/L		99
53)	tert-amyl alcohol	10.571	73	27964	253.84	ug/L		96
56)	benzene	10.702	78	481264	48.91	ug/L		98
57)	iso-octane	10.775	57	509222	46.34	ug/L		98
58)	tert-amyl methyl ether	10.802	73	404243	51.44	ug/L		99
59)	heptane	11.006	57	91854	46.89	ug/L		99
60)	isopropyl acetate	10.676	87	21402	51.05	ug/L	#	76
61)	1,2-dichloroethane	10.707	62	187619	54.46	ug/L		98
62)	n-butyl alcohol	11.378	56	170012	2629.93	ug/L		96
63)	ethyl acrylate	11.698	55	154374	55.48	ug/L		98
64)	trichloroethene	11.635	130	117917	47.91	ug/L		97
65)	2-nitropropane	12.684	41	23123	37.51	ug/L		97
66)	2-chloroethyl vinyl ether	12.742	63	409858	307.78	ug/L		98
67)	methyl methacrylate	12.055	100	19231	35.05	ug/L		97
68)	1,2-dichloropropane	11.987	63	141580	51.81	ug/L		100
69)	dibromomethane	12.170	93	78877	53.09	ug/L		96
70)	methylcyclohexane	11.955	83	201836	44.24	ug/L		96
71)	bromodichloromethane	12.364	83	178944	52.89	ug/L		99
72)	epichlorohydrin	12.867	57	62296	274.60	ug/L		99
73)	cis-1,3-dichloropropene	13.004	75	222904	52.53	ug/L		95
74)	4-methyl-2-pentanone	13.182	58	194323	205.73	ug/L		93
75)	3-methyl-1-butanol	13.203	55	111648	1100.22	ug/L		98
78)	toluene	13.512	92	294522	48.46	ug/L		99
79)	trans-1,3-dichloropropene	13.774	75	203812	53.00	ug/L		99
80)	ethyl methacrylate	13.837	69	113578	37.15	ug/L		93
81)	1,1,2-trichloroethane	14.052	83	97529	50.87	ug/L		99
82)	tetrachloroethene	14.293	164	103204	46.66	ug/L		96
83)	1,3-dichloropropane	14.299	76	196366	50.86	ug/L		98
84)	2-hexanone	14.346	58	212318	181.30	ug/L		94
85)	butyl acetate	14.482	56	85473	54.26	ug/L		96
86)	dibromochloromethane	14.634	129	137925	52.72	ug/L		99
87)	1,2-dibromoethane	14.828	107	123425	51.84	ug/L		98
88)	n-butyl ether	15.478	57	647012	53.32	ug/L		100
89)	chlorobenzene	15.473	112	352917	49.93	ug/L		99
90)	1,1,1,2-tetrachloroethane	15.562	131	136131	51.65	ug/L		100
91)	ethylbenzene	15.583	91	598696	49.70	ug/L		98
92)	m,p-xylene	15.730	91	924984	99.36	ug/L		98
93)	o-xylene	16.270	106	230611	49.72	ug/L		98
94)	styrene	16.281	104	395060	51.55	ug/L		94
95)	butyl acrylate	16.113	55	284273	54.60	ug/L		99
96)	bromoform	16.569	173	97447	52.23	ug/L		98
97)	isopropylbenzene	16.726	105	597495	50.00	ug/L		100
98)	cis-1,4-dichloro-2-butene	16.789	88	52888	50.61	ug/L		97
101)	bromobenzene	17.151	156	170309	48.53	ug/L		95
102)	1,1,2,2-tetrachloroethane	17.067	83	163021	52.01	ug/L		99
103)	trans-1,4-dichloro-2-b...	17.130	53	25604	37.79	ug/L	#	39
104)	1,2,3-trichloropropane	17.146	110	40694	50.45	ug/L		95
105)	n-propylbenzene	17.214	91	738919	49.46	ug/L		99
106)	2-chlorotoluene	17.355	126	154613	48.28	ug/L		97
107)	4-chlorotoluene	17.471	91	448149	49.34	ug/L		99
109)	1,3,5-trimethylbenzene	17.397	105	527666	49.46	ug/L		97
110)	tert-butylbenzene	17.780	119	450267	48.67	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174429.d
Acq On : 27 Mar 2018 9:31 am
Operator : JessicaP
Sample : bs Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:21:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

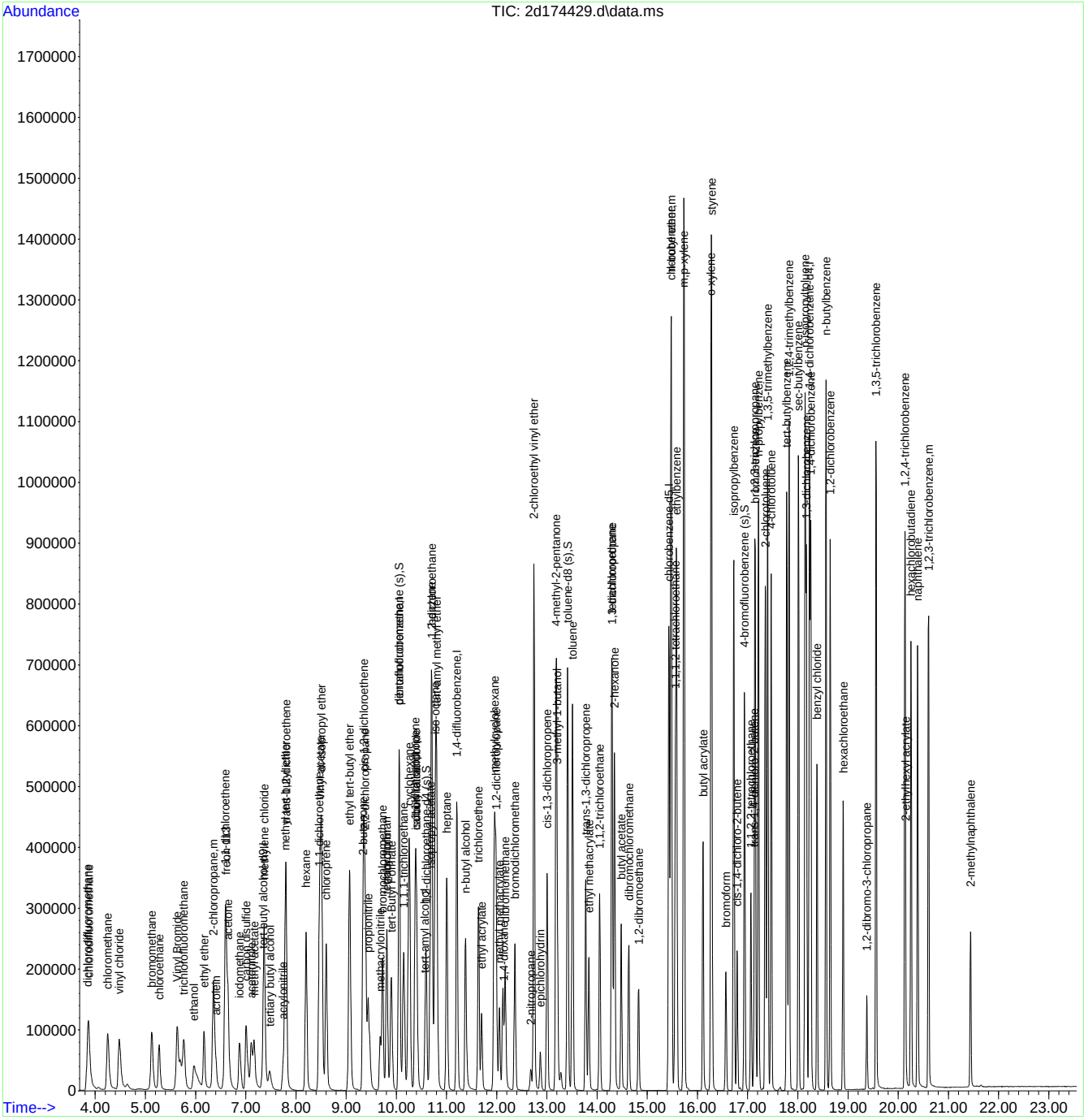
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,2,4-trimethylbenzene	17.827	105	544356	50.28	ug/L	100
112) sec-butylbenzene	18.011	105	688163	49.80	ug/L	98
113) 1,3-dichlorobenzene	18.173	146	323937	49.65	ug/L	99
114) p-isopropyltoluene	18.147	119	596233	51.07	ug/L	98
115) 1,4-dichlorobenzene	18.257	146	329645	50.83	ug/L	97
116) 1,2-dichlorobenzene	18.645	146	329731	50.28	ug/L	99
117) benzyl chloride	18.383	91	342545	57.82	ug/L	99
119) n-butylbenzene	18.561	92	315562	53.81	ug/L	98
121) 1,2-dibromo-3-chloropr...	19.374	157	37811	54.34	ug/L	91
123) 1,3,5-trichlorobenzene	19.557	180	321415	56.00	ug/L	99
124) hexachlorobutadiene	20.255	225	151518	51.57	ug/L	99
125) naphthalene	20.386	128	531019	58.93	ug/L	99
126) 2-ethylhexyl acrylate	20.150	70	24521	10.26	ug/L	94
127) 1,2,4-trichlorobenzene	20.134	180	274747	60.85	ug/L	99
128) 1,2,3-trichlorobenzene	20.606	180	250648	61.98	ug/L	97
129) hexachloroethane	18.907	201	77780	35.02	ug/L	96
130) 2-methylnaphthalene	21.440	142	126314	28.37	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174429.d
Acq On : 27 Mar 2018 9:31 am
Operator : JessicaP
Sample : bs Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:21:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145268.d
Acq On : 28 Mar 2018 7:00 pm
Operator : EddieH
Sample : BS Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:27:20 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.003	65	121731	500.00	ug/L		-0.02
5) pentafluorobenzene	10.513	168	120096	50.00	ug/L		-0.01
54) 1,4-difluorobenzene	11.486	114	165010	50.00	ug/L		-0.01
75) chlorobenzene-d5	14.823	117	165664	50.00	ug/L		-0.01
99) 1,4-dichlorobenzene-d4	17.318	152	104304	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.534	113	57539	50.22	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.44%				
55) 1,2-dichloroethane-d4 (s)	10.979	65	67464	49.16	ug/L		-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.32%				
76) toluene-d8 (s)	13.202	98	198330	46.34	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.68%				
100) 4-bromofluorobenzene (s)	16.078	95	77214	48.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.86%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.133	59	80808	232.58	ug/L		97
4) 1,4-dioxane	12.166	88	22269	903.38	ug/L		91
6) chlorodifluoromethane	4.211	51	141181	51.37	ug/L		97
7) dichlorodifluoromethane	4.185	85	147495	56.24	ug/L		97
8) chloromethane	4.608	50	142087	59.55	ug/L		98
9) vinyl chloride	4.886	62	142106	61.07	ug/L		97
10) 1,3-Butadiene	4.886	54	5580	3.10	ug/L	#	77
11) bromomethane	5.592	94	102929	62.21	ug/L		98
12) chloroethane	5.780	64	70297	60.61	ug/L		96
13) trichlorofluoromethane	6.324	101	170445	54.70	ug/L		97
14) vinyl bromide	6.162	106	107857	61.32	ug/L		98
16) 2-chloropropane	6.978	43	114231	47.10	ug/L		98
17) acrolein	6.999	56	15708	54.91	ug/L		92
18) freon 113	7.260	151	76632	55.72	ug/L		96
19) 1,1-dichloroethene	7.213	96	65687	48.77	ug/L		99
20) acetone	7.229	58	29733	172.46	ug/L		93
21) acetonitrile	7.710	41	122129	463.39	ug/L		96
23) carbon disulfide	7.642	76	181586	33.78	ug/L		99
24) methylene chloride	8.034	84	75953	51.37	ug/L		94
25) methyl acetate	7.767	43	54907	47.65	ug/L		98
26) methyl tert butyl ether	8.453	73	171465	35.26	ug/L		98
27) trans-1,2-dichloroethene	8.473	96	64978	49.05	ug/L		94
28) hexane	8.881	56	38956	47.66	ug/L		94
29) di-isopropyl ether	9.132	45	221406	52.58	ug/L		97
30) 2-butanone	9.849	72	36577	187.21	ug/L	#	86
31) 1,1-dichloroethane	9.127	63	120303	50.67	ug/L		98
32) chloroprene	9.237	53	100013	49.12	ug/L		99
34) vinyl acetate	9.070	86	11557	58.38	ug/L	#	68
35) ethyl tert-butyl ether	9.640	59	242172	51.97	ug/L		99
36) ethyl acetate	9.875	45	10098	46.44	ug/L	#	89
37) 2,2-dichloropropane	9.948	77	148198	54.59	ug/L		98
38) cis-1,2-dichloroethene	9.912	96	76239	49.22	ug/L		99
41) methacrylonitrile	10.142	67	19926	33.07	ug/L		96
42) bromochloromethane	10.231	128	39847	51.90	ug/L		95
44) chloroform	10.330	83	127106	46.92	ug/L		99
45) tert-Butyl Formate	10.372	59	80067	117.06	ug/L		94
47) 1,1,1-trichloroethane	10.602	97	147799	53.63	ug/L		98
48) cyclohexane	10.722	84	111362	49.07	ug/L	#	73
49) isobutyl alcohol	10.775	43	51933	444.13	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145268.d
Acq On : 28 Mar 2018 7:00 pm
Operator : EddieH
Sample : BS Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:27:20 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) 1,1-dichloropropene	10.785	75	87853	48.72	ug/L		97
51) carbon tetrachloride	10.806	117	132751	53.58	ug/L		99
52) tert-amyl alcohol	10.947	73	40682	205.53	ug/L		95
53) isopropyl acetate	10.968	87	15786	51.27	ug/L	#	80
56) n-butyl alcohol	11.559	56	161013	2135.33	ug/L		98
57) 2,2,4-Trimethylpentane	11.157	57	270288	55.81	ug/L		99
58) benzene	11.042	78	252427	48.88	ug/L		98
59) tert-amyl methyl ether	11.141	73	240081	50.93	ug/L		100
60) heptane	11.329	57	45669	54.85	ug/L		98
61) 1,2-dichloroethane	11.073	62	99927	47.09	ug/L		99
62) ethyl acrylate	11.805	55	80323	52.38	ug/L		98
63) trichloroethene	11.810	95	66637	49.28	ug/L		97
64) 2-chloroethyl vinyl ether	12.647	63	185455	246.88	ug/L		99
66) methylcyclohexane	12.119	83	135395	49.87	ug/L		99
67) 1,2-dichloropropane	12.114	63	67025	52.90	ug/L		98
68) dibromomethane	12.224	93	45207	52.68	ug/L		96
69) bromodichloromethane	12.391	83	98713	50.37	ug/L		99
71) epichlorohydrin	12.736	57	42792	247.35	ug/L		97
72) cis-1,3-dichloropropene	12.877	75	108404	53.34	ug/L		95
73) 4-methyl-2-pentanone	12.992	58	140568	221.59	ug/L		99
74) isoamyl alcohol	13.003	70	75583	968.15	ug/L		94
77) toluene	13.280	92	162661	47.55	ug/L		95
79) trans-1,3-dichloropropene	13.484	75	103268	47.68	ug/L		97
80) 1,1,2-trichloroethane	13.719	83	49813	47.64	ug/L		98
81) tetrachloroethene	13.876	164	62863	48.24	ug/L		97
82) 2-hexanone	13.897	58	120904	189.92	ug/L		96
83) 1,3-dichloropropane	13.913	76	97221	48.54	ug/L		94
84) butyl acetate	13.986	56	45721	48.43	ug/L		99
86) dibromochloromethane	14.174	129	81394	48.26	ug/L		100
87) 1,2-dibromoethane	14.342	107	67546	48.32	ug/L		93
88) n-butyl ether	14.818	57	295943	49.14	ug/L		100
89) chlorobenzene	14.860	112	189670	48.44	ug/L		97
90) 1,1,1,2-tetrachloroethane	14.933	131	97701	48.85	ug/L		99
91) ethylbenzene	14.928	91	336974	49.29	ug/L		99
92) m,p-xylene	15.058	106	256616	101.20	ug/L		96
93) o-xylene	15.487	91	310319	50.41	ug/L		97
94) styrene	15.498	104	209690	50.36	ug/L		97
95) butyl acrylate	15.304	55	139438	47.90	ug/L		99
96) isopropylbenzene	15.864	105	408640	51.99	ug/L		98
97) bromoform	15.743	173	62686	48.94	ug/L		98
98) cis-1,4-dichloro-2-butene	15.900	88	36850	42.64	ug/L		97
101) 1,1,2,2-tetrachloroethane	16.162	83	110157	51.26	ug/L		99
103) 1,2,3-trichloropropane	16.256	110	31515	50.42	ug/L		97
104) bromobenzene	16.277	156	95861	51.89	ug/L		97
105) n-propylbenzene	16.308	91	439638	52.39	ug/L		99
106) 2-chlorotoluene	16.450	126	95465	51.37	ug/L		97
107) 4-chlorotoluene	16.570	91	246452	49.42	ug/L		100
108) 1,3,5-trimethylbenzene	16.476	105	365446	53.38	ug/L		98
109) tert-butylbenzene	16.837	119	311156	51.81	ug/L		99
110) 1,2,4-trimethylbenzene	16.889	105	362758	52.77	ug/L		98
111) sec-butylbenzene	17.067	105	481040	53.45	ug/L		99
112) p-isopropyltoluene	17.203	119	419469	53.63	ug/L		99
113) 1,3-dichlorobenzene	17.245	146	194334	49.89	ug/L		96
114) 1,4-dichlorobenzene	17.344	146	192925	48.42	ug/L		99
115) 1,2-dichlorobenzene	17.731	146	214219	49.83	ug/L		98
116) Benzyl Chloride	17.438	91	253284	51.09	ug/L		99
117) n-butylbenzene	17.626	92	200733	50.46	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145268.d
Acq On : 28 Mar 2018 7:00 pm
Operator : EddieH
Sample : BS Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:27:20 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

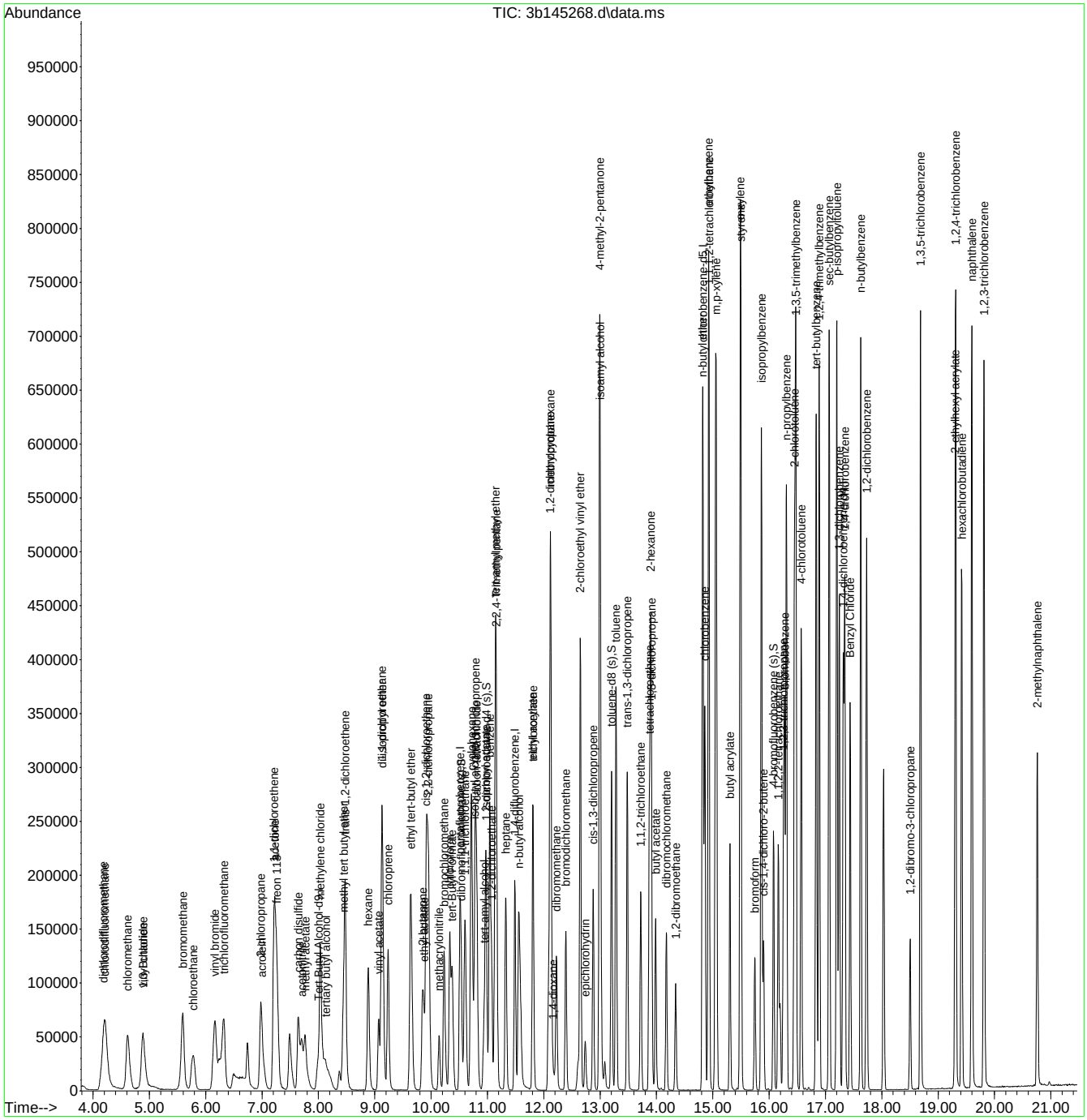
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2-dibromo-3-chloropr...	18.505	157	41211	46.80	ug/L	97
120) 1,3,5-trichlorobenzene	18.688	180	235227	49.01	ug/L	97
121) 2-ethylhexyl acrylate	19.300	70	23273	8.81	ug/L	98
122) 1,2,4-trichlorobenzene	19.311	180	231476	51.04	ug/L	99
123) hexachlorobutadiene	19.420	225	107021	52.83	ug/L	97
124) naphthalene	19.598	128	564937	47.21	ug/L	98
125) 1,2,3-trichlorobenzene	19.813	180	228338	49.61	ug/L	99
126) 2-methylnaphthalene	20.759	142	160355	21.93	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145268.d
Acq On : 28 Mar 2018 7:00 pm
Operator : EddieH
Sample : BS Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:27:20 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141951.d
Acq On : 29 Mar 2018 8:23 am
Operator : sydneys
Sample : bs Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:28:56 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.405	65	305462	500.00	ug/L	0.00
5) pentafluorobenzene	9.628	168	631082	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.545	114	952232	50.00	ug/L	0.00
77) chlorobenzene-d5	13.681	117	808299	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	410225	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.685	113	261939	49.92	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.84%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	297709	50.19	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.38%			
78) toluene-d8 (s)	12.181	98	1055674	51.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.46%			
102) 4-bromofluorobenzene (s)	14.829	95	379179	50.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.64%			
Target Compounds						Qvalue
2) ethanol	6.146	45	407443	5788.87	ug/L	99
3) tertiary butyl alcohol	7.520	59	208496	255.52	ug/L	93
4) 1,4-dioxane	11.269	88	92758	1502.19	ug/L	97
6) chlorodifluoromethane	4.028	51	574473	67.72	ug/L	98
7) dichlorodifluoromethane	4.007	85	493017	56.96	ug/L	98
10) chloromethane	4.421	50	676106	56.32	ug/L	100
11) vinyl chloride	4.657	62	669917	58.01	ug/L	99
12) bromomethane	5.302	94	374249	52.44	ug/L	97
13) chloroethane	5.454	64	387909	54.93	ug/L	96
14) trichlorofluoromethane	5.916	101	556075	57.11	ug/L	99
16) vinyl bromide	5.800	106	413345	50.07	ug/L	99
17) ethyl ether	6.293	74	170273	37.11	ug/L	92
18) 2-chloropropane	6.498	43	731107	59.42	ug/L	98
19) acrolein	6.560	56	85437	49.78	ug/L	96
20) freon 113	6.697	151	257044	59.35	ug/L	97
21) 1,1-dichloroethene	6.723	61	600877	59.62	ug/L	98
22) acetone	6.775	58	172028	212.37	ug/L	95
23) acetonitrile	7.221	41	553891	551.88	ug/L	97
24) iodomethane	7.011	142	420848	40.42	ug/L	100
25) carbon disulfide	7.132	76	905741	40.21	ug/L	99
26) methylene chloride	7.447	84	429388	56.69	ug/L	99
27) methyl acetate	7.237	43	294115	54.18	ug/L	99
28) methyl tert butyl ether	7.766	73	808681	39.16	ug/L	98
29) trans-1,2-dichloroethene	7.814	61	602892	59.82	ug/L	99
30) hexane	8.102	56	313961	60.83	ug/L	98
31) di-isopropyl ether	8.354	45	1509326	56.65	ug/L	89
32) ethyl tert-butyl ether	8.815	59	1385819	57.57	ug/L	98
33) 2-butanone	9.082	72	178608	236.25	ug/L	95
34) 1,1-dichloroethane	8.385	63	756646	57.66	ug/L	99
35) chloroprene	8.490	53	620778	59.99	ug/L	99
37) vinyl acetate	8.369	86	80452	57.00	ug/L #	79
38) ethyl acetate	9.098	45	60190	54.84	ug/L #	63
39) 2,2-dichloropropane	9.124	77	604389	58.06	ug/L	100
40) cis-1,2-dichloroethene	9.119	96	435694	56.64	ug/L	98
43) bromochloromethane	9.434	128	194499	56.29	ug/L	97
44) tetrahydrofuran	9.476	72	35910	39.76	ug/L	92
45) chloroform	9.486	83	644101	56.31	ug/L	99
46) t-butyl formate	9.518	59	366336	62.39	ug/L	98
47) 1,1-dichloropropene	9.911	75	537618	57.92	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141951.d
Acq On : 29 Mar 2018 8:23 am
Operator : sydneys
Sample : bs Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:28:56 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48)	carbon tetrachloride	9.937	117	455425	58.94	ug/L		98
49)	isopropyl acetate	10.094	87	80517	54.42	ug/L		95
51)	methacrylonitrile	9.376	67	112717	39.58	ug/L		94
52)	1,1,1-trichloroethane	9.738	97	550552	58.07	ug/L		99
53)	Cyclohexane	9.806	84	553378	50.46	ug/L	#	77
54)	iso-butyl alcohol	9.921	43	172494	569.07	ug/L		98
55)	Tert Amyl Alcohol	10.052	73	101917	270.96	ug/L		97
58)	2,2,4-trimethylpentane	10.162	57	1824357	63.10	ug/L		100
59)	n-butyl alcohol	10.671	56	582881	3002.65	ug/L		99
60)	benzene	10.178	78	1624242	55.14	ug/L		100
61)	tert-amyl methyl ether	10.204	73	1267825	54.92	ug/L		99
62)	heptane	10.330	57	341900	60.26	ug/L		98
63)	1,2-dichloroethane	10.199	62	468893	51.69	ug/L		97
64)	ethyl acrylate	10.886	55	453372	56.20	ug/L		99
65)	trichloroethene	10.891	95	371554	56.63	ug/L		98
67)	2-chloroethyl vinyl ether	11.672	63	1232416	280.17	ug/L		100
69)	1,2-dichloropropane	11.159	63	441377	55.85	ug/L		99
70)	methylcyclohexane	11.101	83	758061	60.51	ug/L		100
71)	dibromomethane	11.321	93	211664	53.58	ug/L		97
72)	bromodichloromethane	11.442	83	475848	54.91	ug/L		98
73)	epichlorohydrin	11.804	57	191074	279.25	ug/L		99
74)	cis-1,3-dichloropropene	11.893	75	654633	55.75	ug/L		99
75)	4-methyl-2-pentanone	11.982	58	580950	226.82	ug/L		96
76)	3-methyl-1-butanol	12.003	70	226444	1207.08	ug/L		95
79)	toluene	12.249	92	937038	57.07	ug/L		98
81)	trans-1,3-dichloropropene	12.448	75	550344	57.23	ug/L		99
82)	1,1,2-trichloroethane	12.669	83	265277	55.61	ug/L		100
83)	tetrachloroethene	12.831	164	284225	56.11	ug/L		98
84)	2-hexanone	12.826	58	554044	226.56	ug/L		98
85)	1,3-dichloropropane	12.847	76	558476	54.86	ug/L		98
86)	butyl acetate	12.894	56	248755	54.94	ug/L		97
88)	dibromochloromethane	13.109	129	316977	56.49	ug/L		98
89)	1,2-dibromoethane	13.261	107	311532	54.53	ug/L		99
90)	n-butyl ether	13.612	57	1862705	58.74	ug/L		100
91)	chlorobenzene	13.712	112	972240	55.23	ug/L		99
92)	1,1,1,2-tetrachloroethane	13.770	131	337244	57.27	ug/L		99
93)	ethylbenzene	13.759	91	1687950	56.01	ug/L		100
94)	m,p-xylene	13.864	106	1302679	114.19	ug/L		99
95)	o-xylene	14.283	91	1361668	56.30	ug/L		99
96)	styrene	14.294	104	1071172	56.74	ug/L		100
97)	butyl acrylate	14.105	55	721022	56.82	ug/L		99
98)	bromoform	14.567	173	199423	55.88	ug/L		100
99)	isopropylbenzene	14.619	105	1651254	58.06	ug/L		99
100)	cis-1,4-dichloro-2-butene	14.698	75	150366	53.22	ug/L		99
103)	bromobenzene	15.023	156	399434	54.72	ug/L		92
104)	1,1,2,2-tetrachloroethane	14.934	83	397232	54.59	ug/L		100
106)	1,2,3-trichloropropane	15.007	110	102037	53.29	ug/L		97
107)	n-propylbenzene	15.023	91	1955737	56.57	ug/L		100
108)	2-chlorotoluene	15.175	126	397678	56.38	ug/L		99
109)	4-chlorotoluene	15.274	91	1161314	55.43	ug/L		99
111)	1,3,5-trimethylbenzene	15.175	105	1387475	57.90	ug/L		99
112)	tert-butylbenzene	15.521	119	1196963	58.37	ug/L		100
113)	1,2,4-trimethylbenzene	15.568	105	1393910	57.47	ug/L		100
114)	sec-butylbenzene	15.731	105	1794072	58.26	ug/L		99
115)	1,3-dichlorobenzene	15.919	146	758609	54.12	ug/L		98
116)	p-isopropyltoluene	15.846	119	1509885	58.72	ug/L		99
117)	1,4-dichlorobenzene	16.003	146	770581	53.00	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141951.d
Acq On : 29 Mar 2018 8:23 am
Operator : sydneys
Sample : bs Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:28:56 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

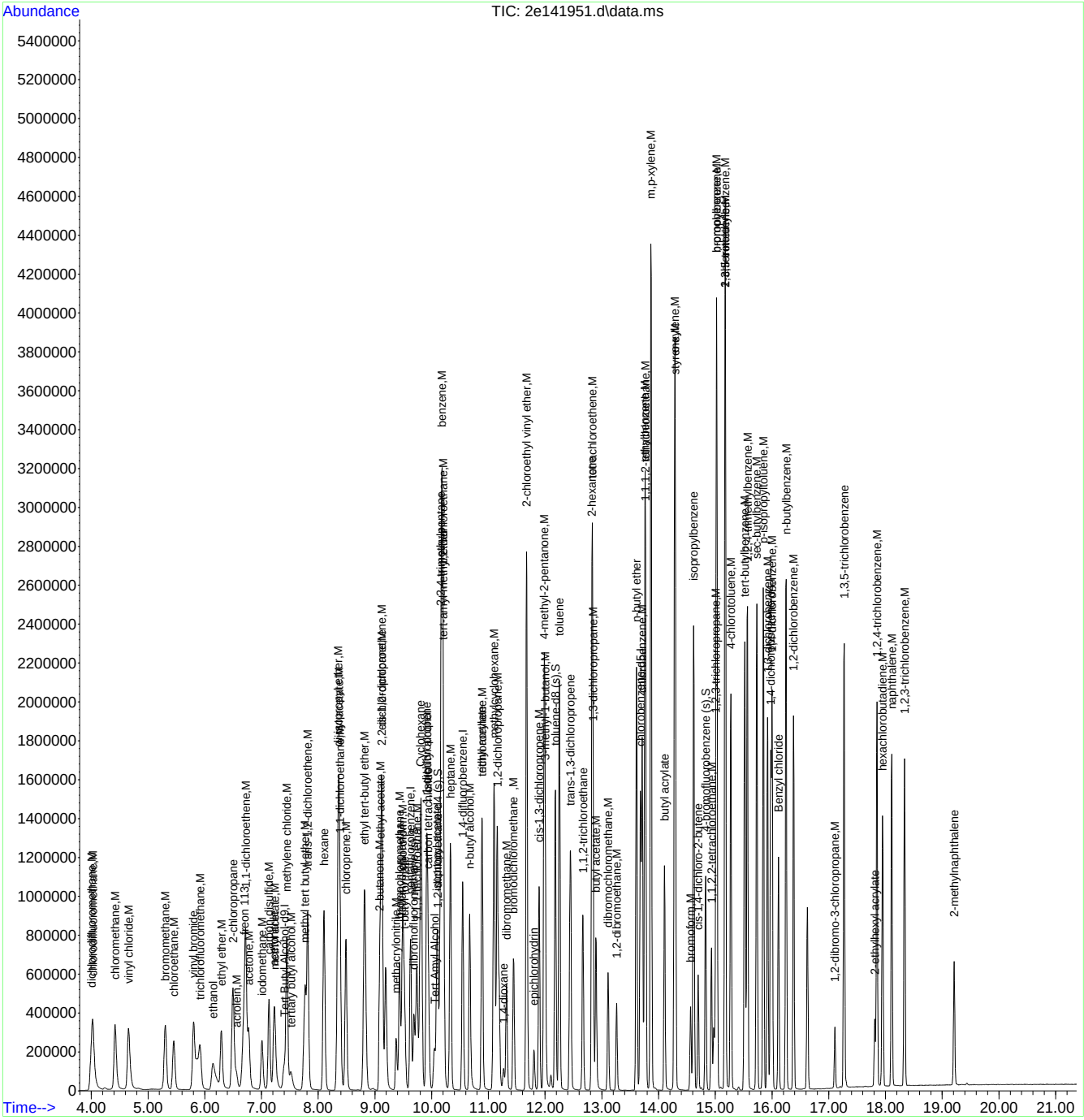
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
118) 1,2-dichlorobenzene	16.381	146	744014	54.53	ug/L	99
120) n-butylbenzene	16.250	92	821258	59.00	ug/L	99
122) 1,2-dibromo-3-chloropr...	17.109	75	73036	53.72	ug/L	99
123) 1,3,5-trichlorobenzene	17.272	180	707261	57.18	ug/L	99
124) 1,2,4-trichlorobenzene	17.849	180	607281	58.64	ug/L	98
125) 2-ethylhexyl acrylate	17.812	70	88096	10.57	ug/L	99
126) hexachlorobutadiene	17.948	225	306998	60.58	ug/L	98
127) naphthalene	18.111	128	1263739	57.24	ug/L	99
128) 1,2,3-trichlorobenzene	18.336	180	537108	57.33	ug/L	100
130) Benzyl chloride	16.113	91	821523	55.90	ug/L	99
131) 2-methylnaphthalene	19.212	142	329408	27.93	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141951.d
Acq On : 29 Mar 2018 8:23 am
Operator : sydneys
Sample : bs Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:28:56 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3335\
Data File : 4B80669.D
Acq On : 30 Mar 2018 8:12 am
Operator : HueanhT
Sample : bs
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 30 16:54:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	6.77	65	120028	500.00	ug/L		-0.01
5) pentafluorobenzene	8.77	168	224873	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	287684	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	277821	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	183692	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.82	113	100327	50.69	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.38%				
55) 1,2-dichloroethane-d4 (s)	9.21	65	89835	47.97	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.94%				
76) toluene-d8 (s)	11.24	98	324613	47.14	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.28%				
99) 4-bromofluorobenzene (s)	14.11	95	132217	45.56	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.12%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.87	59	80460	258.75	ug/L		96
4) 1,4-dioxane	10.27	88	35108	1252.75	ug/L		97
6) chlorodifluoromethane	3.91	51	317417	59.35	ug/L		99
7) dichlorodifluoromethane	3.89	85	275878	50.42	ug/L		100
8) chloromethane	4.25	50	358319	55.87	ug/L		98
9) vinyl chloride	4.46	62	336549	57.11	ug/L		98
10) 1,3-butadiene	4.47	54	337530	67.97	ug/L		99
11) bromomethane	4.99	94	221620	56.67	ug/L		98
12) chloroethane	5.13	64	171555	57.64	ug/L		99
13) trichlorofluoromethane	5.54	101	284356	53.26	ug/L		100
14) vinyl bromide	5.43	106	224515	63.25	ug/L		99
16) 2-chloropropane	6.03	43	283453	51.22	ug/L		98
17) acrolein	6.04	56	29341	60.28	ug/L		91
18) freon 113	6.23	151	134024	52.23	ug/L		96
19) 1,1-dichloroethene	6.21	61	251887	53.49	ug/L		98
20) acetone	6.20	58	83568	276.43	ug/L		93
21) acetonitrile	6.58	41	220218	575.19	ug/L		96
23) carbon disulfide	6.57	76	420384	40.65	ug/L		98
24) methylene chloride	6.82	84	180707	59.11	ug/L		99
25) methyl acetate	6.59	43	90753	54.13	ug/L		96
26) methyl tert butyl ether	7.13	73	315873	39.45	ug/L		97
27) trans-1,2-dichloroethene	7.16	61	218584	55.41	ug/L		99
28) hexane	7.45	56	85753	41.84	ug/L		95
29) di-isopropyl ether	7.64	45	549911	52.67	ug/L		96
30) 2-butanone	8.23	72	58719	235.92	ug/L		93
31) 1,1-dichloroethane	7.67	63	259195	54.46	ug/L		99
32) chloroprene	7.76	53	190250	50.61	ug/L		95
33) acrylonitrile	7.07	53	37682	42.87	ug/L		99
34) vinyl acetate	7.59	86	17483	61.29	ug/L	#	83
35) ethyl tert-butyl ether	8.06	59	513855	55.46	ug/L		98
36) ethyl acetate	8.24	45	15975	50.82	ug/L	#	74
37) 2,2-dichloropropane	8.35	77	256561	57.78	ug/L		99
38) cis-1,2-dichloroethene	8.31	96	157353	56.23	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3335\
Data File : 4B80669.D
Acq On : 30 Mar 2018 8:12 am
Operator : HueanhT
Sample : bs
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 30 16:54:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) bromochloromethane	8.58	128	77888	60.19	ug/L		95
44) chloroform	8.65	83	239843	54.01	ug/L		99
45) tert-Butyl Formate	8.68	59	129201	65.85	ug/L		95
47) 1,1,1-trichloroethane	8.90	97	255126	56.60	ug/L		99
48) cyclohexane	9.01	84	215246	44.78	ug/L		86
50) 1,1-dichloropropene	9.04	75	153109	47.16	ug/L		98
51) carbon tetrachloride	9.08	117	209060	55.70	ug/L		99
52) tert-amyl alcohol	9.15	73	35590	301.85	ug/L		97
53) isopropyl acetate	9.17	87	20575	54.44	ug/L		94
56) n-butyl alcohol	9.68	56	172362	2795.19	ug/L		96
57) 2,2,4-Trimethylpentane	9.35	57	531340	46.50	ug/L		99
58) benzene	9.27	78	487112	52.79	ug/L		99
59) tert-amyl methyl ether	9.34	73	443411	58.98	ug/L		97
60) heptane	9.49	57	83732	41.40	ug/L		99
61) 1,2-dichloroethane	9.30	62	137808	50.93	ug/L		99
62) ethyl acrylate	9.91	55	120139	55.16	ug/L		99
63) trichloroethene	9.94	95	116107	50.48	ug/L		99
64) 2-chloroethyl vinyl ether	10.70	63	326961	267.83	ug/L		99
66) methylcyclohexane	10.24	83	264361	49.35	ug/L		98
67) 1,2-dichloropropane	10.23	63	126743	52.26	ug/L		100
68) dibromomethane	10.33	93	70962	55.35	ug/L		95
69) bromodichloromethane	10.48	83	158382	56.59	ug/L		99
71) epichlorohydrin	10.79	57	52959	284.13	ug/L		100
72) cis-1,3-dichloropropene	10.93	75	184901	53.28	ug/L		94
73) 4-methyl-2-pentanone	11.02	58	177589	232.26	ug/L		94
74) isoamyl alcohol	11.02	70	68548	1409.96	ug/L	#	83
77) toluene	11.31	92	283310	50.32	ug/L		98
79) trans-1,3-dichloropropene	11.50	75	157092	53.46	ug/L		93
80) 1,1,2-trichloroethane	11.74	83	87199	54.99	ug/L		97
81) tetrachloroethene	11.89	164	107304	51.19	ug/L		98
82) 2-hexanone	11.90	58	183833	231.93	ug/L		97
83) 1,3-dichloropropane	11.93	76	154114	51.00	ug/L		92
84) butyl acetate	11.98	56	69354	55.15	ug/L		96
85) dibromochloromethane	12.19	129	123404	59.95	ug/L		99
86) 1,2-dibromoethane	12.36	107	112649	56.52	ug/L		99
87) n-butyl ether	12.81	57	577064	51.25	ug/L		99
88) chlorobenzene	12.87	112	320469	52.19	ug/L		97
89) 1,1,1,2-tetrachloroethane	12.94	131	141093	57.03	ug/L		97
90) ethylbenzene	12.93	91	548347	49.76	ug/L		98
91) m,p-xylene	13.06	106	432243	103.22	ug/L		97
92) o-xylene	13.50	91	494686	51.83	ug/L		98
93) styrene	13.51	104	370087	52.58	ug/L		99
94) butyl acrylate	13.31	55	236011	56.32	ug/L		97
95) isopropylbenzene	13.88	105	658292	53.30	ug/L		99
96) bromoform	13.77	173	89403	66.03	ug/L		99
97) cis-1,4-dichloro-2-butene	13.92	88	39770	54.35	ug/L		99
100) 1,1,2,2-tetrachloroethane	14.19	83	159274	54.85	ug/L		98
102) 1,2,3-trichloropropane	14.29	110	39702	55.30	ug/L		92
103) bromobenzene	14.31	156	172508	52.27	ug/L		93
104) n-propylbenzene	14.34	91	731005	48.24	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3335\
Data File : 4B80669.D
Acq On : 30 Mar 2018 8:12 am
Operator : HueanhT
Sample : bs
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 30 16:54:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

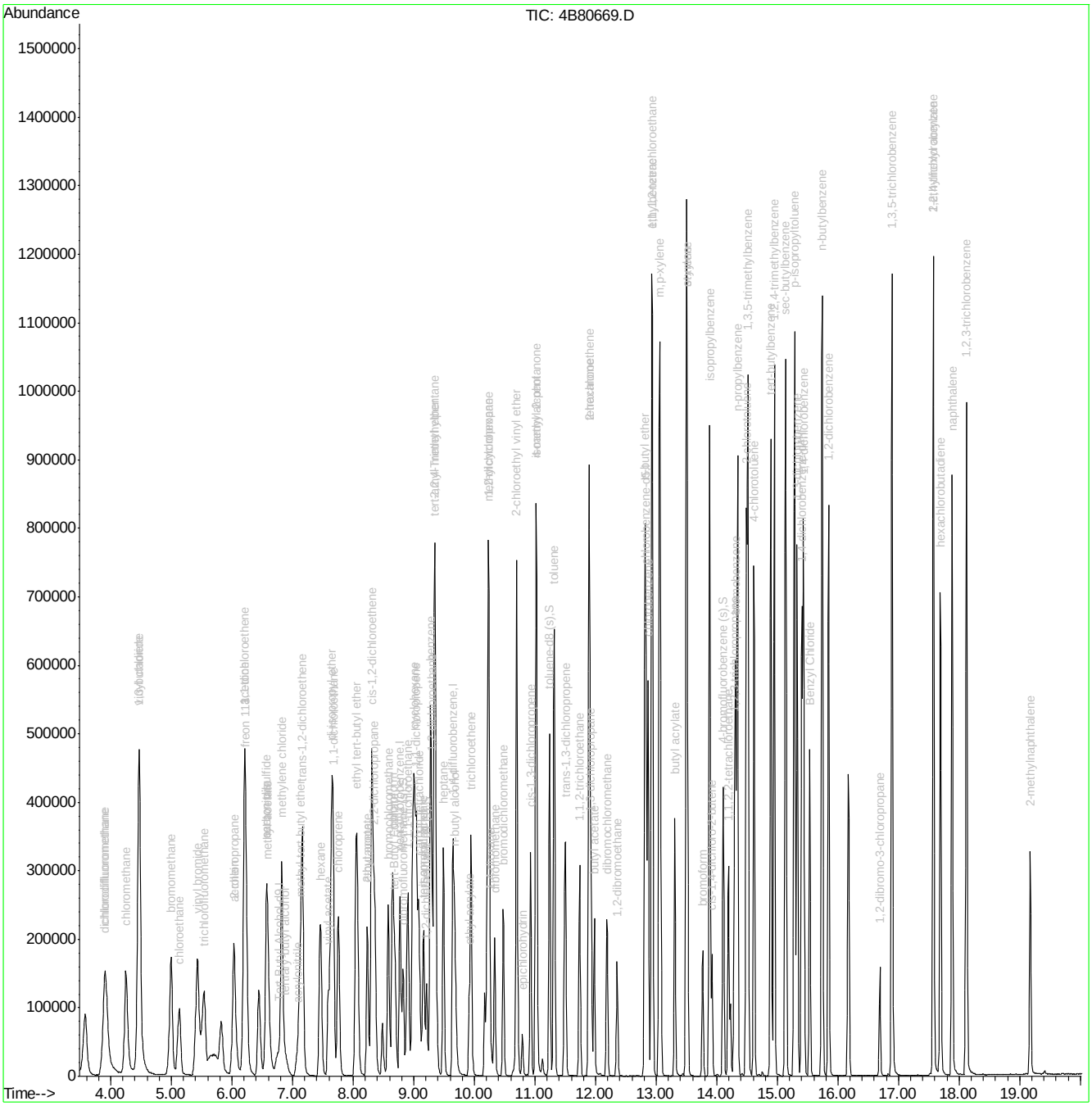
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 2-chlorotoluene	14.49	126	160553	50.11	ug/L	99
106) 4-chlorotoluene	14.61	91	429318	48.70	ug/L	99
108) 1,3,5-trimethylbenzene	14.52	105	548867	48.94	ug/L	99
109) tert-butylbenzene	14.89	119	487226	49.92	ug/L	98
110) 1,2,4-trimethylbenzene	14.95	105	571405	49.84	ug/L	99
111) sec-butylbenzene	15.14	105	786707	50.23	ug/L	100
112) p-isopropyltoluene	15.28	119	673657	51.06	ug/L	99
113) 1,3-dichlorobenzene	15.33	146	345372	51.74	ug/L	99
114) 1,4-dichlorobenzene	15.44	146	348288	52.54	ug/L	98
115) 1,2-dichlorobenzene	15.84	146	370768	53.60	ug/L	99
116) Benzyl Chloride	15.54	91	346198	65.18	ug/L	100
118) n-butylbenzene	15.74	92	362015	51.42	ug/L	99
121) 1,2-dibromo-3-chloropropan	16.69	157	48450	67.41	ug/L	95
122) 1,3,5-trichlorobenzene	16.90	180	417930	56.09	ug/L	99
123) 1,2,4-trichlorobenzene	17.58	180	376758	57.64	ug/L	97
124) 2-ethylhexyl acrylate	17.58	70	34659	9.39	ug/L	99
125) hexachlorobutadiene	17.69	225	170016	49.55	ug/L	98
126) naphthalene	17.88	128	717771	62.05	ug/L	98
127) 1,2,3-trichlorobenzene	18.12	180	350000	61.30	ug/L	100
128) 2-methylnaphthalene	19.17	142	183558	27.71	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3335\
Data File : 4B80669.D
Acq On : 30 Mar 2018 8:12 am
Operator : HueanhT
Sample : bs
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 30 16:54:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174432.d
Acq On : 27 Mar 2018 11:50 am
Operator : JessicaP
Sample : jc62879-9ms Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:24:17 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.346	65	124290	500.00	ug/L	-0.05
5) pentafluorobenzene	10.057	168	314088	50.00	ug/L	-0.05
54) 1,4-difluorobenzene	11.205	114	433840	50.00	ug/L	-0.05
76) chlorobenzene-d5	15.431	117	429507	50.00	ug/L	-0.04
99) 1,4-dichlorobenzene-d4	18.236	152	248529	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.057	113	135651	50.83	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.66%			
55) 1,2-dichloroethane-d4 (s)	10.592	65	162825	52.39	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.78%			
77) toluene-d8 (s)	13.413	98	499894	49.00	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.00%			
100) 4-bromofluorobenzene (s)	16.936	95	203576	48.02	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.04%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.478	59	56443	228.17	ug/L	95
3) ethanol	5.973	45	111761	3667.10	ug/L	100
4) 1,4-dioxane	12.149	88	22940	950.88	ug/L	94
6) chlorodifluoromethane	3.865	51	187278	49.76	ug/L	97
7) dichlorodifluoromethane	3.844	85	121015	38.02	ug/L	99
10) chloromethane	4.248	50	162167	38.61	ug/L	99
11) vinyl chloride	4.473	62	159175	42.84	ug/L	98
12) bromomethane	5.123	94	94785	39.60	ug/L	97
13) chloroethane	5.270	64	84281	43.92	ug/L	99
14) trichlorofluoromethane	5.763	101	181389	45.76	ug/L	100
15) Vinyl Bromide	5.627	106	113512	52.82	ug/L	97
17) ethyl ether	6.167	74	35501	28.46	ug/L	100
18) acrolein	6.408	56	20312	41.51	ug/L	97
19) 1,1-dichloroethene	6.591	96	98263	45.16	ug/L	94
20) freon 113	6.597	151	87847	47.23	ug/L	98
21) 2-chloropropane	6.356	43	234280	47.77	ug/L	99
22) acetone	6.654	58	29723	71.78	ug/L	99
23) acetonitrile	7.116	41	152449	418.95	ug/L	97
24) iodomethane	6.875	142	129672	29.57	ug/L	98
25) carbon disulfide	7.006	76	261517	32.91	ug/L	97
26) methylene chloride	7.367	84	110214	43.84	ug/L	90
27) methyl acetate	7.168	43	79095	41.30	ug/L	100
28) methyl tert butyl ether	7.787	73	210762	29.77	ug/L	99
29) trans-1,2-dichloroethene	7.803	96	103750	44.81	ug/L	93
30) hexane	8.201	57	169969	48.77	ug/L	98
31) di-isopropyl ether	8.505	45	441737	46.04	ug/L	91
32) 2-butanone	9.334	72	34392	109.14	ug/L #	83
33) 1,1-dichloroethane	8.463	63	214500	45.60	ug/L	98
34) chloroprene	8.605	53	184131	48.92	ug/L	95
35) acrylonitrile	7.740	53	28205	30.81	ug/L	96
36) vinyl acetate	8.484	86	15256	45.88	ug/L #	74
37) ethyl tert-butyl ether	9.071	59	373602	43.33	ug/L	99
39) 2,2-dichloropropane	9.376	77	178919	48.78	ug/L	92
40) cis-1,2-dichloroethene	9.355	96	114648	43.52	ug/L	96
41) propionitrile	9.444	54	153214	417.92	ug/L	98
43) bromochloromethane	9.727	128	53932	43.33	ug/L	94
44) tetrahydrofuran	9.800	72	8570	30.49	ug/L	92
45) chloroform	9.811	83	194006	46.14	ug/L	98
47) methacrylonitrile	9.680	67	26442	29.46	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174432.d
Acq On : 27 Mar 2018 11:50 am
Operator : JessicaP
Sample : jc62879-9ms Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:24:17 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48) 1,1,1-trichloroethane	10.146	97	181423	48.70	ug/L		98
49) cyclohexane	10.246	84	156247	44.69	ug/L		89
50) 1,1-dichloropropene	10.377	75	153938	47.33	ug/L		99
51) isobutyl alcohol	10.398	43	46104	419.13	ug/L		97
52) carbon tetrachloride	10.403	117	162750	48.43	ug/L		100
53) tert-amyl alcohol	10.571	73	23542	215.67	ug/L		97
56) benzene	10.702	78	427243	43.82	ug/L		100
57) iso-octane	10.775	57	518422	47.61	ug/L		98
58) tert-amyl methyl ether	10.802	73	328648	42.20	ug/L		99
59) heptane	11.006	57	95774	49.34	ug/L		98
60) isopropyl acetate	10.676	87	17102	41.17	ug/L	#	68
61) 1,2-dichloroethane	10.707	62	154504	45.26	ug/L		98
62) n-butyl alcohol	11.378	56	137793	2151.11	ug/L		96
63) ethyl acrylate	11.698	55	126059	45.72	ug/L		98
64) trichloroethene	11.641	130	107418	44.05	ug/L		98
65) 2-nitropropane	12.684	41	18735	30.67	ug/L		95
67) methyl methacrylate	12.055	100	15945	29.33	ug/L	#	79
68) 1,2-dichloropropane	11.987	63	121033	44.70	ug/L		99
69) dibromomethane	12.170	93	64487	43.80	ug/L		93
70) methylcyclohexane	11.955	83	209253	46.29	ug/L		95
71) bromodichloromethane	12.364	83	150802	44.98	ug/L		98
72) epichlorohydrin	12.873	57	32520	144.67	ug/L		99
73) cis-1,3-dichloropropene	13.004	75	182421	43.39	ug/L		95
74) 4-methyl-2-pentanone	13.187	58	154337	164.90	ug/L		95
75) 3-methyl-1-butanol	13.208	55	97681	971.43	ug/L		98
78) toluene	13.512	92	261943	43.69	ug/L		99
79) trans-1,3-dichloropropene	13.774	75	163870	43.20	ug/L		99
80) ethyl methacrylate	13.837	69	94111	31.20	ug/L		94
81) 1,1,2-trichloroethane	14.052	83	79076	41.81	ug/L		97
82) tetrachloroethene	14.294	164	96112	44.05	ug/L		99
83) 1,3-dichloropropane	14.304	76	161277	42.35	ug/L		99
84) 2-hexanone	14.346	58	144460	125.05	ug/L		93
85) butyl acetate	14.482	56	70723	45.51	ug/L		97
86) dibromochloromethane	14.634	129	112248	43.49	ug/L		100
87) 1,2-dibromoethane	14.828	107	99748	42.47	ug/L		98
88) n-butyl ether	15.478	57	562090	46.96	ug/L		99
89) chlorobenzene	15.473	112	303467	43.52	ug/L		98
90) 1,1,1,2-tetrachloroethane	15.562	131	116670	44.87	ug/L		99
91) ethylbenzene	15.583	91	533078	44.86	ug/L		98
92) m,p-xylene	15.730	91	822163	89.53	ug/L		99
93) o-xylene	16.275	106	201276	43.99	ug/L		97
94) styrene	16.286	104	338057	44.71	ug/L		98
95) butyl acrylate	16.113	55	247219	48.13	ug/L		97
96) bromoform	16.569	173	78517	42.66	ug/L		96
97) isopropylbenzene	16.726	105	542709	46.04	ug/L		100
98) cis-1,4-dichloro-2-butene	16.794	88	36775	35.67	ug/L		96
101) bromobenzene	17.151	156	142971	41.57	ug/L		94
102) 1,1,2,2-tetrachloroethane	17.067	83	134338	43.73	ug/L		100
103) trans-1,4-dichloro-2-b...	17.130	53	19339	29.12	ug/L	#	54
104) 1,2,3-trichloropropane	17.151	110	33088	41.85	ug/L	#	83
105) n-propylbenzene	17.219	91	666276	45.50	ug/L		99
106) 2-chlorotoluene	17.355	126	135399	43.14	ug/L		98
107) 4-chlorotoluene	17.471	91	388477	43.64	ug/L		98
109) 1,3,5-trimethylbenzene	17.397	105	466285	44.60	ug/L		98
110) tert-butylbenzene	17.780	119	406251	44.81	ug/L		96
111) 1,2,4-trimethylbenzene	17.827	105	473784	44.65	ug/L		99
112) sec-butylbenzene	18.016	105	634494	46.85	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174432.d
Acq On : 27 Mar 2018 11:50 am
Operator : JessicaP
Sample : jc62879-9ms Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:24:17 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

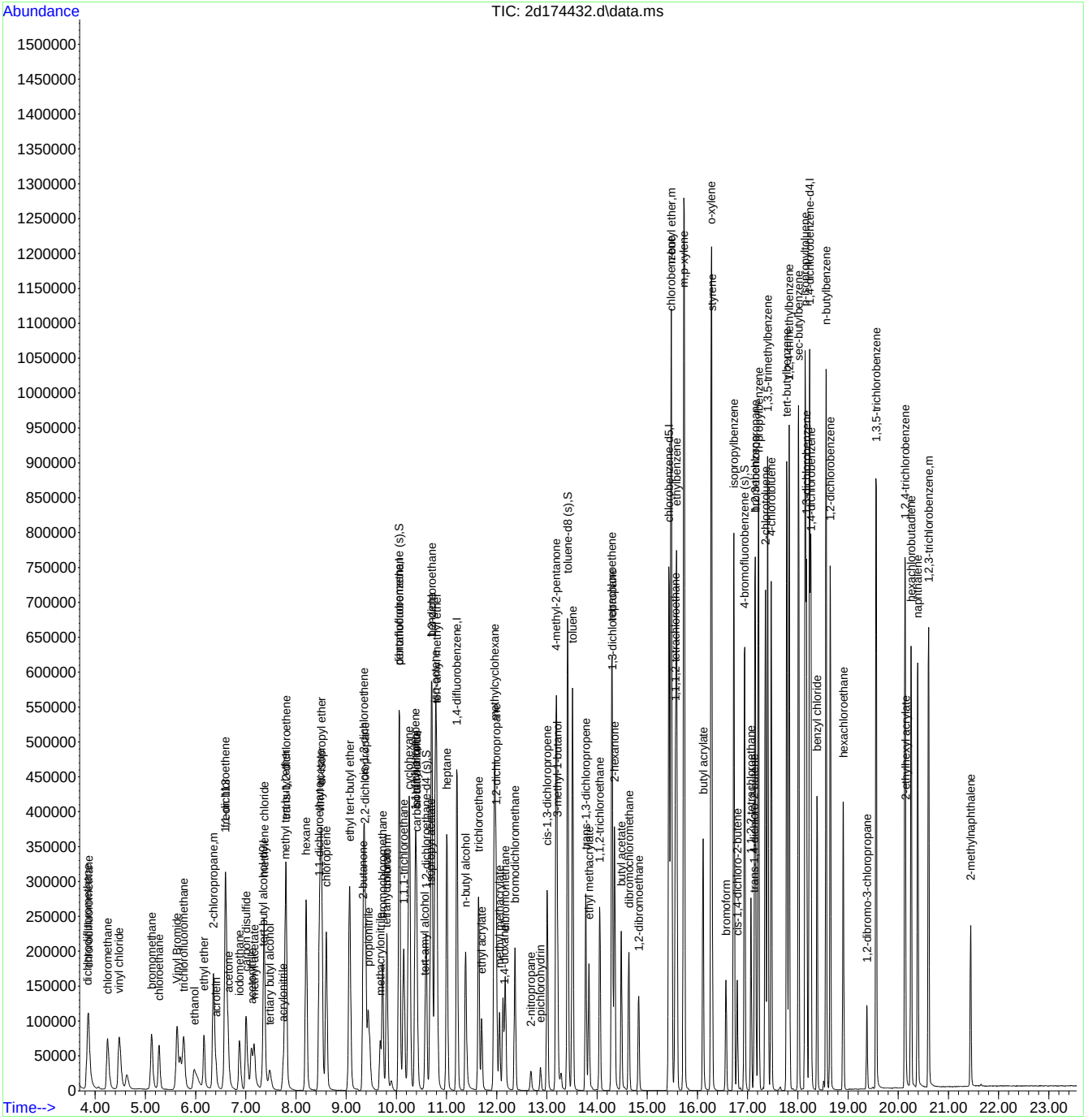
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
113) 1,3-dichlorobenzene	18.173	146	275495	43.08	ug/L	100
114) p-isopropyltoluene	18.147	119	538722	47.08	ug/L	98
115) 1,4-dichlorobenzene	18.262	146	277975	43.73	ug/L	99
116) 1,2-dichlorobenzene	18.645	146	275591	42.88	ug/L	99
117) benzyl chloride	18.383	91	262128	45.14	ug/L	100
119) n-butylbenzene	18.561	92	285922	49.74	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.379	157	30402	44.58	ug/L	97
123) 1,3,5-trichlorobenzene	19.563	180	271685	48.30	ug/L	99
124) hexachlorobutadiene	20.260	225	134866	46.83	ug/L	99
125) naphthalene	20.391	128	451652	51.14	ug/L	99
126) 2-ethylhexyl acrylate	20.150	70	20854	9.25	ug/L	97
127) 1,2,4-trichlorobenzene	20.139	180	228372	51.60	ug/L	100
128) 1,2,3-trichlorobenzene	20.606	180	210490	53.10	ug/L	98
129) hexachloroethane	18.907	201	69169	31.78	ug/L	97
130) 2-methylnaphthalene	21.445	142	113838	26.35	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174432.d
Acq On : 27 Mar 2018 11:50 am
Operator : JessicaP
Sample : jc62879-9ms Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:24:17 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174433.d
Acq On : 27 Mar 2018 12:20 pm
Operator : JessicaP
Sample : jc62879-9msd Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:24:55 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.341	65	111719	500.00	ug/L	-0.06
5) pentafluorobenzene	10.057	168	312487	50.00	ug/L	-0.05
54) 1,4-difluorobenzene	11.205	114	428995	50.00	ug/L	-0.05
76) chlorobenzene-d5	15.431	117	431569	50.00	ug/L	-0.04
99) 1,4-dichlorobenzene-d4	18.236	152	246862	50.00	ug/L	-0.03
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.057	113	134987	50.84	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.68%			
55) 1,2-dichloroethane-d4 (s)	10.592	65	161393	52.51	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.02%			
77) toluene-d8 (s)	13.413	98	497502	48.53	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.06%			
100) 4-bromofluorobenzene (s)	16.941	95	201342	47.81	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.62%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.478	59	51705	232.54	ug/L	95
3) ethanol	5.968	45	102000	3723.42	ug/L	99
4) 1,4-dioxane	12.144	88	20193	931.20	ug/L	94
6) chlorodifluoromethane	3.860	51	185236	49.47	ug/L	99
7) dichlorodifluoromethane	3.839	85	135222	42.70	ug/L	99
10) chloromethane	4.243	50	180851	43.28	ug/L	100
11) vinyl chloride	4.473	62	179010	48.42	ug/L	99
12) bromomethane	5.123	94	105464	44.29	ug/L	99
13) chloroethane	5.270	64	92510	48.45	ug/L	97
14) trichlorofluoromethane	5.763	101	198840	50.42	ug/L	99
15) Vinyl Bromide	5.627	106	126524	59.17	ug/L	99
17) ethyl ether	6.167	74	35571	28.66	ug/L	97
18) acrolein	6.403	56	21449	44.06	ug/L	93
19) 1,1-dichloroethene	6.591	96	97218	44.91	ug/L	93
20) freon 113	6.597	151	87849	47.48	ug/L	97
21) 2-chloropropane	6.355	43	229788	47.10	ug/L	100
22) acetone	6.649	58	28371	68.87	ug/L	90
23) acetonitrile	7.110	41	138761	383.28	ug/L	100
24) iodomethane	6.869	142	127549	29.23	ug/L	99
25) carbon disulfide	7.006	76	257073	32.52	ug/L	98
26) methylene chloride	7.362	84	107309	42.90	ug/L	90
27) methyl acetate	7.168	43	79461	41.70	ug/L	98
28) methyl tert butyl ether	7.782	73	207145	29.41	ug/L	99
29) trans-1,2-dichloroethene	7.803	96	100876	43.79	ug/L	96
30) hexane	8.201	57	168307	48.54	ug/L	97
31) di-isopropyl ether	8.505	45	434389	45.50	ug/L	93
32) 2-butanone	9.334	72	34048	108.60	ug/L #	87
33) 1,1-dichloroethane	8.463	63	209480	44.76	ug/L	98
34) chloroprene	8.605	53	182768	48.81	ug/L	97
35) acrylonitrile	7.745	53	27891	30.62	ug/L	98
36) vinyl acetate	8.479	86	14779	44.67	ug/L #	82
37) ethyl tert-butyl ether	9.071	59	370402	43.18	ug/L	98
39) 2,2-dichloropropane	9.375	77	175449	48.08	ug/L	95
40) cis-1,2-dichloroethene	9.354	96	111785	42.65	ug/L	96
41) propionitrile	9.438	54	148865	408.14	ug/L	93
43) bromochloromethane	9.727	128	53195	42.96	ug/L	95
44) tetrahydrofuran	9.800	72	8227	29.42	ug/L	97
45) chloroform	9.811	83	190986	45.65	ug/L	99
47) methacrylonitrile	9.680	67	26555	29.74	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174433.d
Acq On : 27 Mar 2018 12:20 pm
Operator : JessicaP
Sample : jc62879-9msd Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:24:55 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48) 1,1,1-trichloroethane	10.146	97	176338	47.58	ug/L		97
49) cyclohexane	10.251	84	172787	49.67	ug/L		99
50) 1,1-dichloropropene	10.377	75	152287	47.06	ug/L		98
51) isobutyl alcohol	10.403	43	42474	388.11	ug/L		99
52) carbon tetrachloride	10.403	117	161004	48.16	ug/L		99
53) tert-amyl alcohol	10.571	73	22173	204.17	ug/L		93
56) benzene	10.702	78	421562	43.72	ug/L		99
57) iso-octane	10.775	57	506987	47.09	ug/L		99
58) tert-amyl methyl ether	10.802	73	328363	42.64	ug/L		98
59) heptane	11.006	57	94237	49.09	ug/L		98
60) isopropyl acetate	10.676	87	17483	42.56	ug/L	#	83
61) 1,2-dichloroethane	10.707	62	152292	45.12	ug/L		98
62) n-butyl alcohol	11.384	56	126186	1992.16	ug/L		97
63) ethyl acrylate	11.698	55	125328	45.97	ug/L		98
64) trichloroethene	11.635	130	106658	44.23	ug/L		97
65) 2-nitropropane	12.684	41	18736	31.02	ug/L		96
67) methyl methacrylate	12.055	100	14991	27.89	ug/L	#	91
68) 1,2-dichloropropane	11.987	63	118099	44.11	ug/L		99
69) dibromomethane	12.170	93	63205	43.42	ug/L		94
70) methylcyclohexane	11.955	83	208622	46.67	ug/L		96
71) bromodichloromethane	12.364	83	148140	44.69	ug/L		98
72) epichlorohydrin	12.873	57	28300	127.32	ug/L		100
73) cis-1,3-dichloropropene	13.009	75	179542	43.18	ug/L		94
74) 4-methyl-2-pentanone	13.187	58	152692	164.99	ug/L		93
75) 3-methyl-1-butanol	13.208	55	91587	921.11	ug/L		100
78) toluene	13.512	92	257942	42.82	ug/L		99
79) trans-1,3-dichloropropene	13.774	75	162595	42.66	ug/L		98
80) ethyl methacrylate	13.837	69	93987	31.01	ug/L		93
81) 1,1,2-trichloroethane	14.057	83	78835	41.48	ug/L		98
82) tetrachloroethene	14.293	164	95140	43.39	ug/L		97
83) 1,3-dichloropropane	14.299	76	158863	41.52	ug/L		95
84) 2-hexanone	14.346	58	145208	125.10	ug/L		93
85) butyl acetate	14.482	56	70312	45.03	ug/L		94
86) dibromochloromethane	14.634	129	109978	42.41	ug/L		100
87) 1,2-dibromoethane	14.828	107	100221	42.47	ug/L		99
88) n-butyl ether	15.478	57	552684	45.95	ug/L		99
89) chlorobenzene	15.473	112	298004	42.53	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.562	131	114306	43.75	ug/L		99
91) ethylbenzene	15.583	91	522836	43.79	ug/L		97
92) m,p-xylene	15.735	91	804903	87.23	ug/L		100
93) o-xylene	16.275	106	198673	43.21	ug/L		99
94) styrene	16.286	104	333112	43.85	ug/L		98
95) butyl acrylate	16.113	55	246024	47.67	ug/L		98
96) bromoform	16.569	173	77822	42.08	ug/L		95
97) isopropylbenzene	16.726	105	531178	44.84	ug/L		99
98) cis-1,4-dichloro-2-butene	16.794	88	37470	36.17	ug/L		99
101) bromobenzene	17.151	156	141191	41.33	ug/L		95
102) 1,1,2,2-tetrachloroethane	17.067	83	131601	43.12	ug/L		98
103) trans-1,4-dichloro-2-b...	17.130	53	19131	29.00	ug/L	#	50
104) 1,2,3-trichloropropane	17.151	110	33543	42.72	ug/L	#	85
105) n-propylbenzene	17.214	91	651091	44.76	ug/L		98
106) 2-chlorotoluene	17.355	126	132954	42.65	ug/L		99
107) 4-chlorotoluene	17.471	91	380255	43.01	ug/L		98
109) 1,3,5-trimethylbenzene	17.403	105	455181	43.83	ug/L		98
110) tert-butylbenzene	17.780	119	399235	44.33	ug/L		95
111) 1,2,4-trimethylbenzene	17.827	105	461007	43.74	ug/L		99
112) sec-butylbenzene	18.016	105	621606	46.20	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174433.d
Acq On : 27 Mar 2018 12:20 pm
Operator : JessicaP
Sample : jc62879-9msd Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:24:55 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration

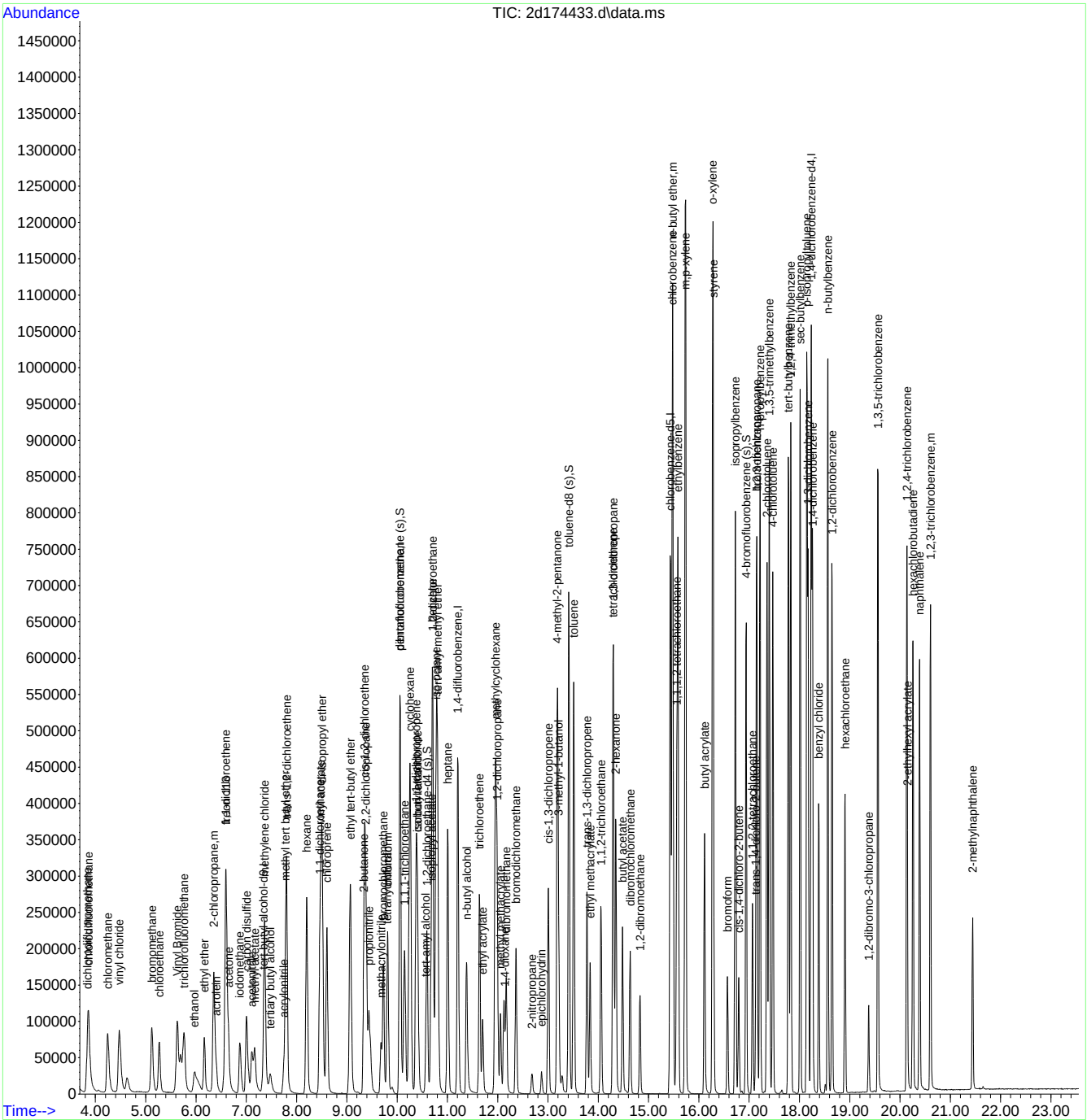
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
113) 1,3-dichlorobenzene	18.173	146	269563	42.44	ug/L	100
114) p-isopropyltoluene	18.147	119	524232	46.13	ug/L	99
115) 1,4-dichlorobenzene	18.262	146	272771	43.21	ug/L	98
116) 1,2-dichlorobenzene	18.650	146	270946	42.44	ug/L	98
117) benzyl chloride	18.383	91	255595	44.31	ug/L	99
119) n-butylbenzene	18.567	92	278984	48.87	ug/L	98
121) 1,2-dibromo-3-chloropr...	19.379	157	30021	44.32	ug/L	97
123) 1,3,5-trichlorobenzene	19.563	180	265970	47.60	ug/L	99
124) hexachlorobutadiene	20.260	225	133882	46.80	ug/L	99
125) naphthalene	20.391	128	447674	51.03	ug/L	100
126) 2-ethylhexyl acrylate	20.150	70	20800	9.28	ug/L	98
127) 1,2,4-trichlorobenzene	20.139	180	225660	51.34	ug/L	99
128) 1,2,3-trichlorobenzene	20.606	180	207585	52.72	ug/L	99
129) hexachloroethane	18.907	201	68231	31.56	ug/L	96
130) 2-methylnaphthalene	21.445	142	112764	26.28	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174433.d
Acq On : 27 Mar 2018 12:20 pm
Operator : JessicaP
Sample : jc62879-9msd Inst : MS2D
Misc : MS25167,V2D7344,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:24:55 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 27 10:21:38 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141959.d
Acq On : 29 Mar 2018 1:18 pm
Operator : sydneys
Sample : JC62879-11ms Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:38:10 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.399	65	289558	500.00	ug/L	0.00
5) pentafluorobenzene	9.628	168	630189	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.545	114	952686	50.00	ug/L	0.00
77) chlorobenzene-d5	13.680	117	816651	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	411612	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.685	113	264420	50.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.94%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	297301	50.10	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.20%			
78) toluene-d8 (s)	12.181	98	1059591	50.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.78%			
102) 4-bromofluorobenzene (s)	14.829	95	379351	50.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.36%			
Target Compounds						Qvalue
2) ethanol	6.141	45	318543	4774.37	ug/L	99
3) tertiary butyl alcohol	7.520	59	173156	223.86	ug/L	97
4) 1,4-dioxane	11.269	88	69321	1184.29	ug/L	96
6) chlorodifluoromethane	4.028	51	482818	56.99	ug/L	97
7) dichlorodifluoromethane	4.002	85	406119	46.98	ug/L	100
10) chloromethane	4.416	50	543576	45.34	ug/L	99
11) vinyl chloride	4.652	62	560976	48.65	ug/L	99
12) bromomethane	5.307	94	310745	43.60	ug/L	99
13) chloroethane	5.454	64	321805	45.63	ug/L	99
14) trichlorofluoromethane	5.916	101	487889	50.18	ug/L	98
16) vinyl bromide	5.800	106	359754	43.64	ug/L	98
17) ethyl ether	6.293	74	134143	29.28	ug/L	99
18) 2-chloropropane	6.497	43	602757	49.06	ug/L	98
19) acrolein	6.560	56	64301	37.52	ug/L	99
20) freon 113	6.697	151	230100	53.21	ug/L	97
21) 1,1-dichloroethene	6.723	61	502505	49.93	ug/L	98
22) acetone	6.775	58	102894	127.20	ug/L	96
23) acetonitrile	7.221	41	417634	416.71	ug/L	98
24) iodomethane	7.011	142	334157	32.14	ug/L	99
25) carbon disulfide	7.132	76	753685	33.51	ug/L	100
26) methylene chloride	7.446	84	338072	44.70	ug/L	98
27) methyl acetate	7.237	43	212326	39.17	ug/L	98
28) methyl tert butyl ether	7.766	73	624203	30.27	ug/L	98
29) trans-1,2-dichloroethene	7.814	61	486824	48.37	ug/L	99
30) hexane	8.102	56	269001	52.19	ug/L	96
31) di-isopropyl ether	8.354	45	1182344	44.44	ug/L	97
32) ethyl tert-butyl ether	8.820	59	1085004	45.14	ug/L	99
33) 2-butanone	9.082	72	125113	165.73	ug/L	94
34) 1,1-dichloroethane	8.385	63	608613	46.45	ug/L	99
35) chloroprene	8.490	53	513956	49.73	ug/L	99
37) vinyl acetate	8.369	86	57789	41.00	ug/L #	90
38) ethyl acetate	9.098	45	40382	36.84	ug/L #	71
39) 2,2-dichloropropane	9.119	77	472563	45.46	ug/L	100
40) cis-1,2-dichloroethene	9.119	96	351817	45.80	ug/L	98
43) bromochloromethane	9.434	128	152938	44.32	ug/L	99
44) tetrahydrofuran	9.470	72	27123	30.07	ug/L	94
45) chloroform	9.486	83	516595	45.23	ug/L	98
46) t-butyl formate	9.523	59	5965	1.02	ug/L #	57
47) 1,1-dichloropropene	9.916	75	453674	48.95	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141959.d
Acq On : 29 Mar 2018 1:18 pm
Operator : sydneys
Sample : JC62879-11ms Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:38:10 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48)	carbon tetrachloride	9.937	117	380634	49.33	ug/L		98
49)	isopropyl acetate	10.094	87	61519	41.64	ug/L	#	84
51)	methacrylonitrile	9.376	67	85184	29.96	ug/L		97
52)	1,1,1-trichloroethane	9.738	97	453467	47.90	ug/L		98
53)	Cyclohexane	9.806	84	547065	49.96	ug/L	#	72
54)	iso-butyl alcohol	9.921	43	124080	409.93	ug/L		99
55)	Tert Amyl Alcohol	10.047	73	74280	197.77	ug/L		95
58)	2,2,4-trimethylpentane	10.162	57	1454329	50.27	ug/L		99
59)	n-butyl alcohol	10.671	56	426419	2195.61	ug/L		98
60)	benzene	10.178	78	1320519	44.81	ug/L		100
61)	tert-amyl methyl ether	10.199	73	992864	42.99	ug/L		99
62)	heptane	10.330	57	281468	49.58	ug/L		98
63)	1,2-dichloroethane	10.199	62	371008	40.88	ug/L		97
64)	ethyl acrylate	10.886	55	349327	43.28	ug/L		99
65)	trichloroethene	10.891	95	305453	46.54	ug/L		97
69)	1,2-dichloropropane	11.159	63	352434	44.58	ug/L		98
70)	methylcyclohexane	11.101	83	653336	52.12	ug/L		97
71)	dibromomethane	11.316	93	168105	42.53	ug/L		96
72)	bromodichloromethane	11.442	83	380690	43.91	ug/L		98
73)	epichlorohydrin	11.809	57	77251	112.85	ug/L		97
74)	cis-1,3-dichloropropene	11.893	75	513792	43.74	ug/L		100
75)	4-methyl-2-pentanone	11.982	58	447158	174.50	ug/L		95
76)	3-methyl-1-butanol	12.003	70	160419	854.72	ug/L		97
79)	toluene	12.249	92	760630	45.86	ug/L		99
81)	trans-1,3-dichloropropene	12.448	75	429172	44.17	ug/L		99
82)	1,1,2-trichloroethane	12.669	83	210779	43.74	ug/L		100
83)	tetrachloroethene	12.831	164	238319	46.57	ug/L		98
84)	2-hexanone	12.826	58	403375	163.26	ug/L		97
85)	1,3-dichloropropane	12.847	76	444280	43.20	ug/L		98
86)	butyl acetate	12.899	56	184604	40.35	ug/L		99
88)	dibromochloromethane	13.109	129	251916	44.43	ug/L		99
89)	1,2-dibromoethane	13.261	107	245304	42.50	ug/L		100
90)	n-butyl ether	13.612	57	1494798	46.65	ug/L		99
91)	chlorobenzene	13.712	112	786765	44.23	ug/L		100
92)	1,1,1,2-tetrachloroethane	13.770	131	270319	45.43	ug/L		100
93)	ethylbenzene	13.759	91	1381129	45.36	ug/L		100
94)	m,p-xylene	13.864	106	1066907	92.57	ug/L		99
95)	o-xylene	14.283	91	1105154	45.23	ug/L		99
96)	styrene	14.294	104	864631	45.33	ug/L		100
97)	butyl acrylate	14.105	55	561359	43.79	ug/L		98
98)	bromoform	14.567	173	156805	43.49	ug/L		99
99)	isopropylbenzene	14.619	105	1355401	47.17	ug/L		99
100)	cis-1,4-dichloro-2-butene	14.698	75	113786	39.86	ug/L		98
103)	bromobenzene	15.023	156	323391	44.15	ug/L		98
104)	1,1,2,2-tetrachloroethane	14.934	83	314247	43.04	ug/L		99
106)	1,2,3-trichloropropane	15.007	110	81353	42.35	ug/L		99
107)	n-propylbenzene	15.023	91	1607661	46.35	ug/L		100
108)	2-chlorotoluene	15.175	126	324698	45.88	ug/L		96
109)	4-chlorotoluene	15.274	91	936007	44.53	ug/L		100
111)	1,3,5-trimethylbenzene	15.175	105	1119579	46.56	ug/L		99
112)	tert-butylbenzene	15.521	119	973825	47.33	ug/L		98
113)	1,2,4-trimethylbenzene	15.568	105	1113501	45.75	ug/L		99
114)	sec-butylbenzene	15.730	105	1466424	47.46	ug/L		100
115)	1,3-dichlorobenzene	15.919	146	610016	43.38	ug/L		99
116)	p-isopropyltoluene	15.846	119	1216937	47.16	ug/L		99
117)	1,4-dichlorobenzene	16.003	146	620379	42.52	ug/L		99
118)	1,2-dichlorobenzene	16.381	146	593065	43.32	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141959.d
Acq On : 29 Mar 2018 1:18 pm
Operator : sydneys
Sample : JC62879-11ms Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:38:10 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

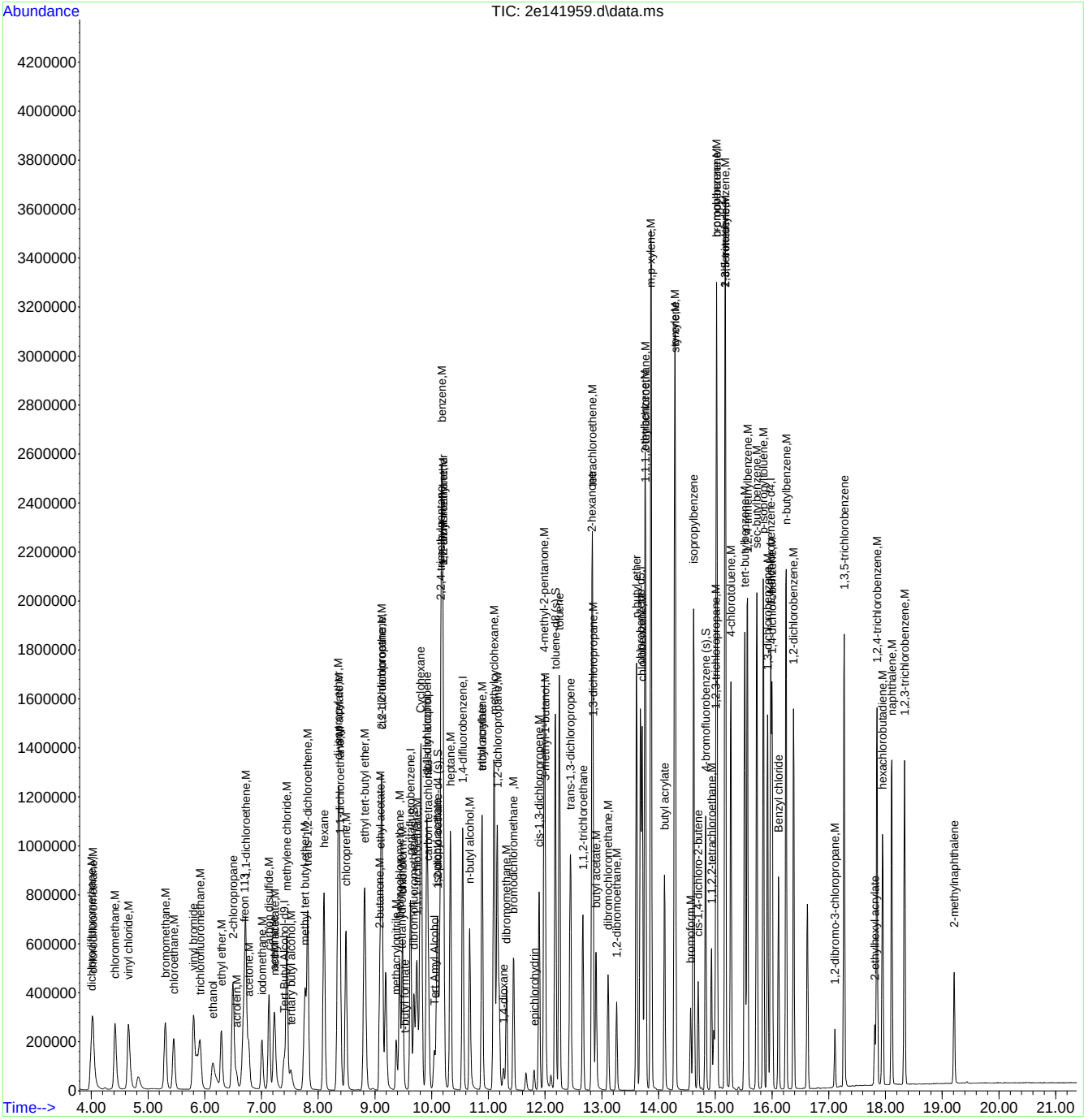
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
120) n-butylbenzene	16.250	92	656601	47.01	ug/L	99
122) 1,2-dibromo-3-chloropr...	17.109	75	54587	40.02	ug/L	95
123) 1,3,5-trichlorobenzene	17.272	180	552962	44.55	ug/L	100
124) 1,2,4-trichlorobenzene	17.849	180	469103	45.14	ug/L	99
125) 2-ethylhexyl acrylate	17.812	70	62713	7.50	ug/L	100
126) hexachlorobutadiene	17.948	225	228648	44.97	ug/L	99
127) naphthalene	18.111	128	973466	43.94	ug/L	99
128) 1,2,3-trichlorobenzene	18.336	180	412617	43.90	ug/L	100
130) Benzyl chloride	16.113	91	593927	40.28	ug/L	99
131) 2-methylnaphthalene	19.212	142	237286	20.05	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141959.d
Acq On : 29 Mar 2018 1:18 pm
Operator : sydneys
Sample : JC62879-11ms Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:38:10 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141960.d
Acq On : 29 Mar 2018 1:46 pm
Operator : sydneys
Sample : JC62879-11msd Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:39:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.399	65	298200	500.00	ug/L	0.00
5) pentafluorobenzene	9.628	168	620152	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.545	114	929660	50.00	ug/L	0.00
77) chlorobenzene-d5	13.681	117	793930	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	404997	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.685	113	259917	50.41	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.82%			
57) 1,2-dichloroethane-d4 (s)	10.105	65	290600	50.18	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.36%			
78) toluene-d8 (s)	12.181	98	1036896	51.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.46%			
102) 4-bromofluorobenzene (s)	14.829	95	374880	50.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.78%			
Target Compounds						Qvalue
2) ethanol	6.146	45	325730	4740.61	ug/L	96
3) tertiary butyl alcohol	7.515	59	180091	226.08	ug/L	91
4) 1,4-dioxane	11.269	88	74814	1241.09	ug/L	97
6) chlorodifluoromethane	4.018	51	493131	59.15	ug/L	98
7) dichlorodifluoromethane	3.997	85	406847	47.83	ug/L	99
10) chloromethane	4.411	50	540316	45.80	ug/L	100
11) vinyl chloride	4.652	62	558828	49.25	ug/L	100
12) bromomethane	5.297	94	307564	43.85	ug/L	98
13) chloroethane	5.449	64	317300	45.72	ug/L	99
14) trichlorofluoromethane	5.905	101	490199	51.23	ug/L	99
16) vinyl bromide	5.795	106	352886	43.50	ug/L	97
17) ethyl ether	6.288	74	134944	29.93	ug/L	95
18) 2-chloropropane	6.492	43	618835	51.18	ug/L	98
19) acrolein	6.560	56	65220	38.67	ug/L	99
20) freon 113	6.686	151	230237	54.10	ug/L	98
21) 1,1-dichloroethene	6.718	61	516809	52.18	ug/L	98
22) acetone	6.770	58	106250	133.48	ug/L	99
23) acetonitrile	7.216	41	421751	427.62	ug/L	98
24) iodomethane	7.006	142	341276	33.35	ug/L	99
25) carbon disulfide	7.132	76	765287	34.58	ug/L	99
26) methylene chloride	7.441	84	344882	46.33	ug/L	99
27) methyl acetate	7.232	43	209479	39.27	ug/L	98
28) methyl tert butyl ether	7.766	73	632211	31.15	ug/L	100
29) trans-1,2-dichloroethene	7.814	61	497252	50.21	ug/L	98
30) hexane	8.102	56	270384	53.31	ug/L	98
31) di-isopropyl ether	8.348	45	1193246	45.58	ug/L	95
32) ethyl tert-butyl ether	8.815	59	1091616	46.15	ug/L	99
33) 2-butanone	9.082	72	126309	170.02	ug/L	93
34) 1,1-dichloroethane	8.380	63	622700	48.29	ug/L	98
35) chloroprene	8.485	53	521461	51.28	ug/L	99
37) vinyl acetate	8.364	86	58917	42.48	ug/L #	88
38) ethyl acetate	9.098	45	40167	37.24	ug/L #	88
39) 2,2-dichloropropane	9.119	77	473173	46.26	ug/L	99
40) cis-1,2-dichloroethene	9.119	96	357708	47.32	ug/L	97
43) bromochloromethane	9.434	128	154409	45.47	ug/L	100
44) tetrahydrofuran	9.470	72	28101	31.66	ug/L	89
45) chloroform	9.486	83	523319	46.56	ug/L	98
46) t-butyl formate	9.507	59	5430	0.94	ug/L #	1
47) 1,1-dichloropropene	9.911	75	455916	49.99	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141960.d
Acq On : 29 Mar 2018 1:46 pm
Operator : sydneys
Sample : JC62879-11msd Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:39:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48)	carbon tetrachloride	9.937	117	391006	51.49	ug/L		98
49)	isopropyl acetate	10.089	87	61194	42.09	ug/L	#	92
51)	methacrylonitrile	9.371	67	85639	30.60	ug/L		99
52)	1,1,1-trichloroethane	9.738	97	460950	49.47	ug/L		100
53)	Cyclohexane	9.806	84	560794	52.04	ug/L	#	74
54)	iso-butyl alcohol	9.916	43	130544	438.27	ug/L		96
55)	Tert Amyl Alcohol	10.047	73	74850	202.51	ug/L		98
58)	2,2,4-trimethylpentane	10.162	57	1465179	51.90	ug/L		99
59)	n-butyl alcohol	10.671	56	443906	2342.26	ug/L		99
60)	benzene	10.178	78	1335085	46.43	ug/L		100
61)	tert-amyl methyl ether	10.199	73	1005653	44.62	ug/L		98
62)	heptane	10.330	57	278825	50.33	ug/L		98
63)	1,2-dichloroethane	10.199	62	367440	41.49	ug/L		96
64)	ethyl acrylate	10.886	55	347861	44.17	ug/L		99
65)	trichloroethene	10.886	95	310369	48.46	ug/L		98
69)	1,2-dichloropropane	11.153	63	350704	45.46	ug/L		99
70)	methylcyclohexane	11.101	83	668762	54.67	ug/L		98
71)	dibromomethane	11.316	93	167109	43.33	ug/L		98
72)	bromodichloromethane	11.442	83	381762	45.12	ug/L		97
73)	epichlorohydrin	11.804	57	78064	116.86	ug/L		96
74)	cis-1,3-dichloropropene	11.893	75	514820	44.91	ug/L		100
75)	4-methyl-2-pentanone	11.982	58	449197	179.64	ug/L		94
76)	3-methyl-1-butanol	12.003	70	164257	896.85	ug/L		94
79)	toluene	12.249	92	767400	47.59	ug/L		99
81)	trans-1,3-dichloropropene	12.454	75	430260	45.55	ug/L		100
82)	1,1,2-trichloroethane	12.663	83	210260	44.88	ug/L		100
83)	tetrachloroethene	12.831	164	240650	48.37	ug/L		98
84)	2-hexanone	12.826	58	404614	168.45	ug/L		98
85)	1,3-dichloropropane	12.847	76	444736	44.48	ug/L		98
86)	butyl acetate	12.899	56	184602	41.51	ug/L		98
88)	dibromochloromethane	13.109	129	252170	45.75	ug/L		97
89)	1,2-dibromoethane	13.261	107	248399	44.27	ug/L		99
90)	n-butyl ether	13.612	57	1513188	48.58	ug/L		99
91)	chlorobenzene	13.712	112	790715	45.73	ug/L		99
92)	1,1,1,2-tetrachloroethane	13.770	131	275000	47.54	ug/L		100
93)	ethylbenzene	13.759	91	1391429	47.00	ug/L		99
94)	m,p-xylene	13.864	106	1074491	95.90	ug/L		98
95)	o-xylene	14.283	91	1110570	46.75	ug/L		99
96)	styrene	14.294	104	869147	46.88	ug/L		99
97)	butyl acrylate	14.105	55	569834	45.72	ug/L		99
98)	bromoform	14.567	173	158018	45.08	ug/L		99
99)	isopropylbenzene	14.619	105	1378121	49.33	ug/L		99
100)	cis-1,4-dichloro-2-butene	14.698	75	114612	41.30	ug/L		97
103)	bromobenzene	15.023	156	324796	45.07	ug/L		95
104)	1,1,2,2-tetrachloroethane	14.928	83	318807	44.38	ug/L		97
106)	1,2,3-trichloropropane	15.007	110	80741	42.72	ug/L		98
107)	n-propylbenzene	15.023	91	1630003	47.76	ug/L		100
108)	2-chlorotoluene	15.175	126	325988	46.81	ug/L		97
109)	4-chlorotoluene	15.274	91	949662	45.92	ug/L		99
111)	1,3,5-trimethylbenzene	15.175	105	1131451	47.82	ug/L		99
112)	tert-butylbenzene	15.521	119	991968	49.00	ug/L		99
113)	1,2,4-trimethylbenzene	15.568	105	1137451	47.50	ug/L		99
114)	sec-butylbenzene	15.731	105	1492254	49.08	ug/L		99
115)	1,3-dichlorobenzene	15.919	146	623137	45.03	ug/L		98
116)	p-isopropyltoluene	15.846	119	1241975	48.92	ug/L		99
117)	1,4-dichlorobenzene	16.003	146	633596	44.14	ug/L		99
118)	1,2-dichlorobenzene	16.381	146	607712	45.11	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141960.d
Acq On : 29 Mar 2018 1:46 pm
Operator : sydneys
Sample : JC62879-11msd Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:39:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

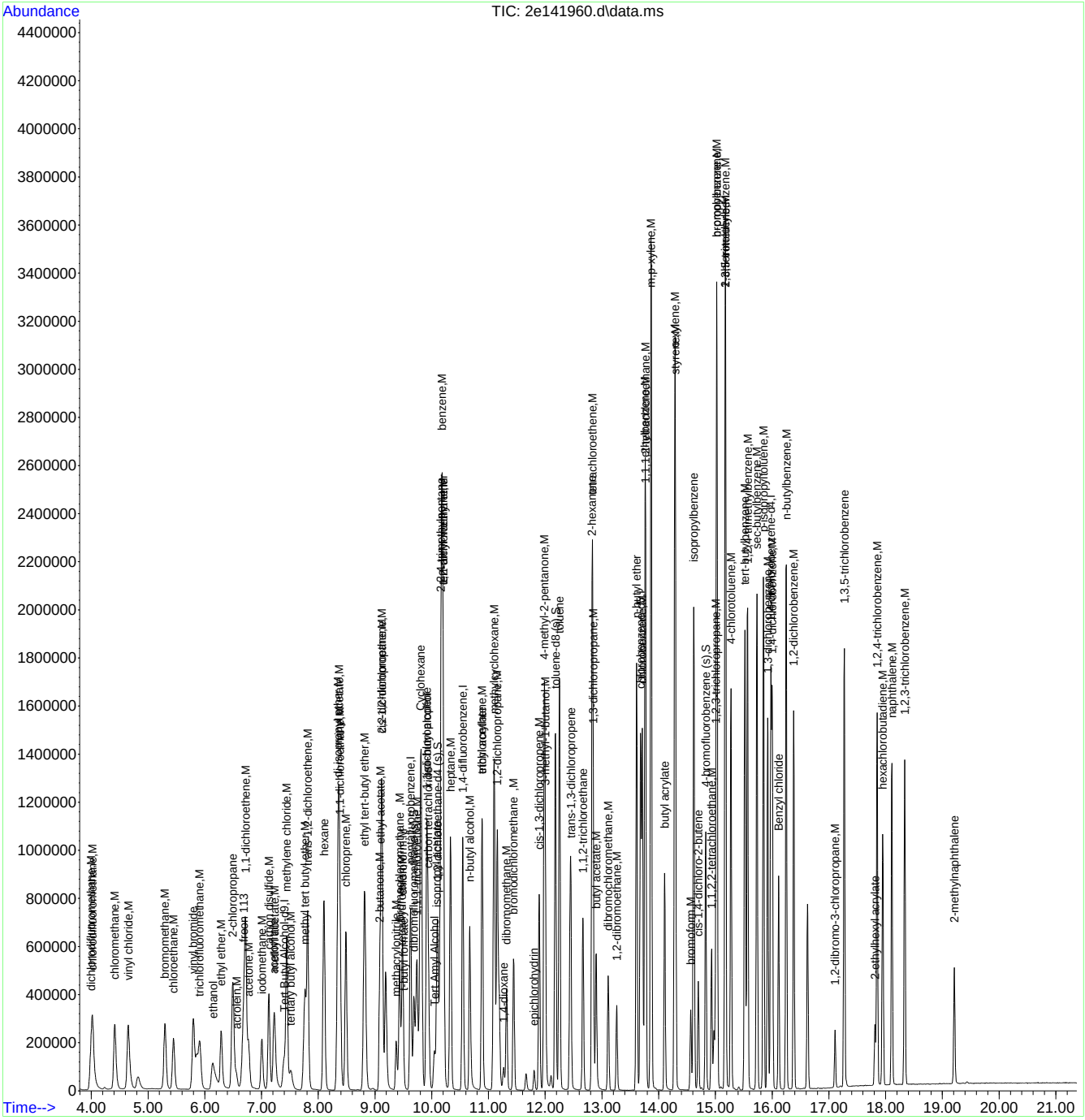
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
120) n-butylbenzene	16.250	92	668527	48.65	ug/L	98
122) 1,2-dibromo-3-chloropr...	17.109	75	56343	41.98	ug/L	98
123) 1,3,5-trichlorobenzene	17.272	180	561849	46.01	ug/L	99
124) 1,2,4-trichlorobenzene	17.849	180	475645	46.52	ug/L	98
125) 2-ethylhexyl acrylate	17.812	70	65625	7.98	ug/L	97
126) hexachlorobutadiene	17.948	225	236841	47.34	ug/L	99
127) naphthalene	18.111	128	990945	45.46	ug/L	99
128) 1,2,3-trichlorobenzene	18.336	180	422949	45.73	ug/L	99
130) Benzyl chloride	16.113	91	594338	40.97	ug/L	98
131) 2-methylnaphthalene	19.212	142	249665	21.45	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141960.d
Acq On : 29 Mar 2018 1:46 pm
Operator : sydneys
Sample : JC62879-11msd Inst : VOAMS2E
Misc : MS25160,V2E6206,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:39:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145307.d
Acq On : 29 Mar 2018 5:40 pm
Operator : EddieH
Sample : JC62879-12ms Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:43:41 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.003	65	141041	500.00	ug/L	-0.02
5) pentafluorobenzene	10.518	168	123793	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.491	114	171261	50.00	ug/L	0.00
75) chlorobenzene-d5	14.828	117	169394	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.318	152	104274	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.539	113	61467	52.04	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.08%			
55) 1,2-dichloroethane-d4 (s)	10.979	65	79848	56.06	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 112.12%			
76) toluene-d8 (s)	13.207	98	208466	47.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.28%			
100) 4-bromofluorobenzene (s)	16.078	95	80611	51.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.20%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.144	59	96883	240.67	ug/L	99
4) 1,4-dioxane	12.176	88	22947	803.44	ug/L	91
6) chlorodifluoromethane	4.227	51	142077	50.15	ug/L	97
7) dichlorodifluoromethane	4.206	85	159215	58.89	ug/L	97
8) chloromethane	4.624	50	127823	51.97	ug/L	99
9) vinyl chloride	4.901	62	143778	59.94	ug/L	99
11) bromomethane	5.602	94	100822	59.12	ug/L	98
12) chloroethane	5.780	64	74288	62.14	ug/L	96
13) trichlorofluoromethane	6.324	101	202416	63.02	ug/L	98
14) vinyl bromide	6.177	106	114412	63.10	ug/L	97
16) 2-chloropropane	6.983	43	123920	49.57	ug/L	99
17) acrolein	7.004	56	16594	56.28	ug/L	89
18) freon 113	7.265	151	82020	57.86	ug/L	94
19) 1,1-dichloroethene	7.218	96	69058	49.74	ug/L	93
20) acetone	7.244	58	32416	182.40	ug/L	93
21) acetonitrile	7.715	41	131467	483.93	ug/L	95
22) iodomethane	7.501	142	104577	34.18	ug/L	97
23) carbon disulfide	7.652	76	201125	36.29	ug/L	97
24) methylene chloride	8.039	84	74606	48.95	ug/L	100
25) methyl acetate	7.767	43	58904	49.59	ug/L	98
26) methyl tert butyl ether	8.458	73	170704	34.05	ug/L	96
27) trans-1,2-dichloroethene	8.479	96	63865	46.77	ug/L	94
28) hexane	8.887	56	42890	50.90	ug/L	98
29) di-isopropyl ether	9.138	45	223360	51.46	ug/L	95
30) 2-butanone	9.849	72	37180	184.62	ug/L	98
31) 1,1-dichloroethane	9.127	63	120376	49.19	ug/L	99
32) chloroprene	9.237	53	108028	51.48	ug/L	93
34) vinyl acetate	9.075	86	10873	53.28	ug/L #	73
35) ethyl tert-butyl ether	9.645	59	241812	50.34	ug/L	100
36) ethyl acetate	9.875	45	10583	47.21	ug/L #	72
37) 2,2-dichloropropane	9.954	77	151950	54.30	ug/L	95
38) cis-1,2-dichloroethene	9.917	96	72130	45.18	ug/L	92
41) methacrylonitrile	10.147	67	20494	33.00	ug/L	87
42) bromochloromethane	10.236	128	39735	50.21	ug/L	96
44) chloroform	10.335	83	129123	46.24	ug/L	99
45) tert-Butyl Formate	10.377	59	26064	36.97	ug/L	98
47) 1,1,1-trichloroethane	10.607	97	151307	53.26	ug/L	96
48) cyclohexane	10.722	84	111882	47.83	ug/L	88
49) isobutyl alcohol	10.775	43	59209	491.23	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145307.d
Acq On : 29 Mar 2018 5:40 pm
Operator : EddieH
Sample : JC62879-12ms Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:43:41 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) 1,1-dichloropropene	10.785	75	92290	49.65	ug/L		100
51) carbon tetrachloride	10.811	117	139714	54.71	ug/L		99
52) tert-amyl alcohol	10.958	73	44474	217.98	ug/L		98
53) isopropyl acetate	10.979	87	16518	52.05	ug/L	#	88
56) n-butyl alcohol	11.559	56	174219	2226.14	ug/L		96
57) 2,2,4-Trimethylpentane	11.157	57	290783	57.85	ug/L		96
58) benzene	11.047	78	241422	45.04	ug/L		98
59) tert-amyl methyl ether	11.146	73	237591	48.56	ug/L		98
60) heptane	11.329	57	48778	56.45	ug/L		97
61) 1,2-dichloroethane	11.073	62	108056	49.06	ug/L		96
62) ethyl acrylate	11.810	55	84620	53.17	ug/L		98
63) trichloroethene	11.810	95	66708	47.53	ug/L		97
66) methylcyclohexane	12.124	83	145385	51.60	ug/L		97
67) 1,2-dichloropropane	12.114	63	65778	50.03	ug/L		97
68) dibromomethane	12.229	93	45118	50.66	ug/L		99
69) bromodichloromethane	12.396	83	103481	50.87	ug/L		99
71) epichlorohydrin	12.736	57	36882	205.40	ug/L		96
72) cis-1,3-dichloropropene	12.877	75	106108	50.30	ug/L		93
73) 4-methyl-2-pentanone	12.992	58	150445	228.50	ug/L		93
74) isoamyl alcohol	13.003	70	80513	993.66	ug/L		95
77) toluene	13.285	92	155156	44.36	ug/L		96
79) trans-1,3-dichloropropene	13.484	75	103366	46.68	ug/L		90
80) 1,1,2-trichloroethane	13.725	83	48716	45.56	ug/L		97
81) tetrachloroethene	13.876	164	62696	47.05	ug/L		97
82) 2-hexanone	13.902	58	128127	196.83	ug/L		91
83) 1,3-dichloropropane	13.913	76	96027	46.88	ug/L		94
84) butyl acetate	13.986	56	47198	48.90	ug/L	#	83
86) dibromochloromethane	14.180	129	80499	46.68	ug/L		96
87) 1,2-dibromoethane	14.342	107	66257	46.36	ug/L		93
88) n-butyl ether	14.823	57	295235	47.95	ug/L		100
89) chlorobenzene	14.860	112	182556	45.60	ug/L		98
90) 1,1,1,2-tetrachloroethane	14.933	131	96572	47.22	ug/L		96
91) ethylbenzene	14.928	91	330248	47.24	ug/L		100
92) m,p-xylene	15.058	106	245424	94.66	ug/L		100
93) o-xylene	15.487	91	305913	48.60	ug/L		97
94) styrene	15.498	104	201820	47.41	ug/L		98
95) butyl acrylate	15.304	55	146528	49.22	ug/L		99
96) isopropylbenzene	15.864	105	401853	50.00	ug/L		98
97) bromoform	15.749	173	63749	48.68	ug/L		96
98) cis-1,4-dichloro-2-butene	15.900	88	34696	39.27	ug/L		93
101) 1,1,2,2-tetrachloroethane	16.162	83	111622	51.96	ug/L		98
103) 1,2,3-trichloropropane	16.256	110	32586	52.15	ug/L		99
104) bromobenzene	16.277	156	91918	49.77	ug/L		98
105) n-propylbenzene	16.308	91	431113	51.39	ug/L		98
106) 2-chlorotoluene	16.450	126	94126	50.66	ug/L		96
107) 4-chlorotoluene	16.570	91	242013	48.55	ug/L		99
108) 1,3,5-trimethylbenzene	16.476	105	356445	52.08	ug/L		99
109) tert-butylbenzene	16.837	119	304006	50.63	ug/L		98
110) 1,2,4-trimethylbenzene	16.889	105	352246	51.26	ug/L		99
111) sec-butylbenzene	17.067	105	473474	52.62	ug/L		99
112) p-isopropyltoluene	17.203	119	410162	52.45	ug/L		98
113) 1,3-dichlorobenzene	17.245	146	186225	47.82	ug/L		97
114) 1,4-dichlorobenzene	17.344	146	183805	46.15	ug/L		98
115) 1,2-dichlorobenzene	17.731	146	207961	48.39	ug/L		99
116) Benzyl Chloride	17.438	91	262954	53.05	ug/L		96
117) n-butylbenzene	17.626	92	199642	50.20	ug/L		98
119) 1,2-dibromo-3-chloropr...	18.505	157	41714	47.38	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145307.d
Acq On : 29 Mar 2018 5:40 pm
Operator : EddieH
Sample : JC62879-12ms Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:43:41 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

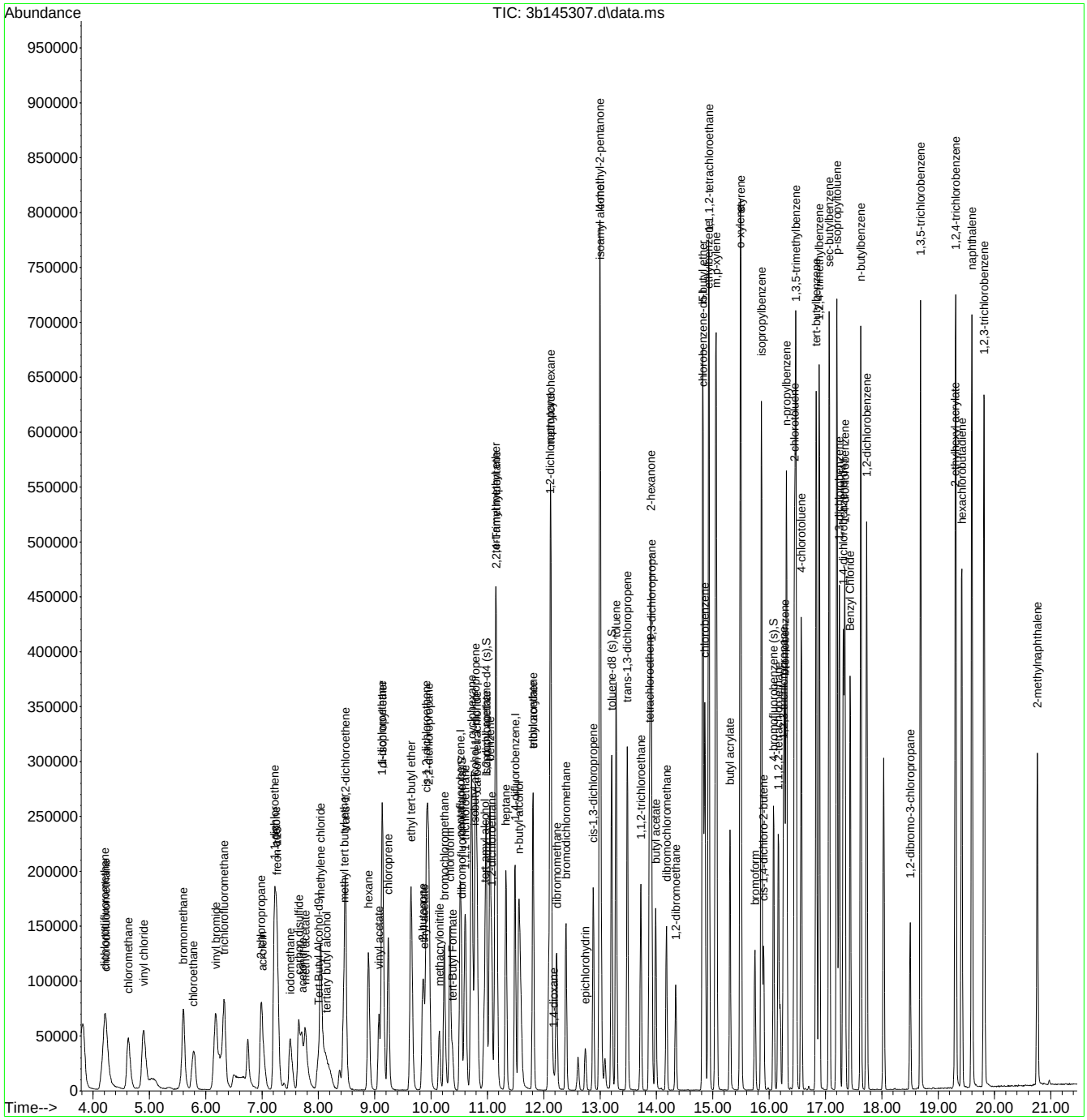
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
120) 1,3,5-trichlorobenzene	18.688	180	225800	47.06	ug/L	97
121) 2-ethylhexyl acrylate	19.300	70	23209	8.79	ug/L	93
122) 1,2,4-trichlorobenzene	19.311	180	216848	47.83	ug/L	96
123) hexachlorobutadiene	19.420	225	104144	51.42	ug/L	98
124) naphthalene	19.598	128	544355	45.51	ug/L	100
125) 1,2,3-trichlorobenzene	19.818	180	214422	46.60	ug/L	96
126) 2-methylnaphthalene	20.759	142	151448	20.72	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145307.d
Acq On : 29 Mar 2018 5:40 pm
Operator : EddieH
Sample : JC62879-12ms Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:43:41 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-02-18\v4b3335\
Data File : 4b80680.d
Acq On : 30 Mar 2018 2:10 pm
Operator : HueanhT
Sample : JC62880-23MS Inst : MS4B
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Results File: M4B3310.RES
Quant Time: Apr 02 01:12:55 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.796	65	114081	500.00	ug/L	0.01
5) pentafluorobenzene	8.773	168	237143	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.646	114	302841	50.00	ug/L	0.00
75) chlorobenzene-d5	12.831	117	292344	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.405	152	188821	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.825	113	102050	48.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.78%			
55) 1,2-dichloroethane-d4 (s)	9.212	65	92765	47.06	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.12%			
76) toluene-d8 (s)	11.241	98	340060	46.93	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.86%			
99) 4-bromofluorobenzene (s)	14.108	95	138977	46.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.18%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.885	59	68055	230.26	ug/L	99
4) 1,4-dioxane	10.269	88	31027	1164.85	ug/L	94
6) chlorodifluoromethane	3.909	51	295267	52.35	ug/L	99
7) dichlorodifluoromethane	3.888	85	310496	53.81	ug/L	95
8) chloromethane	4.254	50	339219	50.15	ug/L	98
9) vinyl chloride	4.463	62	322756	51.93	ug/L	99
11) bromomethane	4.991	94	204708	49.64	ug/L	97
12) chloroethane	5.133	64	160885	51.26	ug/L	100
13) trichlorofluoromethane	5.540	101	298568	53.02	ug/L	99
14) vinyl bromide	5.425	106	217874	58.20	ug/L	99
16) 2-chloropropane	6.032	43	275677	47.24	ug/L	99
17) acrolein	6.037	56	24034	46.82	ug/L	93
18) freon 113	6.226	151	155250	57.37	ug/L	96
19) 1,1-dichloroethene	6.210	61	245213	49.38	ug/L	98
20) acetone	6.210	58	39152	122.81	ug/L	86
21) acetonitrile	6.581	41	187072	463.34	ug/L	96
23) carbon disulfide	6.576	76	386128	35.40	ug/L	99
24) methylene chloride	6.822	84	163871	50.83	ug/L	99
25) methyl acetate	6.581	43	77508	43.84	ug/L	97
26) methyl tert butyl ether	7.130	73	274672	32.53	ug/L	99
27) trans-1,2-dichloroethene	7.162	61	206893	49.73	ug/L	98
28) hexane	7.455	56	109105	50.48	ug/L	96
29) di-isopropyl ether	7.643	45	501869	45.58	ug/L	97
30) 2-butanone	8.234	72	38788	147.78	ug/L #	85
31) 1,1-dichloroethane	7.669	63	245551	48.92	ug/L	99
32) chloroprene	7.753	53	164410	41.48	ug/L	97
34) vinyl acetate	7.585	86	14213	47.25	ug/L #	86
35) ethyl tert-butyl ether	8.056	59	457112	46.79	ug/L	98
36) ethyl acetate	8.234	45	13724	41.40	ug/L #	59
37) 2,2-dichloropropane	8.349	77	249101	53.20	ug/L	98
38) cis-1,2-dichloroethene	8.307	96	146644	49.69	ug/L	97
41) methacrylonitrile	8.485	67	25567	29.11	ug/L	93
42) bromochloromethane	8.574	128	69501	50.93	ug/L	98
44) chloroform	8.647	83	222153	47.44	ug/L	99
45) tert-Butyl Formate	8.684	59	98623	47.66	ug/L	98
47) 1,1,1-trichloroethane	8.904	97	248019	52.18	ug/L	100
48) cyclohexane	9.008	84	254841	50.28	ug/L	88
50) 1,1-dichloropropene	9.045	75	152659	44.59	ug/L	98
51) carbon tetrachloride	9.087	117	209412	52.90	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-02-18\v4b3335\
Data File : 4b80680.d
Acq On : 30 Mar 2018 2:10 pm
Operator : HueanhT
Sample : JC62880-23MS Inst : MS4B
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Results File: M4B3310.RES
Quant Time: Apr 02 01:12:55 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52)	tert-amyl alcohol	9.144	73	29631	238.31	ug/L	#	85
53)	isopropyl acetate	9.160	87	17702	44.42	ug/L		98
56)	n-butyl alcohol	9.678	56	155034	2388.35	ug/L		97
57)	2,2,4-Trimethylpentane	9.353	57	637083	52.96	ug/L		98
58)	benzene	9.275	78	470324	48.42	ug/L		98
59)	tert-amyl methyl ether	9.338	73	391335	49.45	ug/L		98
60)	heptane	9.489	57	105761	49.67	ug/L		99
61)	1,2-dichloroethane	9.296	62	127169	44.65	ug/L		100
62)	ethyl acrylate	9.913	55	104927	45.77	ug/L		99
63)	trichloroethene	9.944	95	115872	47.86	ug/L		99
66)	methylcyclohexane	10.237	83	309465	54.87	ug/L		98
67)	1,2-dichloropropane	10.227	63	121391	47.54	ug/L		99
68)	dibromomethane	10.337	93	64496	47.79	ug/L		98
69)	bromodichloromethane	10.478	83	150051	50.93	ug/L		100
71)	epichlorohydrin	10.792	57	45542	232.11	ug/L		99
72)	cis-1,3-dichloropropene	10.928	75	177548	48.61	ug/L		93
73)	4-methyl-2-pentanone	11.022	58	154931	192.49	ug/L		93
74)	isoamyl alcohol	11.017	70	60039	1173.13	ug/L	#	88
77)	toluene	11.315	92	273582	46.18	ug/L		99
79)	trans-1,3-dichloropropene	11.503	75	145806	47.15	ug/L		93
80)	1,1,2-trichloroethane	11.738	83	78880	47.27	ug/L		98
81)	tetrachloroethene	11.890	164	110381	50.04	ug/L		97
82)	2-hexanone	11.900	58	132797	159.22	ug/L		95
83)	1,3-dichloropropane	11.927	76	142047	44.67	ug/L		94
84)	butyl acetate	11.979	56	62066	46.91	ug/L		98
85)	dibromochloromethane	12.188	129	113610	52.45	ug/L		98
86)	1,2-dibromoethane	12.355	107	102582	48.91	ug/L		99
87)	n-butyl ether	12.810	57	572731	48.34	ug/L		99
88)	chlorobenzene	12.868	112	311402	48.19	ug/L		98
89)	1,1,1,2-tetrachloroethane	12.936	131	134217	51.55	ug/L		98
90)	ethylbenzene	12.931	91	538820	46.46	ug/L		98
91)	m,p-xylene	13.062	106	397521	90.21	ug/L		97
92)	o-xylene	13.496	91	451133	44.91	ug/L		99
93)	styrene	13.511	104	241934	32.66	ug/L		100
94)	butyl acrylate	13.307	55	211747	48.02	ug/L		96
95)	isopropylbenzene	13.883	105	650776	50.07	ug/L		100
96)	bromoform	13.768	173	79199	55.59	ug/L		97
97)	cis-1,4-dichloro-2-butene	13.925	88	30480	39.58	ug/L		97
100)	1,1,2,2-tetrachloroethane	14.191	83	141023	47.25	ug/L		97
102)	1,2,3-trichloropropane	14.291	110	34603	46.89	ug/L		93
103)	bromobenzene	14.312	156	161190	47.52	ug/L		94
104)	n-propylbenzene	14.343	91	715083	45.91	ug/L		98
105)	2-chlorotoluene	14.489	126	154855	47.02	ug/L		98
106)	4-chlorotoluene	14.615	91	407022	44.91	ug/L		99
108)	1,3,5-trimethylbenzene	14.516	105	424986	36.86	ug/L		98
109)	tert-butylbenzene	14.892	119	475094	47.36	ug/L		98
110)	1,2,4-trimethylbenzene	14.950	105	447973	38.01	ug/L		99
111)	sec-butylbenzene	15.138	105	762303	47.35	ug/L		100
112)	p-isopropyltoluene	15.279	119	628364	46.33	ug/L		99
113)	1,3-dichlorobenzene	15.326	146	319070	46.50	ug/L		98
114)	1,4-dichlorobenzene	15.431	146	314649	46.17	ug/L		99
115)	1,2-dichlorobenzene	15.844	146	335939	47.24	ug/L		100
116)	Benzyl Chloride	15.535	91	301440	55.21	ug/L		100
118)	n-butylbenzene	15.739	92	338943	46.84	ug/L		98
121)	1,2-dibromo-3-chloropr...	16.691	157	40275	54.51	ug/L		97
122)	1,3,5-trichlorobenzene	16.890	180	367033	47.92	ug/L		100
123)	1,2,4-trichlorobenzene	17.575	180	319968	47.62	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-02-18\v4b3335\
Data File : 4b80680.d
Acq On : 30 Mar 2018 2:10 pm
Operator : HueanhT
Sample : JC62880-23MS Inst : MS4B
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Results File: M4B3310.RES
Quant Time: Apr 02 01:12:55 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

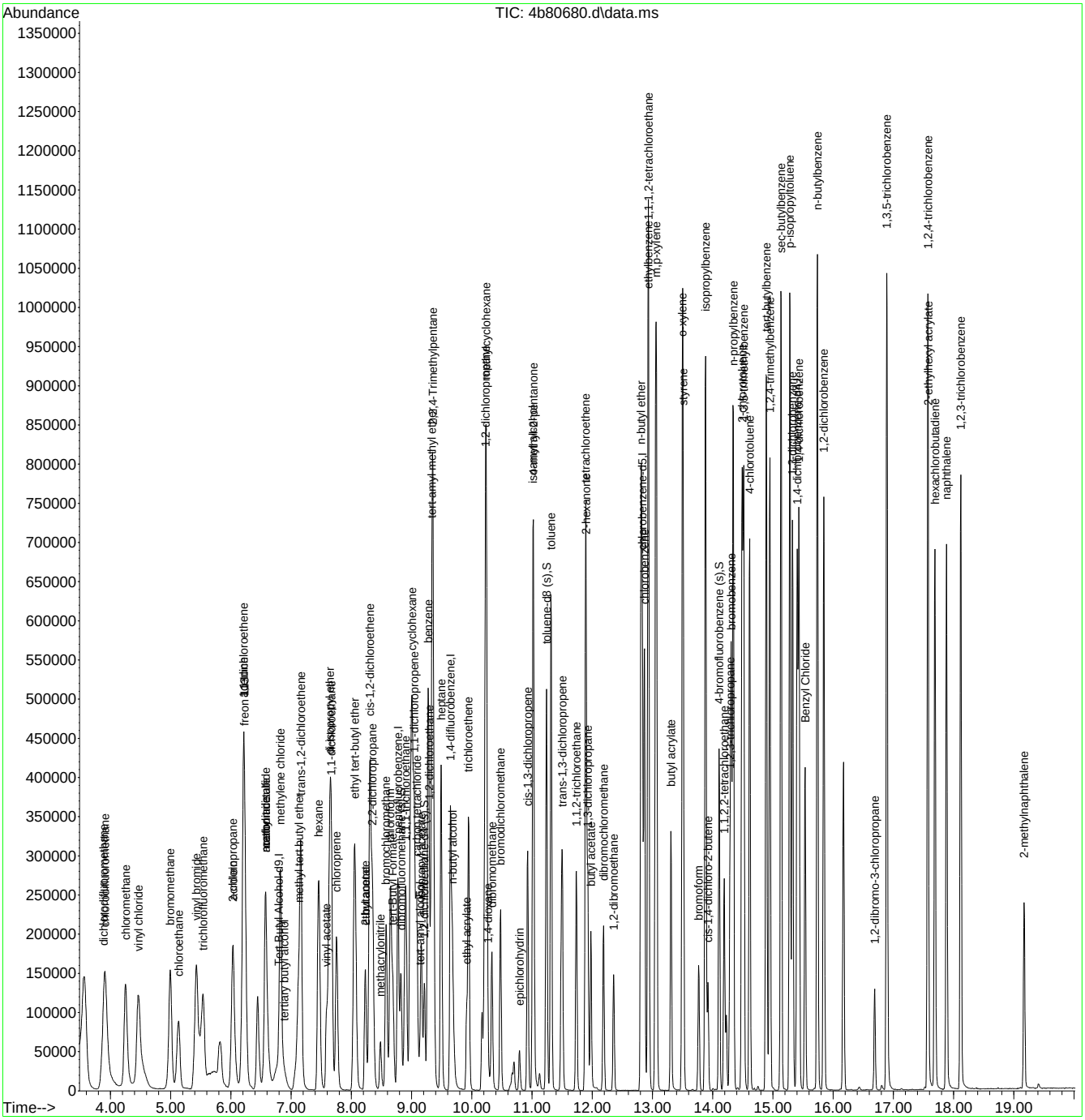
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
124) 2-ethylhexyl acrylate	17.580	70	28109	7.41	ug/L	97
125) hexachlorobutadiene	17.690	225	164648	46.69	ug/L	99
126) naphthalene	17.884	128	566311	47.63	ug/L	98
127) 1,2,3-trichlorobenzene	18.119	180	282673	48.16	ug/L	98
128) 2-methylnaphthalene	19.170	142	131534	19.32	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-02-18\v4b3335\
Data File : 4b80680.d
Acq On : 30 Mar 2018 2:10 pm
Operator : HueanhT
Sample : JC62880-23MS Inst : MS4B
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Results File: M4B3310.RES
Quant Time: Apr 02 01:12:55 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Owen McKenna 04/03/18 11:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145309.d
Acq On : 29 Mar 2018 6:36 pm
Operator : EddieH
Sample : JC62879-13dup Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:45:13 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.003	65	147347	500.00	ug/L	-0.02
5) pentafluorobenzene	10.513	168	118492	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.492	114	160317	50.00	ug/L	0.00
75) chlorobenzene-d5	14.828	117	148380	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.318	152	100425	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.534	113	60407	53.43	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.86%			
55) 1,2-dichloroethane-d4 (s)	10.979	65	75842	56.88	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 113.76%			
76) toluene-d8 (s)	13.202	98	186098	48.55	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.10%			
100) 4-bromofluorobenzene (s)	16.078	95	73829	48.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.20%			
Target Compounds						Qvalue
26) methyl tert butyl ether	8.442	73	1601m	0.33	ug/L	

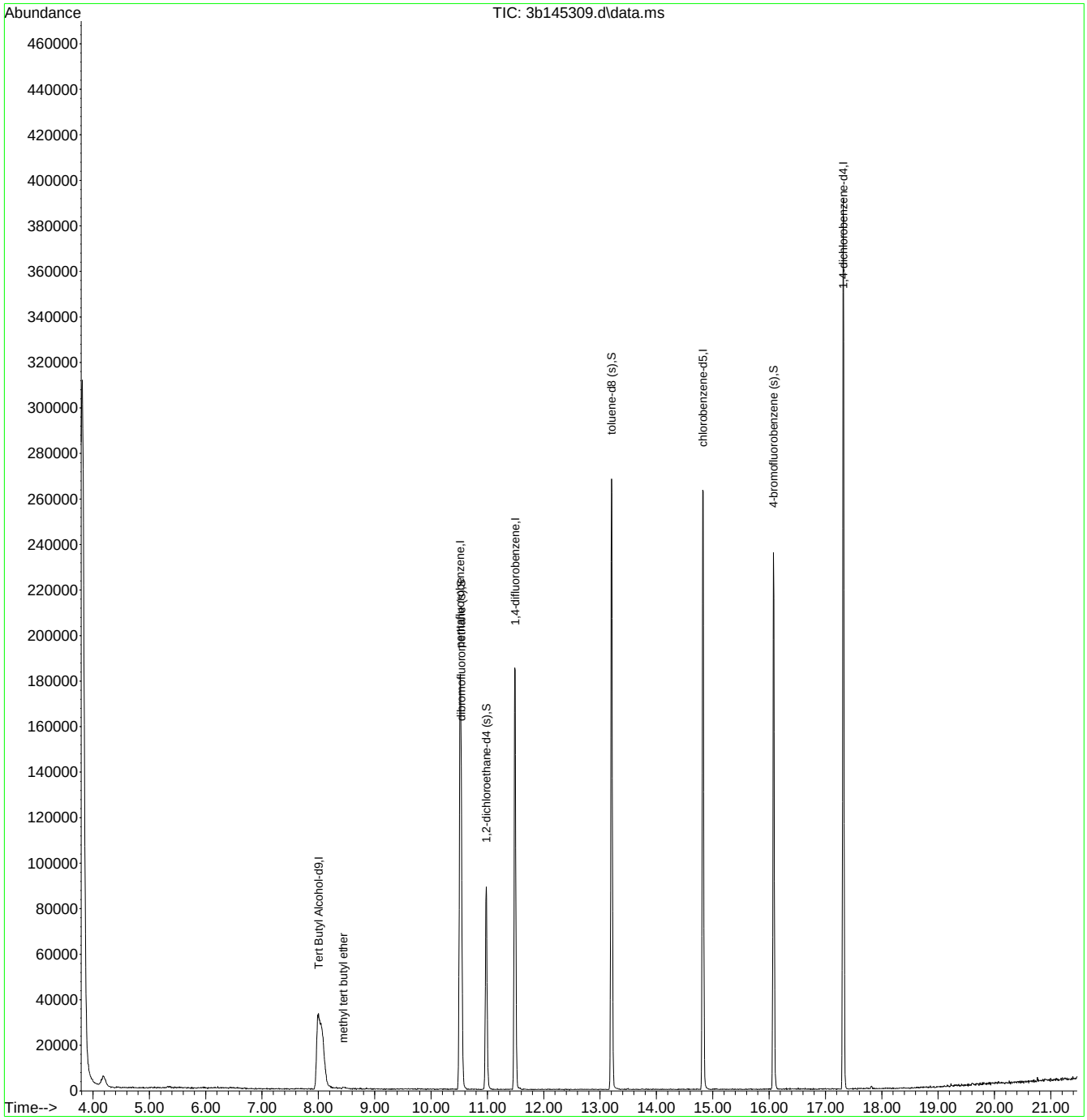
(#) = qualifier out of range (m) = manual integration (+) = signals summed

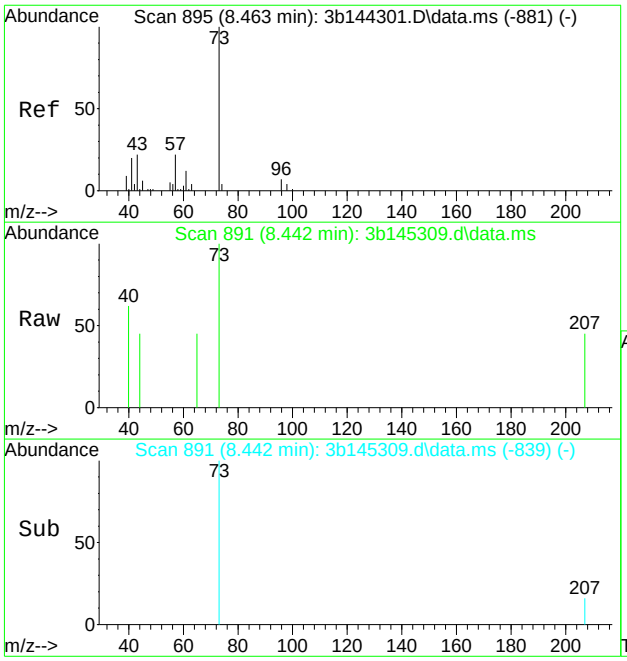
7.5.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145309.d
Acq On : 29 Mar 2018 6:36 pm
Operator : EddieH
Sample : JC62879-13dup Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:45:13 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

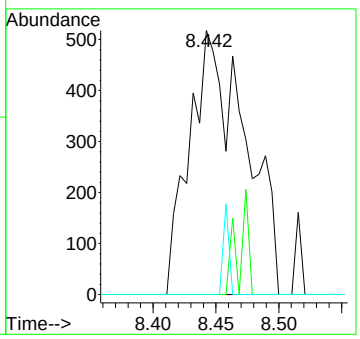




#26
methyl tert butyl ether
Concen: 0.33 ug/L m
RT: 8.442 min Scan# 891
Delta R.T. -0.026 min
Lab File: 3b145309.d
Acq: 29 Mar 2018 6:36 pm

Tgt Ion: 73 Resp: 1601

Ion	Ratio	Lower	Upper
73	100		
57	0.0	0.0	50.8
43	0.0	0.0	50.9



Manual Integration Approval Summary

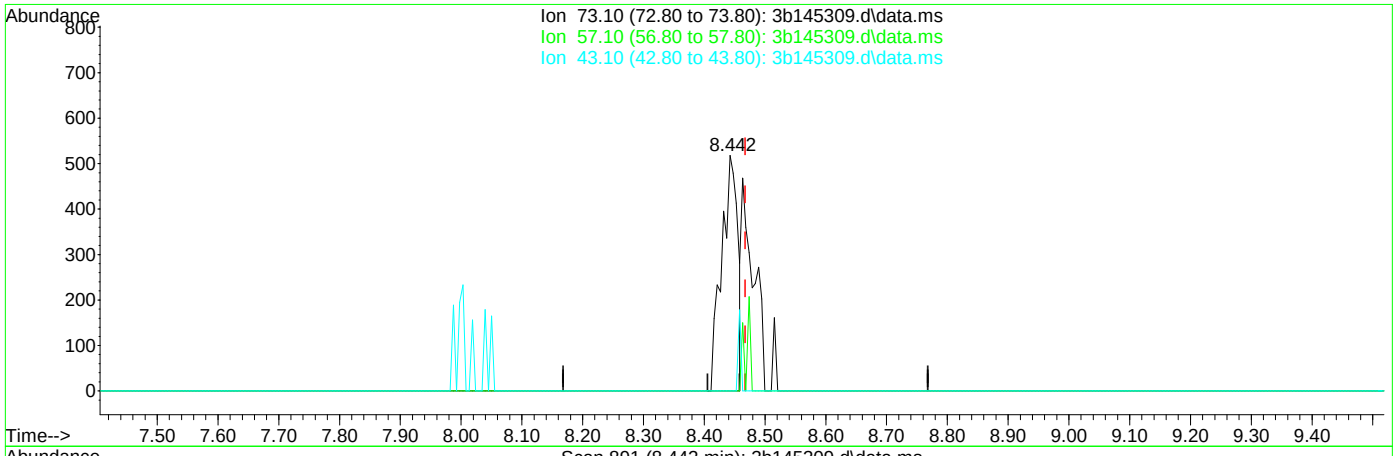
Sample Number:	JC62879-13DUP	**Method:**	SW846 8260C
Lab FileID:	3B145309.D	**Analyst approved:**	04/03/18 02:02 Janelle Cordova
Injection Time:	03/29/18 18:36	**Supervisor approved:**	04/03/18 11:39 Owen McKenna

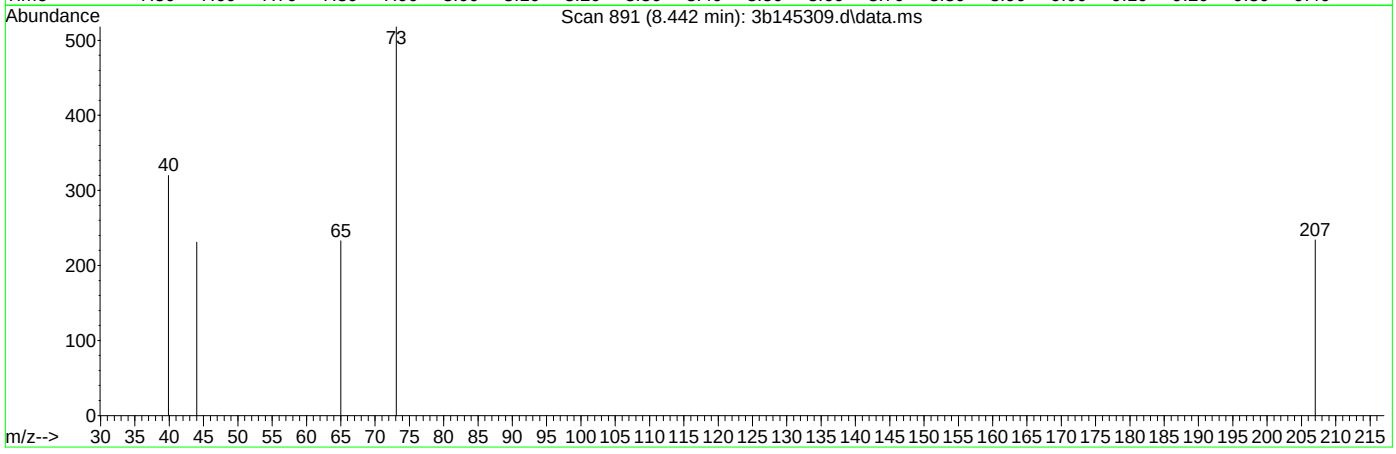
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methyl Tert Butyl Ether	1634-04-4		8.44	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145309.d
Acq On : 29 Mar 2018 6:36 pm
Operator : EddieH
Sample : JC62879-13dup Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:44:14 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration





TIC: 3b145309.d\data.ms

(26) methyl tert butyl ether

8.442min (-0.026) 0.20ug/L

response 951

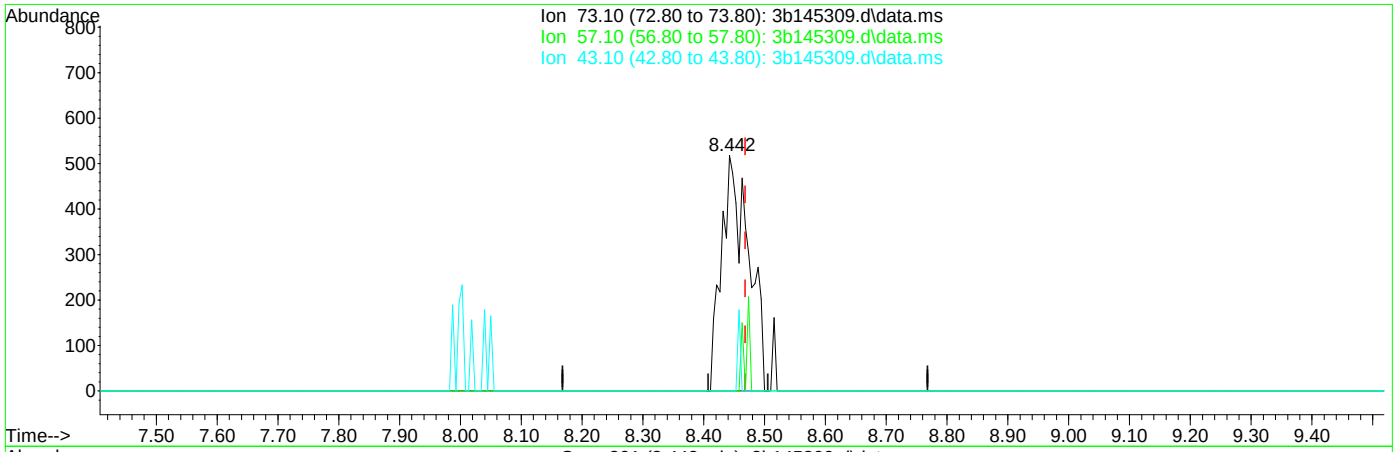
Ion	Exp%	Act%
73.10	100	100
57.10	20.80	0.00
43.10	20.90	0.00
0.00	0.00	0.00

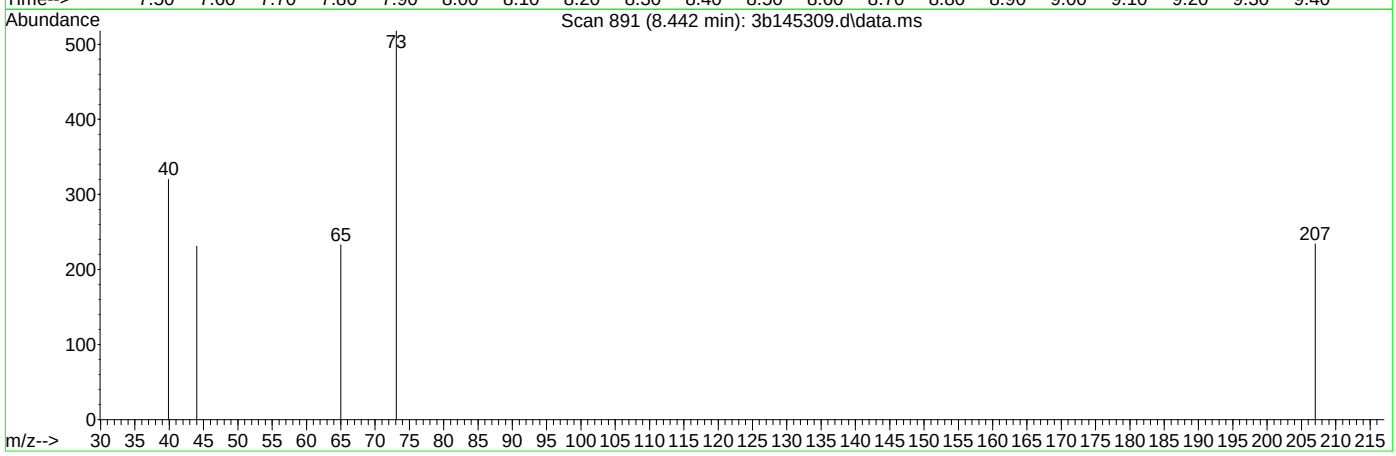
3B145309.D edits: methyl tert butyl ether

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145309.d
Acq On : 29 Mar 2018 6:36 pm
Operator : EddieH
Sample : JC62879-13dup Inst : MS3B
Misc : MS25167,V3B6426,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:44:14 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration





TIC: 3b145309.d\data.ms

(26) methyl tert butyl ether

8.442min (-0.026) 0.33ug/L m

response 1601

Ion	Exp%	Act%
73.10	100	100
57.10	20.80	0.00
43.10	20.90	0.00
0.00	0.00	0.00

3B145309.D edits: methyl tert butyl ether

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-02-18\v4b3335\
Data File : 4b80682.d
Acq On : 30 Mar 2018 3:06 pm
Operator : HueanhT
Sample : jc62880-24DUP Inst : MS4B
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Results File: M4B3310.RES
Quant Time: Apr 02 01:13:53 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

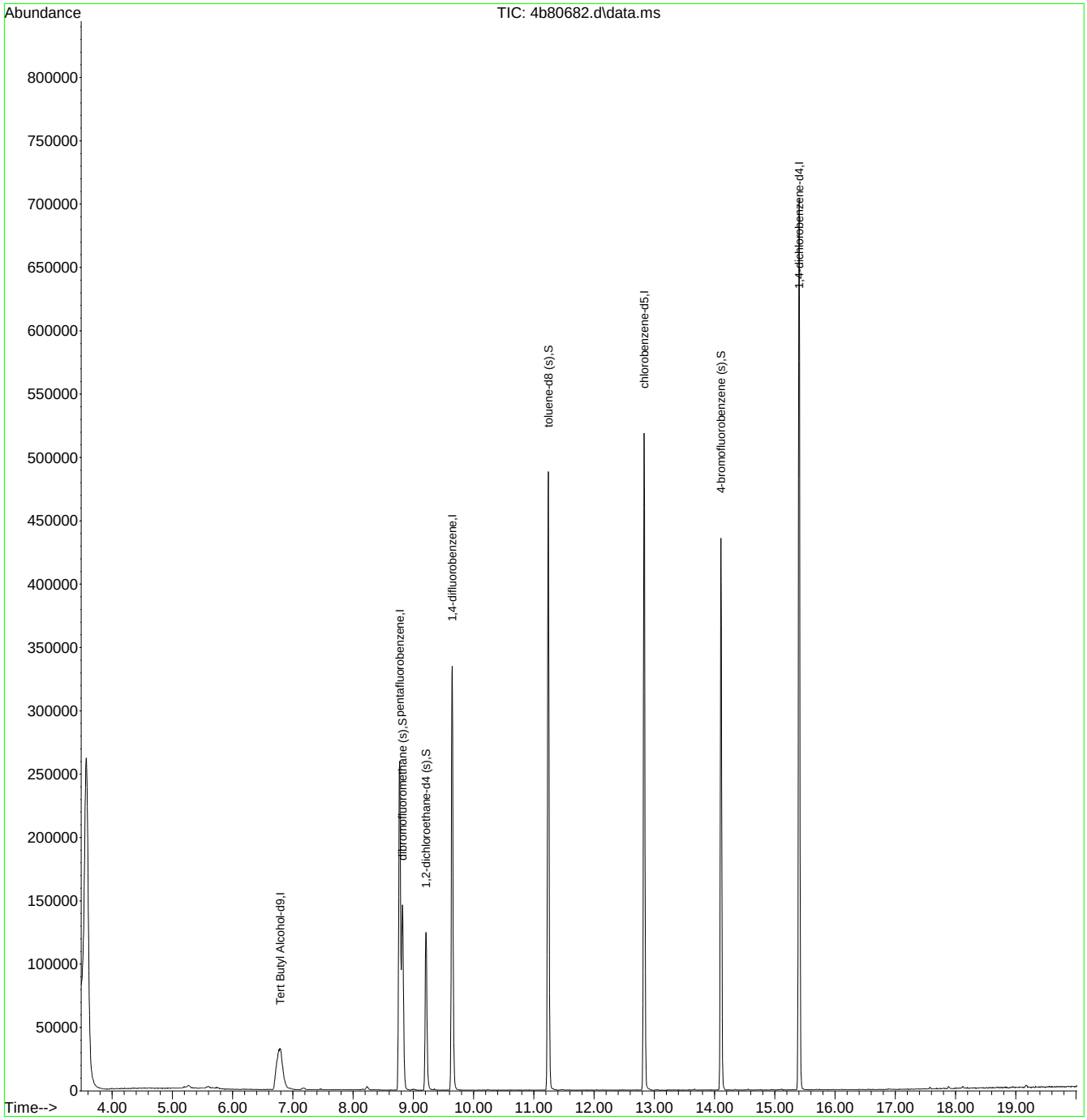
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.791	65	130952	500.00	ug/L	0.00
5) pentafluorobenzene	8.773	168	227326	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.646	114	287633	50.00	ug/L	0.00
75) chlorobenzene-d5	12.832	117	292195	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.405	152	195338	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.820	113	97662	48.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.62%			
55) 1,2-dichloroethane-d4 (s)	9.212	65	92591	49.45	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.90%			
76) toluene-d8 (s)	11.242	98	323292	44.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.28%			
99) 4-bromofluorobenzene (s)	14.108	95	139857	45.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.64%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-02-18\v4b3335\
Data File : 4b80682.d
Acq On : 30 Mar 2018 3:06 pm
Operator : HueanhT
Sample : jc62880-24DUP Inst : MS4B
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

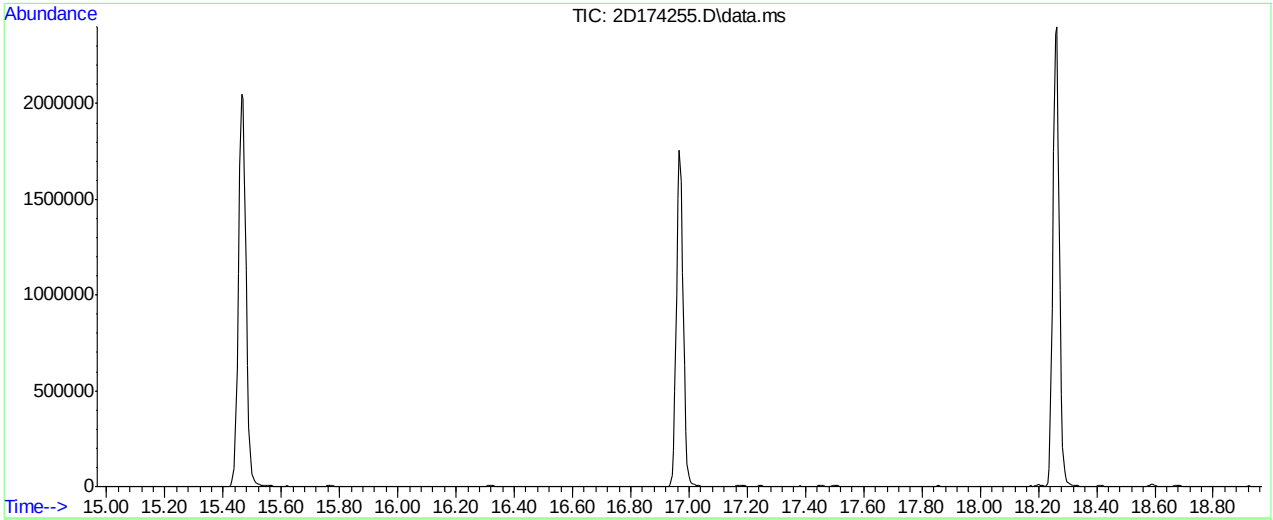
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Results File: M4B3310.RES
Quant Time: Apr 02 01:13:53 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration



BFB

Data File : C:\msdchem\1\DATA\V2D7334\2D174255.D Vial: 1
Acq On : 17 Mar 2018 10:18 am Operator: OyinadeI
Sample : BFB Inst : MS2D
Misc : MS24683,V2D7334,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7334.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2533, 2534, 2535; Background Corrected with Scan 2524

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	61592	PASS
75	95	30	60	46.9	153749	PASS
95	95	100	100	100.0	327765	PASS
96	95	5	9	6.4	21136	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	91.6	300202	PASS
175	174	5	9	7.6	22866	PASS
176	174	95	101	98.2	294784	PASS
177	176	5	9	6.6	19416	PASS

2D174255.D M2D7334.M Fri Mar 23 15:57:02 2018 GCMS2D

Average of 16.962 to 16.973 min.: 2D174255.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	3112	49.00	12801	62.00	13519	75.00	153749
37.05	16246	50.00	61592	63.00	9877	76.00	13087
38.00	14131	51.00	18586	64.00	940	76.95	1849
39.05	5293	52.05	788	67.05	813	78.00	1248
39.95	188	55.00	679	68.00	30829	78.90	6949
42.95	103	56.00	4306	69.00	31154	79.95	1918
44.00	1604	57.00	7780	70.00	2180	80.90	7129
45.00	2751	58.00	330	71.00	46	81.95	1392
46.05	193	59.00	49	72.00	1608	82.95	150
47.00	5274	60.00	2833	73.00	13508	86.00	440
48.00	1809	61.00	13769	74.00	50344	87.00	15124

Average of 16.962 to 16.973 min.: 2D174255.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.00	14533	105.85	1289	118.90	1379	136.90	513
90.90	1025	106.85	269	123.85	205	138.80	43
92.00	8046	109.90	161	125.00	104	139.85	255
93.00	12151	110.95	181	125.90	41	140.90	2910
94.00	35384	111.80	51	127.90	1006	141.95	351
95.00	327765	112.00	44	128.90	500	142.90	2900
96.00	21136	112.85	200	129.90	1110	143.90	152
97.00	648	114.85	315	130.95	396	144.90	224
102.85	124	115.90	1001	133.05	112	145.85	467
103.90	1133	116.90	1739	134.90	542	146.90	212
104.90	409	117.90	1075	135.80	42	147.90	734

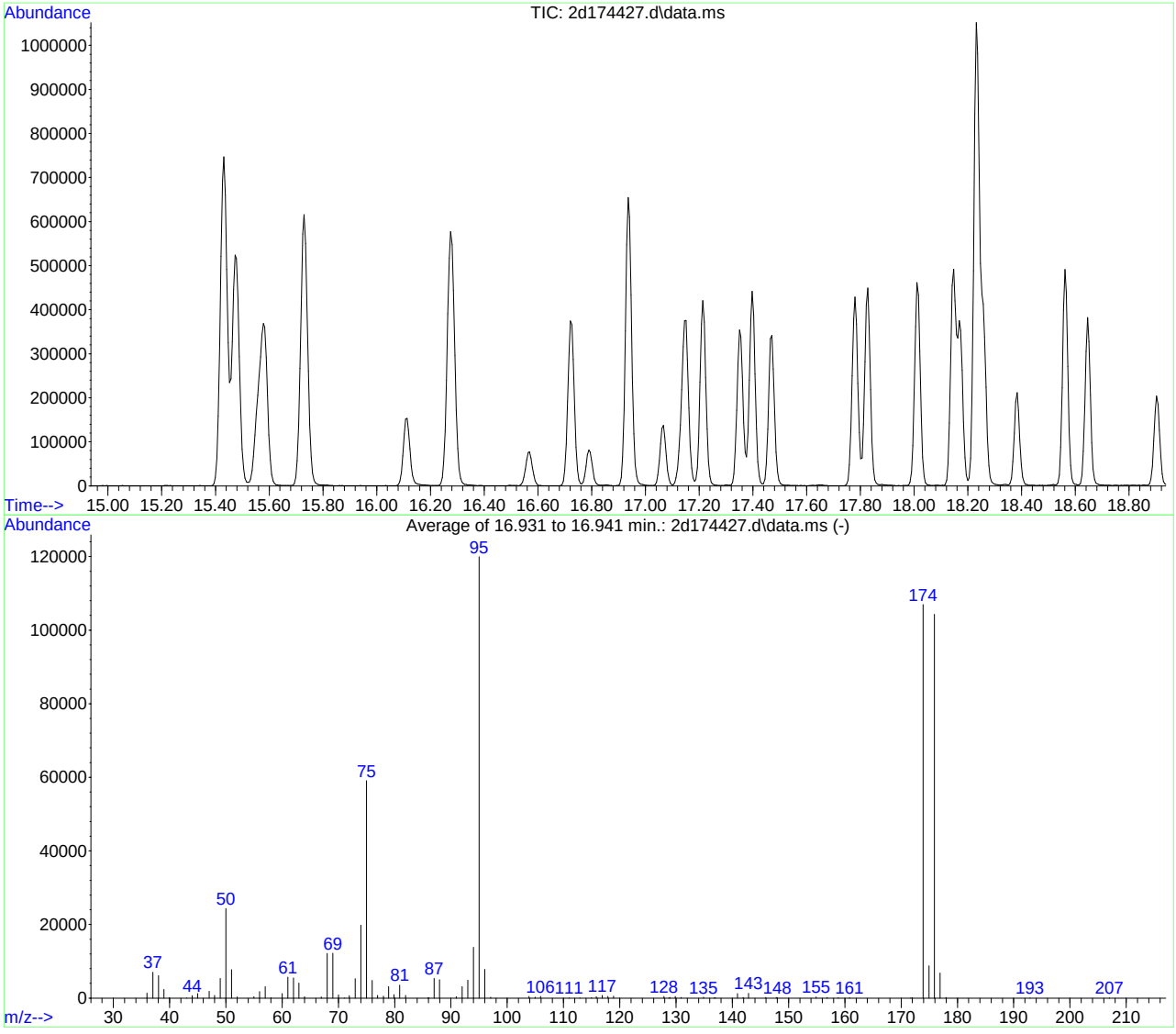
Average of 16.962 to 16.973 min.: 2D174255.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
148.90	240	170.85	97				
149.90	305	173.90	300202				
151.90	178	175.00	22866				
152.90	235	175.90	294784				
153.85	174	176.90	19416				
154.90	842	177.90	532				
156.90	619	190.90	55				
158.95	353	193.00	110				
160.85	413	206.80	44				
169.80	40	249.10	61				
170.30	45						

BFB

Data File : C:\msdchem\1\data\v2d7344\2d174427.d Vial: 2
Acq On : 27 Mar 2018 7:47 am Operator: JessicaP
Sample : bfb Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7334.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2527, 2528, 2529; Background Corrected with Scan 2518

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.3	24373	PASS
75	95	30	60	49.3	59099	PASS
95	95	100	100	100.0	119931	PASS
96	95	5	9	6.5	7799	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	89.2	106936	PASS
175	174	5	9	8.2	8787	PASS
176	174	95	101	97.5	104296	PASS
177	176	5	9	6.5	6802	PASS

2d174427.d M2D7334.M Fri Mar 30 11:02:04 2018

Average of 16.931 to 16.941 min.: 2d174427.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1361	50.00	24373	64.00	413	76.95	714
37.05	6994	51.00	7747	66.95	349	78.00	523
38.05	6085	52.00	315	68.00	12119	78.90	3123
39.00	2312	55.00	368	69.00	12221	79.90	917
39.95	95	56.00	1781	70.00	887	80.90	3503
43.00	41	57.00	3131	71.10	42	81.95	717
44.00	682	58.05	135	71.95	679	85.90	57
45.00	1234	60.00	1202	73.00	5283	86.05	113
47.05	1864	61.00	5688	74.00	19829	87.00	5327
48.00	750	62.00	5487	75.00	59099	87.95	4992
49.00	5344	63.00	4110	76.00	4826	90.95	423

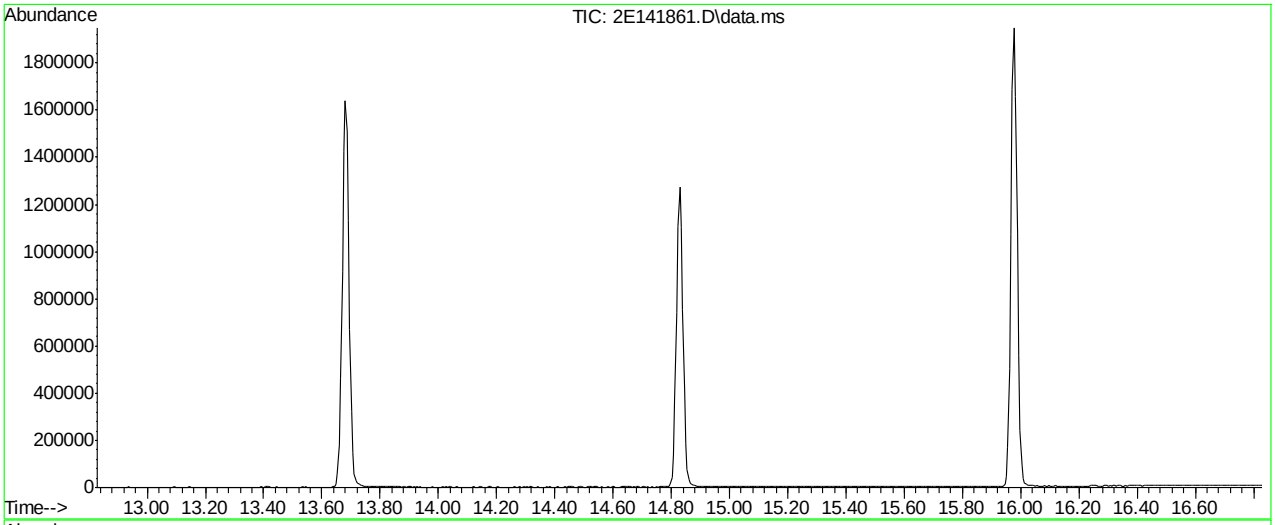
Average of 16.931 to 16.941 min.: 2d174427.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.00	3114	114.95	134	136.80	118	160.85	117
93.00	4857	115.85	383	137.00	76	171.70	64
94.00	13783	116.90	731	140.90	1212	172.00	86
95.00	119931	117.90	451	141.90	156	173.90	106936
96.00	7799	118.90	557	142.90	1265	174.95	8787
97.05	228	127.85	458	145.95	163	175.90	104296
103.85	475	128.70	67	147.80	193	176.90	6802
104.95	218	128.90	151	148.00	102	177.95	210
105.90	489	129.85	451	154.90	339	192.90	60
111.00	48	130.90	171	156.85	165	207.00	49
112.90	48	134.90	212	158.80	106		

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V2E6202\2E141861.D Vial: 1
Acq On : 23 Mar 2018 11:37 am Operator: sydneys
Sample : BFB Inst : VOAMS2E
Misc : MS24904,V2E6202,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6202.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM



AutoFind: Scans 2105, 2106, 2107; Background Corrected with Scan 2095

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.5	42541	PASS
75	95	30	60	43.8	112648	PASS
95	95	100	100	100.0	257408	PASS
96	95	5	9	6.6	16893	PASS
173	174	0.00	2	0.2	379	PASS
174	95	50	120	82.7	212971	PASS
175	174	5	9	6.9	14619	PASS
176	174	95	101	95.5	203349	PASS
177	176	5	9	6.7	13525	PASS

2E141861.D M2E6202.M Wed Mar 28 07:45:27 2018

Average of 14.823 to 14.834 min.: 2E141861.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1775	48.05	1234	62.00	8713	74.00	34579
37.10	10131	49.00	8492	63.00	6265	75.00	112648
38.10	9047	50.00	42541	64.00	589	76.00	9691
39.05	3497	51.05	13465	66.90	193	76.95	1707
40.00	234	52.00	474	67.05	358	77.95	1053
40.95	70	54.95	586	68.00	22261	78.95	3735
43.10	25	56.00	2883	69.00	22104	79.95	1096
44.05	637	57.00	4879	70.05	1503	80.95	3903
45.05	1868	57.95	218	71.20	85	81.95	694
46.15	133	60.00	1892	72.00	1004	82.95	93
47.05	3783	61.00	9521	73.00	9096	85.90	306

Average of 14.823 to 14.834 min.: 2E141861.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.00	11636	103.90	694	116.95	1155	132.85	9
87.95	11164	104.85	239	117.95	639	133.90	62
90.95	733	105.90	637	118.95	836	134.95	377
92.00	5876	106.85	182	123.85	136	136.90	283
93.00	8773	109.90	44	125.00	39	139.70	39
94.00	25405	110.70	31	126.05	92	140.05	124
95.00	257408	111.00	85	126.70	95	140.90	1760
96.00	16893	111.85	120	127.95	705	141.95	200
97.05	595	112.85	63	128.90	333	142.90	1711
97.95	54	114.95	258	129.90	779	144.00	88
102.80	34	115.85	543	130.95	282	144.95	111

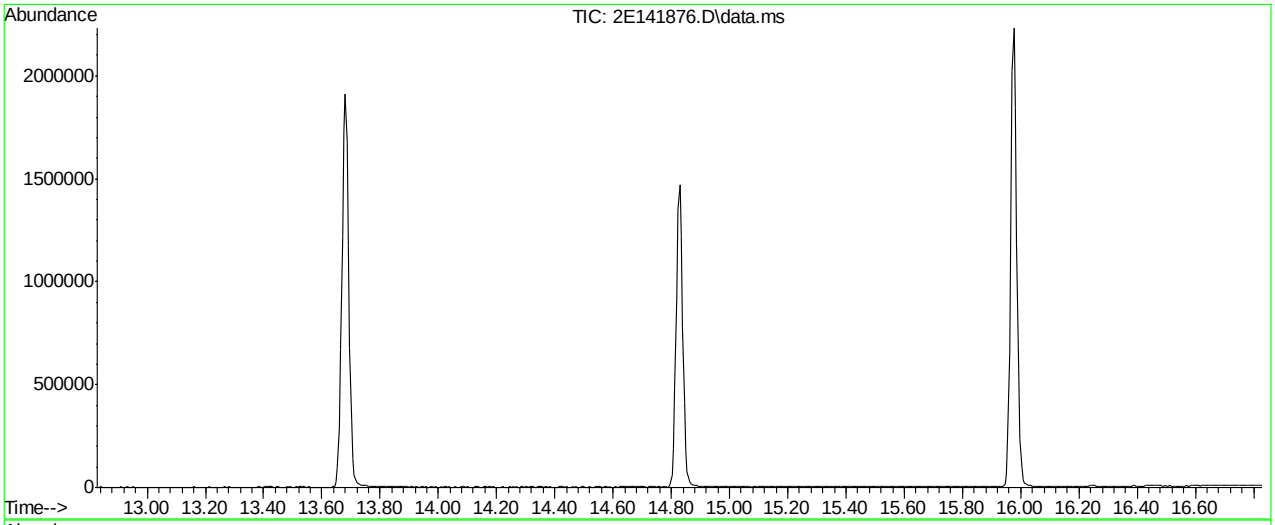
Average of 14.823 to 14.834 min.: 2E141861.D\data.ms
BFB
Modified:subtracted

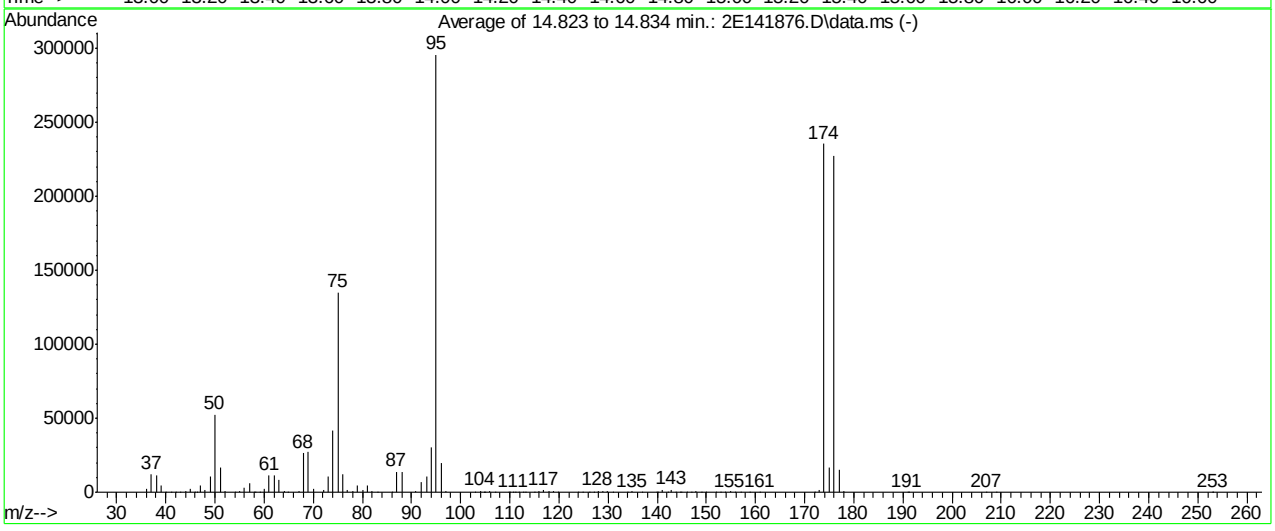
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
145.95	374	154.85	494	175.90	203349		
146.80	95	155.85	88	176.90	13525		
147.00	149	156.80	106	177.90	405		
147.85	556	156.95	220	190.60	32		
148.95	195	158.85	263	194.90	29		
149.85	171	160.85	231	209.10	35		
151.95	139	165.10	31				
152.70	108	171.90	41				
152.90	47	172.80	379				
153.70	28	173.90	212971				
153.95	137	174.95	14619				

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V2E6202\2E141876.D Vial: 1
Acq On : 27 Mar 2018 2:38 pm Operator: sydneys
Sample : BFB2 Inst : VOAMS2E
Misc : MS24904,V2E6202,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6202.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM





AutoFind: Scans 2105, 2106, 2107; Background Corrected with Scan 2095

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	52573	PASS
75	95	30	60	45.6	134845	PASS
95	95	100	100	100.0	295723	PASS
96	95	5	9	6.6	19595	PASS
173	174	0.00	2	0.5	1174	PASS
174	95	50	120	79.6	235477	PASS
175	174	5	9	7.2	16929	PASS
176	174	95	101	96.6	227413	PASS
177	176	5	9	6.6	14941	PASS

2E141876.D M2E6202.M Wed Mar 28 08:27:59 2018

Average of 14.823 to 14.834 min.: 2E141876.D\data.ms
BFB2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	2268	46.25	160	58.00	146	69.00	27096
37.05	12303	47.05	4742	58.20	80	70.00	2017
38.10	11276	47.95	1522	59.15	54	72.05	1390
39.00	4638	49.00	10787	60.05	2374	73.00	10881
40.00	129	50.00	52573	61.00	11570	74.00	41323
41.20	49	51.05	16676	62.05	11660	75.00	134845
42.00	4	52.00	657	63.00	8073	76.00	11788
43.00	35	54.10	35	64.05	716	77.00	1858
44.00	1089	55.05	601	64.90	32	77.95	1071
45.05	2275	56.00	3326	67.00	679	78.90	4705
45.90	89	57.05	6096	68.00	26416	80.00	1345

Average of 14.823 to 14.834 min.: 2E141876.D\data.ms
BFB2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.95	4550	96.00	19595	111.10	77	124.90	27
81.95	960	97.05	597	111.70	64	126.10	31
83.05	125	102.95	114	112.80	54	127.00	29
86.05	337	103.95	900	113.10	71	127.95	862
86.95	14032	104.80	125	115.00	325	128.90	430
88.00	13412	104.95	263	115.95	744	129.85	812
90.90	768	105.90	827	116.90	1227	130.90	369
92.00	6835	106.95	249	117.95	775	133.90	32
93.05	10333	109.80	29	118.90	984	134.90	416
94.00	30131	110.00	43	119.90	29	136.85	333
95.00	295723	110.70	63	123.95	65	139.90	208

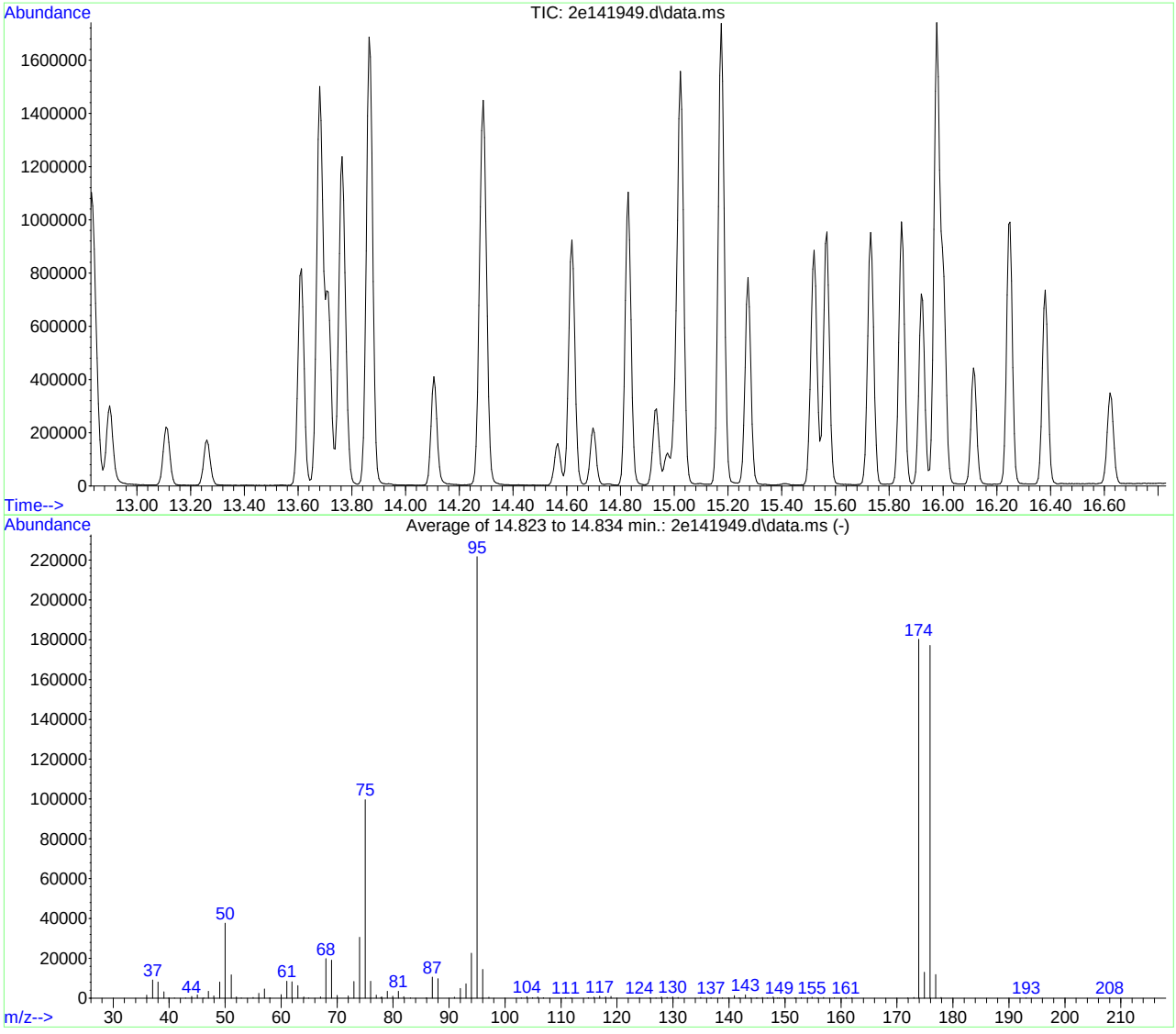
Average of 14.823 to 14.834 min.: 2E141876.D\data.ms
BFB2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.10	75	149.85	271	173.90	235477		
140.95	1749	151.95	119	174.95	16929		
142.05	256	152.95	202	175.90	227413		
142.90	1793	153.85	170	176.95	14941		
143.85	68	154.90	713	177.90	503		
144.65	66	155.90	57	190.90	42		
144.95	198	156.90	379	191.10	35		
145.95	367	158.85	284	206.95	212		
146.95	189	160.95	241	208.90	75		
147.90	536	171.95	192	252.90	36		
148.95	204	172.95	1174	253.05	133		

SW-846 Method 8260

Data File : C:\msdchem\1\data\v2e6206\2e141949.d Vial: 47
Acq On : 29 Mar 2018 7:13 am Operator: sydneys
Sample : bfb Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6202.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM



AutoFind: Scans 2105, 2106, 2107; Background Corrected with Scan 2096

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.0	37619	PASS
75	95	30	60	44.9	99607	PASS
95	95	100	100	100.0	221653	PASS
96	95	5	9	6.5	14379	PASS
173	174	0.00	2	0.2	366	PASS
174	95	50	120	81.3	180224	PASS
175	174	5	9	7.2	13041	PASS
176	174	95	101	98.3	177088	PASS
177	176	5	9	6.7	11779	PASS

2e141949.d M2E6202.M Tue Apr 03 05:08:06 2018

Average of 14.823 to 14.834 min.: 2e141949.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1542	47.95	1068	61.00	8524	74.00	30493
37.05	9140	49.05	8031	61.95	8150	75.00	99607
38.00	8027	50.00	37619	63.00	6294	76.00	8533
39.05	3115	51.10	11719	64.05	609	77.00	1490
39.95	64	52.00	543	64.90	41	77.80	293
40.95	24	52.90	33	67.05	580	77.95	536
42.90	65	55.00	341	68.00	19805	78.95	3379
44.00	822	56.00	2441	69.00	19101	79.95	980
45.05	1655	57.00	4576	70.00	1330	80.95	3485
46.20	61	58.00	198	72.00	1126	81.90	746
47.00	3399	60.00	1758	73.00	8274	83.10	30

Average of 14.823 to 14.834 min.: 2e141949.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.95	263	103.90	664	124.00	38	140.95	1186
87.00	10554	104.90	215	125.90	97	141.85	208
88.00	9708	105.85	625	126.95	125	142.95	1662
90.95	474	106.85	178	127.90	606	143.85	70
92.00	4811	110.85	139	128.95	366	144.85	79
93.00	7233	111.70	29	129.95	643	145.10	29
94.00	22603	114.90	161	130.90	276	145.95	295
95.00	221653	115.90	516	134.95	288	146.90	135
96.00	14379	116.90	974	136.80	258	147.90	560
97.10	418	117.95	549	138.80	34	148.70	31
102.90	75	118.90	836	139.90	166	149.00	93

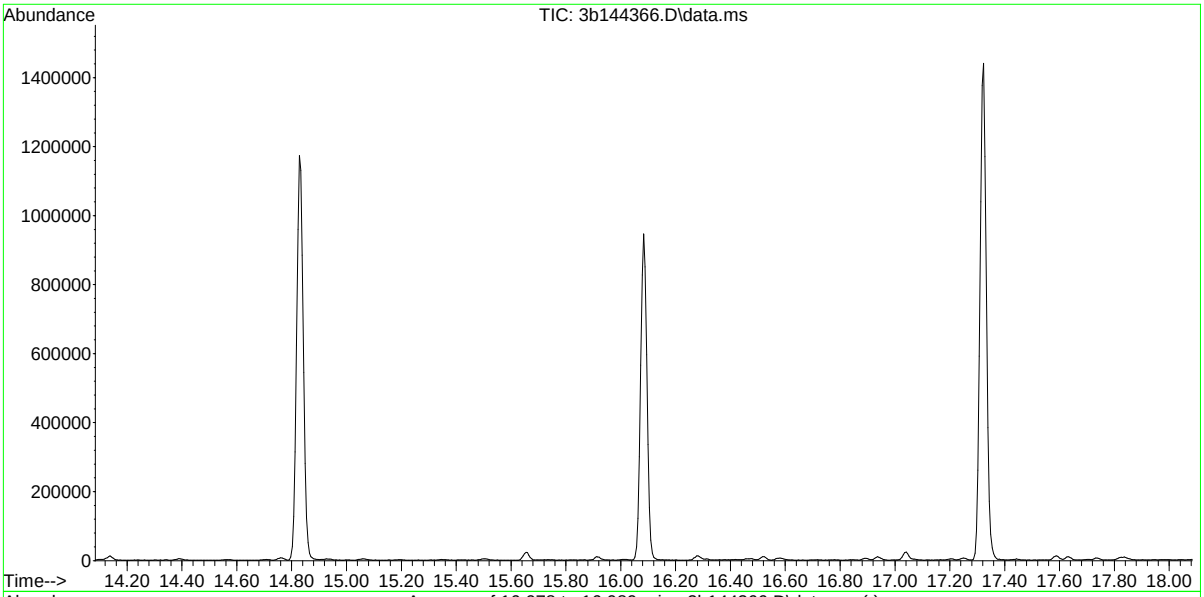
Average of 14.823 to 14.834 min.: 2e141949.d\data.ms
bfb
Modified:subtracted

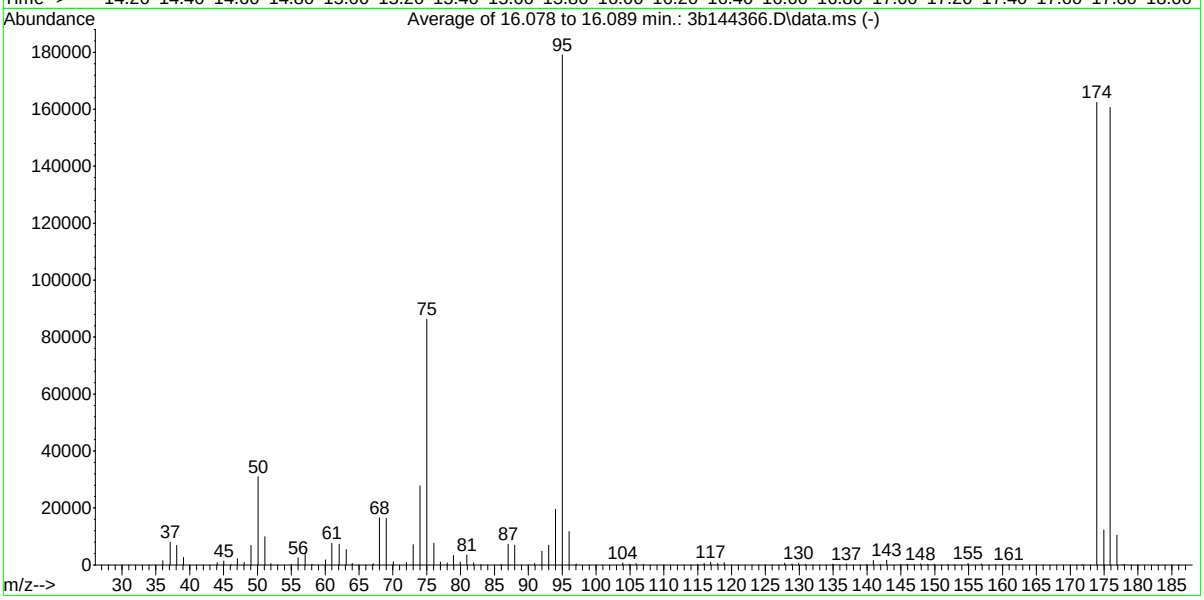
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
149.85	196	171.90	30				
151.75	79	173.00	366				
152.00	39	173.90	180224				
152.90	192	174.90	13041				
154.10	85	175.90	177088				
154.85	474	176.90	11779				
155.80	76	177.90	309				
156.90	353	193.10	27				
158.85	222	208.00	117				
160.90	211						
161.90	29						

SW-846 Method 8260

Data File : C:\msdchem\1\data\V3B6383\3b144366.D Vial: 1
Acq On : 27 Feb 2018 7:47 pm Operator: EddieH
Sample : BFB Inst : MS3B
Misc : MS24260,V3B6383,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6383.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um





AutoFind: Scans 2351, 2352, 2353; Background Corrected with Scan 2341

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	31056	PASS
75	95	30	60	48.2	86288	PASS
95	95	100	100	100.0	179115	PASS
96	95	5	9	6.5	11726	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	90.7	162411	PASS
175	174	5	9	7.6	12305	PASS
176	174	95	101	98.9	160661	PASS
177	176	5	9	6.5	10491	PASS

3b144366.D M3B6383.M Thu Mar 01 09:48:47 2018 M3B

Average of 16.078 to 16.089 min.: 3b144366.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1514	51.10	9930	67.10	454	78.95	3345
37.10	8009	52.00	415	68.00	16584	79.95	1053
38.10	6885	55.05	138	69.00	16401	80.90	3490
39.10	2677	56.00	2405	70.05	1151	81.90	753
44.05	794	57.05	4095	72.00	819	83.00	52
45.05	1375	58.05	215	73.00	7113	85.90	92
46.20	67	60.05	1731	74.00	27773	86.10	55
47.05	2193	61.00	7580	75.00	86288	87.00	7291
48.05	887	62.05	7332	76.05	7581	88.00	6973
49.05	6804	63.10	5453	77.00	1023	90.90	555
50.10	31056	64.00	542	78.00	750	92.00	4802

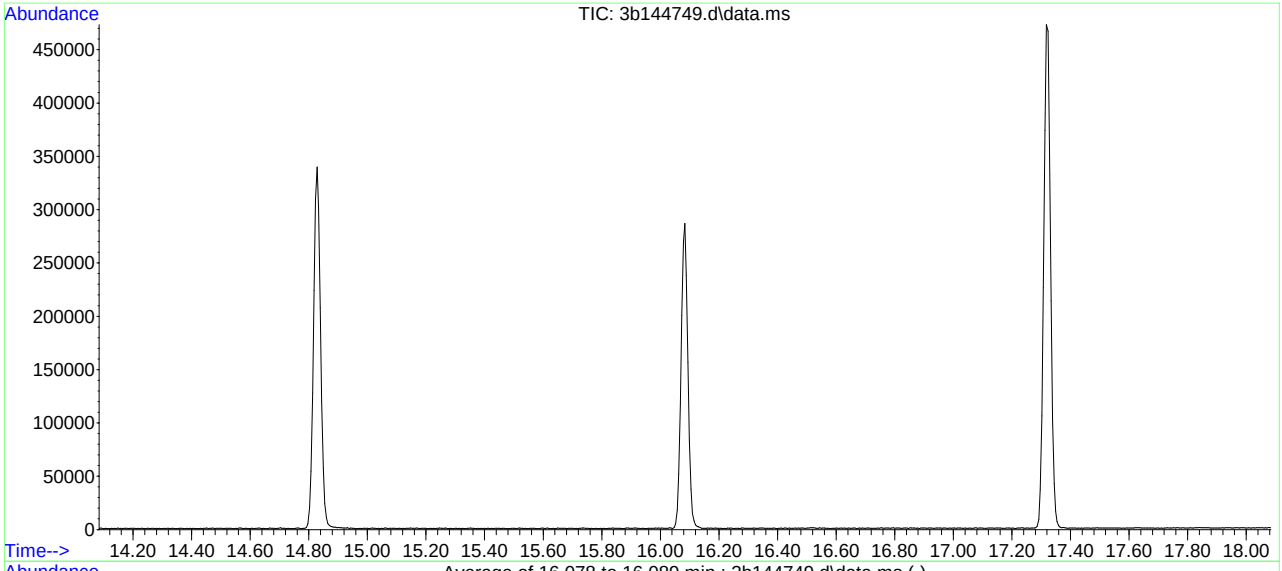
Average of 16.078 to 16.089 min.: 3b144366.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	6943	116.90	871	141.95	192	154.90	546
94.00	19581	117.95	579	142.90	1659	156.90	367
95.00	179115	118.90	770	144.95	117	159.00	79
96.00	11726	127.85	603	145.80	55	160.95	199
97.05	380	128.90	349	145.95	178	171.75	161
103.95	704	129.90	637	146.90	64	173.90	162411
104.90	249	130.90	269	147.90	381	174.95	12305
105.90	565	134.95	276	148.95	116	175.90	160661
106.95	213	136.95	301	149.95	221	176.90	10491
114.95	179	139.90	54	151.90	117	177.80	166
115.95	514	140.95	1567	152.90	50	178.00	75

SW-846 Method 8260

Data File : C:\msdchem\1\data\v3b6401\3b144749.d Vial: 1
Acq On : 13 Mar 2018 12:52 pm Operator: EddieH
Sample : bfb Inst : MS3B
Misc : MS24844,V3B6401,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6383.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2351, 2352, 2353; Background Corrected with Scan 2342

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.5	9047	PASS
75	95	30	60	44.2	24229	PASS
95	95	100	100	100.0	54765	PASS
96	95	5	9	6.4	3527	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	96.4	52784	PASS
175	174	5	9	6.8	3599	PASS
176	174	95	101	97.1	51243	PASS
177	176	5	9	6.2	3184	PASS

3b144749.d M3B6383.M Thu Mar 15 05:18:26 2018

Average of 16.078 to 16.089 min.: 3b144749.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	437	51.10	2641	69.00	4959	80.95	1049
37.10	2238	52.00	53	70.05	301	81.95	232
38.10	1871	56.05	669	72.00	317	87.00	2375
39.10	798	57.00	1160	73.00	2047	87.95	2360
44.00	161	60.00	507	74.00	7552	91.05	133
45.05	337	61.00	2017	75.00	24229	92.00	1159
47.00	665	62.00	2235	76.05	2197	93.00	1958
47.90	118	63.00	1579	76.95	307	94.00	5554
48.10	190	64.00	64	78.00	232	95.00	54765
49.05	1894	66.95	106	78.95	923	96.05	3527
50.10	9047	68.00	4590	79.90	287	103.90	197

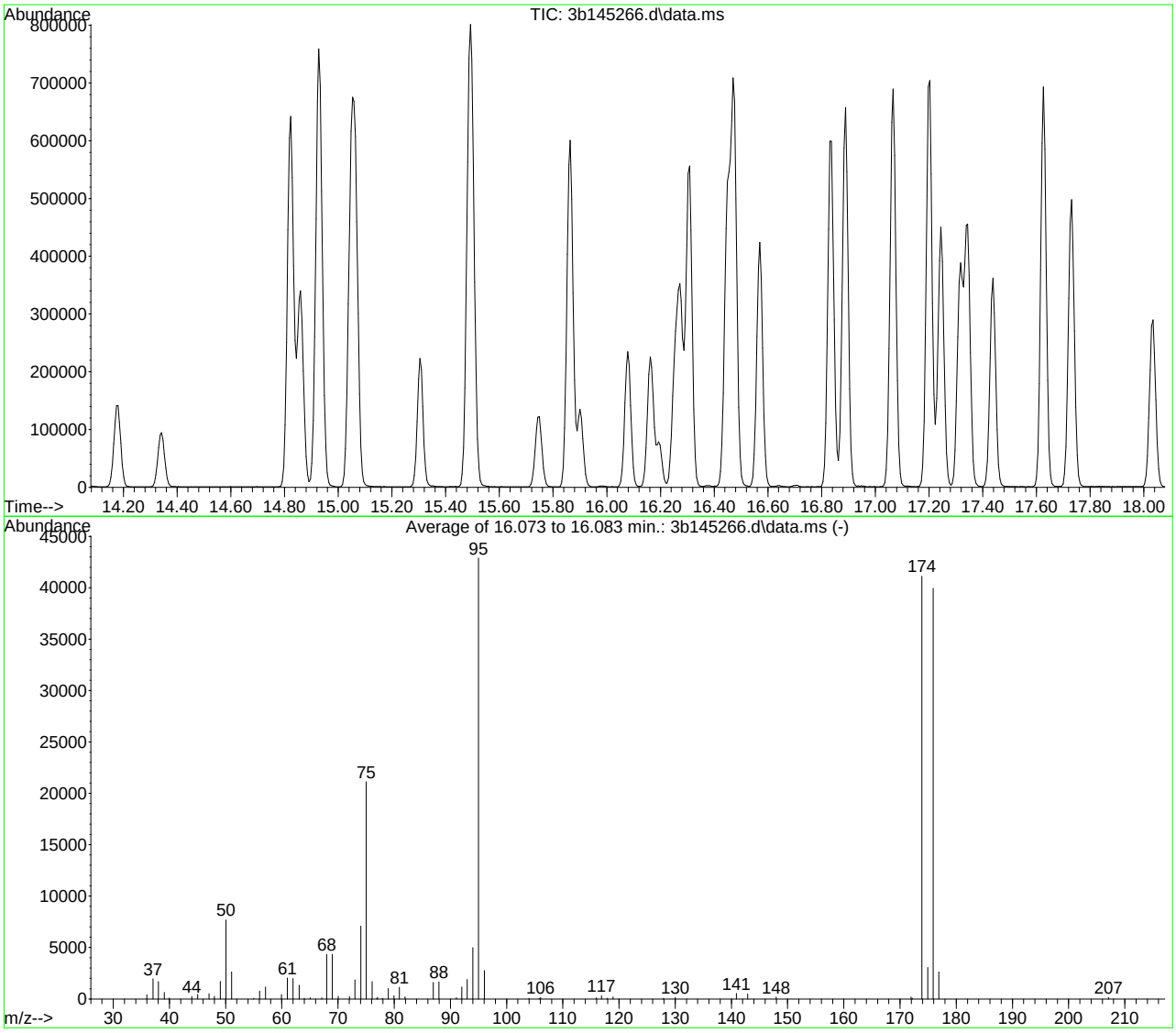
Average of 16.078 to 16.089 min.: 3b144749.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.95	146	171.85	163				
115.90	125	173.90	52784				
116.90	313	174.90	3599				
117.95	127	175.90	51243				
118.95	232	176.90	3184				
127.85	158						
129.90	142						
140.90	500						
142.95	491						
154.85	117						
156.90	52						

SW-846 Method 8260

Data File : C:\msdchem\1\data\v3b6426\3b145266.d Vial: 23
Acq On : 28 Mar 2018 5:46 pm Operator: EddieH
Sample : bfb Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6383.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2350, 2351, 2352; Background Corrected with Scan 2342

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	7681	PASS
75	95	30	60	49.3	21136	PASS
95	95	100	100	100.0	42885	PASS
96	95	5	9	6.4	2760	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	95.9	41123	PASS
175	174	5	9	7.5	3068	PASS
176	174	95	101	97.1	39947	PASS
177	176	5	9	6.6	2644	PASS

3b145266.d M3B6383.M Fri Mar 30 06:10:59 2018

Average of 16.073 to 16.083 min.: 3b145266.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	402	51.05	2637	68.00	4339	78.95	1007
37.10	1968	55.00	62	69.00	4324	79.95	312
38.05	1679	56.05	765	70.05	261	80.90	1147
39.10	628	57.10	1167	72.05	245	81.90	224
39.95	95	59.95	439	73.00	1870	86.95	1602
44.00	226	61.00	2036	74.05	7083	87.95	1661
45.05	436	62.00	1981	75.00	21136	91.05	128
47.05	518	63.10	1327	76.05	1682	92.00	1162
48.00	271	64.00	65	76.90	72	93.00	1886
49.05	1714	65.05	121	77.05	152	94.00	4976
50.05	7681	67.10	119	77.90	58	95.00	42885

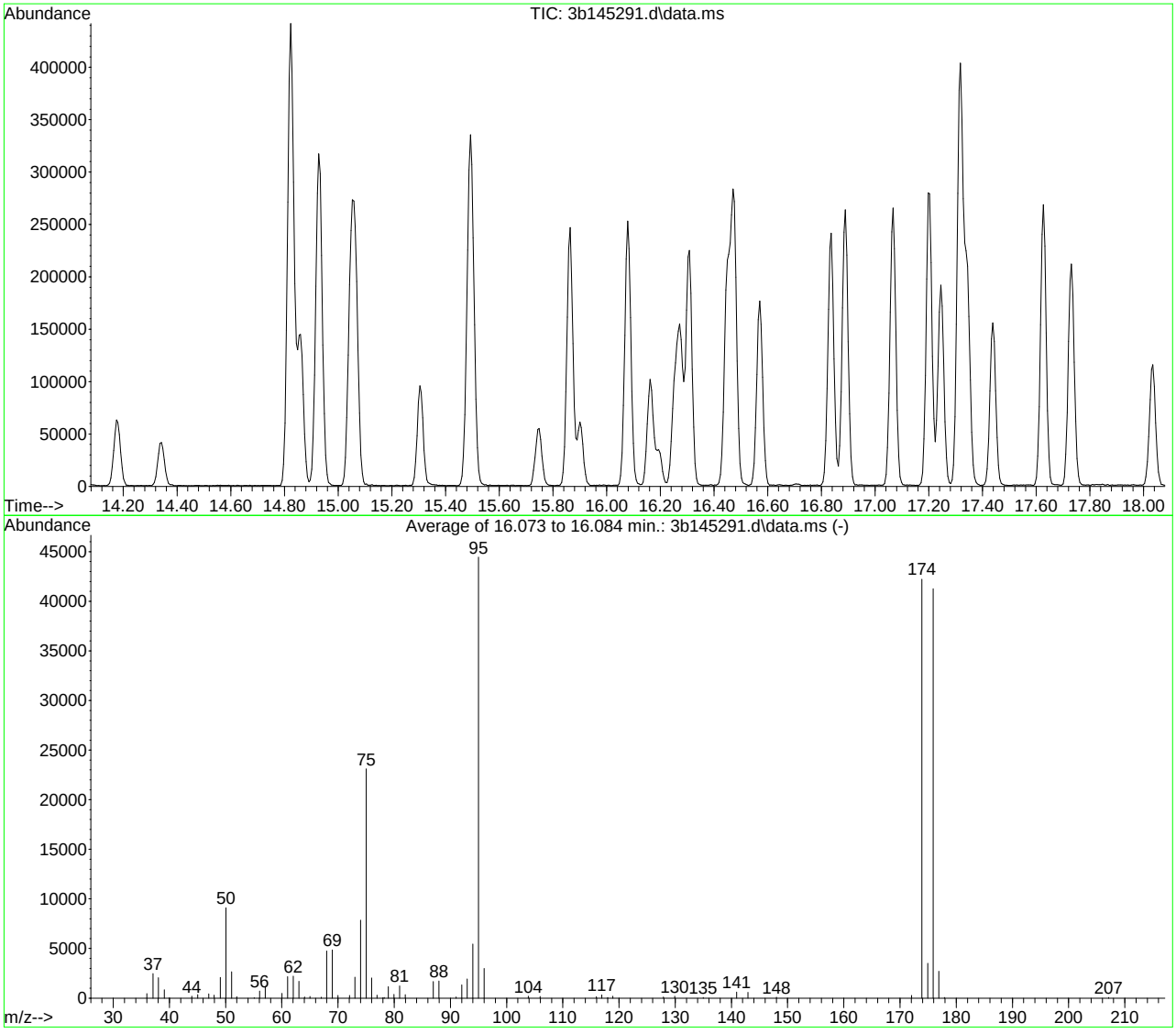
Average of 16.073 to 16.083 min.: 3b145266.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.05	2760	142.90	496				
104.00	65	147.95	190				
105.80	56	171.95	186				
106.05	127	172.20	67				
115.95	121	173.90	41123				
116.90	311	174.95	3068				
117.90	58	175.90	39947				
118.95	219	176.90	2644				
127.90	63	207.10	127				
130.00	141						
140.90	530						

SW-846 Method 8260

Data File : C:\msdchem\1\data\04...18\v3b6427\3b145291.d Vial: 1
Acq On : 29 Mar 2018 7:38 am Operator: EddieH
Sample : bfb Inst : MS3B
Misc : MS25138,V3B6427,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6383.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2350, 2351, 2352; Background Corrected with Scan 2342

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.5	9097	PASS
75	95	30	60	52.0	23120	PASS
95	95	100	100	100.0	44443	PASS
96	95	5	9	6.7	2987	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	95.0	42237	PASS
175	174	5	9	8.3	3508	PASS
176	174	95	101	97.7	41272	PASS
177	176	5	9	6.5	2700	PASS

3b145291.d M3B6383.M Tue Apr 03 01:21:49 2018

Average of 16.073 to 16.084 min.: 3b145291.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	446	51.05	2650	67.00	87	78.20	54
37.10	2463	52.00	133	68.00	4747	78.95	1154
38.05	2071	55.10	53	69.00	4863	79.95	387
39.10	835	56.05	714	70.00	276	80.95	1236
40.00	17	57.05	1186	72.05	278	81.95	339
44.00	195	60.05	478	73.00	2107	86.95	1660
45.05	351	61.05	2172	74.00	7849	87.95	1711
47.00	432	62.05	2208	75.00	23120	91.00	127
47.95	304	63.05	1693	76.00	2034	92.00	1347
49.05	2099	64.05	129	76.95	298	93.00	1919
50.05	9097	65.00	160	78.00	51	94.00	5455

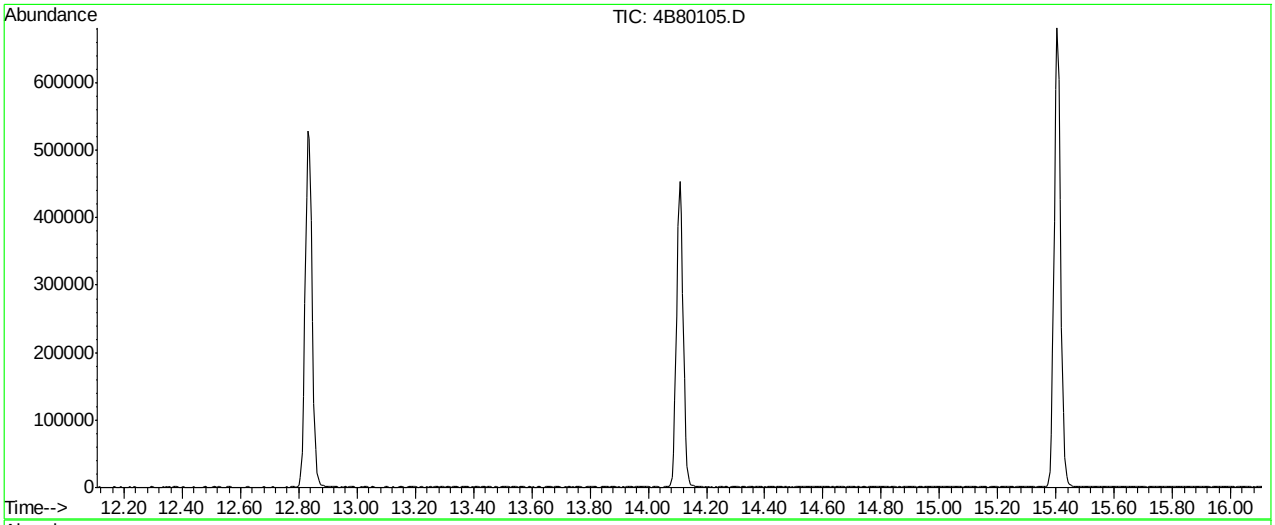
Average of 16.073 to 16.084 min.: 3b145291.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	44443	140.95	617				
96.00	2987	142.95	577				
103.85	200	148.00	99				
105.95	162	172.05	283				
115.95	134	173.90	42237				
116.95	322	174.95	3508				
118.00	58	175.90	41272				
118.90	206	176.90	2700				
127.90	126	177.90	60				
129.90	195	207.10	55				
135.00	62						

SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\V4B3310\4B80105.D Vial: 2
Acq On : 15 Mar 2018 4:20 pm Operator: HueanhT
Sample : BFB Inst : MS4B
Misc : MS24804,V4B3310,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B3310.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2031, 2032, 2033; Background Corrected with Scan 2022

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	15721	PASS
75	95	30	60	46.1	38432	PASS
95	95	100	100	100.0	83346	PASS
96	95	5	9	6.8	5678	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	95.1	79264	PASS
175	174	5	9	7.6	6029	PASS
176	174	95	101	98.0	77645	PASS
177	176	5	9	6.6	5154	PASS

4B80105.D M4B3310.M Mon Mar 19 09:16:48 2018 GCMS4B

Average of 14.102 to 14.113 min.: 4B80105.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	849	51.90	156	69.00	7627	80.85	1884
37.00	4392	55.00	158	69.95	619	81.85	348
38.00	3412	55.95	1069	71.95	397	85.80	61
39.00	1386	57.00	2050	73.00	3454	86.90	3823
43.90	330	59.95	728	74.00	12454	87.90	3705
44.95	723	61.00	3655	75.00	38432	90.85	279
47.00	1353	62.00	3527	75.95	3243	91.95	2031
47.95	483	63.00	2399	76.90	504	92.90	3053
49.00	3385	64.00	209	78.00	342	94.00	9347
50.00	15721	67.00	105	78.85	1657	95.00	83346
51.00	4931	68.00	7748	79.90	492	96.00	5678

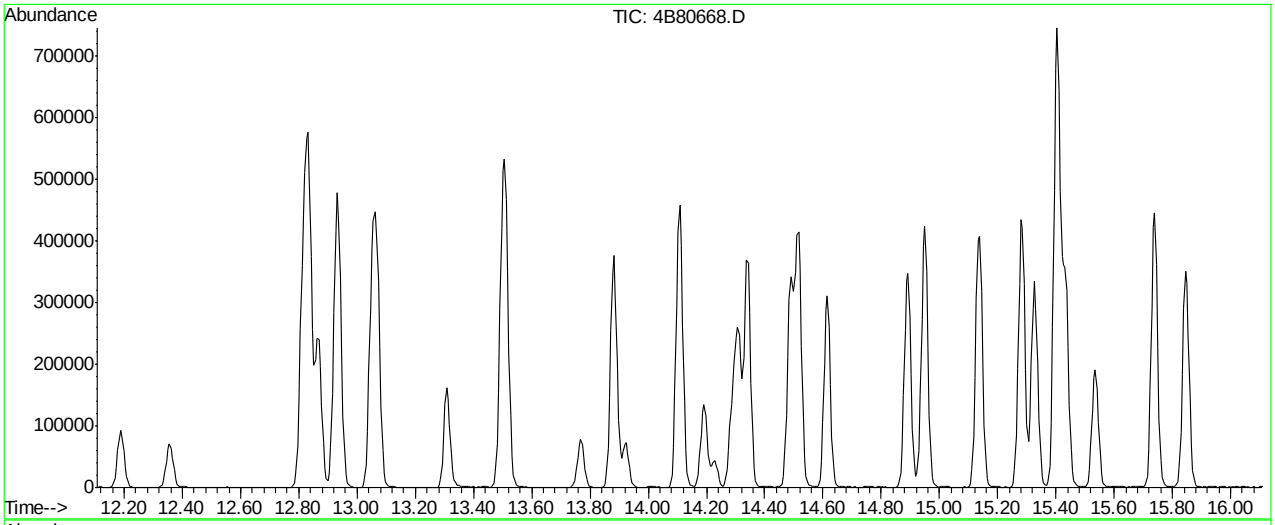
Average of 14.102 to 14.113 min.: 4B80105.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.90	160	136.80	58				
103.90	284	140.85	694				
105.90	297	142.85	834				
115.70	64	147.85	221				
115.85	210	154.85	200				
116.85	486	156.90	121				
117.85	259	173.90	79264				
118.90	380	174.90	6029				
127.85	263	175.90	77645				
128.80	112	176.90	5154				
129.85	235	177.80	74				

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\V4B3335\4B80668.D Vial: 3
Acq On : 30 Mar 2018 7:30 am Operator: HueanhT
Sample : bfb CC3310-20 Inst : MS4B
Misc : MS25149,V4B3335,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B3310.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2031, 2032, 2033; Background Corrected with Scan 2022

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	14798	PASS
75	95	30	60	45.4	37605	PASS
95	95	100	100	100.0	82904	PASS
96	95	5	9	6.8	5615	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	101.6	84245	PASS
175	174	5	9	7.4	6214	PASS
176	174	95	101	97.6	82242	PASS
177	176	5	9	6.9	5668	PASS

4B80668.D M4B3310.M Fri Mar 30 16:56:31 2018 GCMS4B

Average of 14.102 to 14.113 min.: 4B80668.D
bfb CC3310-20
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	798	51.85	191	68.00	7562	79.90	548
37.00	3711	55.05	202	69.00	7859	80.85	1877
38.00	3315	55.95	996	69.95	560	81.85	430
39.00	1339	57.00	2006	72.00	423	85.90	74
44.00	266	58.10	51	72.95	3321	86.90	4182
45.00	695	60.00	664	74.00	12176	87.90	3911
47.00	1251	61.00	3223	75.00	37605	90.85	287
47.95	468	62.00	3313	76.00	3065	92.00	2030
49.00	3022	63.00	2381	76.90	507	92.95	3009
50.00	14798	63.95	226	77.90	439	94.00	9199
51.00	4753	66.90	146	78.90	1723	95.00	82904

Average of 14.102 to 14.113 min.: 4B80668.D
bfb CC3310-20
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	5615	140.85	738	176.90	5668		
97.00	66	141.90	56	177.90	117		
103.80	325	142.85	801				
105.85	254	145.90	65				
115.75	294	147.85	178				
116.85	386	154.85	244				
117.85	262	156.90	134				
118.85	364	171.90	55				
127.85	309	173.90	84245				
128.80	54	174.90	6214				
129.75	297	175.90	82242				

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174256.D
Acq On : 17 Mar 2018 10:50 am
Operator : OyinadeI
Sample : IC7334-0.2
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 23 14:07:48 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:12:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	151307	500.00	ug/L		-0.02
5) pentafluorobenzene	10.094	168	361627	50.00	ug/L		-0.01
54) 1,4-difluorobenzene	11.242	114	491435	50.00	ug/L		-0.02
76) chlorobenzene-d5	15.468	117	485588	50.00	ug/L		-0.01
99) 1,4-dichlorobenzene-d4	18.263	152	260339	50.00	ug/L		-0.01
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.094	113	152339	49.91	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.82%				
55) 1,2-dichloroethane-d4 (s)	10.629	65	181700	52.16	ug/L		-0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.32%				
77) toluene-d8 (s)	13.449	98	576734	49.88	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.76%				
100) 4-bromofluorobenzene (s)	16.967	95	228326	51.38	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.76%				
Target Compounds							Qvalue
33) 1,1-dichloroethane	8.500	63	1217	0.25	ug/L		82
37) ethyl tert-butyl ether	9.103	59	2252	0.25	ug/L		91
40) cis-1,2-dichloroethene	9.386	96	683	0.25	ug/L		92
50) 1,1-dichloropropene	10.414	75	706	0.21	ug/L	#	67
52) carbon tetrachloride	10.435	117	680	0.20	ug/L	#	76
64) trichloroethene	11.677	130	553	0.22	ug/L		94
66) 2-chloroethyl vinyl ether	12.789	63	1617	1.18	ug/L		93
69) dibromomethane	12.212	93	354	0.23	ug/L		86
71) bromodichloromethane	12.401	83	883	0.25	ug/L		92
73) cis-1,3-dichloropropene	13.051	75	1003	0.23	ug/L		94
74) 4-methyl-2-pentanone	13.224	58	896	0.96	ug/L	#	32
79) trans-1,3-dichloropropene	13.816	75	982	0.25	ug/L		86
80) ethyl methacrylate	13.879	69	620	0.19	ug/L	#	72
81) 1,1,2-trichloroethane	14.094	83	437	0.22	ug/L		95
82) tetrachloroethene	14.325	164	532	0.23	ug/L	#	72
83) 1,3-dichloropropane	14.346	76	983	0.25	ug/L		96
84) 2-hexanone	14.398	58	1009	0.98	ug/L		85
90) 1,1,1,2-tetrachloroethane	15.594	131	571	0.21	ug/L	#	76
91) ethylbenzene	15.615	91	2893	0.23	ug/L		91
92) m,p-xylene	15.767	91	4531	0.47	ug/L		94
93) o-xylene	16.307	106	1053	0.22	ug/L		81
96) bromoform	16.600	173	453	0.24	ug/L		78
97) isopropylbenzene	16.758	105	2648	0.21	ug/L		96
105) n-propylbenzene	17.245	91	3111	0.22	ug/L		99
106) 2-chlorotoluene	17.387	126	737	0.24	ug/L		93
109) 1,3,5-trimethylbenzene	17.429	105	2283	0.22	ug/L		94
110) tert-butylbenzene	17.812	119	1848	0.21	ug/L		90
111) 1,2,4-trimethylbenzene	17.859	105	2377	0.23	ug/L		99
112) sec-butylbenzene	18.042	105	2717	0.20	ug/L		91
114) p-isopropyltoluene	18.173	119	2116	0.18	ug/L		97
119) n-butylbenzene	18.593	92	1105	0.19	ug/L		94
124) hexachlorobutadiene	20.286	225	663	0.23	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174256.D
Acq On : 17 Mar 2018 10:50 am
Operator : OyinadeI
Sample : IC7334-0.2
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 23 14:07:48 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:12:12 2018
Response via : Initial Calibration

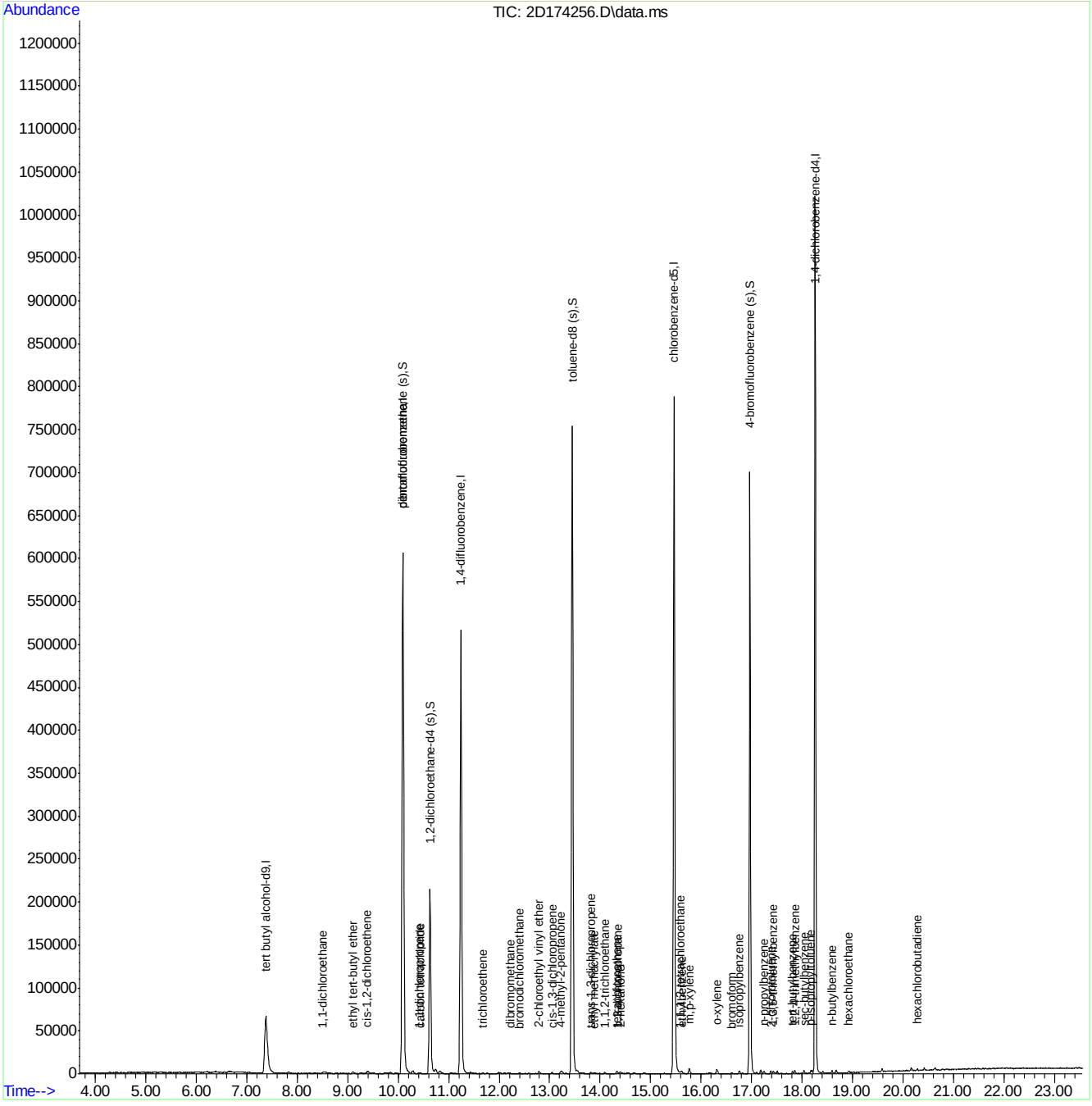
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
129) hexachloroethane	18.928	201	415	0.19	ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174256.D
Acq On : 17 Mar 2018 10:50 am
Operator : OyinadeI
Sample : IC7334-0.2
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 23 14:07:48 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:12:12 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174257.D
Acq On : 17 Mar 2018 11:21 am
Operator : OyinadeI
Sample : IC7334-0.5
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 23 14:14:55 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:12:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.383	65	139474	500.00	ug/L		-0.02
5) pentafluorobenzene	10.099	168	352713	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.247	114	477501	50.00	ug/L		-0.01
76) chlorobenzene-d5	15.468	117	474247	50.00	ug/L		-0.01
99) 1,4-dichlorobenzene-d4	18.262	152	257048	50.00	ug/L		-0.01
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.099	113	148950	50.03	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.06%				
55) 1,2-dichloroethane-d4 (s)	10.634	65	170446	50.36	ug/L		-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.72%				
77) toluene-d8 (s)	13.449	98	561378	49.71	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.42%				
100) 4-bromofluorobenzene (s)	16.967	95	224032	51.05	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.10%				
Target Compounds							Qvalue
6) chlorodifluoromethane	3.891	51	2361	0.65	ug/L		66
10) chloromethane	4.274	50	2534	0.56	ug/L		91
11) vinyl chloride	4.505	62	1899	0.48	ug/L		82
12) bromomethane	5.171	94	1646	0.67	ug/L		74
13) chloroethane	5.302	64	966	0.48	ug/L		74
15) Vinyl Bromide	5.658	106	1068	0.45	ug/L		91
17) ethyl ether	6.209	74	761	0.58	ug/L	#	68
20) freon 113	6.633	151	1086	0.57	ug/L		93
22) acetone	6.696	58	1063	3.02	ug/L	#	75
24) iodomethane	6.911	142	2752	0.62	ug/L		92
26) methylene chloride	7.404	84	1492	0.58	ug/L		91
28) methyl tert butyl ether	7.823	73	4667	0.64	ug/L		89
29) trans-1,2-dichloroethene	7.844	96	1547	0.66	ug/L		92
30) hexane	8.253	57	2048	0.59	ug/L		81
31) di-isopropyl ether	8.547	45	6475	0.65	ug/L		89
32) 2-butanone	9.391	72	631	2.19	ug/L	#	39
33) 1,1-dichloroethane	8.505	63	3102	0.65	ug/L		95
34) chloroprene	8.641	53	2421	0.64	ug/L		94
37) ethyl tert-butyl ether	9.119	59	5574	0.63	ug/L		91
40) cis-1,2-dichloroethene	9.396	96	1727	0.64	ug/L		91
41) propionitrile	9.491	54	2180	5.80	ug/L		92
42) tert-Butyl Formate	9.942	59	1283	0.62	ug/L		96
43) bromochloromethane	9.774	128	759	0.57	ug/L	#	83
50) 1,1-dichloropropene	10.414	75	2094	0.64	ug/L		92
52) carbon tetrachloride	10.440	117	2209	0.65	ug/L		93
56) benzene	10.739	78	6427	0.64	ug/L		96
57) iso-octane	10.812	57	6460	0.60	ug/L		93
58) tert-amyl methyl ether	10.843	73	5026	0.64	ug/L		96
59) heptane	11.048	57	1096	0.57	ug/L		84
64) trichloroethene	11.677	130	1417	0.58	ug/L		88
65) 2-nitropropane	12.736	41	396	0.65	ug/L	#	71
66) 2-chloroethyl vinyl ether	12.789	63	3877	2.92	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174257.D
Acq On : 17 Mar 2018 11:21 am
Operator : OyinadeI
Sample : IC7334-0.5
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 23 14:14:55 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:12:12 2018
Response via : Initial Calibration

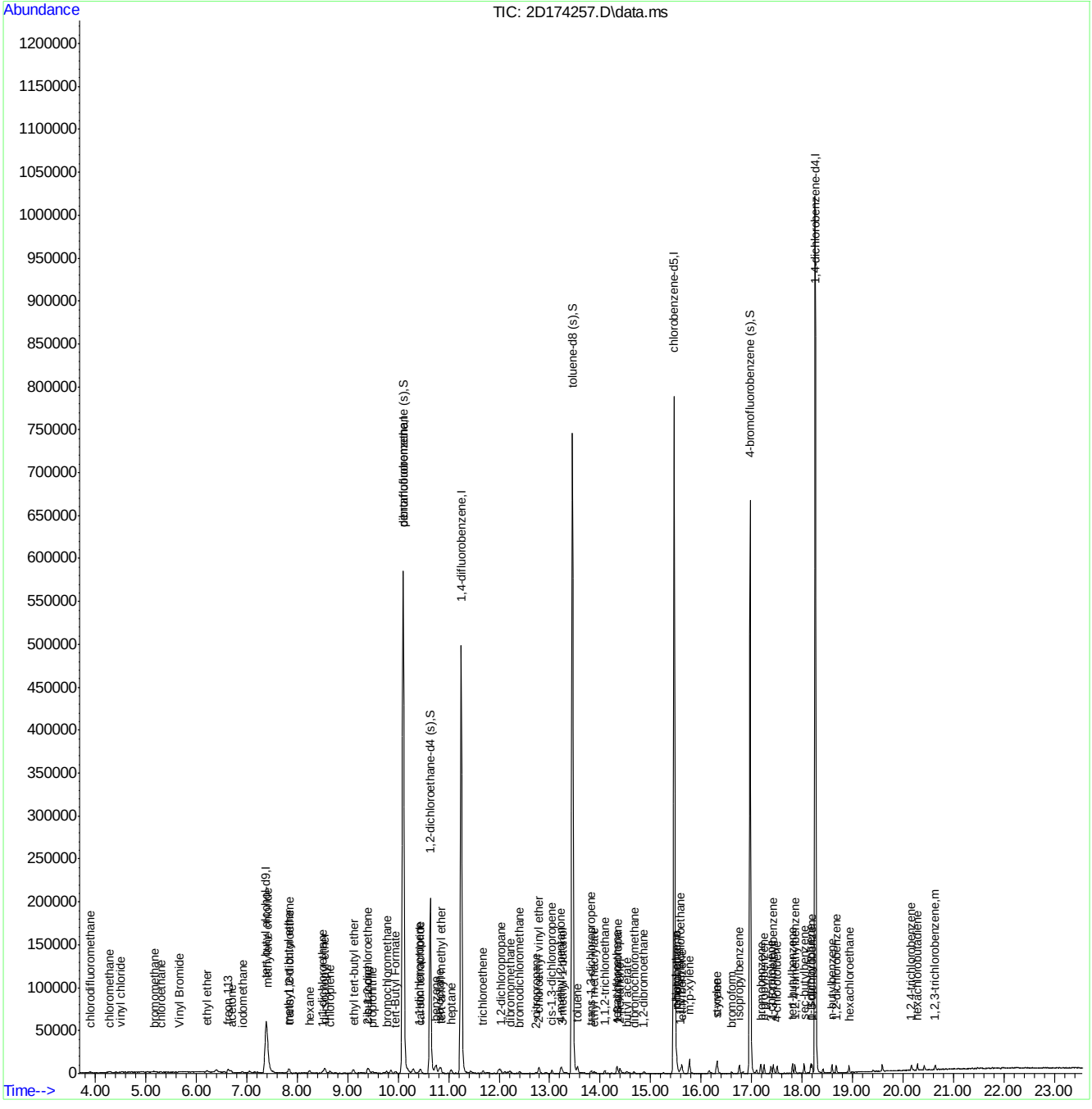
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68)	1,2-dichloropropane	12.028	63	1717	0.63	ug/L		96
69)	dibromomethane	12.212	93	862	0.57	ug/L		92
71)	bromodichloromethane	12.406	83	1998	0.59	ug/L		88
73)	cis-1,3-dichloropropene	13.046	75	2545	0.61	ug/L		97
74)	4-methyl-2-pentanone	13.224	58	2279	2.50	ug/L		97
75)	3-methyl-1-butanol	13.250	55	1105	10.48	ug/L		100
78)	toluene	13.549	92	3937	0.64	ug/L		91
79)	trans-1,3-dichloropropene	13.822	75	2409	0.63	ug/L		97
80)	ethyl methacrylate	13.879	69	1790	0.57	ug/L		87
81)	1,1,2-trichloroethane	14.094	83	1233	0.65	ug/L		83
82)	tetrachloroethene	14.330	164	1403	0.63	ug/L		96
83)	1,3-dichloropropane	14.341	76	2424	0.64	ug/L		91
84)	2-hexanone	14.393	58	2976	2.95	ug/L		99
85)	butyl acetate	14.535	56	829	0.50	ug/L	#	87
86)	dibromochloromethane	14.676	129	1670	0.63	ug/L		89
87)	1,2-dibromoethane	14.865	107	1406	0.58	ug/L		74
88)	n-butyl ether	15.515	57	7298	0.59	ug/L		98
89)	chlorobenzene	15.510	112	4649	0.64	ug/L		94
90)	1,1,1,2-tetrachloroethane	15.594	131	1675	0.64	ug/L		85
91)	ethylbenzene	15.620	91	7660	0.63	ug/L		96
92)	m,p-xylene	15.772	91	11513	1.23	ug/L		95
93)	o-xylene	16.312	106	3038	0.66	ug/L		99
94)	styrene	16.322	104	4515	0.58	ug/L		94
96)	bromoform	16.606	173	1068	0.57	ug/L		84
97)	isopropylbenzene	16.758	105	7185	0.59	ug/L		94
101)	bromobenzene	17.182	156	2159	0.64	ug/L		94
105)	n-propylbenzene	17.245	91	8620	0.61	ug/L		97
106)	2-chlorotoluene	17.387	126	1812	0.60	ug/L		95
107)	4-chlorotoluene	17.507	91	5486	0.63	ug/L		97
109)	1,3,5-trimethylbenzene	17.429	105	6242	0.62	ug/L		98
110)	tert-butylbenzene	17.811	119	5465	0.62	ug/L		95
111)	1,2,4-trimethylbenzene	17.859	105	5865	0.57	ug/L		95
112)	sec-butylbenzene	18.042	105	7755	0.58	ug/L		93
113)	1,3-dichlorobenzene	18.199	146	3950	0.62	ug/L		92
114)	p-isopropyltoluene	18.178	119	6668	0.59	ug/L		95
116)	1,2-dichlorobenzene	18.677	146	3940	0.63	ug/L		97
119)	n-butylbenzene	18.593	92	3125	0.55	ug/L		98
124)	hexachlorobutadiene	20.281	225	1618	0.56	ug/L		98
127)	1,2,4-trichlorobenzene	20.166	180	2286	0.51	ug/L		92
128)	1,2,3-trichlorobenzene	20.637	180	2142	0.54	ug/L		93
129)	hexachloroethane	18.933	201	1195	0.56	ug/L		84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174257.D
Acq On : 17 Mar 2018 11:21 am
Operator : OyinadeI
Sample : IC7334-0.5
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 23 14:14:55 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:12:12 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174258.D
Acq On : 17 Mar 2018 11:50 am
Operator : OyinadeI
Sample : IC7334-1
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 23 14:10:53 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:12:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.383	65	137427	500.00	ug/L		-0.02
5) pentafluorobenzene	10.094	168	355134	50.00	ug/L		-0.01
54) 1,4-difluorobenzene	11.247	114	485197	50.00	ug/L		-0.01
76) chlorobenzene-d5	15.468	117	480172	50.00	ug/L		-0.01
99) 1,4-dichlorobenzene-d4	18.262	152	260427	50.00	ug/L		-0.01
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.099	113	151195	50.44	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.88%				
55) 1,2-dichloroethane-d4 (s)	10.634	65	173805	50.54	ug/L		-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.08%				
77) toluene-d8 (s)	13.449	98	571373	49.97	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.94%				
100) 4-bromofluorobenzene (s)	16.967	95	227027	51.07	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.14%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	1215	4.70	ug/L		65
3) ethanol	6.020	45	3953	120.72	ug/L		78
6) chlorodifluoromethane	3.886	51	4193	1.15	ug/L		93
10) chloromethane	4.264	50	4742	1.03	ug/L		97
11) vinyl chloride	4.505	62	3857	0.97	ug/L		90
12) bromomethane	5.165	94	2713	1.09	ug/L		98
13) chloroethane	5.312	64	2149	1.05	ug/L		98
14) trichlorofluoromethane	5.805	101	4095	0.99	ug/L		82
15) Vinyl Bromide	5.674	106	2239	0.94	ug/L	#	80
17) ethyl ether	6.209	74	1386	1.05	ug/L	#	73
19) 1,1-dichloroethene	6.628	96	2464	1.09	ug/L		83
20) freon 113	6.633	151	1734	0.91	ug/L	#	81
21) 2-chloropropane	6.387	43	6299	1.23	ug/L		93
22) acetone	6.691	58	1687	4.75	ug/L	#	65
23) acetonitrile	7.158	41	4153	10.72	ug/L		89
24) iodomethane	6.911	142	4858	1.09	ug/L		97
25) carbon disulfide	7.042	76	9199	1.11	ug/L		98
26) methylene chloride	7.404	84	2732	1.06	ug/L		94
27) methyl acetate	7.215	43	2195	1.08	ug/L		92
28) methyl tert butyl ether	7.818	73	7840	1.07	ug/L		99
29) trans-1,2-dichloroethene	7.839	96	2567	1.09	ug/L		89
30) hexane	8.238	57	3741	1.07	ug/L		94
31) di-isopropyl ether	8.547	45	10381	1.04	ug/L		84
32) 2-butanone	9.381	72	1298	4.47	ug/L		98
33) 1,1-dichloroethane	8.500	63	5047	1.05	ug/L		84
34) chloroprene	8.641	53	4084	1.08	ug/L		95
37) ethyl tert-butyl ether	9.108	59	9164	1.03	ug/L		92
39) 2,2-dichloropropane	9.412	77	4263	1.15	ug/L		82
40) cis-1,2-dichloroethene	9.391	96	2836	1.05	ug/L		80
41) propionitrile	9.486	54	3910	10.34	ug/L		96
42) tert-Butyl Formate	9.931	59	2145	1.04	ug/L	#	83
43) bromochloromethane	9.769	128	1301	0.98	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174258.D
Acq On : 17 Mar 2018 11:50 am
Operator : OyinadeI
Sample : IC7334-1
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 23 14:10:53 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:12:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.858	83	4831	1.07	ug/L		97
47) methacrylonitrile	9.727	67	914	0.97	ug/L		88
48) 1,1,1-trichloroethane	10.188	97	4116	1.07	ug/L		88
49) cyclohexane	10.293	84	3782	1.03	ug/L		88
50) 1,1-dichloropropene	10.414	75	3626	1.09	ug/L		93
51) isobutyl alcohol	10.440	43	1263	10.83	ug/L		85
52) carbon tetrachloride	10.445	117	3752	1.10	ug/L		99
56) benzene	10.749	78	10978	1.08	ug/L		94
57) iso-octane	10.817	57	11459	1.06	ug/L		96
58) tert-amyl methyl ether	10.844	73	8628	1.08	ug/L		98
59) heptane	11.043	57	1957	1.00	ug/L		96
61) 1,2-dichloroethane	10.749	62	4209	1.13	ug/L		90
62) n-butyl alcohol	11.436	56	2997	43.92	ug/L		90
63) ethyl acrylate	11.751	55	2724	0.92	ug/L		79
64) trichloroethene	11.677	130	2687	1.08	ug/L		90
65) 2-nitropropane	12.731	41	706	1.15	ug/L	#	69
66) 2-chloroethyl vinyl ether	12.789	63	6440	4.77	ug/L		97
68) 1,2-dichloropropane	12.023	63	2964	1.07	ug/L		99
69) dibromomethane	12.217	93	1539	1.01	ug/L		91
70) methylcyclohexane	12.002	83	4938	1.09	ug/L		84
71) bromodichloromethane	12.406	83	3605	1.05	ug/L		95
72) epichlorohydrin	12.925	57	1139	4.75	ug/L		91
73) cis-1,3-dichloropropene	13.051	75	4484	1.05	ug/L		97
74) 4-methyl-2-pentanone	13.224	58	3946	4.26	ug/L		92
75) 3-methyl-1-butanol	13.255	55	1954	18.23	ug/L		80
78) toluene	13.544	92	6769	1.09	ug/L		87
79) trans-1,3-dichloropropene	13.816	75	3754	0.97	ug/L		90
80) ethyl methacrylate	13.885	69	3078	0.97	ug/L		94
81) 1,1,2-trichloroethane	14.089	83	2041	1.06	ug/L		91
82) tetrachloroethene	14.335	164	2237	0.99	ug/L		92
83) 1,3-dichloropropane	14.341	76	4001	1.05	ug/L		98
84) 2-hexanone	14.393	58	4462	4.36	ug/L		93
85) butyl acetate	14.524	56	1520	0.90	ug/L	#	84
86) dibromochloromethane	14.671	129	2645	0.99	ug/L		97
87) 1,2-dibromoethane	14.870	107	2542	1.04	ug/L		93
88) n-butyl ether	15.515	57	12553	1.00	ug/L		98
89) chlorobenzene	15.510	112	7520	1.03	ug/L		96
90) 1,1,1,2-tetrachloroethane	15.599	131	2688	1.01	ug/L		96
91) ethylbenzene	15.620	91	12511	1.01	ug/L		97
92) m,p-xylene	15.767	91	19774	2.08	ug/L		95
93) o-xylene	16.307	106	4857	1.04	ug/L		95
94) styrene	16.323	104	7925	1.01	ug/L		94
96) bromoform	16.611	173	1850	0.97	ug/L		94
97) isopropylbenzene	16.758	105	12482	1.02	ug/L		98
101) bromobenzene	17.188	156	3494	1.02	ug/L		92
102) 1,1,2,2-tetrachloroethane	17.099	83	3360	1.11	ug/L		99
103) trans-1,4-dichloro-2-b...	17.167	53	615	0.92	ug/L	#	72
104) 1,2,3-trichloropropane	17.182	110	781	1.00	ug/L	#	64
105) n-propylbenzene	17.245	91	14971	1.04	ug/L		98
106) 2-chlorotoluene	17.387	126	3266	1.07	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174258.D
Acq On : 17 Mar 2018 11:50 am
Operator : OyinadeI
Sample : IC7334-1
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 23 14:10:53 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:12:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 4-chlorotoluene	17.502	91	9207	1.04	ug/L	98
109) 1,3,5-trimethylbenzene	17.429	105	10309	1.01	ug/L	95
110) tert-butylbenzene	17.812	119	9373	1.04	ug/L	99
111) 1,2,4-trimethylbenzene	17.859	105	10714	1.02	ug/L	97
112) sec-butylbenzene	18.042	105	13288	0.98	ug/L	98
113) 1,3-dichlorobenzene	18.205	146	6446	1.01	ug/L	96
114) p-isopropyltoluene	18.173	119	11035	0.96	ug/L	96
115) 1,4-dichlorobenzene	18.289	146	6858	1.06	ug/L	90
116) 1,2-dichlorobenzene	18.677	146	6456	1.01	ug/L	98
117) benzyl chloride	18.415	91	5733	1.01	ug/L	95
119) n-butylbenzene	18.593	92	5124	0.89	ug/L	89
123) 1,3,5-trichlorobenzene	19.589	180	4990	0.86	ug/L	90
124) hexachlorobutadiene	20.286	225	2733	0.94	ug/L	95
127) 1,2,4-trichlorobenzene	20.166	180	3446	0.75	ug/L	94
128) 1,2,3-trichlorobenzene	20.638	180	3184	0.79	ug/L	93
129) hexachloroethane	18.934	201	2161	1.01	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

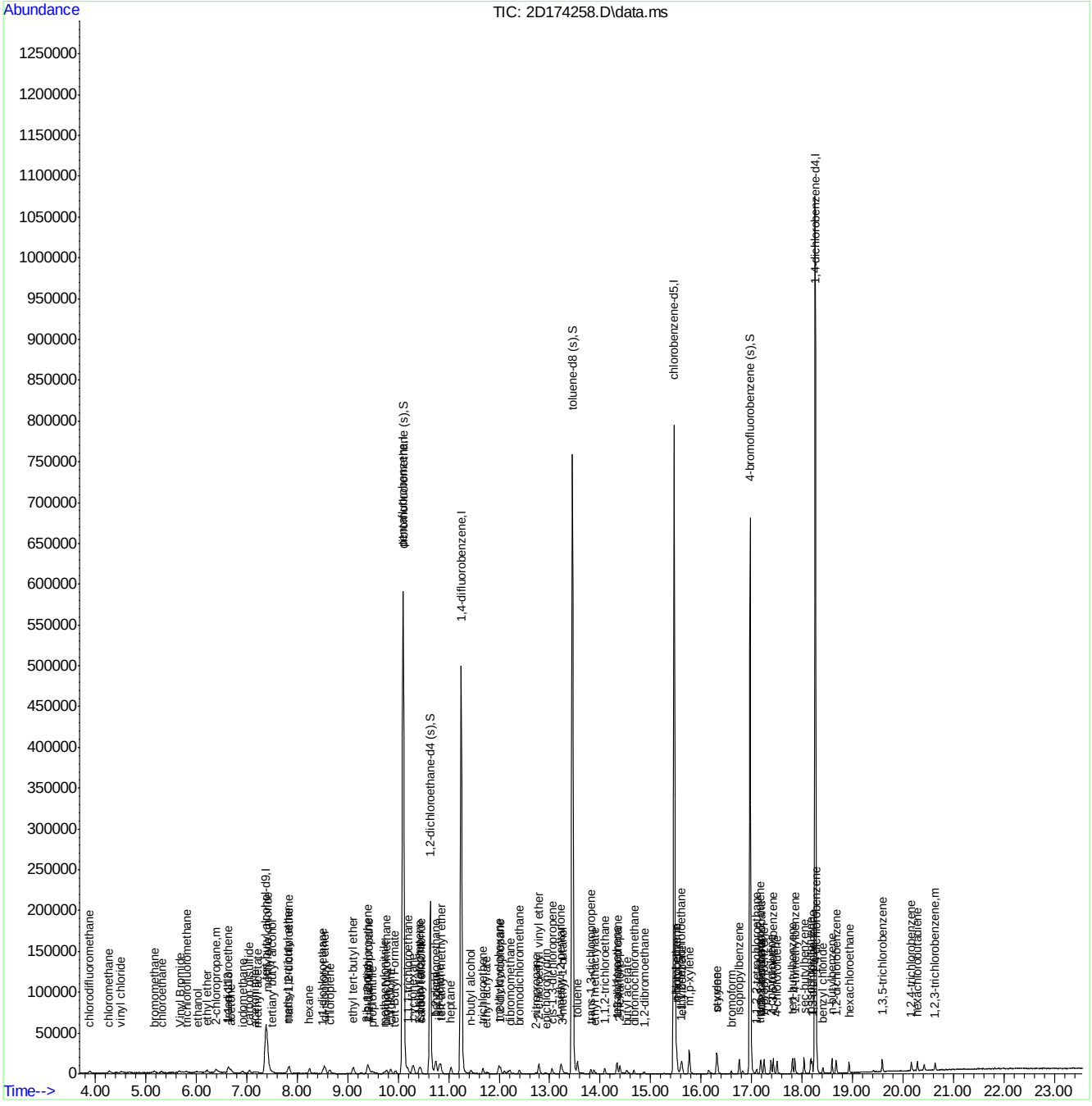
7.7.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174258.D
Acq On : 17 Mar 2018 11:50 am
Operator : OyinadeI
Sample : IC7334-1
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 23 14:10:53 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:12:12 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174259.D
Acq On : 17 Mar 2018 12:21 pm
Operator : OyinadeI
Sample : IC7334-2
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 23 14:11:36 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:08:42 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	135718	500.00	ug/L		-0.02
5) pentafluorobenzene	10.099	168	352567	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.247	114	482909	50.00	ug/L		-0.01
76) chlorobenzene-d5	15.468	117	472919	50.00	ug/L		-0.01
99) 1,4-dichlorobenzene-d4	18.262	152	259356	50.00	ug/L		-0.01
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.094	113	149218	50.14	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.28%				
55) 1,2-dichloroethane-d4 (s)	10.634	65	173771	50.77	ug/L		-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.54%				
77) toluene-d8 (s)	13.449	98	565560	50.22	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.44%				
100) 4-bromofluorobenzene (s)	16.967	95	225832	51.01	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.02%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	2564	10.04	ug/L		74
3) ethanol	6.020	45	7192	222.40	ug/L		82
6) chlorodifluoromethane	3.886	51	7491	2.07	ug/L		94
7) dichlorodifluoromethane	3.865	85	6428	1.85	ug/L		93
10) chloromethane	4.264	50	9354	2.05	ug/L		99
11) vinyl chloride	4.510	62	8076	2.05	ug/L		88
12) bromomethane	5.150	94	5343	2.17	ug/L		90
13) chloroethane	5.302	64	4204	2.07	ug/L		93
14) trichlorofluoromethane	5.795	101	8362	2.04	ug/L		96
15) Vinyl Bromide	5.658	106	4608	1.94	ug/L		93
17) ethyl ether	6.209	74	2486	1.90	ug/L	#	82
18) acrolein	6.445	56	1148	2.24	ug/L		82
19) 1,1-dichloroethene	6.633	96	4416	1.96	ug/L		91
20) freon 113	6.628	151	3714	1.96	ug/L	#	86
21) 2-chloropropane	6.387	43	10632	2.08	ug/L		94
22) acetone	6.686	58	3449	9.79	ug/L	#	75
23) acetonitrile	7.142	41	8235	21.41	ug/L		96
24) iodomethane	6.906	142	8691	1.97	ug/L		99
25) carbon disulfide	7.042	76	15780	1.91	ug/L		98
26) methylene chloride	7.399	84	4955	1.93	ug/L		91
27) methyl acetate	7.215	43	4290	2.12	ug/L		92
28) methyl tert butyl ether	7.818	73	13655	1.88	ug/L		96
29) trans-1,2-dichloroethene	7.839	96	4591	1.96	ug/L		91
30) hexane	8.243	57	6369	1.84	ug/L		97
31) di-isopropyl ether	8.547	45	19130	1.92	ug/L		93
32) 2-butanone	9.386	72	2615	9.08	ug/L	#	81
33) 1,1-dichloroethane	8.505	63	9197	1.93	ug/L		96
34) chloroprene	8.642	53	7051	1.87	ug/L		96
35) acrylonitrile	7.792	53	1705	1.75	ug/L		82
37) ethyl tert-butyl ether	9.108	59	16897	1.92	ug/L		93
38) ethyl acetate	9.433	45	619	1.78	ug/L		97
39) 2,2-dichloropropane	9.417	77	7760	2.10	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174259.D
Acq On : 17 Mar 2018 12:21 pm
Operator : OyinadeI
Sample : IC7334-2
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 23 14:11:36 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:08:42 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) cis-1,2-dichloroethene	9.391	96	5113	1.91	ug/L		83
41) propionitrile	9.486	54	7383	19.67	ug/L		84
42) tert-Butyl Formate	9.937	59	3826	1.86	ug/L		94
43) bromochloromethane	9.769	128	2449	1.86	ug/L		87
45) chloroform	9.853	83	8864	1.97	ug/L		95
47) methacrylonitrile	9.722	67	1754	1.88	ug/L	#	78
48) 1,1,1-trichloroethane	10.183	97	7334	1.92	ug/L		99
49) cyclohexane	10.288	84	7405	2.03	ug/L		91
50) 1,1-dichloropropene	10.419	75	6403	1.94	ug/L		98
51) isobutyl alcohol	10.440	43	2371	20.48	ug/L		87
52) carbon tetrachloride	10.435	117	6510	1.92	ug/L		90
53) tert-amyl alcohol	10.618	73	1021	8.62	ug/L	#	75
56) benzene	10.744	78	19124	1.90	ug/L		99
57) iso-octane	10.812	57	20774	1.92	ug/L		97
58) tert-amyl methyl ether	10.838	73	15409	1.93	ug/L		97
59) heptane	11.048	57	3577	1.83	ug/L		90
60) isopropyl acetate	10.728	87	828	1.89	ug/L	#	34
61) 1,2-dichloroethane	10.749	62	7293	1.96	ug/L		96
62) n-butyl alcohol	11.431	56	6134	90.32	ug/L		98
63) ethyl acrylate	11.745	55	5276	1.78	ug/L		98
64) trichloroethene	11.682	130	4774	1.93	ug/L		90
65) 2-nitropropane	12.721	41	1243	2.03	ug/L		89
66) 2-chloroethyl vinyl ether	12.784	63	12531	9.33	ug/L		98
67) methyl methacrylate	12.102	100	1043	1.77	ug/L	#	67
68) 1,2-dichloropropane	12.029	63	5335	1.93	ug/L		98
69) dibromomethane	12.212	93	2906	1.91	ug/L		91
70) methylcyclohexane	11.997	83	8411	1.86	ug/L		98
71) bromodichloromethane	12.401	83	6385	1.87	ug/L		95
72) epichlorohydrin	12.920	57	2251	9.43	ug/L		90
73) cis-1,3-dichloropropene	13.046	75	8253	1.94	ug/L		98
74) 4-methyl-2-pentanone	13.224	58	7587	8.23	ug/L		98
75) 3-methyl-1-butanol	13.250	55	3824	35.85	ug/L		96
78) toluene	13.549	92	11507	1.88	ug/L		98
79) trans-1,3-dichloropropene	13.816	75	7324	1.93	ug/L		96
80) ethyl methacrylate	13.879	69	5619	1.79	ug/L		97
81) 1,1,2-trichloroethane	14.094	83	3790	2.00	ug/L		98
82) tetrachloroethene	14.330	164	4125	1.86	ug/L		87
83) 1,3-dichloropropane	14.341	76	7219	1.92	ug/L		96
84) 2-hexanone	14.393	58	9019	8.95	ug/L		92
85) butyl acetate	14.529	56	2925	1.75	ug/L	#	85
86) dibromochloromethane	14.671	129	4825	1.83	ug/L		96
87) 1,2-dibromoethane	14.865	107	4668	1.95	ug/L		97
88) n-butyl ether	15.515	57	22191	1.79	ug/L		99
89) chlorobenzene	15.510	112	13406	1.86	ug/L		93
90) 1,1,1,2-tetrachloroethane	15.599	131	4962	1.90	ug/L		95
91) ethylbenzene	15.620	91	22133	1.82	ug/L		96
92) m,p-xylene	15.767	91	34464	3.69	ug/L		97
93) o-xylene	16.312	106	8664	1.88	ug/L		94
94) styrene	16.323	104	13927	1.81	ug/L		98
96) bromoform	16.606	173	3397	1.81	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174259.D
Acq On : 17 Mar 2018 12:21 pm
Operator : OyinadeI
Sample : IC7334-2
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 23 14:11:36 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:08:42 2018
Response via : Initial Calibration

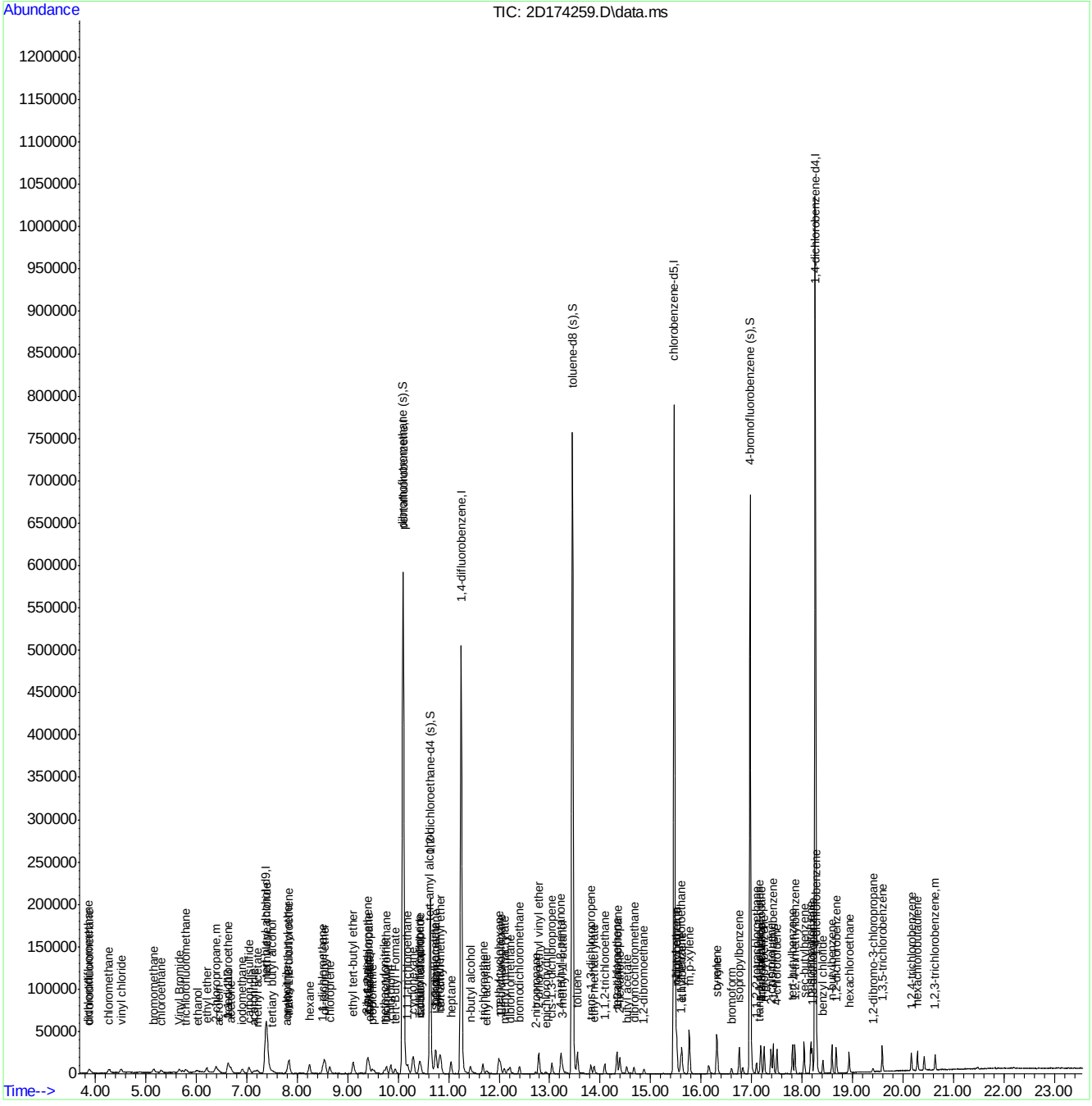
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97) isopropylbenzene	16.758	105	21956	1.82	ug/L		95
101) bromobenzene	17.182	156	6567	1.93	ug/L		98
102) 1,1,2,2-tetrachloroethane	17.099	83	6270	2.08	ug/L		99
103) trans-1,4-dichloro-2-b...	17.161	53	1223	1.84	ug/L		86
104) 1,2,3-trichloropropane	17.182	110	1617	2.07	ug/L	#	72
105) n-propylbenzene	17.251	91	26346	1.83	ug/L		99
106) 2-chlorotoluene	17.387	126	5603	1.85	ug/L		94
107) 4-chlorotoluene	17.502	91	16523	1.87	ug/L		91
109) 1,3,5-trimethylbenzene	17.429	105	18723	1.83	ug/L		99
110) tert-butylbenzene	17.812	119	16290	1.82	ug/L		99
111) 1,2,4-trimethylbenzene	17.859	105	18943	1.81	ug/L		100
112) sec-butylbenzene	18.042	105	24441	1.81	ug/L		97
113) 1,3-dichlorobenzene	18.205	146	11728	1.84	ug/L		98
114) p-isopropyltoluene	18.173	119	20304	1.78	ug/L		97
115) 1,4-dichlorobenzene	18.289	146	12172	1.89	ug/L		99
116) 1,2-dichlorobenzene	18.677	146	12069	1.90	ug/L		98
117) benzyl chloride	18.415	91	10753	1.91	ug/L		96
119) n-butylbenzene	18.593	92	10027	1.74	ug/L		99
121) 1,2-dibromo-3-chloropr...	19.405	157	1174	1.71	ug/L		88
123) 1,3,5-trichlorobenzene	19.589	180	9940	1.72	ug/L		99
124) hexachlorobutadiene	20.286	225	5157	1.78	ug/L		98
127) 1,2,4-trichlorobenzene	20.171	180	7180	1.57	ug/L		98
128) 1,2,3-trichlorobenzene	20.638	180	6625	1.64	ug/L		99
129) hexachloroethane	18.934	201	4031	1.89	ug/L		91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174259.D
Acq On : 17 Mar 2018 12:21 pm
Operator : OyinadeI
Sample : IC7334-2
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 23 14:11:36 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:08:42 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174260.D
Acq On : 17 Mar 2018 12:51 pm
Operator : OyinadeI
Sample : IC7334-5
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 23 14:11:57 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:05:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.383	65	136912	500.00	ug/L	-0.02
5) pentafluorobenzene	10.099	168	352537	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.247	114	479070	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.468	117	472665	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.262	152	267222	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.099	113	149717	50.31	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.62%			
55) 1,2-dichloroethane-d4 (s)	10.634	65	173630	51.13	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.26%			
77) toluene-d8 (s)	13.449	98	563728	50.08	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.16%			
100) 4-bromofluorobenzene (s)	16.973	95	227410	49.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.70%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	6743	26.18	ug/L	94
3) ethanol	6.004	45	16777	514.27	ug/L	99
4) 1,4-dioxane	12.191	88	2840	110.67	ug/L	93
6) chlorodifluoromethane	3.886	51	19646	5.42	ug/L	98
7) dichlorodifluoromethane	3.860	85	15566	4.49	ug/L	98
10) chloromethane	4.269	50	21570	4.73	ug/L	96
11) vinyl chloride	4.500	62	19384	4.92	ug/L	100
12) bromomethane	5.155	94	12458	5.06	ug/L	91
13) chloroethane	5.302	64	10106	4.98	ug/L	94
14) trichlorofluoromethane	5.789	101	20151	4.91	ug/L	95
15) Vinyl Bromide	5.663	106	11097	4.68	ug/L	95
17) ethyl ether	6.209	74	6532	5.01	ug/L	78
18) acrolein	6.439	56	2741	5.35	ug/L	92
19) 1,1-dichloroethene	6.628	96	11477	5.09	ug/L	97
20) freon 113	6.628	151	9747	5.16	ug/L	95
21) 2-chloropropane	6.392	43	26086	5.11	ug/L	98
22) acetone	6.686	58	9199	26.11	ug/L	96
23) acetonitrile	7.152	41	19967	51.91	ug/L	94
24) iodomethane	6.911	142	23142	5.24	ug/L	100
25) carbon disulfide	7.042	76	42061	5.10	ug/L	99
26) methylene chloride	7.404	84	13698	5.33	ug/L	96
27) methyl acetate	7.205	43	10377	5.12	ug/L	97
28) methyl tert butyl ether	7.824	73	37523	5.16	ug/L	97
29) trans-1,2-dichloroethene	7.839	96	11886	5.06	ug/L	97
30) hexane	8.238	57	17429	5.03	ug/L	98
31) di-isopropyl ether	8.547	45	50024	5.02	ug/L	90
32) 2-butanone	9.381	72	6979	24.23	ug/L #	88
33) 1,1-dichloroethane	8.500	63	24119	5.07	ug/L	99
34) chloroprene	8.642	53	19161	5.09	ug/L	98
35) acrylonitrile	7.782	53	4911	5.05	ug/L	98
36) vinyl acetate	8.531	86	1623	4.81	ug/L #	79
37) ethyl tert-butyl ether	9.103	59	44412	5.05	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174260.D
Acq On : 17 Mar 2018 12:51 pm
Operator : OyinadeI
Sample : IC7334-5
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 23 14:11:57 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:05:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.428	45	1775	5.11	ug/L	#	66
39) 2,2-dichloropropane	9.417	77	19901	5.40	ug/L		97
40) cis-1,2-dichloroethene	9.396	96	13827	5.16	ug/L		92
41) propionitrile	9.486	54	19923	53.08	ug/L		91
42) tert-Butyl Formate	9.937	59	10417	5.07	ug/L		95
43) bromochloromethane	9.764	128	6550	4.96	ug/L		100
44) tetrahydrofuran	9.842	72	1452	5.00	ug/L	#	82
45) chloroform	9.853	83	22766	5.07	ug/L		96
47) methacrylonitrile	9.716	67	4754	5.09	ug/L		85
48) 1,1,1-trichloroethane	10.188	97	19523	5.10	ug/L		93
49) cyclohexane	10.288	84	19160	5.25	ug/L		91
50) 1,1-dichloropropene	10.419	75	16558	5.02	ug/L		97
51) isobutyl alcohol	10.440	43	5771	49.86	ug/L		94
52) carbon tetrachloride	10.445	117	17572	5.17	ug/L		98
53) tert-amyl alcohol	10.623	73	2973	25.10	ug/L	#	73
56) benzene	10.749	78	49913	4.99	ug/L		100
57) iso-octane	10.817	57	52284	4.88	ug/L		100
58) tert-amyl methyl ether	10.844	73	40307	5.09	ug/L		98
59) heptane	11.048	57	9477	4.89	ug/L		99
60) isopropyl acetate	10.718	87	2050	4.72	ug/L	#	94
61) 1,2-dichloroethane	10.749	62	18380	4.98	ug/L		98
62) n-butyl alcohol	11.426	56	16808	249.47	ug/L		97
63) ethyl acrylate	11.745	55	14393	4.90	ug/L		98
64) trichloroethene	11.682	130	12410	5.06	ug/L		97
65) 2-nitropropane	12.721	41	3174	5.23	ug/L		99
66) 2-chloroethyl vinyl ether	12.784	63	33081	24.82	ug/L		99
67) methyl methacrylate	12.097	100	2874	4.91	ug/L		95
68) 1,2-dichloropropane	12.029	63	14330	5.22	ug/L		99
69) dibromomethane	12.212	93	7841	5.20	ug/L		98
70) methylcyclohexane	11.997	83	22769	5.09	ug/L		96
71) bromodichloromethane	12.406	83	16839	4.96	ug/L		97
72) epichlorohydrin	12.915	57	5916	24.99	ug/L		95
73) cis-1,3-dichloropropene	13.046	75	21944	5.21	ug/L		98
74) 4-methyl-2-pentanone	13.224	58	19900	21.77	ug/L		98
75) 3-methyl-1-butanol	13.245	55	10632	100.48	ug/L		97
78) toluene	13.549	92	30808	5.05	ug/L		99
79) trans-1,3-dichloropropene	13.816	75	19278	5.07	ug/L		96
80) ethyl methacrylate	13.879	69	15640	4.99	ug/L		95
81) 1,1,2-trichloroethane	14.094	83	9804	5.18	ug/L		94
82) tetrachloroethene	14.330	164	11022	4.98	ug/L		96
83) 1,3-dichloropropane	14.335	76	19732	5.24	ug/L		97
84) 2-hexanone	14.388	58	24652	24.49	ug/L		99
85) butyl acetate	14.524	56	8539	5.13	ug/L		93
86) dibromochloromethane	14.671	129	13192	5.01	ug/L		98
87) 1,2-dibromoethane	14.865	107	12438	5.19	ug/L		91
88) n-butyl ether	15.515	57	60649	4.90	ug/L		100
89) chlorobenzene	15.510	112	35426	4.91	ug/L		96
90) 1,1,1,2-tetrachloroethane	15.594	131	13308	5.09	ug/L		97
91) ethylbenzene	15.620	91	60587	4.99	ug/L		98
92) m,p-xylene	15.767	91	94188	10.08	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174260.D
Acq On : 17 Mar 2018 12:51 pm
Operator : OyinadeI
Sample : IC7334-5
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 23 14:11:57 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:05:02 2018
Response via : Initial Calibration

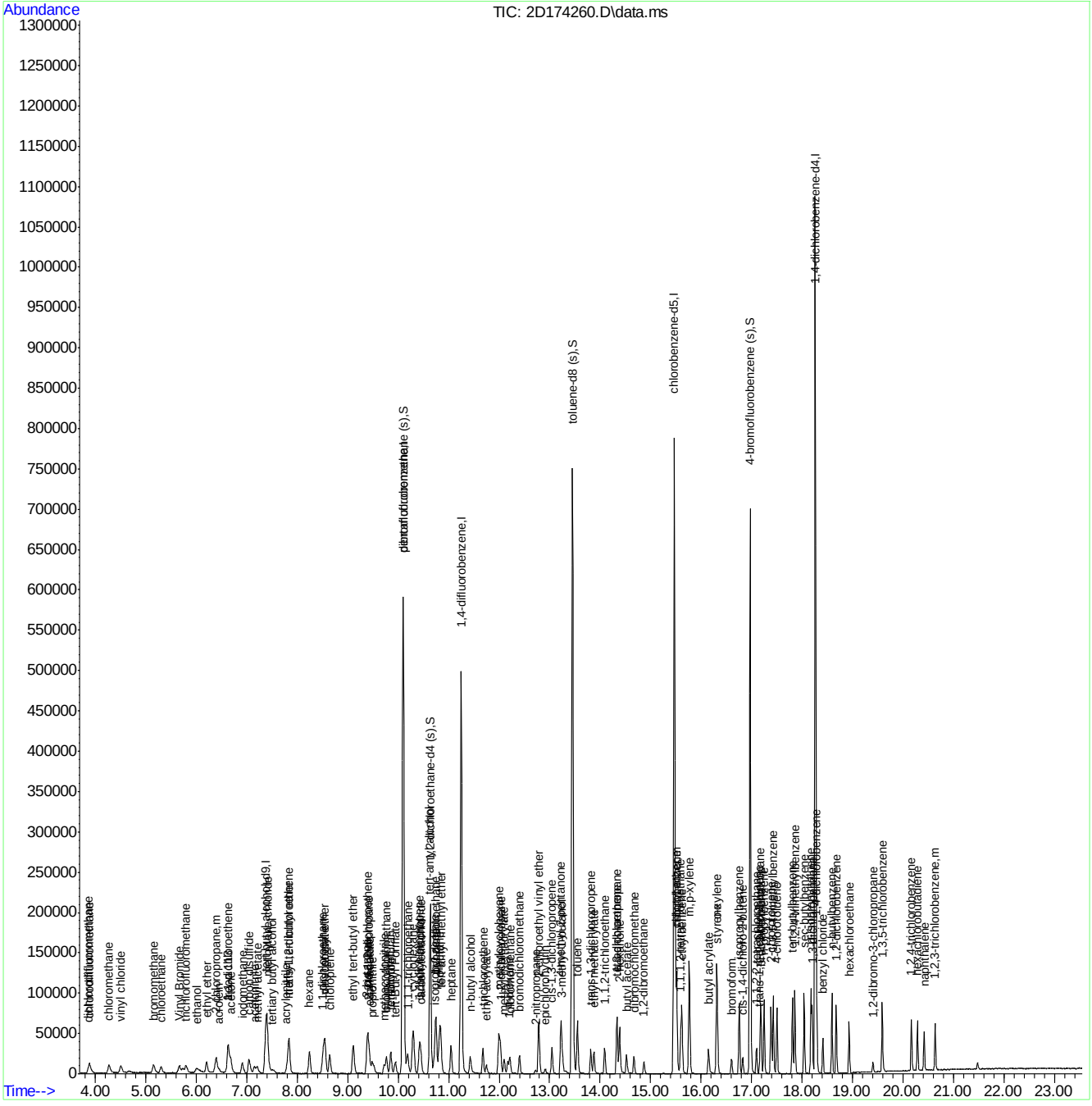
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.312	106	23352	5.08	ug/L		99
94)	styrene	16.323	104	38492	5.00	ug/L		99
95)	butyl acrylate	16.150	55	24204	4.57	ug/L		97
96)	bromoform	16.606	173	9198	4.91	ug/L		95
97)	isopropylbenzene	16.758	105	60038	4.97	ug/L		100
98)	cis-1,4-dichloro-2-butene	16.831	88	4851	4.56	ug/L		98
101)	bromobenzene	17.188	156	17328	4.94	ug/L		94
102)	1,1,2,2-tetrachloroethane	17.099	83	15980	5.14	ug/L		98
103)	trans-1,4-dichloro-2-b...	17.161	53	3373	4.92	ug/L	#	82
104)	1,2,3-trichloropropane	17.177	110	4266	5.31	ug/L	#	70
105)	n-propylbenzene	17.245	91	72425	4.89	ug/L		99
106)	2-chlorotoluene	17.387	126	15638	5.00	ug/L		98
107)	4-chlorotoluene	17.502	91	45166	4.97	ug/L		99
109)	1,3,5-trimethylbenzene	17.429	105	51990	4.94	ug/L		99
110)	tert-butylbenzene	17.812	119	44648	4.84	ug/L		97
111)	1,2,4-trimethylbenzene	17.859	105	52761	4.89	ug/L		97
112)	sec-butylbenzene	18.042	105	66520	4.78	ug/L		98
113)	1,3-dichlorobenzene	18.205	146	31981	4.87	ug/L		98
114)	p-isopropyltoluene	18.179	119	56208	4.79	ug/L		99
115)	1,4-dichlorobenzene	18.289	146	32338	4.87	ug/L		94
116)	1,2-dichlorobenzene	18.677	146	31982	4.88	ug/L		98
117)	benzyl chloride	18.415	91	29160	5.02	ug/L		98
119)	n-butylbenzene	18.593	92	27615	4.65	ug/L		97
121)	1,2-dibromo-3-chloropr...	19.405	157	3280	4.63	ug/L		91
123)	1,3,5-trichlorobenzene	19.589	180	27282	4.59	ug/L		98
124)	hexachlorobutadiene	20.286	225	13521	4.53	ug/L		95
125)	naphthalene	20.423	128	36625	4.01	ug/L		99
127)	1,2,4-trichlorobenzene	20.166	180	20625	4.38	ug/L		98
128)	1,2,3-trichlorobenzene	20.638	180	18365	4.43	ug/L		99
129)	hexachloroethane	18.934	201	10575	4.80	ug/L		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174260.D
Acq On : 17 Mar 2018 12:51 pm
Operator : OyinadeI
Sample : IC7334-5
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 23 14:11:57 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 13:05:02 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174261.D
Acq On : 17 Mar 2018 1:21 pm
Operator : OyinadeI
Sample : IC7334-10
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 23 13:00:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:57:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.383	65	136306	500.00	ug/L	-0.02
5) pentafluorobenzene	10.099	168	347494	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.247	114	471814	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.468	117	466834	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.262	152	264472	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.099	113	146173	49.84	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.68%			
55) 1,2-dichloroethane-d4 (s)	10.634	65	168463	50.37	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.74%			
77) toluene-d8 (s)	13.455	98	557288	50.13	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.26%			
100) 4-bromofluorobenzene (s)	16.973	95	225684	49.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.514	59	14657	57.17	ug/L	95
3) ethanol	6.004	45	35301	1086.89	ug/L	100
4) 1,4-dioxane	12.191	88	6738	263.74	ug/L	96
6) chlorodifluoromethane	3.891	51	46247	12.94	ug/L	98
7) dichlorodifluoromethane	3.876	85	36247	10.60	ug/L	97
10) chloromethane	4.274	50	46180	10.27	ug/L	94
11) vinyl chloride	4.505	62	41978	10.82	ug/L	98
12) bromomethane	5.160	94	25611	10.56	ug/L	99
13) chloroethane	5.312	64	21923	10.95	ug/L	99
14) trichlorofluoromethane	5.800	101	46116	11.40	ug/L	96
15) Vinyl Bromide	5.674	106	24540	10.49	ug/L	99
17) ethyl ether	6.209	74	14764	11.48	ug/L	85
18) acrolein	6.450	56	5597	11.08	ug/L	93
19) 1,1-dichloroethene	6.633	96	26427	11.90	ug/L	99
20) freon 113	6.644	151	23751	12.75	ug/L	93
21) 2-chloropropane	6.392	43	60014	11.93	ug/L	99
22) acetone	6.691	58	19856	57.18	ug/L	98
23) acetonitrile	7.152	41	43847	115.64	ug/L	98
24) iodomethane	6.916	142	53207	12.23	ug/L	96
25) carbon disulfide	7.048	76	98672	12.15	ug/L	99
26) methylene chloride	7.409	84	30859	12.19	ug/L	98
27) methyl acetate	7.210	43	22405	11.22	ug/L	97
28) methyl tert butyl ether	7.824	73	82907	11.57	ug/L	98
29) trans-1,2-dichloroethene	7.844	96	27961	12.08	ug/L	98
30) hexane	8.243	57	44822	13.11	ug/L	98
31) di-isopropyl ether	8.552	45	113638	11.58	ug/L	98
32) 2-butanone	9.375	72	15358	54.09	ug/L	97
33) 1,1-dichloroethane	8.505	63	56138	11.97	ug/L	99
34) chloroprene	8.647	53	46630	12.56	ug/L	99
35) acrylonitrile	7.782	53	11036	11.50	ug/L	93
36) vinyl acetate	8.526	86	3699	11.11	ug/L #	85
37) ethyl tert-butyl ether	9.113	59	99649	11.50	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174261.D
Acq On : 17 Mar 2018 1:21 pm
Operator : OyinadeI
Sample : IC7334-10
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 23 13:00:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:57:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.433	45	4032	11.77	ug/L		88
39) 2,2-dichloropropane	9.417	77	45458	12.50	ug/L		97
40) cis-1,2-dichloroethene	9.396	96	30938	11.72	ug/L		96
41) propionitrile	9.486	54	43600	117.84	ug/L		95
42) tert-Butyl Formate	9.942	59	22138	10.92	ug/L		92
43) bromochloromethane	9.769	128	15209	11.69	ug/L		98
44) tetrahydrofuran	9.842	72	3366	11.76	ug/L		97
45) chloroform	9.858	83	51007	11.53	ug/L		99
47) methacrylonitrile	9.721	67	10858	11.79	ug/L		97
48) 1,1,1-trichloroethane	10.188	97	47384	12.56	ug/L		99
49) cyclohexane	10.293	84	42641	11.84	ug/L		86
50) 1,1-dichloropropene	10.419	75	40222	12.38	ug/L		97
51) isobutyl alcohol	10.440	43	13315	116.70	ug/L		95
52) carbon tetrachloride	10.450	117	42052	12.56	ug/L		98
53) tert-amyl alcohol	10.613	73	6456	55.30	ug/L	#	84
56) benzene	10.749	78	114961	11.67	ug/L		99
57) iso-octane	10.817	57	134677	12.76	ug/L		98
58) tert-amyl methyl ether	10.843	73	90109	11.56	ug/L		98
59) heptane	11.048	57	25027	13.12	ug/L		96
60) isopropyl acetate	10.718	87	4892	11.43	ug/L		95
61) 1,2-dichloroethane	10.754	62	40135	11.05	ug/L		99
62) n-butyl alcohol	11.425	56	37872	570.75	ug/L		99
63) ethyl acrylate	11.745	55	32538	11.25	ug/L		98
64) trichloroethene	11.682	130	30118	12.48	ug/L		98
65) 2-nitropropane	12.720	41	6761	11.32	ug/L		97
66) 2-chloroethyl vinyl ether	12.783	63	76163	58.01	ug/L		100
67) methyl methacrylate	12.102	100	6173	10.72	ug/L		96
68) 1,2-dichloropropane	12.028	63	31911	11.80	ug/L		99
69) dibromomethane	12.212	93	17311	11.67	ug/L		97
70) methylcyclohexane	11.997	83	57041	12.94	ug/L		98
71) bromodichloromethane	12.406	83	38627	11.55	ug/L		99
72) epichlorohydrin	12.914	57	13357	57.30	ug/L		97
73) cis-1,3-dichloropropene	13.046	75	48806	11.76	ug/L		98
74) 4-methyl-2-pentanone	13.224	58	42753	47.49	ug/L		93
75) 3-methyl-1-butanol	13.250	55	23504	225.54	ug/L		93
78) toluene	13.549	92	70841	11.75	ug/L		98
79) trans-1,3-dichloropropene	13.816	75	42324	11.27	ug/L		98
80) ethyl methacrylate	13.879	69	35638	11.50	ug/L		99
81) 1,1,2-trichloroethane	14.094	83	21815	11.67	ug/L		98
82) tetrachloroethene	14.335	164	26450	12.10	ug/L		97
83) 1,3-dichloropropane	14.341	76	43804	11.78	ug/L		99
84) 2-hexanone	14.388	58	54797	55.11	ug/L		99
85) butyl acetate	14.519	56	18731	11.38	ug/L		96
86) dibromochloromethane	14.671	129	29973	11.52	ug/L		99
87) 1,2-dibromoethane	14.865	107	27251	11.51	ug/L		97
88) n-butyl ether	15.515	57	143431	11.73	ug/L		98
89) chlorobenzene	15.510	112	82493	11.58	ug/L		95
90) 1,1,1,2-tetrachloroethane	15.599	131	30699	11.88	ug/L		98
91) ethylbenzene	15.620	91	141679	11.81	ug/L		98
92) m,p-xylene	15.767	91	216884	23.50	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174261.D
Acq On : 17 Mar 2018 1:21 pm
Operator : OyinadeI
Sample : IC7334-10
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 23 13:00:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:57:19 2018
Response via : Initial Calibration

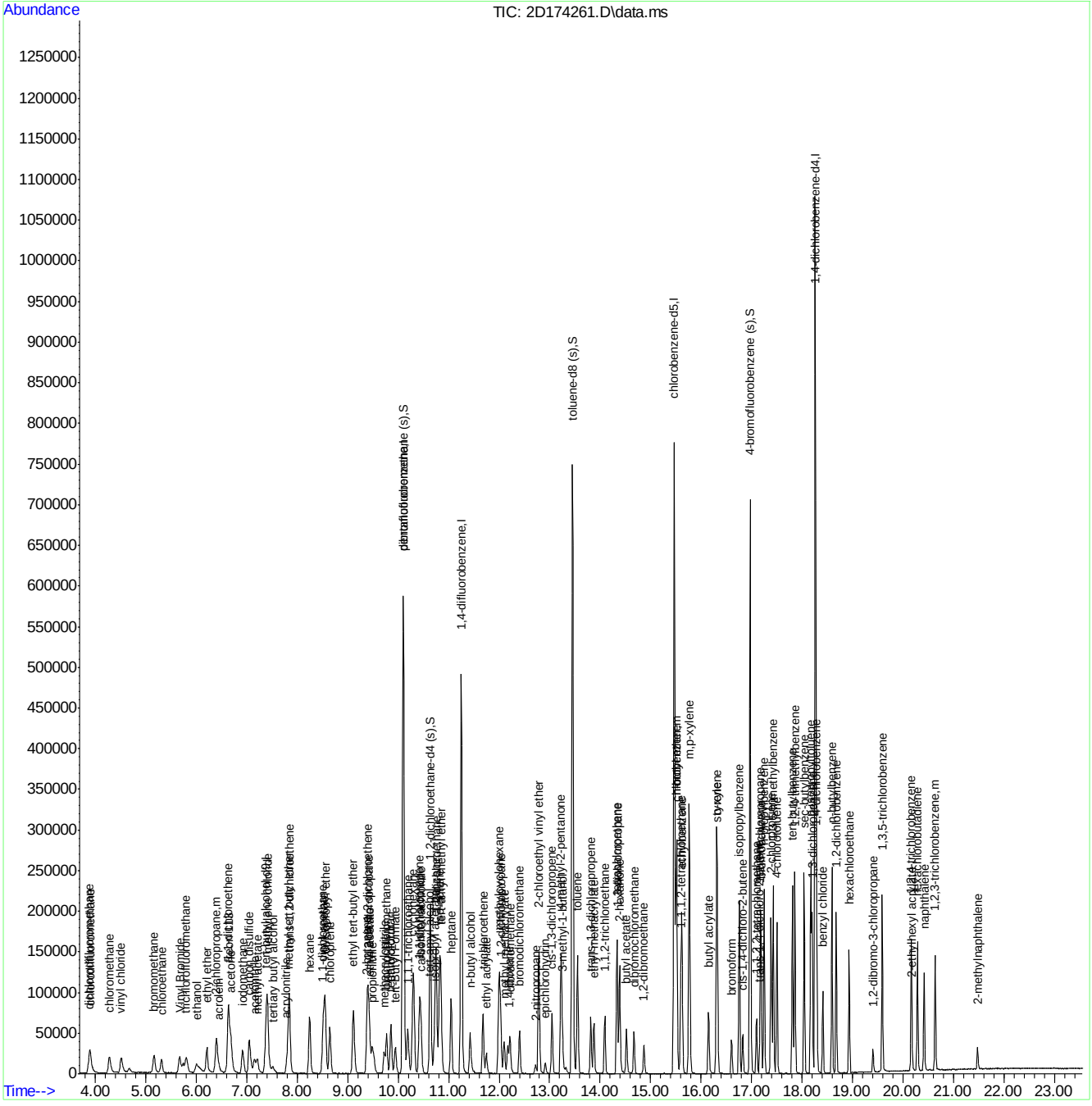
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.307	106	53888	11.87	ug/L		99
94)	styrene	16.322	104	90491	11.90	ug/L		98
95)	butyl acrylate	16.149	55	55696	10.64	ug/L		98
96)	bromoform	16.606	173	21062	11.38	ug/L		98
97)	isopropylbenzene	16.758	105	144180	12.09	ug/L		98
98)	cis-1,4-dichloro-2-butene	16.826	88	11151	10.61	ug/L		94
101)	bromobenzene	17.188	156	39254	11.30	ug/L		96
102)	1,1,2,2-tetrachloroethane	17.098	83	35100	11.41	ug/L		99
103)	trans-1,4-dichloro-2-b...	17.161	53	7467	11.01	ug/L		94
104)	1,2,3-trichloropropane	17.177	110	9383	11.79	ug/L	#	76
105)	n-propylbenzene	17.250	91	175834	12.00	ug/L		100
106)	2-chlorotoluene	17.387	126	36316	11.74	ug/L		98
107)	4-chlorotoluene	17.502	91	103368	11.50	ug/L		98
109)	1,3,5-trimethylbenzene	17.429	105	123795	11.89	ug/L		99
110)	tert-butylbenzene	17.811	119	106952	11.72	ug/L		100
111)	1,2,4-trimethylbenzene	17.859	105	125910	11.80	ug/L		99
112)	sec-butylbenzene	18.042	105	163679	11.88	ug/L		99
113)	1,3-dichlorobenzene	18.205	146	74084	11.39	ug/L		99
114)	p-isopropyltoluene	18.179	119	139247	11.98	ug/L		100
115)	1,4-dichlorobenzene	18.289	146	72772	11.08	ug/L		99
116)	1,2-dichlorobenzene	18.677	146	73319	11.31	ug/L		99
117)	benzyl chloride	18.414	91	64779	11.27	ug/L		97
119)	n-butylbenzene	18.593	92	69634	11.86	ug/L		97
121)	1,2-dibromo-3-chloropr...	19.411	157	7615	10.87	ug/L		94
123)	1,3,5-trichlorobenzene	19.589	180	66806	11.36	ug/L		99
124)	hexachlorobutadiene	20.286	225	33727	11.40	ug/L		94
125)	naphthalene	20.423	128	92553	10.24	ug/L		100
126)	2-ethylhexyl acrylate	20.181	70	2162	2.65	ug/L		95
127)	1,2,4-trichlorobenzene	20.166	180	50801	10.91	ug/L		97
128)	1,2,3-trichlorobenzene	20.637	180	44786	10.90	ug/L		99
129)	hexachloroethane	18.933	201	25548	11.73	ug/L		96
130)	2-methylnaphthalene	21.482	142	13459	4.85	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174261.D
Acq On : 17 Mar 2018 1:21 pm
Operator : OyinadeI
Sample : IC7334-10
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 23 13:00:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:57:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174262.D
Acq On : 17 Mar 2018 1:51 pm
Operator : OyinadeI
Sample : IC7334-20
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 23 14:12:35 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:57:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.383	65	133693	500.00	ug/L	-0.02
5) pentafluorobenzene	10.099	168	341602	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.247	114	465120	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.473	117	461990	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.263	152	263800	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.099	113	145867	50.59	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.18%			
55) 1,2-dichloroethane-d4 (s)	10.634	65	165287	50.14	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.28%			
77) toluene-d8 (s)	13.455	98	546337	49.66	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.32%			
100) 4-bromofluorobenzene (s)	16.973	95	221924	49.28	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.56%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.514	59	26620	105.86	ug/L	90
3) ethanol	5.994	45	62202	1952.59	ug/L	92
4) 1,4-dioxane	12.191	88	12662	505.31	ug/L	95
6) chlorodifluoromethane	3.886	51	76858	21.88	ug/L	98
7) dichlorodifluoromethane	3.870	85	69876	20.79	ug/L	98
10) chloromethane	4.269	50	89122	20.16	ug/L	97
11) vinyl chloride	4.505	62	82472	21.62	ug/L	98
12) bromomethane	5.155	94	50384	21.14	ug/L	100
13) chloroethane	5.307	64	42910	21.80	ug/L	98
14) trichlorofluoromethane	5.800	101	87860	22.08	ug/L	98
15) Vinyl Bromide	5.669	106	48778	21.21	ug/L	96
17) ethyl ether	6.204	74	26547	21.00	ug/L	93
18) acrolein	6.445	56	10492	21.14	ug/L	88
19) 1,1-dichloroethene	6.628	96	45307	20.75	ug/L	96
20) freon 113	6.639	151	39079	21.34	ug/L	97
21) 2-chloropropane	6.392	43	98367	19.89	ug/L	98
22) acetone	6.686	58	35722	104.64	ug/L	89
23) acetonitrile	7.147	41	76858	206.20	ug/L	100
24) iodomethane	6.917	142	90608	21.18	ug/L	98
25) carbon disulfide	7.048	76	164211	20.56	ug/L	99
26) methylene chloride	7.404	84	53225	21.38	ug/L	98
27) methyl acetate	7.205	43	40026	20.39	ug/L	99
28) methyl tert butyl ether	7.824	73	148889	21.13	ug/L	99
29) trans-1,2-dichloroethene	7.845	96	47323	20.81	ug/L	99
30) hexane	8.243	57	72363	21.54	ug/L	99
31) di-isopropyl ether	8.547	45	199919	20.72	ug/L	96
32) 2-butanone	9.376	72	28171	100.93	ug/L	96
33) 1,1-dichloroethane	8.505	63	95151	20.63	ug/L	97
34) chloroprene	8.647	53	77396	21.20	ug/L	98
35) acrylonitrile	7.776	53	19528	20.71	ug/L	98
36) vinyl acetate	8.526	86	7247	22.15	ug/L #	81
37) ethyl tert-butyl ether	9.108	59	177726	20.86	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174262.D
Acq On : 17 Mar 2018 1:51 pm
Operator : OyinadeI
Sample : IC7334-20
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 23 14:12:35 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:57:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.428	45	7937	23.57	ug/L	#	66
39) 2,2-dichloropropane	9.418	77	75650	21.17	ug/L		98
40) cis-1,2-dichloroethene	9.391	96	53693	20.70	ug/L		97
41) propionitrile	9.480	54	78494	215.81	ug/L		98
42) tert-Butyl Formate	9.942	59	42718	21.44	ug/L		96
43) bromochloromethane	9.774	128	26625	20.82	ug/L		97
44) tetrahydrofuran	9.842	72	5732	20.38	ug/L	#	82
45) chloroform	9.853	83	88352	20.32	ug/L		99
47) methacrylonitrile	9.722	67	19630	21.68	ug/L		98
48) 1,1,1-trichloroethane	10.188	97	78009	21.04	ug/L		97
49) cyclohexane	10.293	84	71305	20.15	ug/L		86
50) 1,1-dichloropropene	10.419	75	66854	20.94	ug/L		98
51) isobutyl alcohol	10.440	43	23018	205.22	ug/L		97
52) carbon tetrachloride	10.445	117	70028	21.27	ug/L		97
53) tert-amyl alcohol	10.618	73	11659	101.59	ug/L		95
56) benzene	10.744	78	195754	20.15	ug/L		98
57) iso-octane	10.817	57	226016	21.73	ug/L		99
58) tert-amyl methyl ether	10.844	73	160479	20.89	ug/L		98
59) heptane	11.048	57	41109	21.85	ug/L		99
60) isopropyl acetate	10.718	87	9002	21.33	ug/L	#	83
61) 1,2-dichloroethane	10.749	62	69686	19.46	ug/L		99
62) n-butyl alcohol	11.420	56	69796	1067.00	ug/L		99
63) ethyl acrylate	11.745	55	59570	20.89	ug/L		99
64) trichloroethene	11.683	130	49150	20.65	ug/L		99
65) 2-nitropropane	12.721	41	12311	20.90	ug/L		98
66) 2-chloroethyl vinyl ether	12.784	63	139791	108.01	ug/L		100
67) methyl methacrylate	12.097	100	11826	20.83	ug/L		94
68) 1,2-dichloropropane	12.029	63	55181	20.69	ug/L		97
69) dibromomethane	12.212	93	30934	21.14	ug/L		97
70) methylcyclohexane	11.997	83	93107	21.43	ug/L		99
71) bromodichloromethane	12.401	83	68238	20.70	ug/L		96
72) epichlorohydrin	12.915	57	24143	105.06	ug/L		96
73) cis-1,3-dichloropropene	13.046	75	86769	21.21	ug/L		98
74) 4-methyl-2-pentanone	13.224	58	77516	87.35	ug/L		92
75) 3-methyl-1-butanol	13.245	55	44106	429.32	ug/L		97
78) toluene	13.554	92	119696	20.07	ug/L		98
79) trans-1,3-dichloropropene	13.816	75	76797	20.67	ug/L		99
80) ethyl methacrylate	13.874	69	64859	21.16	ug/L		99
81) 1,1,2-trichloroethane	14.094	83	38791	20.97	ug/L		98
82) tetrachloroethene	14.335	164	44205	20.43	ug/L		96
83) 1,3-dichloropropane	14.341	76	77824	21.15	ug/L		95
84) 2-hexanone	14.388	58	98328	99.93	ug/L		96
85) butyl acetate	14.519	56	33376	20.50	ug/L		97
86) dibromochloromethane	14.671	129	52896	20.54	ug/L		97
87) 1,2-dibromoethane	14.865	107	48676	20.77	ug/L		97
88) n-butyl ether	15.520	57	250636	20.71	ug/L		99
89) chlorobenzene	15.515	112	142905	20.28	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.599	131	54258	21.21	ug/L		97
91) ethylbenzene	15.620	91	242424	20.43	ug/L		99
92) m,p-xylene	15.772	91	374070	40.96	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174262.D
Acq On : 17 Mar 2018 1:51 pm
Operator : OyinadeI
Sample : IC7334-20
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 23 14:12:35 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:57:19 2018
Response via : Initial Calibration

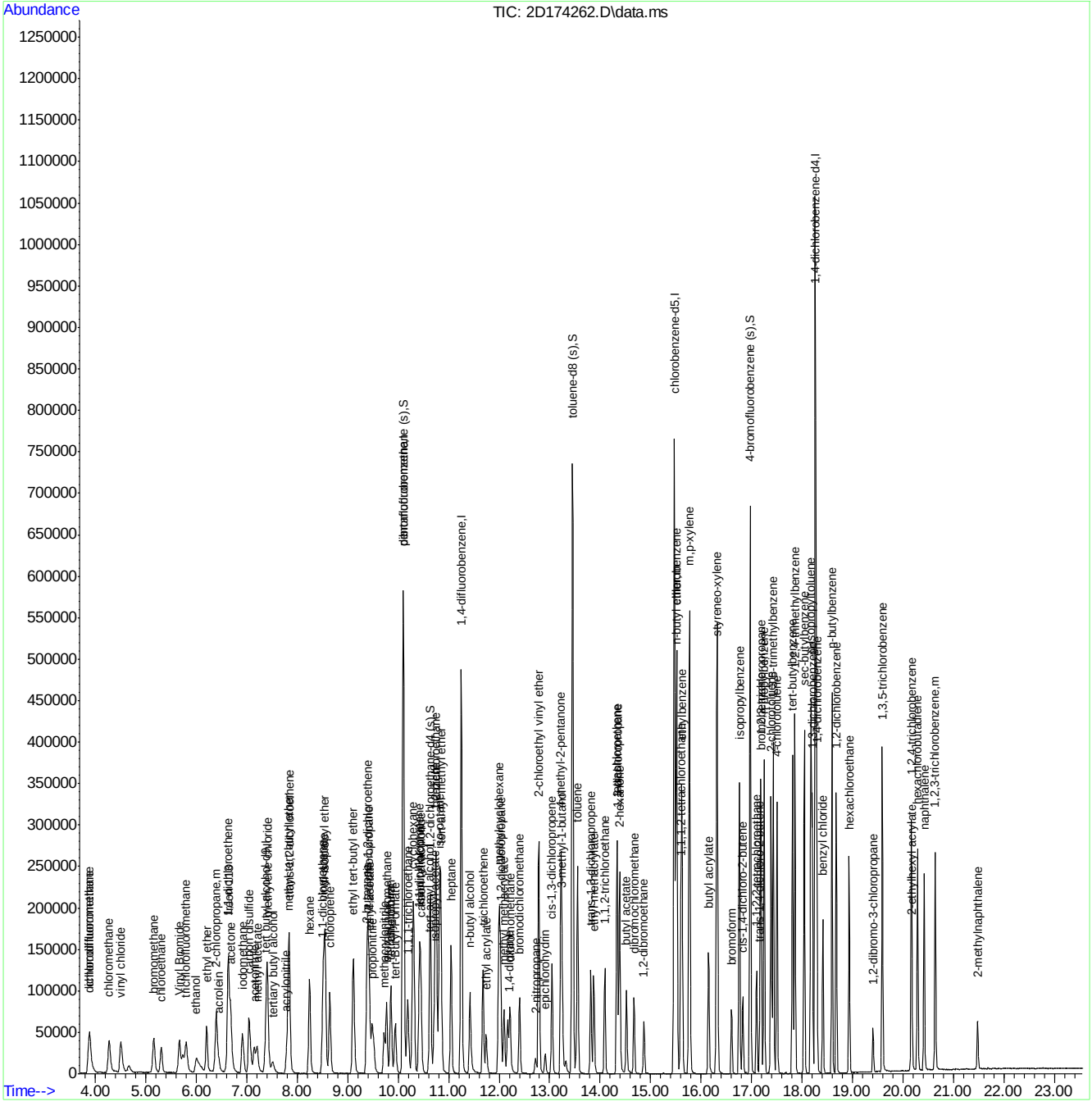
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	o-xylene	16.312	106	93203	20.75	ug/L	100
94)	styrene	16.323	104	159825	21.24	ug/L	99
95)	butyl acrylate	16.150	55	105023	20.27	ug/L	99
96)	bromoform	16.606	173	38242	20.89	ug/L	96
97)	isopropylbenzene	16.763	105	246607	20.90	ug/L	98
98)	cis-1,4-dichloro-2-butene	16.826	88	20865	20.05	ug/L	97
101)	bromobenzene	17.188	156	69556	20.08	ug/L	97
102)	1,1,2,2-tetrachloroethane	17.099	83	63456	20.68	ug/L	99
103)	trans-1,4-dichloro-2-b...	17.161	53	13953	20.62	ug/L	99
104)	1,2,3-trichloropropane	17.182	110	16392	20.65	ug/L	96
105)	n-propylbenzene	17.251	91	296480	20.28	ug/L	100
106)	2-chlorotoluene	17.387	126	62870	20.37	ug/L	94
107)	4-chlorotoluene	17.502	91	179817	20.06	ug/L	98
109)	1,3,5-trimethylbenzene	17.429	105	211849	20.39	ug/L	99
110)	tert-butylbenzene	17.812	119	183717	20.18	ug/L	99
111)	1,2,4-trimethylbenzene	17.859	105	217598	20.45	ug/L	99
112)	sec-butylbenzene	18.048	105	281443	20.49	ug/L	100
113)	1,3-dichlorobenzene	18.205	146	129853	20.01	ug/L	99
114)	p-isopropyltoluene	18.179	119	240778	20.77	ug/L	99
115)	1,4-dichlorobenzene	18.294	146	131250	20.04	ug/L	99
116)	1,2-dichlorobenzene	18.677	146	131730	20.36	ug/L	99
117)	benzyl chloride	18.415	91	122170	21.32	ug/L	99
119)	n-butylbenzene	18.593	92	121846	20.80	ug/L	97
121)	1,2-dibromo-3-chloropr...	19.411	157	14241	20.38	ug/L	95
123)	1,3,5-trichlorobenzene	19.594	180	120484	20.55	ug/L	98
124)	hexachlorobutadiene	20.292	225	59819	20.28	ug/L	97
125)	naphthalene	20.423	128	179300	19.88	ug/L	99
126)	2-ethylhexyl acrylate	20.181	70	4775	3.47	ug/L	89
127)	1,2,4-trichlorobenzene	20.171	180	96667	20.82	ug/L	98
128)	1,2,3-trichlorobenzene	20.638	180	85616	20.90	ug/L	100
129)	hexachloroethane	18.939	201	43925	20.21	ug/L	98
130)	2-methylnaphthalene	21.482	142	30339	8.32	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174262.D
Acq On : 17 Mar 2018 1:51 pm
Operator : OyinadeI
Sample : IC7334-20
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 23 14:12:35 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:57:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174263.D
Acq On : 17 Mar 2018 2:21 pm
Operator : OyinadeI
Sample : ICC7334-50
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 23 12:52:17 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:52:00 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.388	65	129887	500.00	ug/L	-0.01
5) pentafluorobenzene	10.104	168	332851	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.253	114	450757	50.00	ug/L	0.00
76) chlorobenzene-d5	15.473	117	446969	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.268	152	256640	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.104	113	142973	50.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.78%			
55) 1,2-dichloroethane-d4 (s)	10.639	65	160410	50.21	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.42%			
77) toluene-d8 (s)	13.455	98	532585	50.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.08%			
100) 4-bromofluorobenzene (s)	16.973	95	215275	49.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.28%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.519	59	64672	264.71	ug/L	96
3) ethanol	6.015	45	148822	4808.58	ug/L	98
4) 1,4-dioxane	12.191	88	32096	1318.41	ug/L	93
6) chlorodifluoromethane	3.891	51	200914	58.71	ug/L	99
7) dichlorodifluoromethane	3.876	85	183482	56.03	ug/L	97
10) chloromethane	4.274	50	225979	52.46	ug/L	99
11) vinyl chloride	4.510	62	212430	57.16	ug/L	98
12) bromomethane	5.160	94	124840	53.75	ug/L	98
13) chloroethane	5.307	64	107136	55.87	ug/L	98
14) trichlorofluoromethane	5.800	101	225110	58.07	ug/L	99
15) Vinyl Bromide	5.669	106	122081	54.48	ug/L	97
17) ethyl ether	6.209	74	65240	52.95	ug/L	97
18) acrolein	6.450	56	24852	51.38	ug/L	99
19) 1,1-dichloroethene	6.633	96	117139	55.07	ug/L	99
20) freon 113	6.639	151	104753	58.70	ug/L	98
21) 2-chloropropane	6.397	43	252565	52.42	ug/L	99
22) acetone	6.691	58	86084	258.80	ug/L	98
23) acetonitrile	7.152	41	185606	511.04	ug/L	98
24) iodomethane	6.917	142	230043	55.19	ug/L	98
25) carbon disulfide	7.048	76	426528	54.82	ug/L	100
26) methylene chloride	7.409	84	133938	55.22	ug/L	98
27) methyl acetate	7.210	43	98556	51.53	ug/L	100
28) methyl tert butyl ether	7.829	73	368033	53.60	ug/L	99
29) trans-1,2-dichloroethene	7.850	96	119853	54.08	ug/L	99
30) hexane	8.248	57	197022	60.18	ug/L	100
31) di-isopropyl ether	8.552	45	498646	53.05	ug/L	98
32) 2-butanone	9.376	72	68834	253.09	ug/L	95
33) 1,1-dichloroethane	8.505	63	241325	53.71	ug/L	98
34) chloroprene	8.652	53	202229	56.85	ug/L	99
35) acrylonitrile	7.787	53	49033	53.36	ug/L	99
36) vinyl acetate	8.526	86	17942	56.27	ug/L #	90
37) ethyl tert-butyl ether	9.113	59	445905	53.72	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174263.D
Acq On : 17 Mar 2018 2:21 pm
Operator : OyinadeI
Sample : ICC7334-50
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 23 12:52:17 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:52:00 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.433	45	17037	51.93	ug/L	#	71
39) 2,2-dichloropropane	9.423	77	193862	55.67	ug/L		99
40) cis-1,2-dichloroethene	9.396	96	134638	53.26	ug/L		96
41) propionitrile	9.486	54	193959	547.28	ug/L		97
42) tert-Butyl Formate	9.942	59	104925	54.04	ug/L		99
43) bromochloromethane	9.774	128	66373	53.26	ug/L		97
44) tetrahydrofuran	9.847	72	14848	54.17	ug/L		98
45) chloroform	9.858	83	220713	52.09	ug/L		99
47) methacrylonitrile	9.722	67	49017	55.55	ug/L		99
48) 1,1,1-trichloroethane	10.193	97	201771	55.84	ug/L		99
49) cyclohexane	10.293	84	189358	54.91	ug/L		97
50) 1,1-dichloropropene	10.419	75	172772	55.53	ug/L		99
51) isobutyl alcohol	10.445	43	55679	509.48	ug/L		98
52) carbon tetrachloride	10.445	117	181179	56.49	ug/L		99
53) tert-amyl alcohol	10.618	73	28761	257.19	ug/L		99
56) benzene	10.749	78	494584	52.53	ug/L		99
57) iso-octane	10.823	57	603830	59.91	ug/L		100
58) tert-amyl methyl ether	10.844	73	399056	53.59	ug/L		99
59) heptane	11.048	57	108583	59.56	ug/L		99
60) isopropyl acetate	10.723	87	21751	53.18	ug/L	#	88
61) 1,2-dichloroethane	10.754	62	171186	49.34	ug/L		98
62) n-butyl alcohol	11.426	56	173054	2729.84	ug/L		100
63) ethyl acrylate	11.745	55	149809	54.22	ug/L		99
64) trichloroethene	11.682	130	127268	55.18	ug/L		99
65) 2-nitropropane	12.726	41	30819	53.99	ug/L		97
66) 2-chloroethyl vinyl ether	12.789	63	348363	277.73	ug/L		100
67) methyl methacrylate	12.097	100	28759	52.26	ug/L	#	82
68) 1,2-dichloropropane	12.034	63	138375	53.54	ug/L		100
69) dibromomethane	12.217	93	75420	53.20	ug/L		97
70) methylcyclohexane	12.002	83	247875	58.87	ug/L		100
71) bromodichloromethane	12.406	83	171436	53.65	ug/L		99
72) epichlorohydrin	12.915	57	59348	266.49	ug/L		100
73) cis-1,3-dichloropropene	13.051	75	216316	54.56	ug/L		100
74) 4-methyl-2-pentanone	13.224	58	189515	220.37	ug/L		96
75) 3-methyl-1-butanol	13.245	55	107213	1076.84	ug/L		99
78) toluene	13.554	92	304799	52.82	ug/L		99
79) trans-1,3-dichloropropene	13.816	75	195270	54.32	ug/L		99
80) ethyl methacrylate	13.879	69	162592	54.82	ug/L		98
81) 1,1,2-trichloroethane	14.094	83	95569	53.40	ug/L		99
82) tetrachloroethene	14.335	164	112326	53.66	ug/L		99
83) 1,3-dichloropropane	14.341	76	190575	53.53	ug/L		98
84) 2-hexanone	14.388	58	240636	252.78	ug/L		99
85) butyl acetate	14.519	56	82877	52.61	ug/L		99
86) dibromochloromethane	14.676	129	134713	54.06	ug/L		99
87) 1,2-dibromoethane	14.870	107	121036	53.39	ug/L		99
88) n-butyl ether	15.520	57	633241	54.07	ug/L		99
89) chlorobenzene	15.515	112	354612	52.00	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.599	131	135163	54.62	ug/L		100
91) ethylbenzene	15.625	91	608000	52.95	ug/L		99
92) m,p-xylene	15.772	91	935512	105.89	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174263.D
Acq On : 17 Mar 2018 2:21 pm
Operator : OyinadeI
Sample : ICC7334-50
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 23 12:52:17 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:52:00 2018
Response via : Initial Calibration

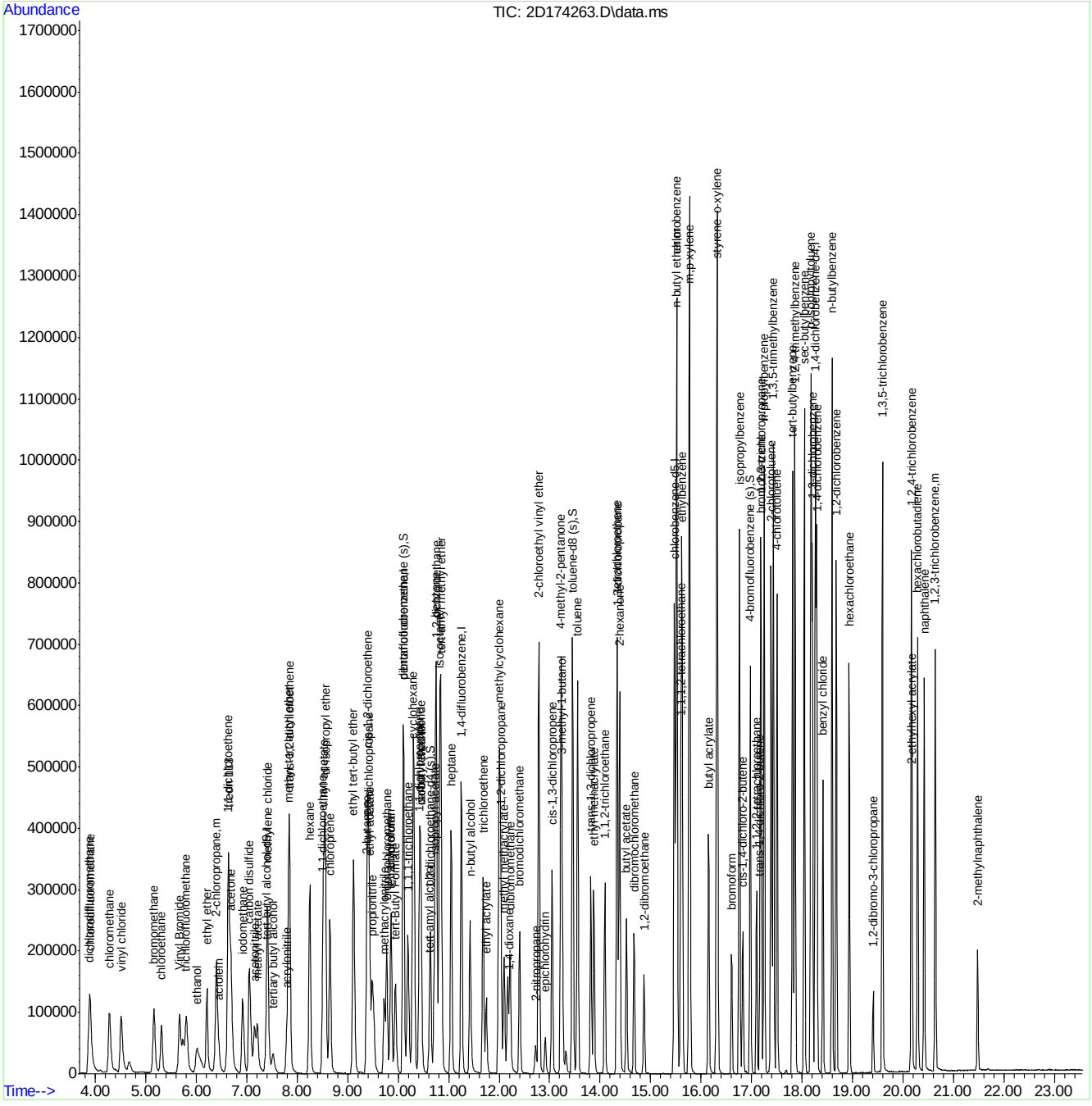
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	o-xylene	16.312	106	233336	53.69	ug/L	98
94)	styrene	16.323	104	400919	55.06	ug/L	98
95)	butyl acrylate	16.150	55	269789	53.81	ug/L	99
96)	bromoform	16.606	173	98371	55.53	ug/L	98
97)	isopropylbenzene	16.763	105	617995	54.13	ug/L	99
98)	cis-1,4-dichloro-2-butene	16.826	88	54692	54.33	ug/L	97
101)	bromobenzene	17.188	156	172233	51.10	ug/L	99
102)	1,1,2,2-tetrachloroethane	17.098	83	154397	51.72	ug/L	99
103)	trans-1,4-dichloro-2-b...	17.161	53	35209	53.50	ug/L	92
104)	1,2,3-trichloropropane	17.182	110	39612	51.30	ug/L	96
105)	n-propylbenzene	17.251	91	750409	52.77	ug/L	100
106)	2-chlorotoluene	17.387	126	157625	52.50	ug/L	96
107)	4-chlorotoluene	17.502	91	443942	50.90	ug/L	99
109)	1,3,5-trimethylbenzene	17.434	105	533671	52.80	ug/L	99
110)	tert-butylbenzene	17.817	119	464299	52.43	ug/L	98
111)	1,2,4-trimethylbenzene	17.859	105	546103	52.75	ug/L	100
112)	sec-butylbenzene	18.047	105	715888	53.57	ug/L	99
113)	1,3-dichlorobenzene	18.205	146	323361	51.22	ug/L	100
114)	p-isopropyltoluene	18.179	119	616277	54.64	ug/L	100
115)	1,4-dichlorobenzene	18.294	146	325874	51.14	ug/L	98
116)	1,2-dichlorobenzene	18.677	146	323291	51.37	ug/L	99
117)	benzyl chloride	18.414	91	307152	55.08	ug/L	99
119)	n-butylbenzene	18.593	92	321084	56.34	ug/L	99
121)	1,2-dibromo-3-chloropr...	19.411	157	36423	53.57	ug/L	98
123)	1,3,5-trichlorobenzene	19.594	180	314140	55.07	ug/L	99
124)	hexachlorobutadiene	20.291	225	155424	54.16	ug/L	99
125)	naphthalene	20.423	128	480810	54.81	ug/L	98
126)	2-ethylhexyl acrylate	20.181	70	19395	8.17	ug/L	96
127)	1,2,4-trichlorobenzene	20.171	180	258582	57.23	ug/L	98
128)	1,2,3-trichlorobenzene	20.638	180	229559	57.60	ug/L	99
129)	hexachloroethane	18.939	201	117215	55.45	ug/L	98
130)	2-methylnaphthalene	21.482	142	98804	22.92	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174263.D
Acq On : 17 Mar 2018 2:21 pm
Operator : OyinadeI
Sample : ICC7334-50
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 23 12:52:17 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:52:00 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174264.D
Acq On : 17 Mar 2018 2:52 pm
Operator : OyinadeI
Sample : IC7334-100
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 23 14:12:08 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:52:00 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	127314	500.00	ug/L	0.00
5) pentafluorobenzene	10.104	168	323255	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.253	114	441855	50.00	ug/L	0.00
76) chlorobenzene-d5	15.473	117	431692	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.268	152	249433	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.104	113	137844	50.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.04%			
55) 1,2-dichloroethane-d4 (s)	10.639	65	157074	50.15	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.30%			
77) toluene-d8 (s)	13.455	98	512444	49.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.70%			
100) 4-bromofluorobenzene (s)	16.973	95	207093	48.63	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.26%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.525	59	131250	548.08	ug/L	95
3) ethanol	6.015	45	299073	9858.62	ug/L	97
4) 1,4-dioxane	12.191	88	66243	2776.07	ug/L	99
6) chlorodifluoromethane	3.891	51	397969	119.74	ug/L	99
7) dichlorodifluoromethane	3.876	85	350803	110.30	ug/L	98
10) chloromethane	4.274	50	445785	106.57	ug/L	97
11) vinyl chloride	4.510	62	416978	115.54	ug/L	98
12) bromomethane	5.155	94	246348	109.20	ug/L	98
13) chloroethane	5.307	64	209534	112.51	ug/L	99
14) trichlorofluoromethane	5.800	101	435169	115.59	ug/L	98
15) Vinyl Bromide	5.669	106	243227	111.77	ug/L	97
17) ethyl ether	6.209	74	132939	111.10	ug/L	96
18) acrolein	6.450	56	50031	106.50	ug/L	97
19) 1,1-dichloroethene	6.633	96	230873	111.75	ug/L	100
20) freon 113	6.644	151	206621	119.21	ug/L	95
21) 2-chloropropane	6.397	43	492494	105.25	ug/L	99
22) acetone	6.691	58	171610	531.24	ug/L	99
23) acetonitrile	7.152	41	374359	1061.34	ug/L	99
24) iodomethane	6.917	142	458337	113.22	ug/L	99
25) carbon disulfide	7.048	76	837023	110.77	ug/L	99
26) methylene chloride	7.409	84	262977	111.64	ug/L	100
27) methyl acetate	7.210	43	198759	107.01	ug/L	98
28) methyl tert butyl ether	7.829	73	739218	110.85	ug/L	97
29) trans-1,2-dichloroethene	7.850	96	240968	111.96	ug/L	98
30) hexane	8.248	57	382294	120.23	ug/L	99
31) di-isopropyl ether	8.552	45	996386	109.14	ug/L	99
32) 2-butanone	9.381	72	138235	523.36	ug/L	98
33) 1,1-dichloroethane	8.510	63	480704	110.15	ug/L	99
34) chloroprene	8.652	53	400398	115.90	ug/L	99
35) acrylonitrile	7.782	53	99920	111.97	ug/L	99
36) vinyl acetate	8.526	86	36207	116.92	ug/L	100
37) ethyl tert-butyl ether	9.113	59	891348	110.58	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174264.D
Acq On : 17 Mar 2018 2:52 pm
Operator : OyinadeI
Sample : IC7334-100
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 23 14:12:08 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:52:00 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.433	45	34046	106.85	ug/L	#	60
39) 2,2-dichloropropane	9.423	77	379438	112.19	ug/L		99
40) cis-1,2-dichloroethene	9.402	96	269745	109.88	ug/L		97
41) propionitrile	9.486	54	392644	1140.78	ug/L		97
42) tert-Butyl Formate	9.947	59	213884	113.44	ug/L		98
43) bromochloromethane	9.774	128	132657	109.61	ug/L		99
44) tetrahydrofuran	9.842	72	29609	111.23	ug/L		98
45) chloroform	9.858	83	438178	106.48	ug/L		99
47) methacrylonitrile	9.722	67	98616	115.07	ug/L		96
48) 1,1,1-trichloroethane	10.193	97	395992	112.84	ug/L		100
49) cyclohexane	10.298	84	374971	111.96	ug/L	#	77
50) 1,1-dichloropropene	10.424	75	345181	114.23	ug/L		100
51) isobutyl alcohol	10.445	43	115936	1092.34	ug/L		98
52) carbon tetrachloride	10.450	117	356033	114.30	ug/L		99
53) tert-amyl alcohol	10.623	73	59284	545.87	ug/L		92
56) benzene	10.749	78	985090	106.74	ug/L		100
57) iso-octane	10.823	57	1164172	117.82	ug/L		99
58) tert-amyl methyl ether	10.849	73	792006	108.51	ug/L		99
59) heptane	11.053	57	210116	117.58	ug/L		98
60) isopropyl acetate	10.723	87	44253	110.38	ug/L	#	93
61) 1,2-dichloroethane	10.754	62	343805	101.08	ug/L		100
62) n-butyl alcohol	11.426	56	356092	5730.35	ug/L		98
63) ethyl acrylate	11.745	55	304779	112.53	ug/L		99
64) trichloroethene	11.682	130	255982	113.23	ug/L		99
65) 2-nitropropane	12.726	41	62363	111.46	ug/L		97
66) 2-chloroethyl vinyl ether	12.789	63	719737	585.37	ug/L		99
67) methyl methacrylate	12.097	100	58356	108.19	ug/L	#	87
68) 1,2-dichloropropane	12.034	63	276623	109.20	ug/L		99
69) dibromomethane	12.212	93	153068	110.14	ug/L		98
70) methylcyclohexane	12.002	83	485894	117.73	ug/L		100
71) bromodichloromethane	12.406	83	346731	110.70	ug/L		100
72) epichlorohydrin	12.915	57	122206	559.80	ug/L		98
73) cis-1,3-dichloropropene	13.051	75	437308	112.53	ug/L		98
74) 4-methyl-2-pentanone	13.229	58	386448	458.41	ug/L		95
75) 3-methyl-1-butanol	13.250	55	222191	2276.64	ug/L		96
78) toluene	13.554	92	604672	108.50	ug/L		100
79) trans-1,3-dichloropropene	13.816	75	394858	113.73	ug/L		99
80) ethyl methacrylate	13.879	69	332873	116.20	ug/L		99
81) 1,1,2-trichloroethane	14.094	83	190749	110.34	ug/L		99
82) tetrachloroethene	14.335	164	221894	109.76	ug/L		99
83) 1,3-dichloropropane	14.341	76	383470	111.53	ug/L		100
84) 2-hexanone	14.388	58	484347	526.79	ug/L		99
85) butyl acetate	14.519	56	168796	110.93	ug/L		99
86) dibromochloromethane	14.671	129	273148	113.50	ug/L		98
87) 1,2-dibromoethane	14.870	107	243518	111.23	ug/L		99
88) n-butyl ether	15.520	57	1264813	111.82	ug/L		100
89) chlorobenzene	15.515	112	705776	107.17	ug/L		98
90) 1,1,1,2-tetrachloroethane	15.599	131	269835	112.91	ug/L		99
91) ethylbenzene	15.625	91	1202346	108.42	ug/L		99
92) m,p-xylene	15.772	91	1858396	217.79	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174264.D
Acq On : 17 Mar 2018 2:52 pm
Operator : OyinadeI
Sample : IC7334-100
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 23 14:12:08 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:52:00 2018
Response via : Initial Calibration

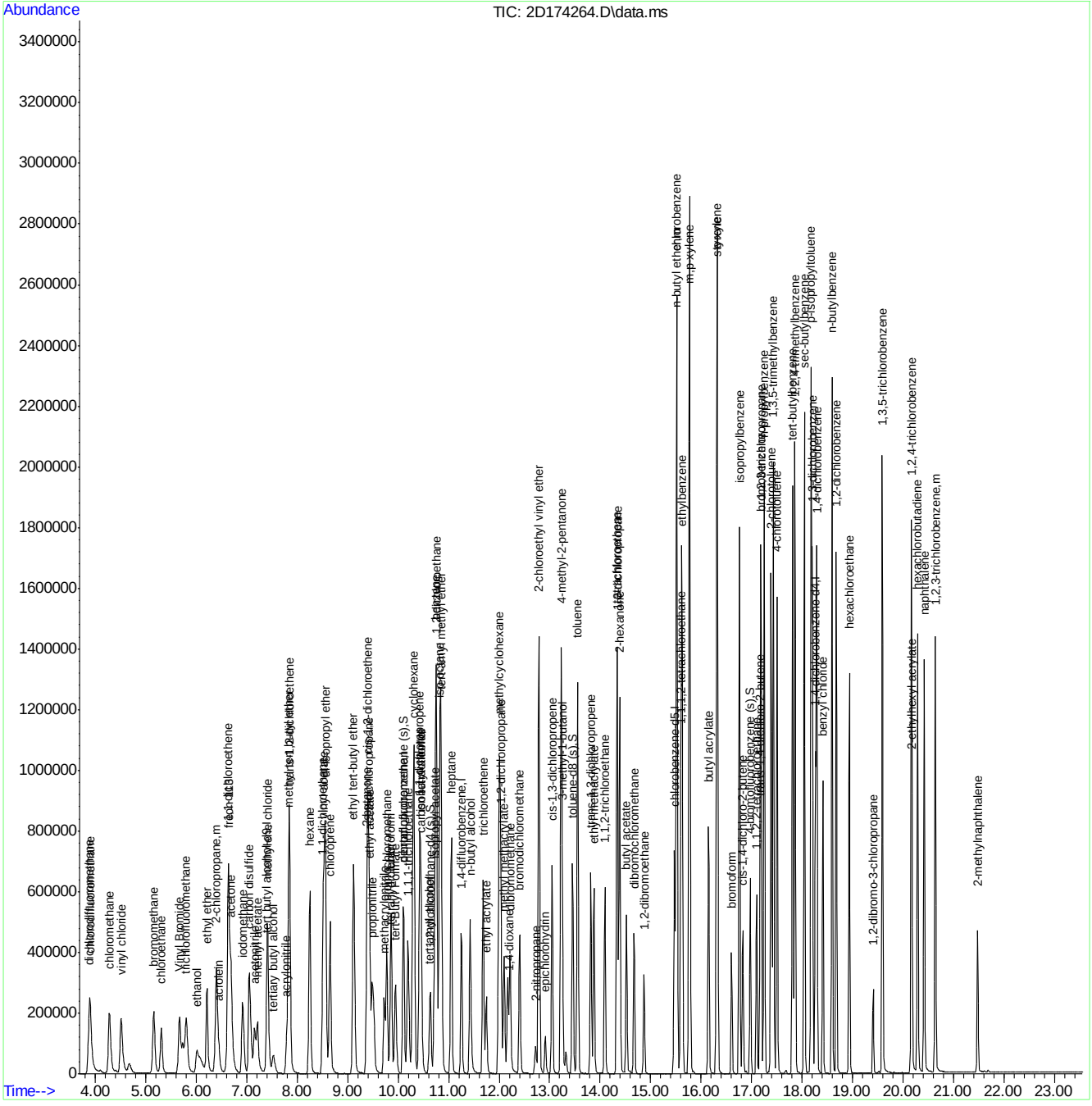
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.312	106	464939	110.77	ug/L		97
94)	styrene	16.323	104	800765	113.87	ug/L		98
95)	butyl acrylate	16.150	55	554713	114.56	ug/L		99
96)	bromoform	16.606	173	199584	116.66	ug/L		98
97)	isopropylbenzene	16.763	105	1221047	110.75	ug/L		99
98)	cis-1,4-dichloro-2-butene	16.826	88	112387	115.60	ug/L		98
101)	bromobenzene	17.188	156	342081	104.43	ug/L		97
102)	1,1,2,2-tetrachloroethane	17.104	83	309411	106.64	ug/L		100
103)	trans-1,4-dichloro-2-b...	17.167	53	73040	114.18	ug/L	#	63
104)	1,2,3-trichloropropane	17.182	110	80205	106.87	ug/L		93
105)	n-propylbenzene	17.251	91	1483895	107.36	ug/L		100
106)	2-chlorotoluene	17.387	126	312878	107.22	ug/L		97
107)	4-chlorotoluene	17.502	91	884606	104.35	ug/L		99
109)	1,3,5-trimethylbenzene	17.434	105	1057512	107.66	ug/L		100
110)	tert-butylbenzene	17.817	119	920476	106.94	ug/L		98
111)	1,2,4-trimethylbenzene	17.859	105	1082203	107.55	ug/L		99
112)	sec-butylbenzene	18.047	105	1413994	108.86	ug/L		99
113)	1,3-dichlorobenzene	18.205	146	646176	105.31	ug/L		99
114)	p-isopropyltoluene	18.179	119	1217434	111.06	ug/L		99
115)	1,4-dichlorobenzene	18.294	146	655302	105.81	ug/L		99
116)	1,2-dichlorobenzene	18.677	146	653941	106.92	ug/L		99
117)	benzyl chloride	18.415	91	631939	116.61	ug/L		99
119)	n-butylbenzene	18.593	92	640818	115.69	ug/L		99
121)	1,2-dibromo-3-chloropr...	19.411	157	76618	115.94	ug/L		97
123)	1,3,5-trichlorobenzene	19.594	180	643117	116.00	ug/L		99
124)	hexachlorobutadiene	20.291	225	311373	111.64	ug/L		98
125)	naphthalene	20.423	128	1018630	119.46	ug/L		99
126)	2-ethylhexyl acrylate	20.181	70	53749	19.64	ug/L		98
127)	1,2,4-trichlorobenzene	20.171	180	546130	124.37	ug/L		98
128)	1,2,3-trichlorobenzene	20.643	180	477595	123.30	ug/L		99
129)	hexachloroethane	18.939	201	237077	115.38	ug/L		98
130)	2-methylnaphthalene	21.482	142	233044	52.64	ug/L		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174264.D
Acq On : 17 Mar 2018 2:52 pm
Operator : OyinadeI
Sample : IC7334-100
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 23 14:12:08 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:52:00 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174265.D
Acq On : 17 Mar 2018 3:22 pm
Operator : OyinadeI
Sample : IC7334-200
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 23 12:55:58 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:54:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.399	65	127766	500.00	ug/L	0.00
5) pentafluorobenzene	10.104	168	322545	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.253	114	443011	50.00	ug/L	0.00
76) chlorobenzene-d5	15.473	117	435000	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.268	152	256205	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.110	113	137988	50.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.36%			
55) 1,2-dichloroethane-d4 (s)	10.644	65	155517	49.53	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.06%			
77) toluene-d8 (s)	13.460	98	509568	49.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.38%			
100) 4-bromofluorobenzene (s)	16.978	95	210895	48.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.44%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.530	59	268239	1116.16	ug/L	88
3) ethanol	6.025	45	532245	17482.82	ug/L	95
4) 1,4-dioxane	12.196	88	131415	5487.77	ug/L	96
6) chlorodifluoromethane	3.897	51	769785	232.13	ug/L	99
7) dichlorodifluoromethane	3.870	85	674334	212.50	ug/L	98
10) chloromethane	4.279	50	866202	207.52	ug/L	97
11) vinyl chloride	4.510	62	811261	225.28	ug/L	100
12) bromomethane	5.155	94	457998	203.47	ug/L	99
13) chloroethane	5.307	64	403813	217.30	ug/L	99
14) trichlorofluoromethane	5.800	101	840211	223.68	ug/L	99
15) Vinyl Bromide	5.674	106	472776	217.73	ug/L	96
17) ethyl ether	6.214	74	266252	223.01	ug/L	96
18) acrolein	6.450	56	99058	211.34	ug/L	99
19) 1,1-dichloroethene	6.644	96	470094	228.05	ug/L	95
20) freon 113	6.644	151	400859	231.79	ug/L	99
21) 2-chloropropane	6.398	43	981581	210.23	ug/L	100
22) acetone	6.696	58	331985	1029.97	ug/L	96
23) acetonitrile	7.152	41	734257	2086.26	ug/L	98
24) iodomethane	6.922	142	926183	229.30	ug/L	99
25) carbon disulfide	7.053	76	1694981	224.80	ug/L	99
26) methylene chloride	7.415	84	530962	225.91	ug/L	98
27) methyl acetate	7.215	43	403626	217.78	ug/L	99
28) methyl tert butyl ether	7.834	73	1484653	223.12	ug/L	98
29) trans-1,2-dichloroethene	7.850	96	481726	224.31	ug/L	99
30) hexane	8.248	57	751382	236.83	ug/L	99
31) di-isopropyl ether	8.558	45	1982599	217.65	ug/L	94
32) 2-butanone	9.386	72	274937	1043.21	ug/L	97
33) 1,1-dichloroethane	8.510	63	964268	221.45	ug/L	98
34) chloroprene	8.652	53	803882	233.20	ug/L	99
35) acrylonitrile	7.782	53	201887	226.73	ug/L	99
36) vinyl acetate	8.526	86	71458	231.26	ug/L #	95
37) ethyl tert-butyl ether	9.119	59	1788499	222.37	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174265.D
Acq On : 17 Mar 2018 3:22 pm
Operator : OyinadeI
Sample : IC7334-200
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 23 12:55:58 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:54:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.438	45	69406	218.31	ug/L	#	81
39) 2,2-dichloropropane	9.428	77	746725	221.28	ug/L		100
40) cis-1,2-dichloroethene	9.402	96	538908	220.00	ug/L		97
41) propionitrile	9.491	54	778503	2266.83	ug/L		91
42) tert-Butyl Formate	9.947	59	435657	231.57	ug/L		99
43) bromochloromethane	9.774	128	267305	221.34	ug/L		99
44) tetrahydrofuran	9.847	72	59942	225.68	ug/L		95
45) chloroform	9.863	83	876169	213.39	ug/L		99
47) methacrylonitrile	9.727	67	200615	234.61	ug/L		100
48) 1,1,1-trichloroethane	10.199	97	799458	228.31	ug/L		100
49) cyclohexane	10.298	84	732094	219.07	ug/L		86
50) 1,1-dichloropropene	10.424	75	697535	231.34	ug/L		98
51) isobutyl alcohol	10.450	43	238147	2248.73	ug/L		98
52) carbon tetrachloride	10.450	117	712025	229.08	ug/L		99
53) tert-amyl alcohol	10.629	73	122738	1132.63	ug/L		93
56) benzene	10.754	78	1987831	214.83	ug/L		99
57) iso-octane	10.828	57	2294940	231.66	ug/L		99
58) tert-amyl methyl ether	10.854	73	1591288	217.44	ug/L		99
59) heptane	11.053	57	415636	231.99	ug/L		97
60) isopropyl acetate	10.723	87	90222	224.45	ug/L	#	93
61) 1,2-dichloroethane	10.754	62	679865	199.37	ug/L		100
62) n-butyl alcohol	11.431	56	730780	11729.26	ug/L		98
63) ethyl acrylate	11.745	55	612683	225.61	ug/L		99
64) trichloroethene	11.682	130	520824	229.78	ug/L		99
65) 2-nitropropane	12.726	41	125145	223.09	ug/L		98
66) 2-chloroethyl vinyl ether	12.789	63	1454168	1179.61	ug/L		99
67) methyl methacrylate	12.102	100	116599	215.60	ug/L	#	90
68) 1,2-dichloropropane	12.034	63	555618	218.76	ug/L		99
69) dibromomethane	12.217	93	306831	220.20	ug/L		100
70) methylcyclohexane	12.002	83	963663	232.88	ug/L		99
71) bromodichloromethane	12.411	83	697994	222.27	ug/L		99
72) epichlorohydrin	12.915	57	243873	1114.21	ug/L		98
73) cis-1,3-dichloropropene	13.051	75	880563	226.00	ug/L		99
74) 4-methyl-2-pentanone	13.229	58	778464	921.02	ug/L		98
75) 3-methyl-1-butanol	13.250	55	456986	4670.21	ug/L		98
78) toluene	13.554	92	1214312	216.23	ug/L		99
79) trans-1,3-dichloropropene	13.816	75	789196	225.57	ug/L		99
80) ethyl methacrylate	13.879	69	668607	231.62	ug/L		99
81) 1,1,2-trichloroethane	14.094	83	379808	218.04	ug/L		99
82) tetrachloroethene	14.335	164	444411	218.15	ug/L		97
83) 1,3-dichloropropane	14.346	76	764905	220.78	ug/L		99
84) 2-hexanone	14.388	58	958765	1034.85	ug/L		98
85) butyl acetate	14.519	56	343757	224.20	ug/L		98
86) dibromochloromethane	14.676	129	551941	227.59	ug/L		97
87) 1,2-dibromoethane	14.870	107	489722	221.98	ug/L		100
88) n-butyl ether	15.520	57	2549268	223.67	ug/L		100
89) chlorobenzene	15.515	112	1420090	213.99	ug/L		98
90) 1,1,1,2-tetrachloroethane	15.604	131	554312	230.18	ug/L		99
91) ethylbenzene	15.625	91	2423704	216.90	ug/L		100
92) m,p-xylene	15.772	91	3749540	436.09	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174265.D
Acq On : 17 Mar 2018 3:22 pm
Operator : OyinadeI
Sample : IC7334-200
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 23 12:55:58 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:54:18 2018
Response via : Initial Calibration

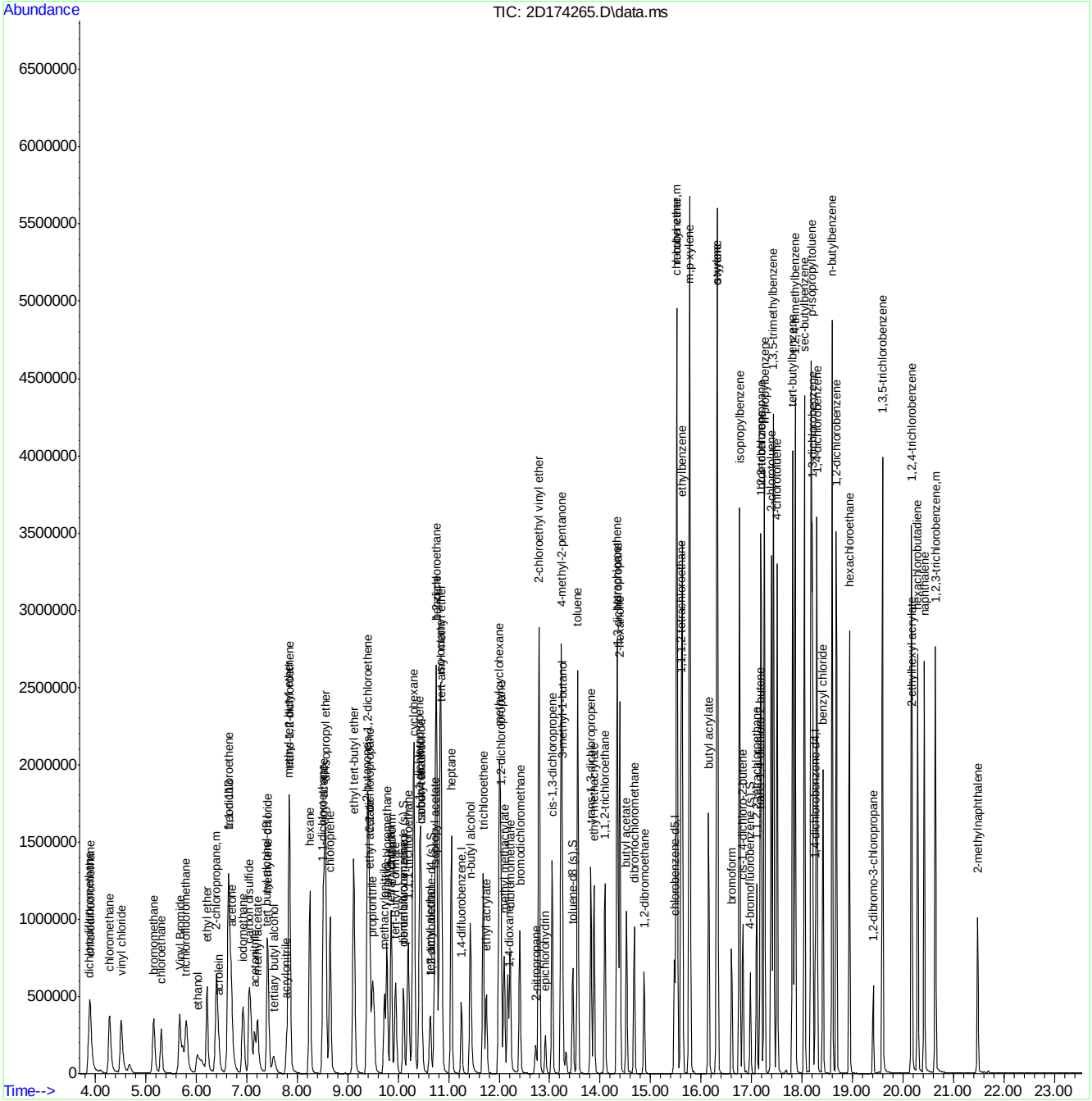
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) o-xylene	16.312	106	946972	223.89	ug/L		97
94) styrene	16.323	104	1626447	229.52	ug/L		96
95) butyl acrylate	16.150	55	1156270	236.98	ug/L		99
96) bromoform	16.606	173	406127	235.58	ug/L		97
97) isopropylbenzene	16.763	105	2503734	225.36	ug/L		99
98) cis-1,4-dichloro-2-butene	16.831	88	230692	235.49	ug/L		99
101) bromobenzene	17.188	156	694290	206.35	ug/L		96
102) 1,1,2,2-tetrachloroethane	17.104	83	625578	209.91	ug/L		100
103) trans-1,4-dichloro-2-b...	17.167	53	153282	233.29	ug/L	#	79
104) 1,2,3-trichloropropane	17.182	110	162982	211.43	ug/L	#	88
105) n-propylbenzene	17.256	91	3035834	213.84	ug/L		99
106) 2-chlorotoluene	17.392	126	641036	213.87	ug/L		98
107) 4-chlorotoluene	17.508	91	1815612	208.51	ug/L		98
109) 1,3,5-trimethylbenzene	17.434	105	2190340	217.09	ug/L		99
110) tert-butylbenzene	17.817	119	1928489	218.13	ug/L		99
111) 1,2,4-trimethylbenzene	17.864	105	2240673	216.79	ug/L		100
112) sec-butylbenzene	18.048	105	2911716	218.24	ug/L		99
113) 1,3-dichlorobenzene	18.205	146	1323631	210.02	ug/L		99
114) p-isopropyltoluene	18.184	119	2518375	223.66	ug/L		99
115) 1,4-dichlorobenzene	18.294	146	1359554	213.72	ug/L		98
116) 1,2-dichlorobenzene	18.682	146	1331552	211.95	ug/L		100
117) benzyl chloride	18.415	91	1303116	234.10	ug/L		99
119) n-butylbenzene	18.598	92	1328358	233.48	ug/L		99
121) 1,2-dibromo-3-chloropr...	19.411	157	153821	226.62	ug/L		96
123) 1,3,5-trichlorobenzene	19.594	180	1228130	215.66	ug/L		99
124) hexachlorobutadiene	20.292	225	579388	202.24	ug/L		99
125) naphthalene	20.423	128	1974190	225.41	ug/L		98
126) 2-ethylhexyl acrylate	20.181	70	122576	41.18	ug/L		99
127) 1,2,4-trichlorobenzene	20.171	180	1044624	231.61	ug/L		97
128) 1,2,3-trichlorobenzene	20.643	180	919007	230.98	ug/L		99
129) hexachloroethane	18.939	201	497604	235.78	ug/L		98
130) 2-methylnaphthalene	21.482	142	502080	108.12	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174265.D
Acq On : 17 Mar 2018 3:22 pm
Operator : OyinadeI
Sample : IC7334-200
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 23 12:55:58 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 12:54:18 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174268.D
Acq On : 17 Mar 2018 4:53 pm
Operator : OyinadeI
Sample : ICV7334-100
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 23 16:17:24 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 15:35:13 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.394	65	130514	500.00	ug/L		0.00
5) pentafluorobenzene	10.110	168	337629	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.258	114	458490	50.00	ug/L		0.00
76) chlorobenzene-d5	15.473	117	446277	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.268	152	255896	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.110	113	143464	50.01	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.02%				
55) 1,2-dichloroethane-d4 (s)	10.644	65	160204	48.77	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.54%				
77) toluene-d8 (s)	13.460	98	526669	49.68	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.36%				
100) 4-bromofluorobenzene (s)	16.978	95	213725	48.96	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.92%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.525	59	138468	533.07	ug/L		100
3) ethanol	6.015	45	296378	9260.99	ug/L		100
4) 1,4-dioxane	12.191	88	66290	2616.73	ug/L		98
6) chlorodifluoromethane	3.897	51	369522	91.34	ug/L		98
7) dichlorodifluoromethane	3.876	85	406799	118.90	ug/L		99
10) chloromethane	4.285	50	469175	103.91	ug/L		99
11) vinyl chloride	4.510	62	411240	102.96	ug/L		99
12) bromomethane	5.165	94	247832	96.32	ug/L		100
13) chloroethane	5.312	64	218556	105.94	ug/L		98
14) trichlorofluoromethane	5.805	101	438288	102.86	ug/L		99
15) Vinyl Bromide	5.679	106	258308	111.81	ug/L		98
17) ethyl ether	6.214	74	139938	104.36	ug/L		98
18) acrolein	6.450	56	48172	91.58	ug/L		99
19) 1,1-dichloroethene	6.644	96	238460	101.96	ug/L		97
20) freon 113	6.649	151	243285	121.69	ug/L		96
21) 2-chloropropane	6.403	43	571431	108.40	ug/L		99
22) acetone	6.691	58	164445	369.46	ug/L		99
23) acetonitrile	7.153	41	216609	553.76	ug/L		99
24) iodomethane	6.927	142	483397	102.53	ug/L		99
25) carbon disulfide	7.053	76	895583	104.86	ug/L		100
26) methylene chloride	7.415	84	277561	102.71	ug/L		98
27) methyl acetate	7.210	43	208770	101.40	ug/L		99
28) methyl tert butyl ether	7.834	73	1586534	208.50	ug/L		89
29) trans-1,2-dichloroethene	7.850	96	248328	99.77	ug/L		99
30) hexane	8.248	57	345361	92.18	ug/L		97
31) di-isopropyl ether	8.558	45	1065284	103.28	ug/L		97
32) 2-butanone	9.386	72	132492	391.14	ug/L		96
33) 1,1-dichloroethane	8.511	63	503009	99.48	ug/L		99
34) chloroprene	8.652	53	448364	110.82	ug/L		99
35) acrylonitrile	7.787	53	112296	114.10	ug/L		98
36) vinyl acetate	8.526	86	36297	101.55	ug/L	#	80
37) ethyl tert-butyl ether	9.119	59	942291	101.68	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174268.D
Acq On : 17 Mar 2018 4:53 pm
Operator : OyinadeI
Sample : ICV7334-100
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 23 16:17:24 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 15:35:13 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.433	45	37095	104.50	ug/L	#	75
39) 2,2-dichloropropane	9.428	77	380423	96.49	ug/L		99
40) cis-1,2-dichloroethene	9.402	96	286896	101.32	ug/L		98
41) propionitrile	9.486	54	401138	1017.89	ug/L		95
42) tert-Butyl Formate	9.952	59	146643	68.64	ug/L		96
43) bromochloromethane	9.774	128	140812	105.24	ug/L		99
44) tetrahydrofuran	9.847	72	30302	100.30	ug/L		99
45) chloroform	9.863	83	462899	102.41	ug/L		98
47) methacrylonitrile	9.727	67	99490	103.11	ug/L		99
48) 1,1,1-trichloroethane	10.199	97	407969	101.88	ug/L		99
49) cyclohexane	10.304	84	344352	91.62	ug/L	#	59
50) 1,1-dichloropropene	10.424	75	364920	104.38	ug/L		99
51) isobutyl alcohol	10.450	43	124183	1050.23	ug/L		97
52) carbon tetrachloride	10.450	117	372694	103.18	ug/L		99
53) tert-amyl alcohol	10.623	73	62812	535.31	ug/L		96
56) benzene	10.755	78	1038891	100.82	ug/L		100
57) iso-octane	10.828	57	1251762	108.78	ug/L		99
58) tert-amyl methyl ether	10.849	73	837122	101.71	ug/L		99
59) heptane	11.053	57	253693	123.66	ug/L		98
60) isopropyl acetate	10.723	87	46138	105.10	ug/L	#	92
61) 1,2-dichloroethane	10.760	62	357276	99.04	ug/L		99
62) n-butyl alcohol	11.426	56	365666	5401.58	ug/L		100
63) ethyl acrylate	11.745	55	324018	111.19	ug/L		99
64) trichloroethene	11.688	130	272736	105.83	ug/L		99
65) 2-nitropropane	12.726	41	63008	97.59	ug/L		94
66) 2-chloroethyl vinyl ether	12.789	63	764520	548.23	ug/L		99
67) methyl methacrylate	12.102	100	59749	103.99	ug/L		96
68) 1,2-dichloropropane	12.034	63	285275	99.69	ug/L		99
69) dibromomethane	12.217	93	162130	104.21	ug/L		96
70) methylcyclohexane	12.008	83	489727	102.51	ug/L		94
71) bromodichloromethane	12.411	83	354786	100.13	ug/L		98
72) epichlorohydrin	12.915	57	124634	524.63	ug/L		98
73) cis-1,3-dichloropropene	13.051	75	455387	102.48	ug/L		99
74) 4-methyl-2-pentanone	13.229	58	405878	410.35	ug/L		99
75) 3-methyl-1-butanol	13.250	55	231746	2180.79	ug/L		97
78) toluene	13.554	92	641773	103.02	ug/L		97
79) trans-1,3-dichloropropene	13.816	75	388493	98.56	ug/L		99
80) ethyl methacrylate	13.879	69	327185	104.40	ug/L		97
81) 1,1,2-trichloroethane	14.100	83	198468	100.99	ug/L		98
82) tetrachloroethene	14.341	164	372142	164.14	ug/L		98
83) 1,3-dichloropropane	14.346	76	404912	102.33	ug/L		96
84) 2-hexanone	14.388	58	458403	381.90	ug/L		99
85) butyl acetate	14.524	56	182181	112.83	ug/L		99
86) dibromochloromethane	14.676	129	291146	108.57	ug/L		99
87) 1,2-dibromoethane	14.870	107	255397	104.66	ug/L		99
88) n-butyl ether	15.520	57	1299229	104.46	ug/L		99
89) chlorobenzene	15.515	112	737424	101.79	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.604	131	287510	106.42	ug/L		99
91) ethylbenzene	15.625	91	1265533	102.49	ug/L		99
92) m,p-xylene	15.772	91	1948830	204.24	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174268.D
Acq On : 17 Mar 2018 4:53 pm
Operator : OyinadeI
Sample : ICV7334-100
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 23 16:17:24 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 15:35:13 2018
Response via : Initial Calibration

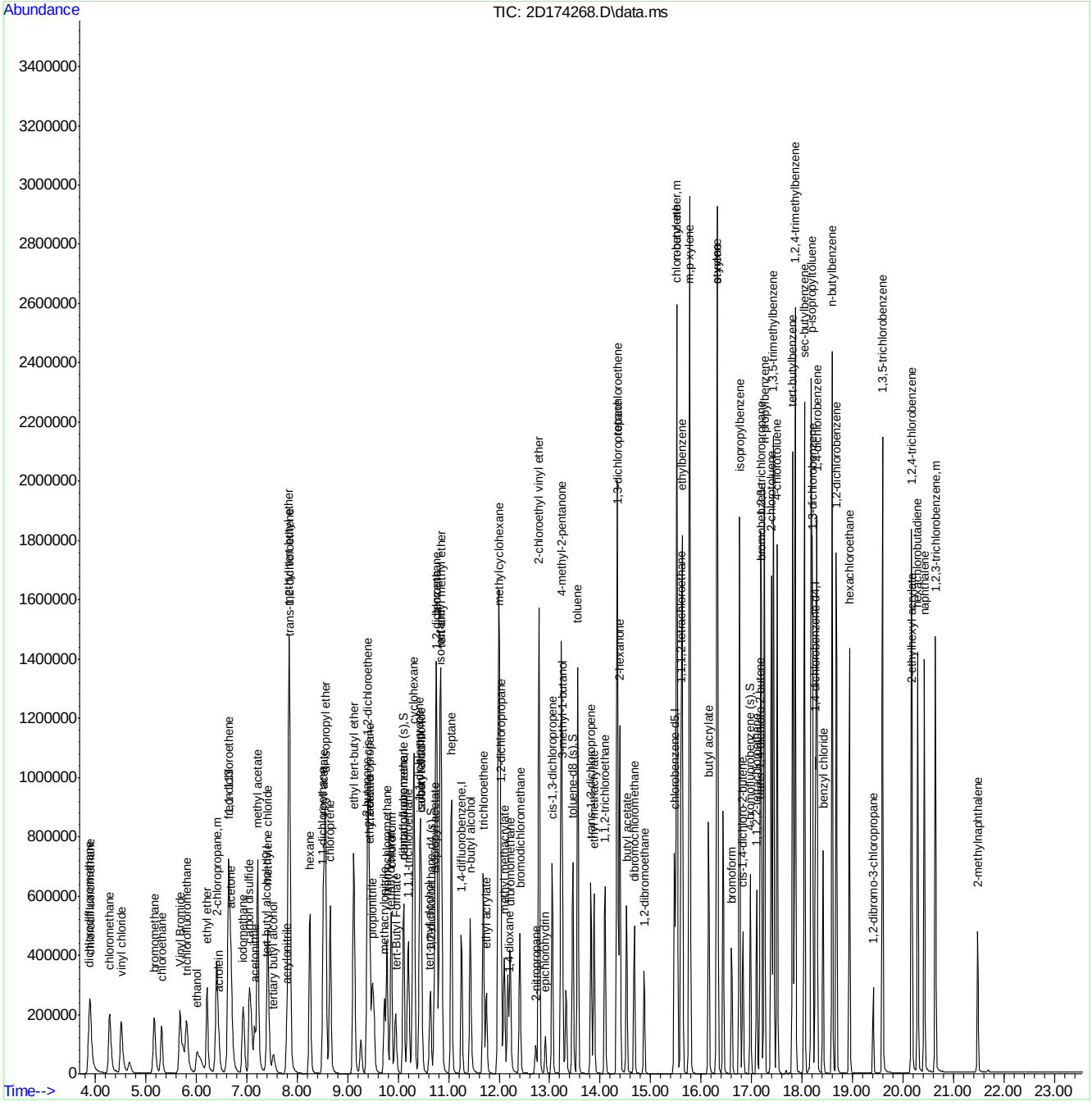
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.317	106	489046	102.86	ug/L		98
94)	styrene	16.323	104	841905	107.17	ug/L		97
95)	butyl acrylate	16.150	55	583154	109.27	ug/L		99
96)	bromoform	16.611	173	217163	113.57	ug/L		96
97)	isopropylbenzene	16.763	105	1287377	105.10	ug/L		100
98)	cis-1,4-dichloro-2-butene	16.831	88	110625	103.27	ug/L		97
101)	bromobenzene	17.193	156	360185	101.70	ug/L		95
102)	1,1,2,2-tetrachloroethane	17.104	83	311845	98.58	ug/L		99
103)	trans-1,4-dichloro-2-b...	17.167	53	93755	137.12	ug/L		85
104)	1,2,3-trichloropropane	17.183	110	83025	102.00	ug/L	#	88
105)	n-propylbenzene	17.256	91	1559301	103.42	ug/L		100
106)	2-chlorotoluene	17.392	126	321891	99.61	ug/L		95
107)	4-chlorotoluene	17.508	91	944908	103.09	ug/L		99
109)	1,3,5-trimethylbenzene	17.434	105	1110608	103.16	ug/L		98
110)	tert-butylbenzene	17.817	119	976681	104.62	ug/L		98
111)	1,2,4-trimethylbenzene	17.864	105	1165533	106.68	ug/L		100
112)	sec-butylbenzene	18.048	105	1493364	107.08	ug/L		99
113)	1,3-dichlorobenzene	18.210	146	675342	102.56	ug/L		99
114)	p-isopropyltoluene	18.184	119	1286870	109.23	ug/L		100
115)	1,4-dichlorobenzene	18.294	146	689128	105.30	ug/L		98
116)	1,2-dichlorobenzene	18.682	146	679876	102.74	ug/L		98
117)	benzyl chloride	18.420	91	505214	84.50	ug/L		99
119)	n-butylbenzene	18.598	92	677145	114.42	ug/L		98
121)	1,2-dibromo-3-chloropr...	19.411	157	76761	109.31	ug/L		98
123)	1,3,5-trichlorobenzene	19.594	180	663116	114.49	ug/L		99
124)	hexachlorobutadiene	20.292	225	310462	104.71	ug/L		100
125)	naphthalene	20.423	128	1041441	114.52	ug/L		100
126)	2-ethylhexyl acrylate	20.182	70	57301	20.32	ug/L		95
127)	1,2,4-trichlorobenzene	20.171	180	551938	121.13	ug/L		98
128)	1,2,3-trichlorobenzene	20.643	180	477654	117.03	ug/L		98
129)	hexachloroethane	18.939	201	252036	112.45	ug/L		98
130)	2-methylnaphthalene	21.482	142	229220	48.43	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174268.D
Acq On : 17 Mar 2018 4:53 pm
Operator : OyinadeI
Sample : ICV7334-100
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 23 16:17:24 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 15:35:13 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174269.D
Acq On : 17 Mar 2018 5:23 pm
Operator : OyinadeI
Sample : ICV7334-100
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 23 15:39:42 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 15:38:53 2018
Response via : Initial Calibration

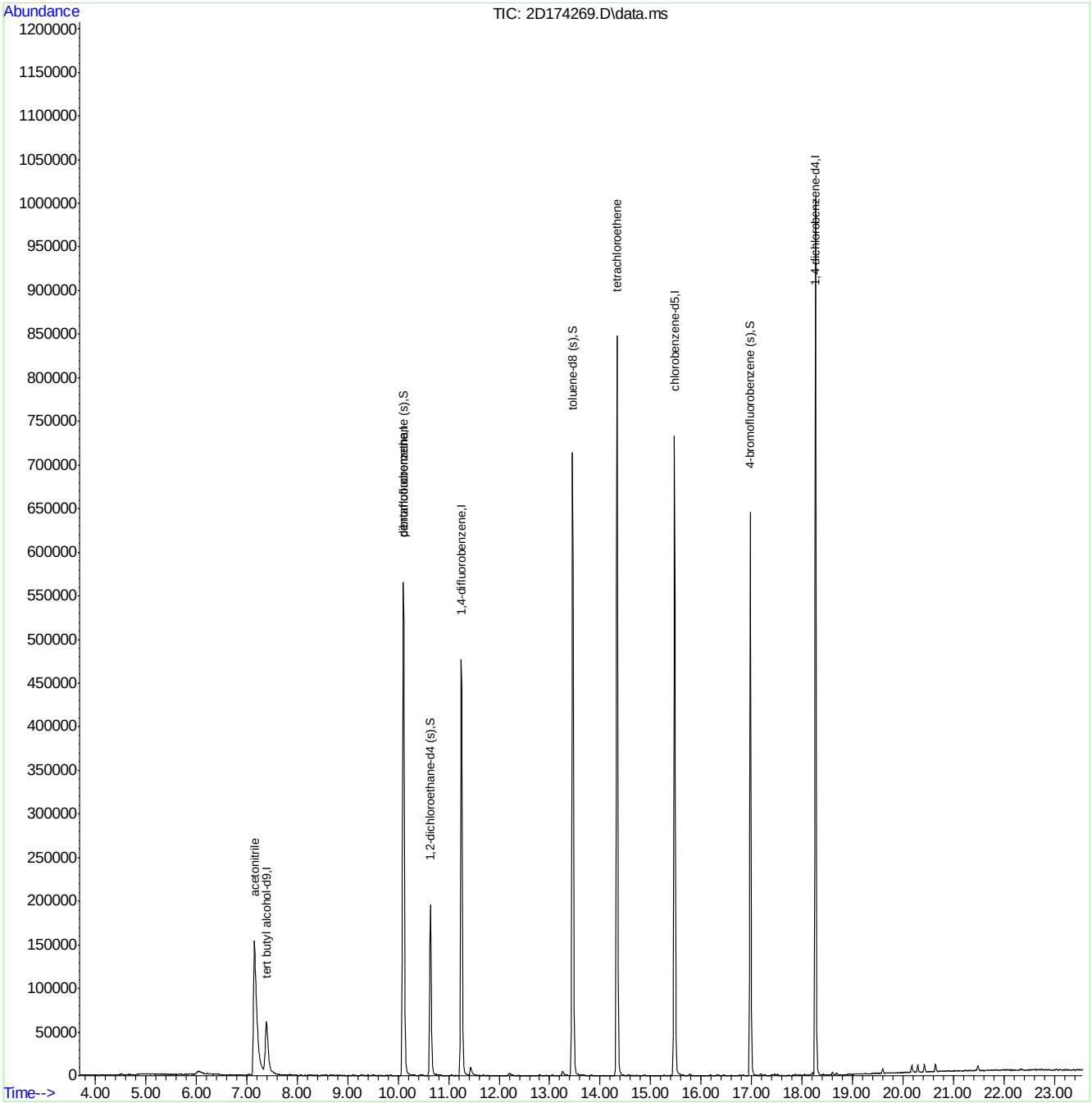
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	129839	500.00	ug/L	0.00
5) pentafluorobenzene	10.104	168	335904	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.253	114	460370	50.00	ug/L	0.00
76) chlorobenzene-d5	15.473	117	450292	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.268	152	247075	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.104	113	140730	49.30	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.60%			
55) 1,2-dichloroethane-d4 (s)	10.639	65	161079	48.84	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.68%			
77) toluene-d8 (s)	13.460	98	540791	50.56	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.12%			
100) 4-bromofluorobenzene (s)	16.978	95	214071	50.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.58%			
Target Compounds						Qvalue
23) acetonitrile	7.153	41	395712	1016.83	ug/L	99
82) tetrachloroethene	14.335	164	226105	98.84	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7334\
Data File : 2D174269.D
Acq On : 17 Mar 2018 5:23 pm
Operator : OyinadeI
Sample : ICV7334-100
Misc : MS24683,V2D7334,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 23 15:39:42 2018
Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 23 15:38:53 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174427.d
Acq On : 27 Mar 2018 7:47 am
Operator : JessicaP
Sample : cc7334-20 Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:12:59 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 26 07:21:48 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.352	65	127893	500.00	ug/L	-0.05
5) pentafluorobenzene	10.057	168	306099	50.00	ug/L	-0.05
54) 1,4-difluorobenzene	11.205	114	426570	50.00	ug/L	-0.05
76) chlorobenzene-d5	15.431	117	428080	50.00	ug/L	-0.04
99) 1,4-dichlorobenzene-d4	18.231	152	247038	50.00	ug/L	-0.04
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.057	113	134668	51.78	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.56%			
55) 1,2-dichloroethane-d4 (s)	10.592	65	163407	53.47	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 106.94%			
77) toluene-d8 (s)	13.413	98	493739	48.56	ug/L	-0.05
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.12%			
100) 4-bromofluorobenzene (s)	16.936	95	205179	48.69	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.38%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.483	59	26636	104.64	ug/L	92
3) ethanol	5.983	45	70877	2260.10	ug/L	97
4) 1,4-dioxane	12.144	88	12871	518.48	ug/L	94
6) chlorodifluoromethane	3.865	51	81593	22.25	ug/L	99
7) dichlorodifluoromethane	3.849	85	83486	26.91	ug/L	97
10) chloromethane	4.243	50	96059	23.47	ug/L	99
11) vinyl chloride	4.473	62	83780	23.14	ug/L	99
12) bromomethane	5.118	94	51242	21.97	ug/L	100
13) chloroethane	5.265	64	46028	24.61	ug/L	97
14) trichlorofluoromethane	5.763	101	90958	23.54	ug/L	99
15) Vinyl Bromide	5.627	106	60000	28.65	ug/L	97
17) ethyl ether	6.167	74	16829	13.84	ug/L	99
18) acrolein	6.403	56	10960	22.98	ug/L	90
19) 1,1-dichloroethene	6.591	96	44543	21.01	ug/L	96
20) freon 113	6.597	151	41043	22.64	ug/L	97
21) 2-chloropropane	6.350	43	108247	22.65	ug/L	98
22) acetone	6.649	58	17124	42.44	ug/L	97
23) acetonitrile	7.116	41	82689	233.17	ug/L	98
24) iodomethane	6.869	142	61704	14.44	ug/L	98
25) carbon disulfide	7.000	76	113437	14.65	ug/L	98
26) methylene chloride	7.367	84	52617	21.48	ug/L	93
27) methyl acetate	7.168	43	42864	22.96	ug/L	100
28) methyl tert butyl ether	7.782	73	102435	14.85	ug/L	98
29) trans-1,2-dichloroethene	7.797	96	47447	21.03	ug/L	94
30) hexane	8.196	57	76020	22.38	ug/L	98
31) di-isopropyl ether	8.505	45	212224	22.70	ug/L	92
32) 2-butanone	9.334	72	18967	61.76	ug/L	96
33) 1,1-dichloroethane	8.458	63	99285	21.66	ug/L	99
34) chloroprene	8.600	53	82311	22.44	ug/L	96
35) acrylonitrile	7.740	53	13987	15.68	ug/L	95
36) vinyl acetate	8.479	86	7663	23.65	ug/L #	93
37) ethyl tert-butyl ether	9.066	59	182559	21.73	ug/L	97
39) 2,2-dichloropropane	9.370	77	85565	23.94	ug/L	91
40) cis-1,2-dichloroethene	9.349	96	53064	20.67	ug/L	94
41) propionitrile	9.438	54	78383	219.39	ug/L	93
42) tert-Butyl Formate	9.900	59	50789	26.22	ug/L	95
43) bromochloromethane	9.727	128	26076	21.50	ug/L	95
44) tetrahydrofuran	9.800	72	4235	15.46	ug/L	93
45) chloroform	9.805	83	91781	22.40	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174427.d
Acq On : 27 Mar 2018 7:47 am
Operator : JessicaP
Sample : cc7334-20 Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:12:59 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 26 07:21:48 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	methacrylonitrile	9.685	67	13066	14.94	ug/L		97
48)	1,1,1-trichloroethane	10.141	97	83530	23.01	ug/L		97
49)	cyclohexane	10.246	84	75078	22.03	ug/L		97
50)	1,1-dichloropropene	10.372	75	69805	22.02	ug/L		97
51)	isobutyl alcohol	10.403	43	23894	222.89	ug/L		96
52)	carbon tetrachloride	10.403	117	74540	22.76	ug/L		98
53)	tert-amyl alcohol	10.571	73	11910	111.96	ug/L		94
56)	benzene	10.702	78	199720	20.83	ug/L		99
57)	iso-octane	10.775	57	241672	22.57	ug/L		98
58)	tert-amyl methyl ether	10.802	73	161752	21.12	ug/L		98
59)	heptane	11.001	57	43783	22.94	ug/L		98
60)	isopropyl acetate	10.671	87	8649	21.18	ug/L	#	78
61)	1,2-dichloroethane	10.707	62	75472	22.49	ug/L		96
62)	n-butyl alcohol	11.384	56	72345	1148.64	ug/L		96
63)	ethyl acrylate	11.703	55	60961	22.49	ug/L		99
64)	trichloroethene	11.635	130	50481	21.05	ug/L		98
65)	2-nitropropane	12.684	41	9456	15.74	ug/L		94
66)	2-chloroethyl vinyl ether	12.742	63	155661	119.98	ug/L		99
67)	methyl methacrylate	12.055	100	7544	14.11	ug/L	#	87
68)	1,2-dichloropropane	11.981	63	57269	21.51	ug/L		99
69)	dibromomethane	12.170	93	31880	22.02	ug/L		92
70)	methylcyclohexane	11.955	83	95139	21.40	ug/L		96
71)	bromodichloromethane	12.359	83	71751	21.77	ug/L		98
72)	epichlorohydrin	12.873	57	25096	113.54	ug/L		99
73)	cis-1,3-dichloropropene	13.004	75	88455	21.40	ug/L		97
74)	4-methyl-2-pentanone	13.182	58	78257	85.04	ug/L		89
75)	3-methyl-1-butanol	13.208	55	45830	463.54	ug/L		98
78)	toluene	13.507	92	121196	20.28	ug/L		100
79)	trans-1,3-dichloropropene	13.774	75	80018	21.16	ug/L		99
80)	ethyl methacrylate	13.837	69	43513	14.47	ug/L		92
81)	1,1,2-trichloroethane	14.052	83	39822	21.12	ug/L		98
82)	tetrachloroethene	14.294	164	44492	20.46	ug/L		98
83)	1,3-dichloropropane	14.299	76	78845	20.77	ug/L		95
84)	2-hexanone	14.346	58	73957	64.23	ug/L		94
85)	butyl acetate	14.482	56	34322	22.16	ug/L		93
86)	dibromochloromethane	14.629	129	54065	21.02	ug/L		98
87)	1,2-dibromoethane	14.828	107	49676	21.22	ug/L		100
88)	n-butyl ether	15.478	57	265736	22.27	ug/L		99
89)	chlorobenzene	15.473	112	145962	21.00	ug/L		99
90)	1,1,1,2-tetrachloroethane	15.562	131	54793	21.14	ug/L		98
91)	ethylbenzene	15.583	91	252446	21.31	ug/L		99
92)	m,p-xylene	15.730	91	388717	42.47	ug/L		100
93)	o-xylene	16.270	106	94303	20.68	ug/L		95
94)	styrene	16.281	104	159896	21.22	ug/L		95
95)	butyl acrylate	16.113	55	109370	21.36	ug/L		97
96)	bromoform	16.569	173	37570	20.48	ug/L		94
97)	isopropylbenzene	16.726	105	253796	21.60	ug/L		98
98)	cis-1,4-dichloro-2-butene	16.789	88	19268	18.75	ug/L		97
101)	bromobenzene	17.151	156	70101	20.50	ug/L		95
102)	1,1,2,2-tetrachloroethane	17.067	83	68279	22.36	ug/L		98
103)	trans-1,4-dichloro-2-b...	17.130	53	9516	14.42	ug/L	#	14
104)	1,2,3-trichloropropane	17.146	110	17177	21.86	ug/L		94
105)	n-propylbenzene	17.214	91	313960	21.57	ug/L		98
106)	2-chlorotoluene	17.355	126	65316	20.94	ug/L		96
107)	4-chlorotoluene	17.471	91	187442	21.18	ug/L		99
109)	1,3,5-trimethylbenzene	17.397	105	221465	21.31	ug/L		97
110)	tert-butylbenzene	17.780	119	189888	21.07	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174427.d
Acq On : 27 Mar 2018 7:47 am
Operator : JessicaP
Sample : cc7334-20 Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:12:59 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 26 07:21:48 2018
Response via : Initial Calibration

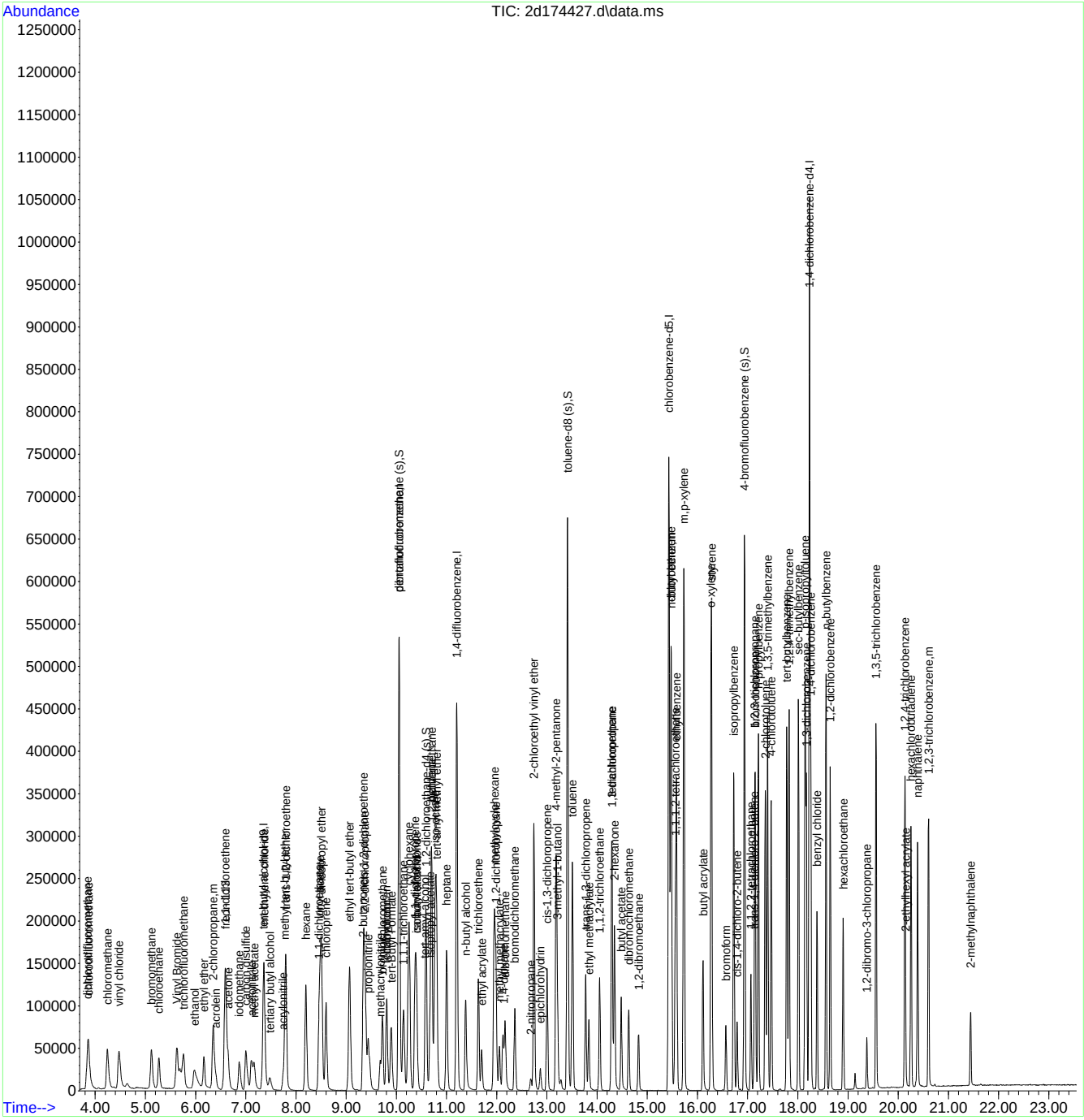
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,2,4-trimethylbenzene	17.827	105	226565	21.48	ug/L	100
112) sec-butylbenzene	18.011	105	294751	21.89	ug/L	99
113) 1,3-dichlorobenzene	18.173	146	134409	21.14	ug/L	99
114) p-isopropyltoluene	18.147	119	251833	22.14	ug/L	99
115) 1,4-dichlorobenzene	18.257	146	134245	21.25	ug/L	98
116) 1,2-dichlorobenzene	18.645	146	135302	21.18	ug/L	100
117) benzyl chloride	18.383	91	133305	23.09	ug/L	100
119) n-butylbenzene	18.561	92	132037	23.11	ug/L	98
121) 1,2-dibromo-3-chloropr...	19.374	157	15304	22.58	ug/L	92
123) 1,3,5-trichlorobenzene	19.558	180	127578	22.82	ug/L	99
124) hexachlorobutadiene	20.255	225	63095	22.04	ug/L	97
125) naphthalene	20.386	128	206190	23.49	ug/L	98
126) 2-ethylhexyl acrylate	20.150	70	8797	5.43	ug/L	96
127) 1,2,4-trichlorobenzene	20.134	180	106335	24.17	ug/L	98
128) 1,2,3-trichlorobenzene	20.606	180	97977	24.87	ug/L	99
129) hexachloroethane	18.907	201	32528	15.03	ug/L	96
130) 2-methylnaphthalene	21.445	142	42643	11.95	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2d7344\
Data File : 2d174427.d
Acq On : 27 Mar 2018 7:47 am
Operator : JessicaP
Sample : cc7334-20 Inst : MS2D
Misc : MS24945,V2D7344,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7334.M
Quant Results File: M2D7334.RES
Quant Time: Mar 30 11:12:59 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 26 07:21:48 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141862.D
Acq On : 23 Mar 2018 12:38 pm
Operator : sydneys
Sample : IC6202-0.2
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 08:00:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Mar 27 14:01:48 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.405	65	331494	50.00	ug/L		0.00
5) pentafluorobenzene	9.628	168	698528	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.550	114	1030506	50.00	ug/L		0.00
77) chlorobenzene-d5	13.681	117	900358	50.00	ug/L		0.00
101) 1,4-dichlorobenzene-d4	15.977	152	454365	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.691	113	283246	1.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 3.86%#				
57) 1,2-dichloroethane-d4 (s)	10.110	65	318707	1.93	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 3.86%#				
78) toluene-d8 (s)	12.181	98	1132296	1.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 3.86%#				
102) 4-bromofluorobenzene (s)	14.829	95	417660	1.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 3.86%#				
Target Compounds							Qvalue
7) dichlorodifluoromethane	3.991	85	1527	0.16	ug/L		79
9) freon 142b	4.306	65	2041	0.21	ug/L	#	60
11) vinyl chloride	4.652	62	2698	0.21	ug/L		89
13) chloroethane	5.449	64	1836	0.23	ug/L		77
15) 1,3-butadiene	4.683	54	2405	0.21	ug/L	#	74
16) vinyl bromide	5.805	106	2200	0.24	ug/L		97
20) freon 113	6.697	151	835	0.17	ug/L		85
21) 1,1-dichloroethene	6.728	61	2264	0.20	ug/L		80
24) iodomethane	7.011	142	2310	0.20	ug/L		96
25) carbon disulfide	7.137	76	6547	0.26	ug/L		80
26) methylene chloride	7.457	84	1795	0.21	ug/L		89
28) methyl tert butyl ether	7.772	73	4606	0.20	ug/L		89
29) trans-1,2-dichloroethene	7.819	61	2214	0.20	ug/L		88
30) hexane	8.107	56	1270	0.22	ug/L	#	76
31) di-isopropyl ether	8.359	45	5538	0.19	ug/L	#	57
32) ethyl tert-butyl ether	8.825	59	4820	0.18	ug/L		91
34) 1,1-dichloroethane	8.385	63	3005	0.21	ug/L		89
35) chloroprene	8.490	53	2100	0.18	ug/L		93
40) cis-1,2-dichloroethene	9.124	96	1550	0.18	ug/L		89
41) propionitrile	9.229	54	2054	0.97	ug/L		79
43) bromochloromethane	9.449	128	659	0.17	ug/L	#	52
45) chloroform	9.486	83	2495	0.20	ug/L		96
46) t-butyl formate	9.518	59	1219	0.19	ug/L		78
47) 1,1-dichloropropene	9.916	75	1914	0.19	ug/L		81
48) carbon tetrachloride	9.942	117	1552	0.18	ug/L	#	80
52) 1,1,1-trichloroethane	9.738	97	2087	0.20	ug/L		90
53) Cyclohexane	9.801	84	2162	0.18	ug/L	#	45
58) 2,2,4-trimethylpentane	10.162	57	5685	0.18	ug/L		87
60) benzene	10.178	78	6742	0.21	ug/L		97
61) tert-amyl methyl ether	10.210	73	4909	0.20	ug/L		87
62) heptane	10.330	57	1307	0.21	ug/L		79
65) trichloroethene	10.896	95	1408	0.20	ug/L	#	75

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141862.D
Acq On : 23 Mar 2018 12:38 pm
Operator : sydneys
Sample : IC6202-0.2
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 08:00:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Mar 27 14:01:48 2018
Response via : Initial Calibration

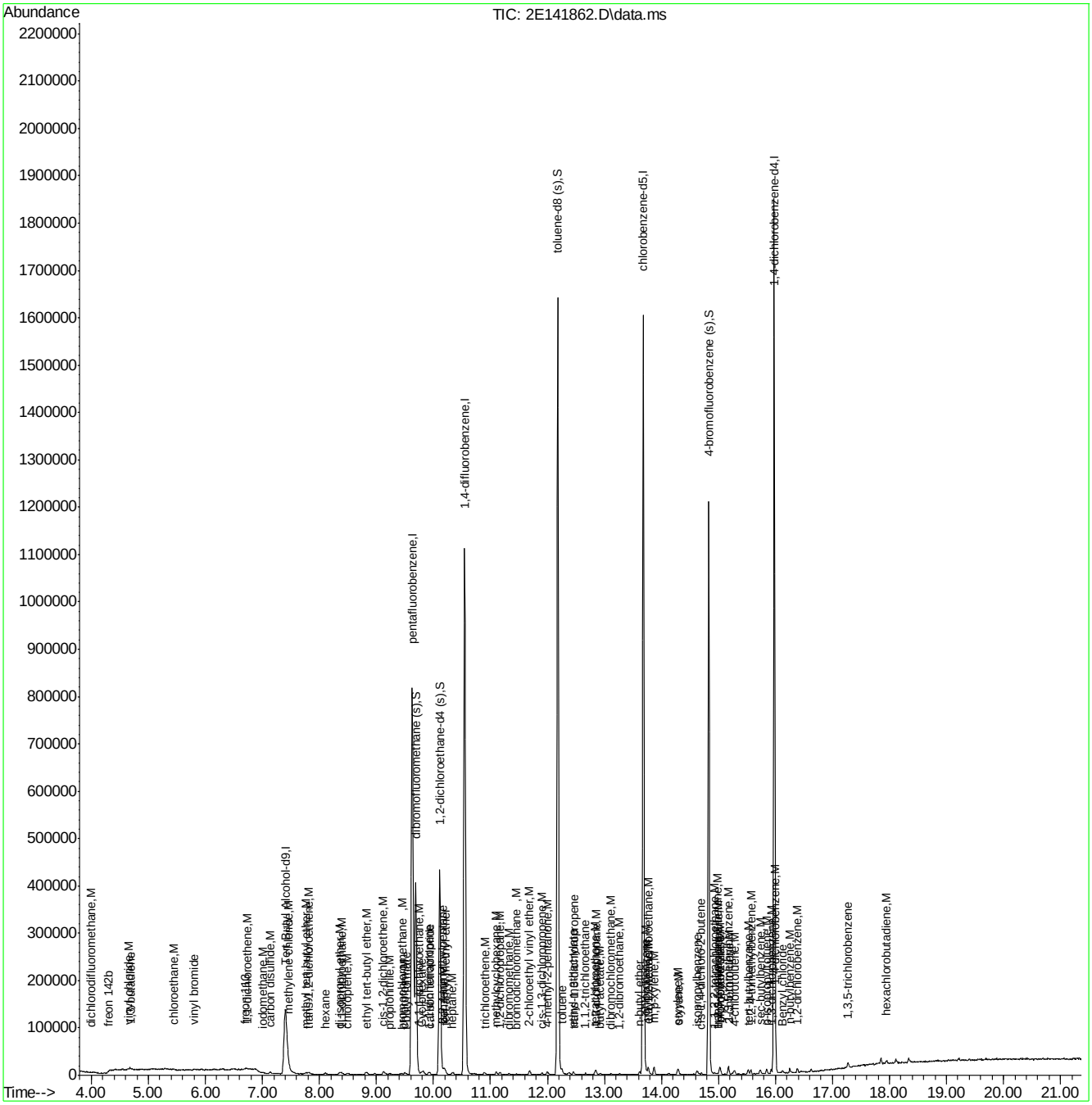
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
67)	2-chloroethyl vinyl ether	11.683	63	4188	0.65	ug/L		90
69)	1,2-dichloropropane	11.164	63	1607	0.19	ug/L		93
70)	methylcyclohexane	11.096	83	2214	0.16	ug/L		93
71)	dibromomethane	11.321	93	906	0.21	ug/L		91
72)	bromodichloromethane	11.452	83	1761	0.19	ug/L		86
74)	cis-1,3-dichloropropene	11.903	75	2418	0.19	ug/L		88
75)	4-methyl-2-pentanone	11.998	58	1869	0.54	ug/L	#	78
79)	toluene	12.254	92	3850	0.21	ug/L	#	81
80)	ethyl methacrylate	12.448	69	1685	0.18	ug/L	#	73
81)	trans-1,3-dichloropropene	12.464	75	2102	0.20	ug/L		97
82)	1,1,2-trichloroethane	12.669	83	953	0.18	ug/L		89
83)	tetrachloroethene	12.836	164	1240	0.22	ug/L		86
85)	1,3-dichloropropane	12.852	76	2222	0.20	ug/L		69
86)	butyl acetate	12.920	56	1030	0.21	ug/L	#	84
88)	dibromochloromethane	13.109	129	1165	0.19	ug/L		88
89)	1,2-dibromoethane	13.261	107	1165	0.18	ug/L		100
90)	n-butyl ether	13.612	57	6367	0.18	ug/L		91
91)	chlorobenzene	13.717	112	3929	0.20	ug/L		96
92)	1,1,1,2-tetrachloroethane	13.770	131	1110	0.17	ug/L		81
93)	ethylbenzene	13.764	91	6894	0.21	ug/L		100
94)	m,p-xylene	13.874	106	4788	0.34	ug/L		85
95)	o-xylene	14.283	91	5250	0.19	ug/L		90
96)	styrene	14.299	104	4056	0.19	ug/L		91
99)	isopropylbenzene	14.619	105	5844	0.18	ug/L		88
100)	cis-1,4-dichloro-2-butene	14.698	75	656	0.21	ug/L	#	85
103)	bromobenzene	15.023	156	1651	0.20	ug/L		94
104)	1,1,2,2-tetrachloroethane	14.934	83	1433	0.18	ug/L		97
105)	trans-1,4-dichloro-2-b...	14.981	53	432	0.23	ug/L	#	34
106)	1,2,3-trichloropropane	15.002	110	348	0.16	ug/L		88
107)	n-propylbenzene	15.028	91	7792	0.20	ug/L		98
108)	2-chlorotoluene	15.185	126	1597	0.20	ug/L	#	68
109)	4-chlorotoluene	15.280	91	5006	0.22	ug/L		96
111)	1,3,5-trimethylbenzene	15.175	105	5256	0.20	ug/L		93
112)	tert-butylbenzene	15.521	119	4398	0.19	ug/L		96
113)	1,2,4-trimethylbenzene	15.573	105	5062	0.19	ug/L		89
114)	sec-butylbenzene	15.736	105	6753	0.20	ug/L		94
115)	1,3-dichlorobenzene	15.925	146	3753	0.24	ug/L		95
116)	p-isopropyltoluene	15.851	119	5246	0.18	ug/L		98
117)	1,4-dichlorobenzene	16.003	146	4094	0.25	ug/L		89
118)	1,2-dichlorobenzene	16.386	146	3378	0.22	ug/L		92
120)	n-butylbenzene	16.250	92	3152	0.20	ug/L		97
123)	1,3,5-trichlorobenzene	17.267	180	3419	0.25	ug/L	#	72
126)	hexachlorobutadiene	17.948	225	1255	0.22	ug/L	#	73
130)	Benzyl chloride	16.119	91	3999	0.25	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141862.D
Acq On : 23 Mar 2018 12:38 pm
Operator : sydneys
Sample : IC6202-0.2
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 08:00:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Mar 27 14:01:48 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 03/29/18 02:59

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141863.D
Acq On : 23 Mar 2018 1:06 pm
Operator : sydneys
Sample : IC6202-0.5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:05:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Mar 27 14:01:48 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.399	65	318427	50.00	ug/L		0.00
5) pentafluorobenzene	9.627	168	703264	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.550	114	1030962	50.00	ug/L		0.00
77) chlorobenzene-d5	13.680	117	906086	50.00	ug/L		0.00
101) 1,4-dichlorobenzene-d4	15.977	152	464325	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.690	113	284463	1.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	3.86%#			
57) 1,2-dichloroethane-d4 (s)	10.110	65	314284	1.91	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	3.82%#			
78) toluene-d8 (s)	12.181	98	1139270	1.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	3.86%#			
102) 4-bromofluorobenzene (s)	14.829	95	423419	1.92	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	3.84%#			
Target Compounds							Qvalue
3) tertiary butyl alcohol	7.525	59	2135	0.25	ug/L		82
4) 1,4-dioxane	11.279	88	714	1.11	ug/L		86
6) chlorodifluoromethane	4.023	51	4492	0.48	ug/L		89
7) dichlorodifluoromethane	3.996	85	4634	0.48	ug/L		83
9) freon 142b	4.306	65	4944	0.50	ug/L	#	78
10) chloromethane	4.421	50	8171	0.61	ug/L		92
11) vinyl chloride	4.657	62	6394	0.50	ug/L		82
12) bromomethane	5.307	94	4778	0.61	ug/L		90
13) chloroethane	5.454	64	4195	0.53	ug/L		94
14) trichlorofluoromethane	5.921	101	5251m	0.57	ug/L		
15) 1,3-butadiene	4.683	54	6410	0.56	ug/L		83
16) vinyl bromide	5.805	106	4818	0.52	ug/L		96
17) ethyl ether	6.298	74	2838	0.52	ug/L	#	59
18) 2-chloropropane	6.508	43	6383	0.46	ug/L		85
20) freon 113	6.712	151	2260	0.47	ug/L		88
21) 1,1-dichloroethene	6.723	61	5461	0.49	ug/L		89
23) acetonitrile	7.242	41	6084	2.49	ug/L		89
24) iodomethane	7.016	142	5657	0.49	ug/L		93
25) carbon disulfide	7.142	76	12435	0.50	ug/L		91
26) methylene chloride	7.452	84	4240	0.50	ug/L		80
27) methyl acetate	7.247	43	3172	0.52	ug/L		84
28) methyl tert butyl ether	7.777	73	10952	0.48	ug/L		97
29) trans-1,2-dichloroethene	7.813	61	5404	0.48	ug/L		96
30) hexane	8.112	56	2601	0.45	ug/L	#	85
31) di-isopropyl ether	8.359	45	13731	0.46	ug/L	#	64
32) ethyl tert-butyl ether	8.825	59	12537	0.47	ug/L		89
33) 2-butanone	9.124	72	1276m	1.18	ug/L		
34) 1,1-dichloroethane	8.390	63	6879	0.47	ug/L		87
35) chloroprene	8.500	53	5597	0.49	ug/L		97
36) acrylonitrile	7.824	53	1624	0.52	ug/L	#	52
39) 2,2-dichloropropane	9.119	77	6712	0.59	ug/L		94
40) cis-1,2-dichloroethene	9.124	96	4577	0.53	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141863.D
Acq On : 23 Mar 2018 1:06 pm
Operator : sydneys
Sample : IC6202-0.5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:05:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Mar 27 14:01:48 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	propionitrile	9.224	54	5007	2.35	ug/L		96
43)	bromochloromethane	9.444	128	2020	0.52	ug/L		89
44)	tetrahydrofuran	9.491	72	393	0.34	ug/L	#	50
45)	chloroform	9.491	83	6085	0.48	ug/L		98
46)	t-butyl formate	9.523	59	2997	0.46	ug/L		94
47)	1,1-dichloropropene	9.911	75	5033	0.49	ug/L		95
48)	carbon tetrachloride	9.947	117	4049	0.47	ug/L	#	80
49)	isopropyl acetate	10.099	87	673	0.44	ug/L	#	1
51)	methacrylonitrile	9.402	67	1411	0.47	ug/L	#	43
52)	1,1,1-trichloroethane	9.743	97	5193	0.49	ug/L		85
53)	Cyclohexane	9.811	84	5885	0.48	ug/L	#	74
58)	2,2,4-trimethylpentane	10.157	57	14459	0.46	ug/L		97
59)	n-butyl alcohol	10.702	56	4785	4.26	ug/L		85
60)	benzene	10.188	78	17020	0.54	ug/L		98
61)	tert-amyl methyl ether	10.209	73	12351	0.50	ug/L		99
62)	heptane	10.335	57	2844	0.46	ug/L		92
63)	1,2-dichloroethane	10.209	62	5756	0.55	ug/L		98
64)	ethyl acrylate	10.923	55	3436	0.41	ug/L		82
65)	trichloroethene	10.896	95	3231	0.45	ug/L		77
67)	2-chloroethyl vinyl ether	11.688	63	10649	1.66	ug/L		91
69)	1,2-dichloropropane	11.158	63	4115	0.48	ug/L		89
70)	methylcyclohexane	11.106	83	6698	0.49	ug/L		90
71)	dibromomethane	11.321	93	2095	0.49	ug/L		82
72)	bromodichloromethane	11.442	83	4546	0.48	ug/L		92
73)	epichlorohydrin	11.824	57	1428	1.43	ug/L		83
74)	cis-1,3-dichloropropene	11.898	75	5697	0.45	ug/L		90
75)	4-methyl-2-pentanone	11.992	58	4873	1.40	ug/L	#	80
76)	3-methyl-1-butanol	12.013	70	1518	3.34	ug/L	#	67
79)	toluene	12.254	92	8784	0.48	ug/L		87
80)	ethyl methacrylate	12.448	69	4073	0.43	ug/L		92
81)	trans-1,3-dichloropropene	12.459	75	4549	0.42	ug/L		95
82)	1,1,2-trichloroethane	12.674	83	2479	0.46	ug/L	#	81
83)	tetrachloroethene	12.836	164	2857	0.50	ug/L		88
85)	1,3-dichloropropane	12.852	76	5262	0.46	ug/L		99
86)	butyl acetate	12.910	56	2185	0.44	ug/L		86
88)	dibromochloromethane	13.109	129	2688	0.43	ug/L		85
89)	1,2-dibromoethane	13.261	107	3014	0.47	ug/L		93
90)	n-butyl ether	13.617	57	16307	0.46	ug/L		96
91)	chlorobenzene	13.717	112	9662	0.49	ug/L		84
92)	1,1,1,2-tetrachloroethane	13.775	131	2992	0.45	ug/L		86
93)	ethylbenzene	13.764	91	16719	0.49	ug/L		98
94)	m,p-xylene	13.869	106	12353	0.88	ug/L		99
95)	o-xylene	14.283	91	13041	0.48	ug/L		91
96)	styrene	14.299	104	9292	0.44	ug/L		95
97)	butyl acrylate	14.121	55	5689	0.41	ug/L		96
98)	bromoform	14.566	173	1632	0.41	ug/L		86
99)	isopropylbenzene	14.619	105	14952	0.47	ug/L		94
100)	cis-1,4-dichloro-2-butene	14.703	75	1586	0.50	ug/L	#	81
103)	bromobenzene	15.023	156	3952	0.48	ug/L		89
104)	1,1,2,2-tetrachloroethane	14.933	83	3769	0.46	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141863.D
Acq On : 23 Mar 2018 1:06 pm
Operator : sydneys
Sample : IC6202-0.5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:05:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Mar 27 14:01:48 2018
Response via : Initial Calibration

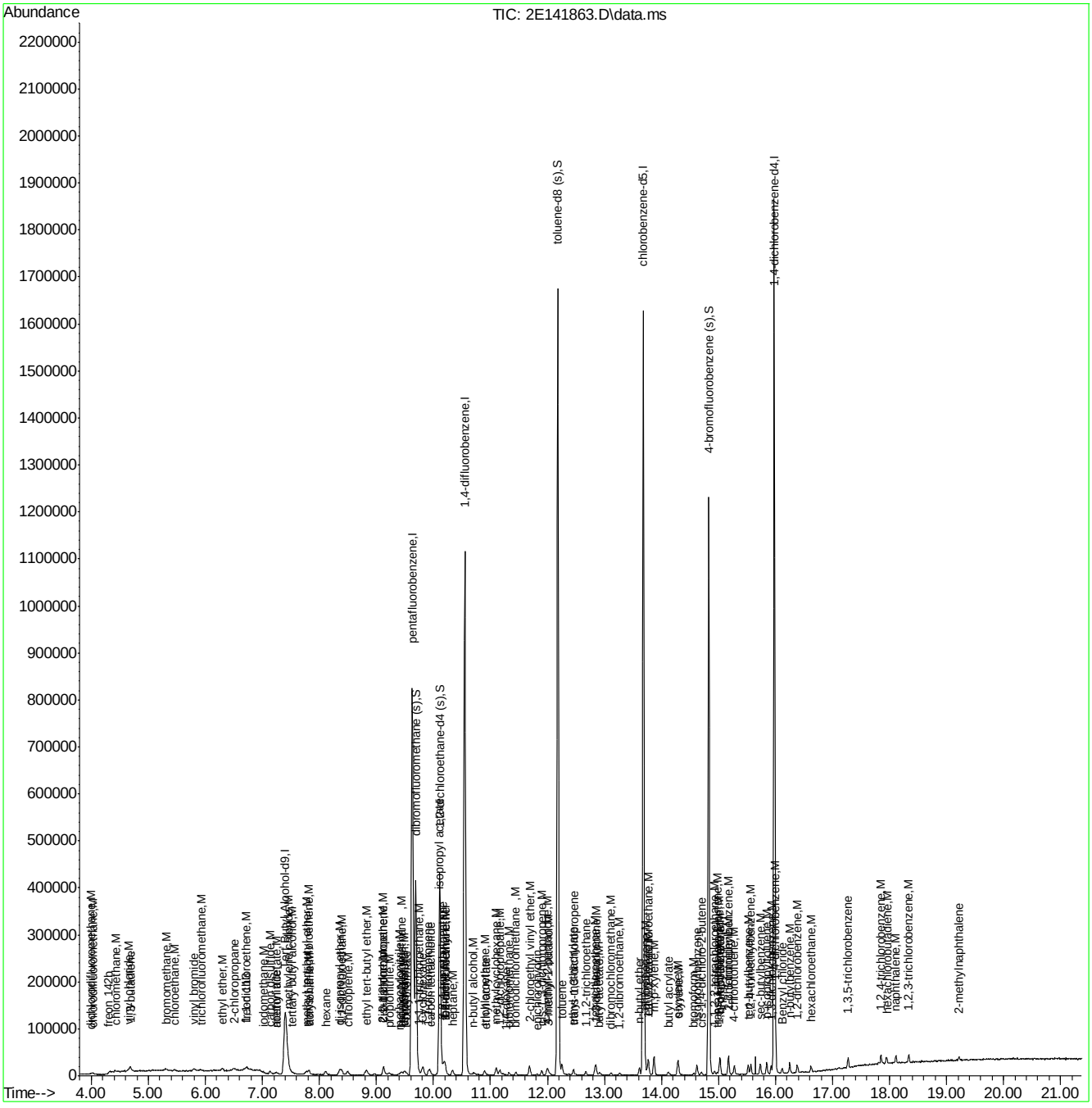
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
105) trans-1,4-dichloro-2-b...	14.975	53	1015	0.53	ug/L		89
106) 1,2,3-trichloropropane	15.007	110	1049	0.48	ug/L		86
107) n-propylbenzene	15.028	91	18939	0.49	ug/L		94
108) 2-chlorotoluene	15.175	126	3818	0.48	ug/L	#	81
109) 4-chlorotoluene	15.274	91	11246	0.47	ug/L		92
111) 1,3,5-trimethylbenzene	15.175	105	12327	0.45	ug/L		93
112) tert-butylbenzene	15.521	119	10875	0.47	ug/L		96
113) 1,2,4-trimethylbenzene	15.568	105	12798	0.47	ug/L		94
114) sec-butylbenzene	15.730	105	16369	0.47	ug/L		96
115) 1,3-dichlorobenzene	15.924	146	7509	0.47	ug/L		93
116) p-isopropyltoluene	15.851	119	13532	0.47	ug/L		98
117) 1,4-dichlorobenzene	16.003	146	8024	0.49	ug/L		98
118) 1,2-dichlorobenzene	16.381	146	7322	0.47	ug/L		97
120) n-butylbenzene	16.249	92	7082	0.45	ug/L		97
123) 1,3,5-trichlorobenzene	17.272	180	6578	0.47	ug/L		97
124) 1,2,4-trichlorobenzene	17.854	180	5760	0.46	ug/L		96
126) hexachlorobutadiene	17.953	225	2946	0.51	ug/L		85
127) naphthalene	18.111	128	11547	0.44	ug/L		97
128) 1,2,3-trichlorobenzene	18.336	180	5789	0.53	ug/L		94
129) hexachloroethane	16.622	201	2057	0.46	ug/L		78
130) Benzyl chloride	16.118	91	7879	0.47	ug/L		94
131) 2-methylnaphthalene	19.212	142	3042	0.24	ug/L		86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141863.D
Acq On : 23 Mar 2018 1:06 pm
Operator : sydneys
Sample : IC6202-0.5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:05:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Mar 27 14:01:48 2018
Response via : Initial Calibration



M2E6202.M Fri Mar 30 14:18:21 2018 Page: 4

Manual Integration Approval Summary

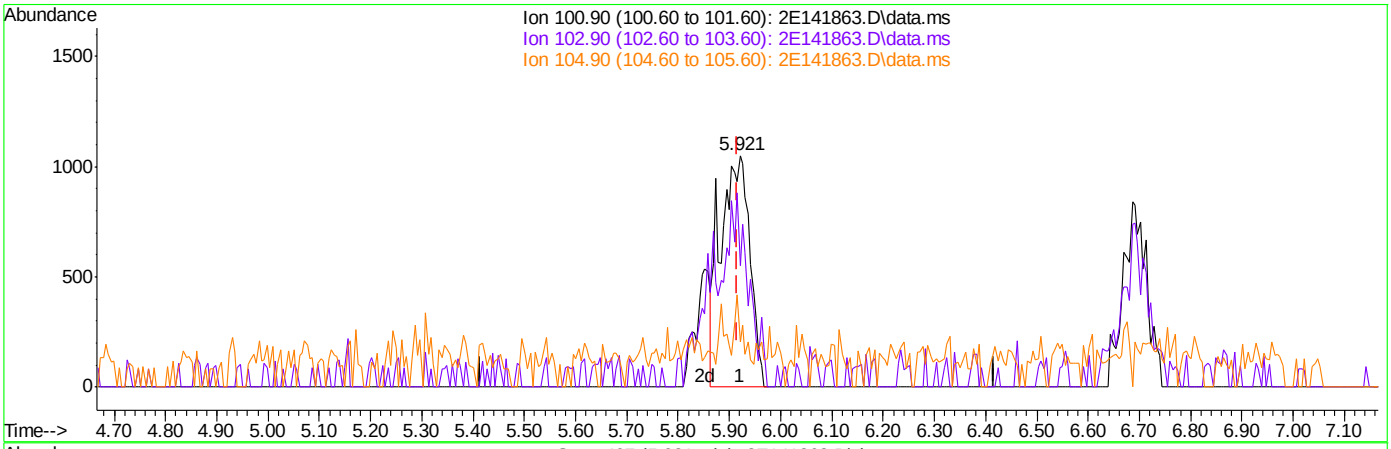
Sample Number:	V2E6202-IC6202	**Method:**	SW846 8260C
Lab FileID:	2E141863.D	**Analyst approved:**	03/28/18 08:34 Robert Szot
Injection Time:	03/23/18 13:06	**Supervisor approved:**	03/29/18 02:59 Kanya Veerawat

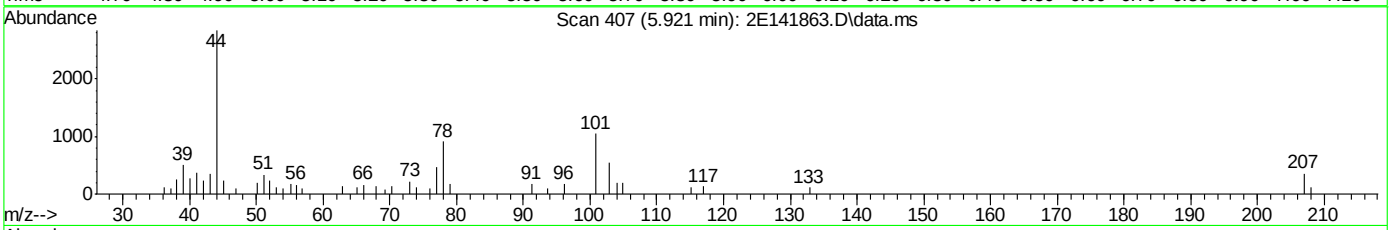
Parameter	CAS	Sig#	R.T. (min.)	Reason
Trichlorofluoromethane	75-69-4		5.92	Poor instrument integration
2-Butanone (MEK)	78-93-3		9.12	Poor instrument integration

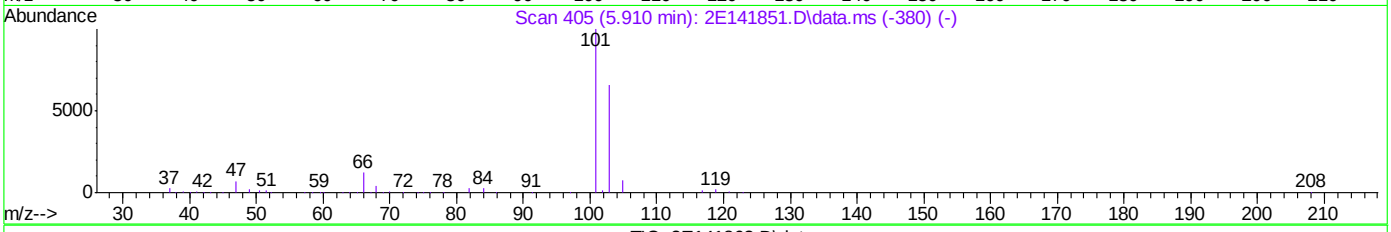
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141863.D
Acq On : 23 Mar 2018 1:06 pm
Operator : sydneys
Sample : IC6202-0.5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 14:04:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Mar 27 14:01:48 2018
Response via : Initial Calibration







TIC: 2E141863.D\data.ms

(14) trichlorofluoromethane (M)

5.921min (+0.005) 0.46ug/L

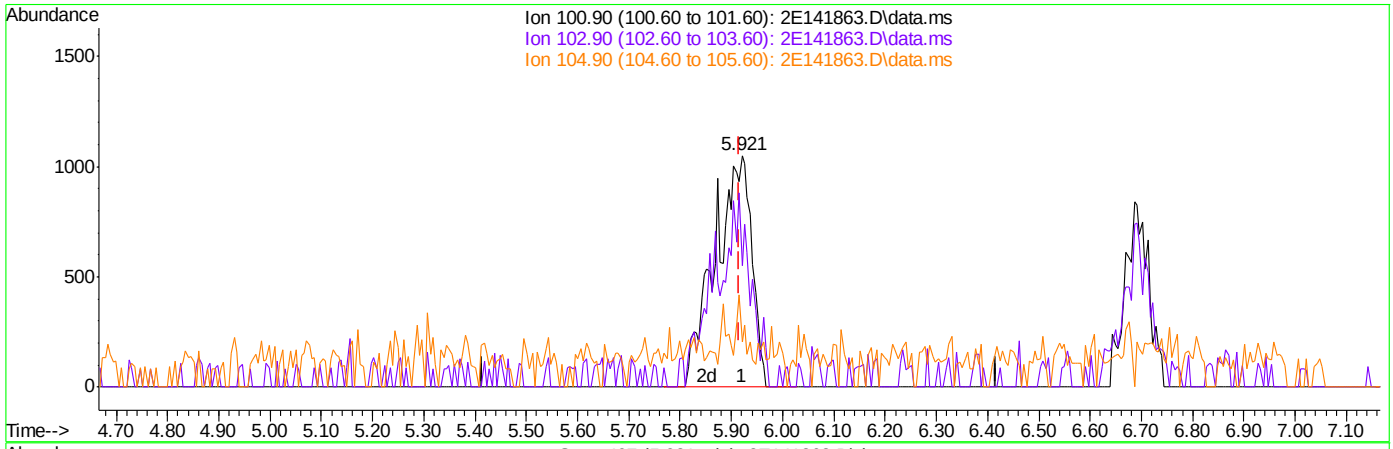
response 4171

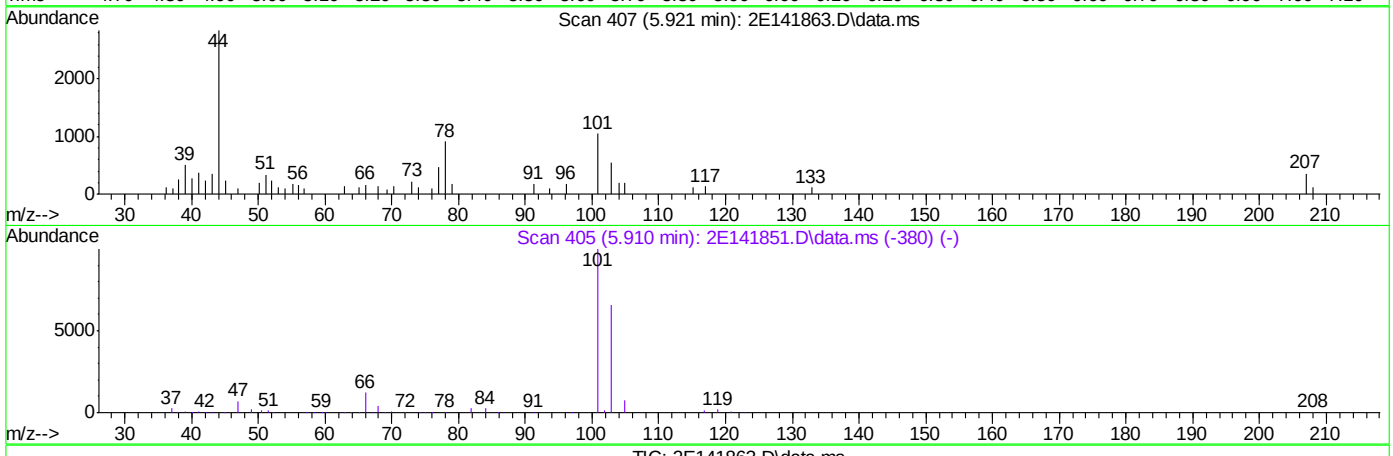
Ion	Exp%	Act%
100.90	100	100
102.90	63.00	52.62
104.90	10.50	7.23
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141863.D
Acq On : 23 Mar 2018 1:06 pm
Operator : sydneys
Sample : IC6202-0.5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 14:04:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Mar 27 14:01:48 2018
Response via : Initial Calibration





TIC: 2E141863.D\data.ms

(14) trichlorofluoromethane (M)

5.921min (+0.005) 0.57ug/L m

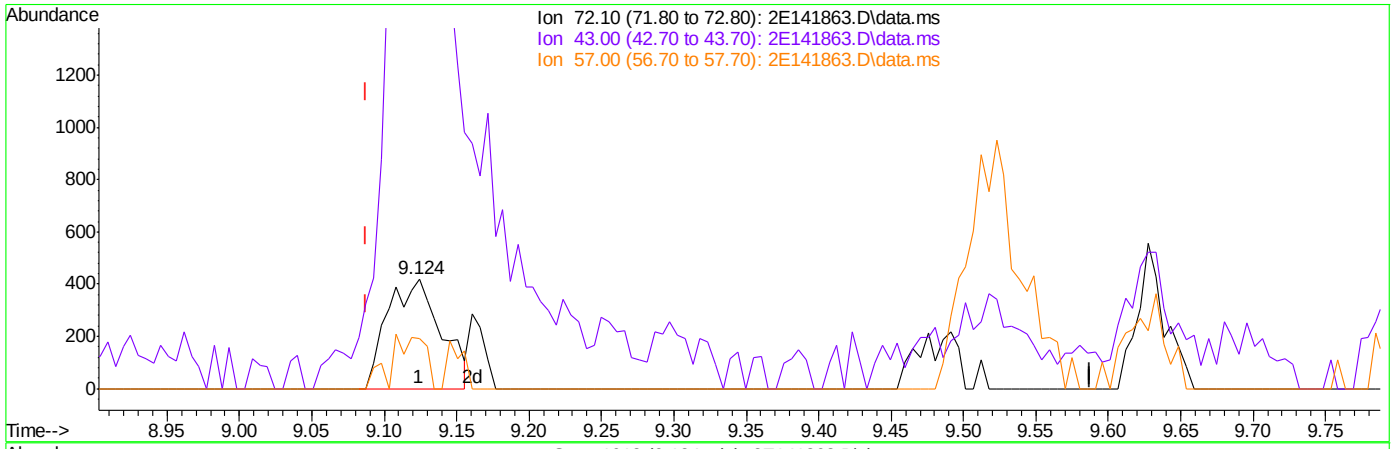
response 5251

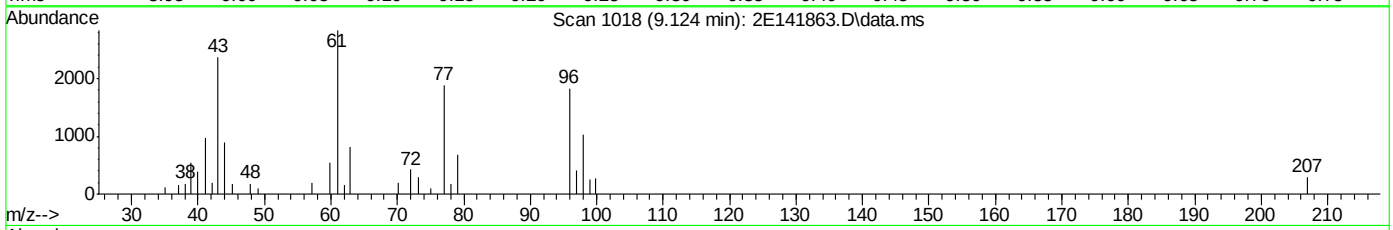
Ion	Exp%	Act%
100.90	100	100
102.90	63.00	52.62
104.90	10.50	19.31
0.00	0.00	0.00

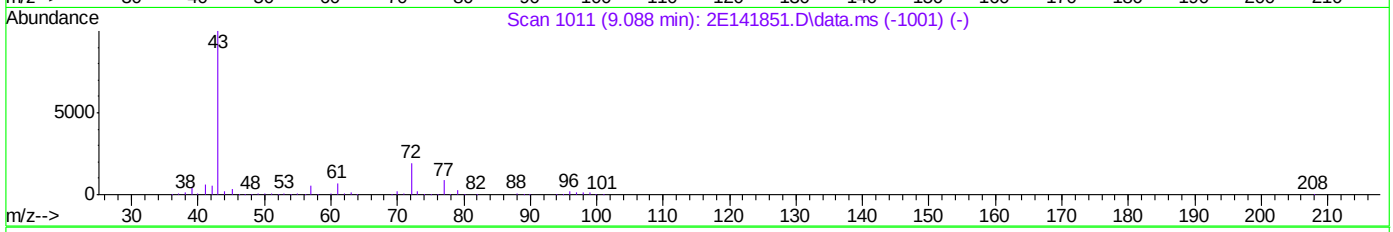
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141863.D
Acq On : 23 Mar 2018 1:06 pm
Operator : sydneys
Sample : IC6202-0.5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:03:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Mar 27 14:01:48 2018
Response via : Initial Calibration







TIC: 2E141863.D\data.ms

(33) 2-butanone (M)

9.124min (+0.037) 1.00ug/L

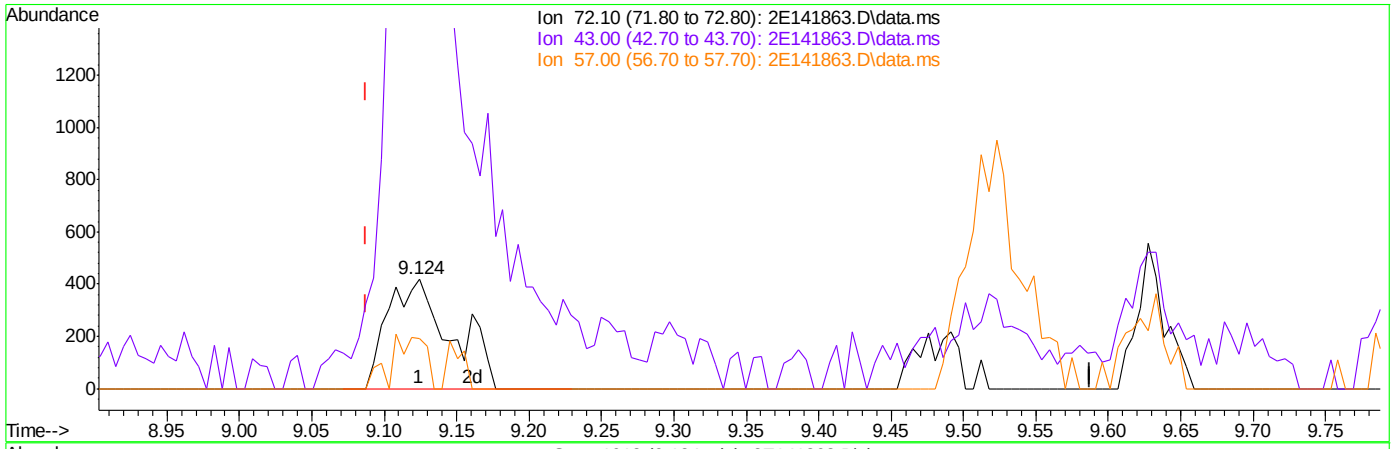
response 1076

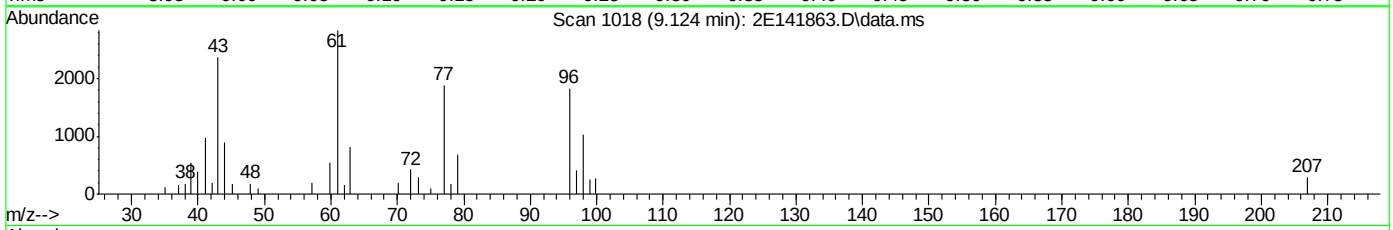
Ion	Exp%	Act%
72.10	100	100
43.00	513.30	517.38
57.00	30.50	45.95
0.00	0.00	0.00

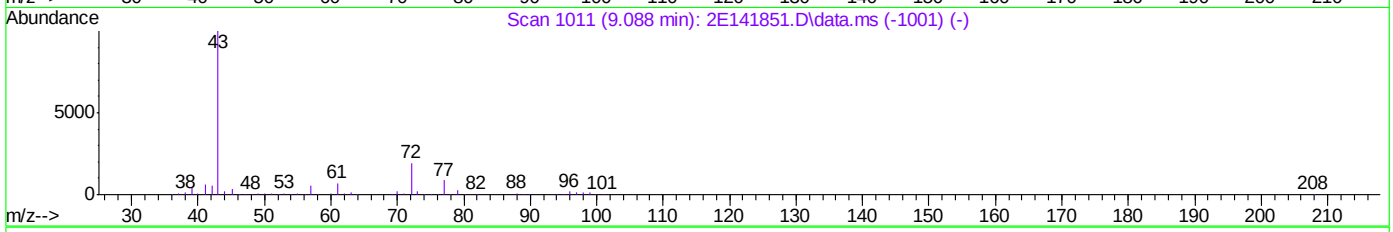
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141863.D
Acq On : 23 Mar 2018 1:06 pm
Operator : sydneys
Sample : IC6202-0.5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:03:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Tue Mar 27 14:01:48 2018
Response via : Initial Calibration







TIC: 2E141863.D\data.ms

(33) 2-butanone (M)

9.124min (+0.037) 1.18ug/L m

response 1276

Ion	Exp%	Act%
72.10	100	100
43.00	513.30	564.05#
57.00	30.50	45.95
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141864.D
Acq On : 23 Mar 2018 1:33 pm
Operator : sydneys
Sample : IC6202-1
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 08:12:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.410	65	313738	500.00	ug/L		0.00
5) pentafluorobenzene	9.633	168	630435	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.550	114	945455	50.00	ug/L		0.00
77) chlorobenzene-d5	13.681	117	824444	50.00	ug/L		0.00
101) 1,4-dichlorobenzene-d4	15.977	152	417845	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.691	113	260605	49.72	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.44%				
57) 1,2-dichloroethane-d4 (s)	10.110	65	291868	49.56	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.12%				
78) toluene-d8 (s)	12.181	98	1053444	50.12	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.24%				
102) 4-bromofluorobenzene (s)	14.829	95	383945	50.03	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.06%				
Target Compounds							Qvalue
2) ethanol	6.141	45	8272	114.43	ug/L		96
3) tertiary butyl alcohol	7.515	59	4000	4.77	ug/L		74
4) 1,4-dioxane	11.290	88	1744	27.50	ug/L	#	74
6) chlorodifluoromethane	4.028	51	8215	0.97	ug/L		94
7) dichlorodifluoromethane	4.007	85	8805	1.02	ug/L		97
9) freon 142b	4.311	65	8587	0.97	ug/L		99
10) chloromethane	4.416	50	12766	1.06	ug/L		98
11) vinyl chloride	4.662	62	11619	1.01	ug/L		97
12) bromomethane	5.307	94	7958	1.12	ug/L		93
13) chloroethane	5.454	64	7414	1.05	ug/L		92
14) trichlorofluoromethane	5.916	101	10123	1.04	ug/L		87
15) 1,3-butadiene	4.689	54	10236	0.99	ug/L		96
16) vinyl bromide	5.811	106	8739	1.06	ug/L		87
17) ethyl ether	6.298	74	4954	1.08	ug/L		85
18) 2-chloropropane	6.498	43	13387	1.09	ug/L		92
20) freon 113	6.697	151	4284	0.99	ug/L		88
21) 1,1-dichloroethene	6.718	61	9903	0.98	ug/L		95
22) acetone	6.791	58	3882	4.80	ug/L		86
23) acetonitrile	7.226	41	11799	11.77	ug/L		91
24) iodomethane	7.006	142	10539	1.01	ug/L		96
25) carbon disulfide	7.137	76	22300	0.99	ug/L		91
26) methylene chloride	7.452	84	7698	1.02	ug/L		97
27) methyl acetate	7.253	43	5725	1.06	ug/L		88
28) methyl tert butyl ether	7.772	73	20981	1.02	ug/L		92
29) trans-1,2-dichloroethene	7.814	61	10214	1.01	ug/L		94
30) hexane	8.112	56	4739	0.92	ug/L	#	80
31) di-isopropyl ether	8.364	45	26650	1.00	ug/L		77
32) ethyl tert-butyl ether	8.820	59	22845	0.95	ug/L		96
33) 2-butanone	9.109	72	2952	3.91	ug/L	#	86
34) 1,1-dichloroethane	8.396	63	13095	1.00	ug/L		97
35) chloroprene	8.490	53	10315	1.00	ug/L		89
36) acrylonitrile	7.803	53	3101	1.06	ug/L	#	70

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141864.D
Acq On : 23 Mar 2018 1:33 pm
Operator : sydneys
Sample : IC6202-1
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 08:12:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) vinyl acetate	8.390	86	1318	0.93	ug/L	#	33
38) ethyl acetate	9.119	45	1232	1.12	ug/L	#	1
39) 2,2-dichloropropane	9.124	77	11044	1.06	ug/L		96
40) cis-1,2-dichloroethene	9.124	96	7736	1.01	ug/L		97
41) propionitrile	9.213	54	10828	10.07	ug/L		91
43) bromochloromethane	9.444	128	3335	0.97	ug/L		84
44) tetrahydrofuran	9.481	72	870	0.96	ug/L	#	54
45) chloroform	9.491	83	11644	1.02	ug/L		95
46) t-butyl formate	9.518	59	5915	1.01	ug/L		88
47) 1,1-dichloropropene	9.916	75	9066	0.98	ug/L		92
48) carbon tetrachloride	9.937	117	7706	1.00	ug/L		83
49) isopropyl acetate	10.100	87	1490	1.01	ug/L	#	28
51) methacrylonitrile	9.397	67	2515	0.88	ug/L		90
52) 1,1,1-trichloroethane	9.743	97	9319	0.98	ug/L		95
53) Cyclohexane	9.801	84	10717	0.98	ug/L	#	49
58) 2,2,4-trimethylpentane	10.162	57	26869	0.94	ug/L		95
59) n-butyl alcohol	10.697	56	9912	51.43	ug/L		93
60) benzene	10.183	78	29949	1.02	ug/L		98
61) tert-amyl methyl ether	10.204	73	22590	0.99	ug/L		95
62) heptane	10.335	57	5369	0.95	ug/L		94
63) 1,2-dichloroethane	10.204	62	9803	1.09	ug/L		97
64) ethyl acrylate	10.907	55	7560	0.94	ug/L		87
65) trichloroethene	10.891	95	6485	1.00	ug/L		95
66) 2-nitropropane	11.672	41	2390	1.06	ug/L	#	33
67) 2-chloroethyl vinyl ether	11.683	63	20630	4.72	ug/L		98
68) methyl methacrylate	11.174	100	1362	0.80	ug/L	#	54
69) 1,2-dichloropropane	11.164	63	7929	1.01	ug/L		97
70) methylcyclohexane	11.106	83	11663	0.94	ug/L		88
71) dibromomethane	11.321	93	3779	0.96	ug/L		93
72) bromodichloromethane	11.447	83	8375	0.97	ug/L		91
73) epichlorohydrin	11.819	57	3305	4.86	ug/L		85
74) cis-1,3-dichloropropene	11.898	75	11290	0.97	ug/L		97
75) 4-methyl-2-pentanone	11.992	58	9953	3.91	ug/L	#	82
76) 3-methyl-1-butanol	12.018	70	3638	19.53	ug/L	#	71
79) toluene	12.254	92	16765	1.00	ug/L		96
80) ethyl methacrylate	12.443	69	8102	0.93	ug/L		97
81) trans-1,3-dichloropropene	12.454	75	9165	0.93	ug/L		93
82) 1,1,2-trichloroethane	12.674	83	5045	1.04	ug/L		88
83) tetrachloroethene	12.836	164	4857	0.94	ug/L		92
84) 2-hexanone	12.836	58	9051	3.68	ug/L		97
85) 1,3-dichloropropane	12.852	76	10227	0.99	ug/L		93
86) butyl acetate	12.910	56	4433	0.96	ug/L	#	81
88) dibromochloromethane	13.114	129	5465	0.95	ug/L		89
89) 1,2-dibromoethane	13.261	107	5818	1.00	ug/L		93
90) n-butyl ether	13.612	57	30015	0.93	ug/L		99
91) chlorobenzene	13.712	112	18475	1.03	ug/L		82
92) 1,1,1,2-tetrachloroethane	13.775	131	5656	0.94	ug/L		83
93) ethylbenzene	13.764	91	30186	0.98	ug/L		98
94) m,p-xylene	13.869	106	22801	1.96	ug/L		100
95) o-xylene	14.283	91	24096	0.98	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141864.D
Acq On : 23 Mar 2018 1:33 pm
Operator : sydneys
Sample : IC6202-1
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 08:12:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

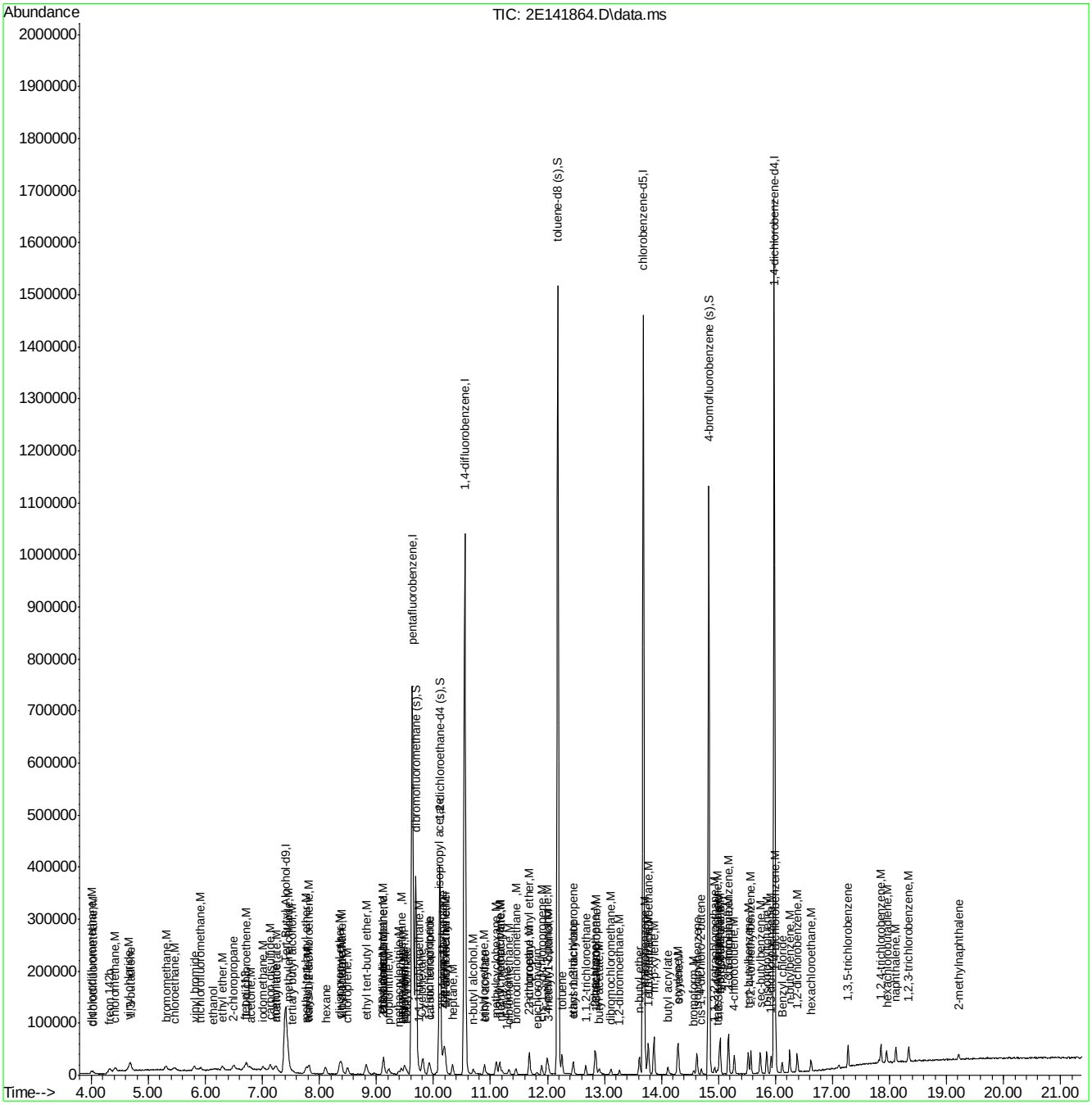
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
96) styrene	14.299	104	18229	0.95	ug/L		95
97) butyl acrylate	14.110	55	11454	0.88	ug/L		94
98) bromoform	14.561	173	3136	0.86	ug/L		98
99) isopropylbenzene	14.619	105	27939	0.96	ug/L		98
100) cis-1,4-dichloro-2-butene	14.698	75	2702	0.94	ug/L		88
103) bromobenzene	15.028	156	7388	0.99	ug/L	#	85
104) 1,1,2,2-tetrachloroethane	14.934	83	7366	0.99	ug/L		88
105) trans-1,4-dichloro-2-b...	14.981	53	1627	0.94	ug/L		85
106) 1,2,3-trichloropropane	15.002	110	2108	1.08	ug/L		91
107) n-propylbenzene	15.028	91	34255	0.97	ug/L		98
108) 2-chlorotoluene	15.180	126	6623	0.92	ug/L		91
109) 4-chlorotoluene	15.274	91	21139	0.99	ug/L		96
111) 1,3,5-trimethylbenzene	15.175	105	23556	0.97	ug/L		97
112) tert-butylbenzene	15.521	119	19751	0.95	ug/L		99
113) 1,2,4-trimethylbenzene	15.568	105	24515	0.99	ug/L		98
114) sec-butylbenzene	15.731	105	30220	0.96	ug/L		94
115) 1,3-dichlorobenzene	15.919	146	13682	0.96	ug/L		93
116) p-isopropyltoluene	15.846	119	25681	0.98	ug/L		96
117) 1,4-dichlorobenzene	16.003	146	14426	0.97	ug/L		97
118) 1,2-dichlorobenzene	16.381	146	13590	0.98	ug/L		91
120) n-butylbenzene	16.250	92	13928	0.98	ug/L		97
123) 1,3,5-trichlorobenzene	17.272	180	12072	0.96	ug/L		98
124) 1,2,4-trichlorobenzene	17.854	180	10569	1.00	ug/L		95
126) hexachlorobutadiene	17.954	225	4851	0.94	ug/L		95
127) naphthalene	18.111	128	22490	1.00	ug/L		95
128) 1,2,3-trichlorobenzene	18.336	180	8953	0.94	ug/L		92
129) hexachloroethane	16.622	201	3671	0.89	ug/L	#	77
130) Benzyl chloride	16.119	91	14684	0.98	ug/L		99
131) 2-methylnaphthalene	19.217	142	5520	0.46	ug/L		89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141864.D
Acq On : 23 Mar 2018 1:33 pm
Operator : sydneys
Sample : IC6202-1
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 08:12:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141865.D
Acq On : 23 Mar 2018 2:01 pm
Operator : sydneys
Sample : IC6202-2
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 08:19:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.405	65	305103	500.00	ug/L		0.00
5) pentafluorobenzene	9.633	168	632768	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.550	114	951725	50.00	ug/L		0.00
77) chlorobenzene-d5	13.680	117	824574	50.00	ug/L		0.00
101) 1,4-dichlorobenzene-d4	15.977	152	418232	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.691	113	264142	50.21	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.42%				
57) 1,2-dichloroethane-d4 (s)	10.110	65	297629	50.21	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.42%				
78) toluene-d8 (s)	12.181	98	1057420	50.30	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.60%				
102) 4-bromofluorobenzene (s)	14.829	95	387154	50.40	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.80%				
Target Compounds							Qvalue
2) ethanol	6.151	45	14870	211.52	ug/L		95
3) tertiary butyl alcohol	7.520	59	8439	10.35	ug/L		80
4) 1,4-dioxane	11.274	88	2996	48.58	ug/L		95
6) chlorodifluoromethane	4.028	51	16517	1.94	ug/L		90
7) dichlorodifluoromethane	3.997	85	17481	2.01	ug/L		95
9) freon 142b	4.316	65	16510	1.85	ug/L		95
10) chloromethane	4.421	50	22246	1.85	ug/L		96
11) vinyl chloride	4.657	62	21442	1.85	ug/L		91
12) bromomethane	5.307	94	13879	1.94	ug/L		85
13) chloroethane	5.454	64	13797	1.95	ug/L		94
14) trichlorofluoromethane	5.916	101	18796	1.93	ug/L		93
15) 1,3-butadiene	4.683	54	18975	1.83	ug/L		96
16) vinyl bromide	5.811	106	15228	1.84	ug/L		88
17) ethyl ether	6.298	74	9236	2.01	ug/L		86
18) 2-chloropropane	6.508	43	23254	1.89	ug/L		96
20) freon 113	6.697	151	8360	1.93	ug/L		87
21) 1,1-dichloroethene	6.728	61	18657	1.85	ug/L		97
22) acetone	6.781	58	7833	9.64	ug/L		94
23) acetonitrile	7.226	41	20431	20.30	ug/L		97
24) iodomethane	7.011	142	19965	1.91	ug/L		95
25) carbon disulfide	7.142	76	41057	1.82	ug/L		96
26) methylene chloride	7.446	84	14975	1.97	ug/L		95
27) methyl acetate	7.247	43	10783	1.98	ug/L		93
28) methyl tert butyl ether	7.772	73	39915	1.93	ug/L		98
29) trans-1,2-dichloroethene	7.824	61	19060	1.89	ug/L		93
30) hexane	8.107	56	10212	1.97	ug/L		98
31) di-isopropyl ether	8.359	45	51566	1.93	ug/L	#	70
32) ethyl tert-butyl ether	8.820	59	46829	1.94	ug/L		98
33) 2-butanone	9.103	72	5970	7.88	ug/L	#	86
34) 1,1-dichloroethane	8.390	63	26071	1.98	ug/L		95
35) chloroprene	8.495	53	19463	1.88	ug/L		98
36) acrylonitrile	7.793	53	5703	1.94	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141865.D
Acq On : 23 Mar 2018 2:01 pm
Operator : sydneys
Sample : IC6202-2
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 08:19:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) vinyl acetate	8.390	86	2463	1.74	ug/L	#	8
38) ethyl acetate	9.124	45	1883	1.71	ug/L	#	1
39) 2,2-dichloropropane	9.119	77	19907	1.91	ug/L		97
40) cis-1,2-dichloroethene	9.130	96	15321	1.99	ug/L		87
41) propionitrile	9.213	54	22241	20.61	ug/L		95
42) methyl acrylate	9.203	85	1580	1.64	ug/L	#	91
43) bromochloromethane	9.434	128	7103	2.05	ug/L		80
44) tetrahydrofuran	9.481	72	1989	2.20	ug/L		93
45) chloroform	9.491	83	22987	2.00	ug/L		99
46) t-butyl formate	9.528	59	11428	1.94	ug/L		91
47) 1,1-dichloropropene	9.916	75	18080	1.94	ug/L		94
48) carbon tetrachloride	9.937	117	14383	1.86	ug/L		93
49) isopropyl acetate	10.105	87	3103	2.09	ug/L	#	35
51) methacrylonitrile	9.386	67	5500	1.93	ug/L		92
52) 1,1,1-trichloroethane	9.732	97	18056	1.90	ug/L		93
53) Cyclohexane	9.806	84	20696	1.88	ug/L	#	70
54) iso-butyl alcohol	9.932	43	5572	18.33	ug/L		89
55) Tert Amyl Alcohol	10.058	73	4487	11.90	ug/L	#	78
58) 2,2,4-trimethylpentane	10.162	57	55965	1.94	ug/L		95
59) n-butyl alcohol	10.692	56	19365	99.81	ug/L		93
60) benzene	10.183	78	56457	1.92	ug/L		97
61) tert-amyl methyl ether	10.204	73	45961	1.99	ug/L		95
62) heptane	10.335	57	10648	1.88	ug/L		93
63) 1,2-dichloroethane	10.204	62	18343	2.02	ug/L		99
64) ethyl acrylate	10.907	55	15507	1.92	ug/L		99
65) trichloroethene	10.902	95	12798	1.95	ug/L		89
66) 2-nitropropane	11.672	41	4885	2.15	ug/L	#	66
67) 2-chloroethyl vinyl ether	11.678	63	42753	9.72	ug/L		100
68) methyl methacrylate	11.169	100	3312	1.93	ug/L	#	59
69) 1,2-dichloropropane	11.164	63	15154	1.92	ug/L		97
70) methylcyclohexane	11.101	83	23896	1.91	ug/L		92
71) dibromomethane	11.321	93	7283	1.84	ug/L		93
72) bromodichloromethane	11.447	83	16801	1.94	ug/L		92
73) epichlorohydrin	11.819	57	6853	10.02	ug/L		98
74) cis-1,3-dichloropropene	11.898	75	22692	1.93	ug/L		99
75) 4-methyl-2-pentanone	11.992	58	20012	7.82	ug/L		99
76) 3-methyl-1-butanol	12.013	70	7457	39.77	ug/L		92
79) toluene	12.254	92	31979	1.91	ug/L		97
80) ethyl methacrylate	12.443	69	16705	1.92	ug/L		95
81) trans-1,3-dichloropropene	12.454	75	18524	1.89	ug/L		96
82) 1,1,2-trichloroethane	12.669	83	9368	1.93	ug/L		88
83) tetrachloroethene	12.831	164	9618	1.86	ug/L		93
84) 2-hexanone	12.836	58	17879	7.20	ug/L		97
85) 1,3-dichloropropane	12.852	76	20606	1.98	ug/L		94
86) butyl acetate	12.910	56	8809	1.91	ug/L		92
88) dibromochloromethane	13.109	129	10894	1.90	ug/L		93
89) 1,2-dibromoethane	13.266	107	11070	1.90	ug/L		99
90) n-butyl ether	13.612	57	60078	1.86	ug/L		99
91) chlorobenzene	13.712	112	34999	1.95	ug/L		98
92) 1,1,1,2-tetrachloroethane	13.775	131	11899	1.98	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141865.D
Acq On : 23 Mar 2018 2:01 pm
Operator : sydneys
Sample : IC6202-2
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 08:19:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

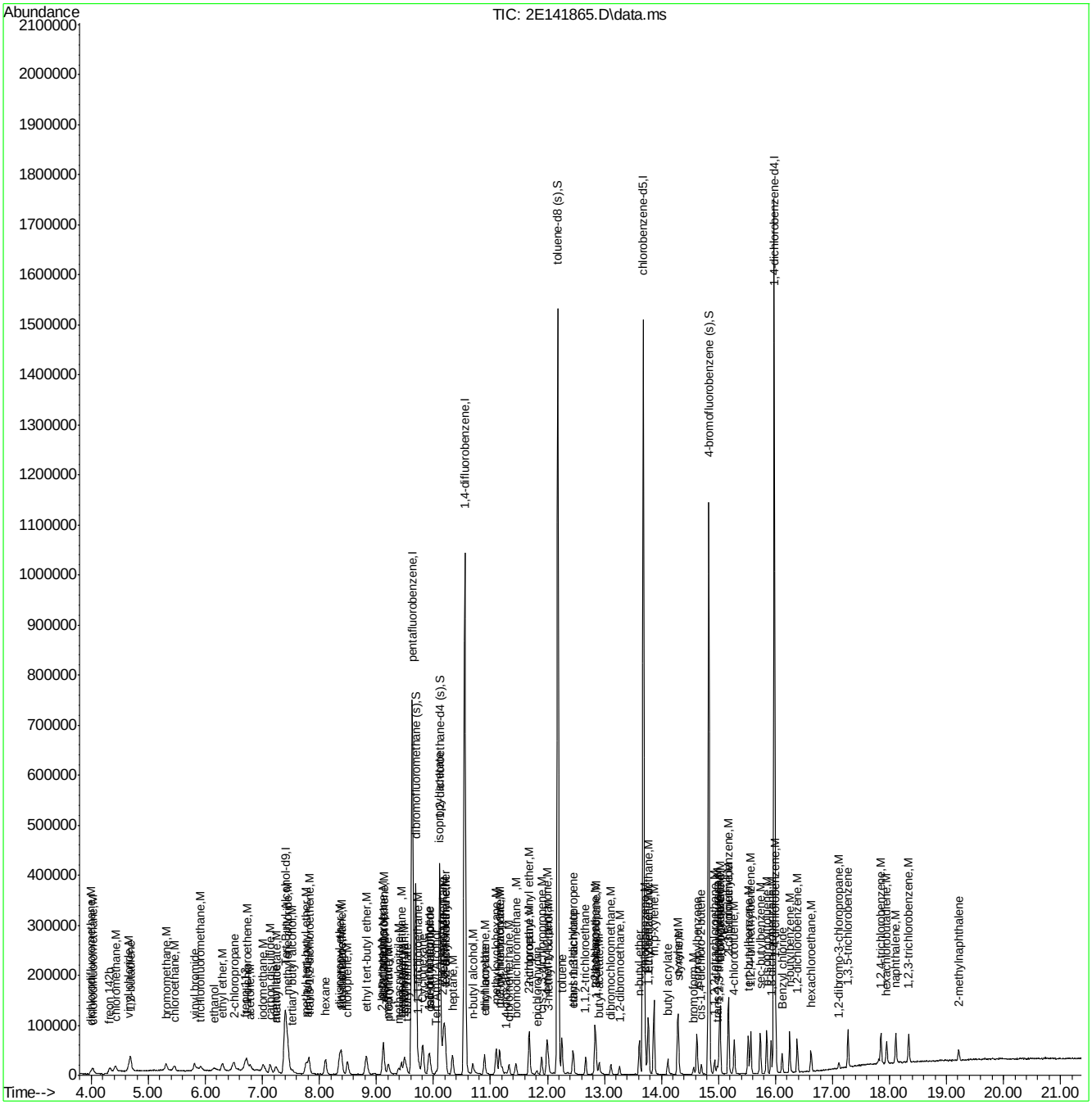
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
93) ethylbenzene	13.764	91	58690	1.91 ug/L	99
94) m,p-xylene	13.869	106	44295	3.81 ug/L	100
95) o-xylene	14.283	91	47806	1.94 ug/L	98
96) styrene	14.299	104	36353	1.89 ug/L	96
97) butyl acrylate	14.116	55	24042	1.86 ug/L	96
98) bromoform	14.567	173	7031	1.93 ug/L	95
99) isopropylbenzene	14.619	105	55106	1.90 ug/L	99
100) cis-1,4-dichloro-2-butene	14.698	75	5095	1.77 ug/L	91
103) bromobenzene	15.023	156	14515	1.95 ug/L	97
104) 1,1,2,2-tetrachloroethane	14.934	83	15144	2.04 ug/L	92
105) trans-1,4-dichloro-2-b...	14.981	53	3256	1.87 ug/L	82
106) 1,2,3-trichloropropane	15.007	110	3898	2.00 ug/L	83
107) n-propylbenzene	15.028	91	67501	1.92 ug/L	93
108) 2-chlorotoluene	15.180	126	14014	1.95 ug/L	95
109) 4-chlorotoluene	15.274	91	40919	1.92 ug/L	98
111) 1,3,5-trimethylbenzene	15.175	105	45230	1.85 ug/L	99
112) tert-butylbenzene	15.521	119	39111	1.87 ug/L	95
113) 1,2,4-trimethylbenzene	15.568	105	46998	1.90 ug/L	99
114) sec-butylbenzene	15.730	105	58353	1.86 ug/L	99
115) 1,3-dichlorobenzene	15.924	146	27208	1.90 ug/L	99
116) p-isopropyltoluene	15.846	119	49172	1.88 ug/L	98
117) 1,4-dichlorobenzene	16.003	146	28793	1.94 ug/L	95
118) 1,2-dichlorobenzene	16.381	146	26888	1.93 ug/L	97
120) n-butylbenzene	16.250	92	25764	1.82 ug/L	99
122) 1,2-dibromo-3-chloropr...	17.109	75	2928	2.06 ug/L	81
123) 1,3,5-trichlorobenzene	17.272	180	23127	1.83 ug/L	99
124) 1,2,4-trichlorobenzene	17.849	180	19510	1.85 ug/L	95
126) hexachlorobutadiene	17.948	225	9366	1.81 ug/L	95
127) naphthalene	18.111	128	43167	1.92 ug/L	97
128) 1,2,3-trichlorobenzene	18.336	180	17580	1.84 ug/L	97
129) hexachloroethane	16.627	201	7244	1.75 ug/L	87
130) Benzyl chloride	16.118	91	28547	1.91 ug/L	98
131) 2-methylnaphthalene	19.217	142	10063	0.84 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141865.D
Acq On : 23 Mar 2018 2:01 pm
Operator : sydneys
Sample : IC6202-2
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 08:19:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141866.D
Acq On : 23 Mar 2018 2:29 pm
Operator : sydneys
Sample : IC6202-5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 08:20:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.405	65	325659	500.00	ug/L	0.00
5) pentafluorobenzene	9.628	168	703757	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.550	114	1042335	50.00	ug/L	0.00
77) chlorobenzene-d5	13.681	117	911028	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	467941	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.691	113	289638	49.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.00%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	321824	49.57	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.14%			
78) toluene-d8 (s)	12.181	98	1154891	49.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.44%			
102) 4-bromofluorobenzene (s)	14.829	95	422276	49.13	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.26%			
Target Compounds						Qvalue
2) ethanol	6.146	45	38759	516.53	ug/L	100
3) tertiary butyl alcohol	7.520	59	22243	25.57	ug/L	92
4) 1,4-dioxane	11.274	88	8671	131.72	ug/L	99
6) chlorodifluoromethane	4.028	51	46511	4.92	ug/L	96
7) dichlorodifluoromethane	4.007	85	50062	5.19	ug/L	97
9) freon 142b	4.322	65	47886	4.83	ug/L	100
10) chloromethane	4.421	50	61835	4.62	ug/L	98
11) vinyl chloride	4.657	62	61736	4.79	ug/L	98
12) bromomethane	5.313	94	38311	4.81	ug/L	97
13) chloroethane	5.459	64	36867	4.68	ug/L	96
14) trichlorofluoromethane	5.916	101	53168	4.90	ug/L	97
15) 1,3-butadiene	4.689	54	54647	4.73	ug/L	99
16) vinyl bromide	5.806	106	43732	4.75	ug/L	98
17) ethyl ether	6.298	74	25038	4.89	ug/L	94
18) 2-chloropropane	6.503	43	66445	4.84	ug/L	98
19) acrolein	6.571	56	11173	5.84	ug/L	89
20) freon 113	6.702	151	25665	5.31	ug/L	90
21) 1,1-dichloroethene	6.728	61	55272	4.92	ug/L	99
22) acetone	6.786	58	18401	20.37	ug/L	96
23) acetonitrile	7.221	41	53933	48.19	ug/L	95
24) iodomethane	7.017	142	59128	5.09	ug/L	97
25) carbon disulfide	7.137	76	119459	4.76	ug/L	94
26) methylene chloride	7.452	84	41551	4.92	ug/L	99
27) methyl acetate	7.247	43	29742	4.91	ug/L	98
28) methyl tert butyl ether	7.772	73	110636	4.80	ug/L	97
29) trans-1,2-dichloroethene	7.819	61	55151	4.91	ug/L	99
30) hexane	8.102	56	29092	5.05	ug/L #	81
31) di-isopropyl ether	8.359	45	144652	4.87	ug/L	85
32) ethyl tert-butyl ether	8.820	59	133250	4.96	ug/L	98
33) 2-butanone	9.103	72	17240	20.45	ug/L	90
34) 1,1-dichloroethane	8.390	63	71044	4.85	ug/L	99
35) chloroprene	8.495	53	56457	4.89	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141866.D
Acq On : 23 Mar 2018 2:29 pm
Operator : sydneys
Sample : IC6202-5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 08:20:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) acrylonitrile	7.787	53	16159	4.95	ug/L		96
37) vinyl acetate	8.375	86	8134	5.17	ug/L	#	66
38) ethyl acetate	9.119	45	6445	5.27	ug/L	#	1
39) 2,2-dichloropropane	9.119	77	55496	4.78	ug/L		96
40) cis-1,2-dichloroethene	9.124	96	42704	4.98	ug/L		98
41) propionitrile	9.203	54	62427	52.00	ug/L		93
42) methyl acrylate	9.193	85	5025	4.68	ug/L		94
43) bromochloromethane	9.434	128	19703	5.11	ug/L		95
44) tetrahydrofuran	9.476	72	5209	5.17	ug/L		87
45) chloroform	9.491	83	62915	4.93	ug/L		96
46) t-butyl formate	9.523	59	31187	4.76	ug/L		95
47) 1,1-dichloropropene	9.916	75	50667	4.90	ug/L		96
48) carbon tetrachloride	9.942	117	43065	5.00	ug/L		97
49) isopropyl acetate	10.094	87	8176	4.95	ug/L	#	59
51) methacrylonitrile	9.386	67	15859	4.99	ug/L		85
52) 1,1,1-trichloroethane	9.738	97	52119	4.93	ug/L		99
53) Cyclohexane	9.806	84	62698	5.13	ug/L	#	73
54) iso-butyl alcohol	9.927	43	16477	48.75	ug/L		99
55) Tert Amyl Alcohol	10.052	73	10817	25.79	ug/L		94
58) 2,2,4-trimethylpentane	10.162	57	163021	5.15	ug/L		100
59) n-butyl alcohol	10.682	56	54446	256.23	ug/L		94
60) benzene	10.183	78	161743	5.02	ug/L		98
61) tert-amyl methyl ether	10.204	73	125854	4.98	ug/L		98
62) heptane	10.330	57	30950	4.98	ug/L		94
63) 1,2-dichloroethane	10.204	62	48248	4.86	ug/L		97
64) ethyl acrylate	10.896	55	43314	4.91	ug/L		99
65) trichloroethene	10.891	95	36483	5.08	ug/L		97
66) 2-nitropropane	11.672	41	12731	5.11	ug/L	#	73
67) 2-chloroethyl vinyl ether	11.678	63	123216	25.59	ug/L		97
68) methyl methacrylate	11.159	100	8935	4.75	ug/L		96
69) 1,2-dichloropropane	11.164	63	43546	5.03	ug/L		98
70) methylcyclohexane	11.101	83	70924	5.17	ug/L		98
71) dibromomethane	11.326	93	21855	5.05	ug/L		100
72) bromodichloromethane	11.447	83	47393	5.00	ug/L		96
73) epichlorohydrin	11.814	57	19747	26.36	ug/L		92
74) cis-1,3-dichloropropene	11.898	75	64931	5.05	ug/L		97
75) 4-methyl-2-pentanone	11.987	58	58501	20.87	ug/L		90
76) 3-methyl-1-butanol	12.008	70	22066	107.46	ug/L		97
79) toluene	12.254	92	91714	4.96	ug/L		98
80) ethyl methacrylate	12.438	69	47915	4.98	ug/L		93
81) trans-1,3-dichloropropene	12.454	75	56240	5.19	ug/L		94
82) 1,1,2-trichloroethane	12.669	83	27065	5.03	ug/L		93
83) tetrachloroethene	12.831	164	28490	4.99	ug/L		94
84) 2-hexanone	12.831	58	55714	20.29	ug/L		94
85) 1,3-dichloropropane	12.847	76	57591	5.02	ug/L		97
86) butyl acetate	12.905	56	26538	5.20	ug/L		92
88) dibromochloromethane	13.109	129	31846	5.04	ug/L		96
89) 1,2-dibromoethane	13.266	107	33022	5.13	ug/L		100
90) n-butyl ether	13.612	57	181129	5.07	ug/L		99
91) chlorobenzene	13.712	112	100559	5.07	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141866.D
Acq On : 23 Mar 2018 2:29 pm
Operator : sydneys
Sample : IC6202-5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 08:20:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	1,1,1,2-tetrachloroethane	13.770	131	34754	5.24	ug/L	99
93)	ethylbenzene	13.764	91	170938	5.03	ug/L	99
94)	m,p-xylene	13.869	106	131033	10.19	ug/L	98
95)	o-xylene	14.283	91	139388	5.11	ug/L	96
96)	styrene	14.294	104	107606	5.06	ug/L	98
97)	butyl acrylate	14.110	55	71636	5.01	ug/L	99
98)	bromoform	14.567	173	20300	5.05	ug/L	99
99)	isopropylbenzene	14.619	105	163715	5.11	ug/L	100
100)	cis-1,4-dichloro-2-butene	14.698	75	14996	4.71	ug/L	94
103)	bromobenzene	15.028	156	42565	5.11	ug/L	89
104)	1,1,2,2-tetrachloroethane	14.934	83	42172	5.08	ug/L	98
105)	trans-1,4-dichloro-2-b...	14.976	53	9112	4.69	ug/L	91
106)	1,2,3-trichloropropane	15.007	110	11392	5.22	ug/L	87
107)	n-propylbenzene	15.028	91	197826	5.02	ug/L	100
108)	2-chlorotoluene	15.175	126	40964	5.09	ug/L	96
109)	4-chlorotoluene	15.274	91	119065	4.98	ug/L	99
111)	1,3,5-trimethylbenzene	15.175	105	137998	5.05	ug/L	99
112)	tert-butylbenzene	15.521	119	117967	5.04	ug/L	95
113)	1,2,4-trimethylbenzene	15.568	105	141760	5.12	ug/L	98
114)	sec-butylbenzene	15.731	105	174755	4.97	ug/L	99
115)	1,3-dichlorobenzene	15.925	146	80162	5.01	ug/L	98
116)	p-isopropyltoluene	15.846	119	149225	5.09	ug/L	100
117)	1,4-dichlorobenzene	16.003	146	81315	4.90	ug/L	99
118)	1,2-dichlorobenzene	16.381	146	78783	5.06	ug/L	97
120)	n-butylbenzene	16.250	92	78329	4.93	ug/L	98
122)	1,2-dibromo-3-chloropr...	17.109	75	7563	4.80	ug/L	94
123)	1,3,5-trichlorobenzene	17.272	180	69105	4.90	ug/L	97
124)	1,2,4-trichlorobenzene	17.854	180	57395	4.86	ug/L	96
125)	2-ethylhexyl acrylate	17.817	70	7944	0.84	ug/L	86
126)	hexachlorobutadiene	17.954	225	27759	4.80	ug/L	96
127)	naphthalene	18.111	128	123884	4.92	ug/L	98
128)	1,2,3-trichlorobenzene	18.336	180	52242	4.89	ug/L	97
129)	hexachloroethane	16.627	201	22283	4.82	ug/L	91
130)	Benzyl chloride	16.119	91	78942	4.71	ug/L	96
131)	2-methylnaphthalene	19.212	142	30869	2.29	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

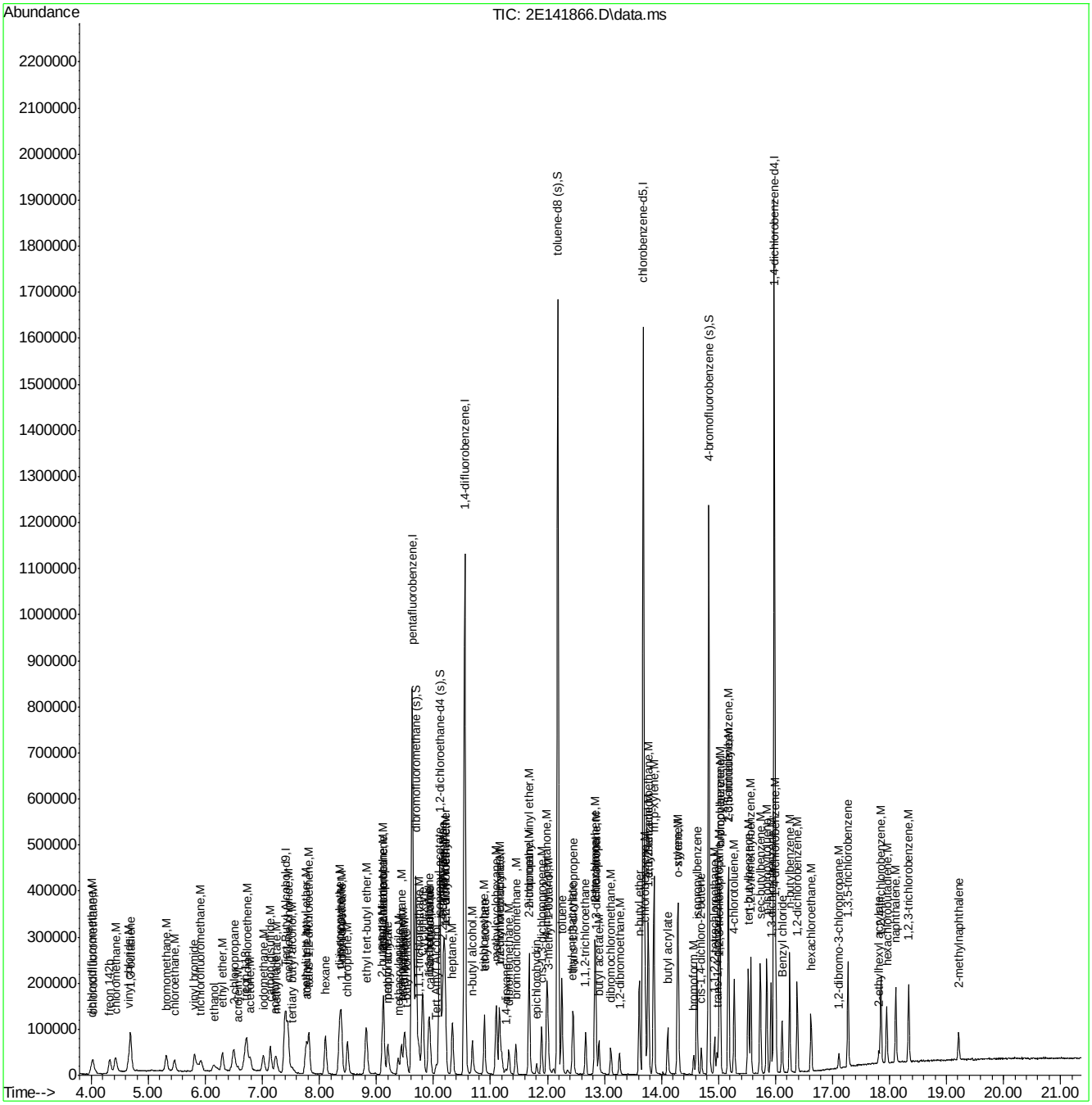
7.7.18

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141866.D
Acq On : 23 Mar 2018 2:29 pm
Operator : sydneys
Sample : IC6202-5
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 08:20:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141867.D
Acq On : 23 Mar 2018 2:58 pm
Operator : sydneys
Sample : IC6202-10
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 08:20:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.410	65	307677	500.00	ug/L	0.00
5) pentafluorobenzene	9.633	168	664596	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.550	114	1004707	50.00	ug/L	0.00
77) chlorobenzene-d5	13.680	117	875407	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	447411	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.690	113	275608	49.88	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.76%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	311209	49.73	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.46%			
78) toluene-d8 (s)	12.181	98	1116672	50.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.08%			
102) 4-bromofluorobenzene (s)	14.829	95	407152	49.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.08%			
Target Compounds						Qvalue
2) ethanol	6.151	45	71040	1002.06	ug/L	95
3) tertiary butyl alcohol	7.525	59	41858	50.93	ug/L	88
4) 1,4-dioxane	11.269	88	16202	260.50	ug/L	97
6) chlorodifluoromethane	4.033	51	88884	9.95	ug/L	99
7) dichlorodifluoromethane	4.012	85	94362	10.35	ug/L	98
9) freon 142b	4.327	65	93363	9.97	ug/L	96
10) chloromethane	4.426	50	120670	9.55	ug/L	97
11) vinyl chloride	4.657	62	121315	9.98	ug/L	98
12) bromomethane	5.313	94	74061	9.85	ug/L	99
13) chloroethane	5.459	64	72561	9.76	ug/L	97
14) trichlorofluoromethane	5.921	101	103410	10.08	ug/L	98
15) 1,3-butadiene	4.689	54	106891	9.80	ug/L	98
16) vinyl bromide	5.816	106	84443	9.71	ug/L	97
17) ethyl ether	6.298	74	47094	9.75	ug/L	88
18) 2-chloropropane	6.503	43	128495	9.92	ug/L	99
19) acrolein	6.571	56	19023	10.52	ug/L	91
20) freon 113	6.697	151	46494	10.19	ug/L	91
21) 1,1-dichloroethene	6.728	61	106736	10.06	ug/L	99
22) acetone	6.786	58	31427	36.84	ug/L	99
23) acetonitrile	7.226	41	102272	96.76	ug/L	97
24) iodomethane	7.016	142	109047	9.94	ug/L	98
25) carbon disulfide	7.142	76	228317	9.63	ug/L	99
26) methylene chloride	7.452	84	78154	9.80	ug/L	96
27) methyl acetate	7.247	43	55720	9.75	ug/L	96
28) methyl tert butyl ether	7.771	73	216868	9.97	ug/L	97
29) trans-1,2-dichloroethene	7.819	61	107467	10.13	ug/L	98
30) hexane	8.107	56	53472	9.84	ug/L	98
31) di-isopropyl ether	8.353	45	280060	9.98	ug/L	75
32) ethyl tert-butyl ether	8.820	59	253536	10.00	ug/L	99
33) 2-butanone	9.098	72	32768	41.16	ug/L	92
34) 1,1-dichloroethane	8.390	63	139090	10.06	ug/L	99
35) chloroprene	8.495	53	108187	9.93	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141867.D
Acq On : 23 Mar 2018 2:58 pm
Operator : sydneys
Sample : IC6202-10
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 08:20:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) acrylonitrile	7.787	53	30396	9.87	ug/L		98
37) vinyl acetate	8.374	86	14834	9.98	ug/L	#	78
38) ethyl acetate	9.114	45	12471	10.79	ug/L	#	1
39) 2,2-dichloropropane	9.124	77	107250	9.78	ug/L		98
40) cis-1,2-dichloroethene	9.124	96	81391	10.05	ug/L		98
41) propionitrile	9.203	54	118931	104.91	ug/L		97
42) methyl acrylate	9.198	85	10151	10.02	ug/L		94
43) bromochloromethane	9.439	128	36462	10.02	ug/L		99
44) tetrahydrofuran	9.486	72	9409	9.89	ug/L		94
45) chloroform	9.491	83	120628	10.01	ug/L		99
46) t-butyl formate	9.523	59	61175	9.89	ug/L		96
47) 1,1-dichloropropene	9.916	75	99094	10.14	ug/L		99
48) carbon tetrachloride	9.942	117	81646	10.03	ug/L		98
49) isopropyl acetate	10.094	87	15451	9.92	ug/L	#	78
51) methacrylonitrile	9.381	67	30084	10.03	ug/L		98
52) 1,1,1-trichloroethane	9.738	97	99858	10.00	ug/L		97
53) Cyclohexane	9.806	84	117896	10.21	ug/L	#	76
54) iso-butyl alcohol	9.932	43	32527	101.90	ug/L		94
55) Tert Amyl Alcohol	10.052	73	19964	50.40	ug/L		95
58) 2,2,4-trimethylpentane	10.162	57	302190	9.91	ug/L		99
59) n-butyl alcohol	10.676	56	105093	513.10	ug/L		97
60) benzene	10.183	78	302127	9.72	ug/L		99
61) tert-amyl methyl ether	10.204	73	242221	9.94	ug/L		100
62) heptane	10.335	57	58439	9.76	ug/L		97
63) 1,2-dichloroethane	10.204	62	90309	9.44	ug/L		97
64) ethyl acrylate	10.896	55	87610	10.29	ug/L		98
65) trichloroethene	10.891	95	69412	10.03	ug/L		96
66) 2-nitropropane	11.672	41	22636	9.42	ug/L	#	78
67) 2-chloroethyl vinyl ether	11.678	63	236810	51.02	ug/L		99
68) methyl methacrylate	11.158	100	18501	10.20	ug/L		95
69) 1,2-dichloropropane	11.158	63	83778	10.05	ug/L		99
70) methylcyclohexane	11.101	83	132529	10.03	ug/L		99
71) dibromomethane	11.321	93	42260	10.14	ug/L		98
72) bromodichloromethane	11.447	83	91005	9.95	ug/L		95
73) epichlorohydrin	11.809	57	35666	49.40	ug/L		99
74) cis-1,3-dichloropropene	11.898	75	125485	10.13	ug/L		99
75) 4-methyl-2-pentanone	11.987	58	109530	40.53	ug/L		98
76) 3-methyl-1-butanol	12.008	70	41299	208.65	ug/L		90
79) toluene	12.254	92	178882	10.06	ug/L		97
80) ethyl methacrylate	12.438	69	95911	10.37	ug/L		95
81) trans-1,3-dichloropropene	12.454	75	106229	10.20	ug/L		99
82) 1,1,2-trichloroethane	12.668	83	53477	10.35	ug/L		99
83) tetrachloroethene	12.831	164	55071	10.04	ug/L		97
84) 2-hexanone	12.831	58	106975	40.46	ug/L		97
85) 1,3-dichloropropane	12.847	76	113312	10.28	ug/L		98
86) butyl acetate	12.899	56	50518	10.30	ug/L		94
88) dibromochloromethane	13.114	129	61016	10.04	ug/L		96
89) 1,2-dibromoethane	13.261	107	62826	10.15	ug/L		100
90) n-butyl ether	13.612	57	351341	10.23	ug/L		99
91) chlorobenzene	13.712	112	189444	9.94	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141867.D
Acq On : 23 Mar 2018 2:58 pm
Operator : sydneys
Sample : IC6202-10
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 08:20:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	1,1,1,2-tetrachloroethane	13.770	131	65190	10.22	ug/L	99
93)	ethylbenzene	13.764	91	326409	10.00	ug/L	98
94)	m,p-xylene	13.869	106	252623	20.45	ug/L	100
95)	o-xylene	14.283	91	263419	10.06	ug/L	100
96)	styrene	14.294	104	208726	10.21	ug/L	99
97)	butyl acrylate	14.105	55	138171	10.05	ug/L	98
98)	bromoform	14.566	173	38869	10.06	ug/L	99
99)	isopropylbenzene	14.619	105	315027	10.23	ug/L	99
100)	cis-1,4-dichloro-2-butene	14.698	75	28989	9.47	ug/L	92
103)	bromobenzene	15.023	156	79184	9.95	ug/L	95
104)	1,1,2,2-tetrachloroethane	14.933	83	81273	10.24	ug/L	100
105)	trans-1,4-dichloro-2-b...	14.975	53	17415	9.37	ug/L	99
106)	1,2,3-trichloropropane	15.007	110	21511	10.30	ug/L	97
107)	n-propylbenzene	15.028	91	380672	10.10	ug/L	99
108)	2-chlorotoluene	15.180	126	78460	10.20	ug/L	97
109)	4-chlorotoluene	15.274	91	227897	9.97	ug/L	96
111)	1,3,5-trimethylbenzene	15.175	105	268756	10.28	ug/L	98
112)	tert-butylbenzene	15.521	119	226507	10.13	ug/L	99
113)	1,2,4-trimethylbenzene	15.568	105	267730	10.12	ug/L	98
114)	sec-butylbenzene	15.730	105	344060	10.24	ug/L	99
115)	1,3-dichlorobenzene	15.924	146	148908	9.74	ug/L	99
116)	p-isopropyltoluene	15.846	119	287844	10.26	ug/L	99
117)	1,4-dichlorobenzene	16.003	146	152185	9.60	ug/L	99
118)	1,2-dichlorobenzene	16.381	146	146063	9.81	ug/L	99
120)	n-butylbenzene	16.249	92	151213	9.96	ug/L	99
122)	1,2-dibromo-3-chloropr...	17.109	75	14059	9.44	ug/L	95
123)	1,3,5-trichlorobenzene	17.272	180	129629	9.61	ug/L	99
124)	1,2,4-trichlorobenzene	17.849	180	110792	9.81	ug/L	99
125)	2-ethylhexyl acrylate	17.812	70	15155	1.67	ug/L	95
126)	hexachlorobutadiene	17.948	225	54395	9.84	ug/L	97
127)	naphthalene	18.111	128	240209	9.98	ug/L	98
128)	1,2,3-trichlorobenzene	18.336	180	100285	9.82	ug/L	99
129)	hexachloroethane	16.627	201	43756	9.89	ug/L	96
130)	Benzyl chloride	16.113	91	149957	9.36	ug/L	100
131)	2-methylnaphthalene	19.212	142	61882	4.81	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

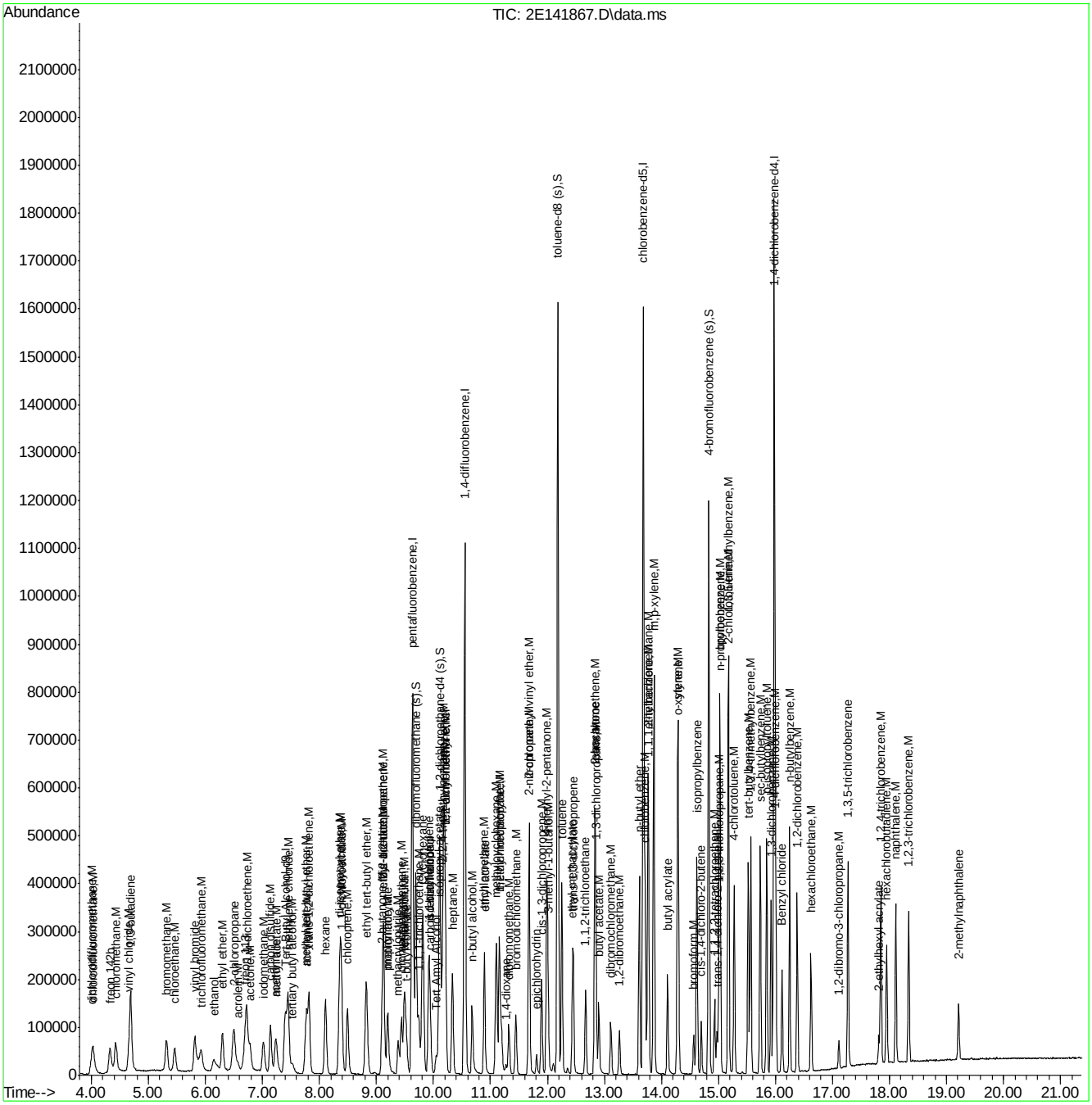
7.7.19

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141867.D
Acq On : 23 Mar 2018 2:58 pm
Operator : sydneys
Sample : IC6202-10
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 08:20:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration



SGS JC62879

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141868.D
Acq On : 23 Mar 2018 3:26 pm
Operator : sydneys
Sample : IC6202-20
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 28 08:21:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.410	65	307484	500.00	ug/L	0.00
5) pentafluorobenzene	9.633	168	667896	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.550	114	1002398	50.00	ug/L	0.00
77) chlorobenzene-d5	13.681	117	873617	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	449025	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.691	113	277943	50.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.12%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	308230	49.37	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.74%			
78) toluene-d8 (s)	12.181	98	1123873	50.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.92%			
102) 4-bromofluorobenzene (s)	14.829	95	412711	50.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.08%			
Target Compounds						Qvalue
2) ethanol	6.152	45	138697	1957.62	ug/L	98
3) tertiary butyl alcohol	7.520	59	81123	98.76	ug/L	98
4) 1,4-dioxane	11.269	88	31629	508.85	ug/L	94
6) chlorodifluoromethane	4.033	51	183210	20.41	ug/L	98
7) dichlorodifluoromethane	4.007	85	188139	20.54	ug/L	98
9) freon 142b	4.322	65	187472	19.92	ug/L	98
10) chloromethane	4.421	50	240424	18.92	ug/L	99
11) vinyl chloride	4.652	62	240472	19.68	ug/L	99
12) bromomethane	5.318	94	141792	18.77	ug/L	99
13) chloroethane	5.459	64	142082	19.01	ug/L	96
14) trichlorofluoromethane	5.921	101	205190	19.91	ug/L	99
15) 1,3-butadiene	4.689	54	214839	19.60	ug/L	99
16) vinyl bromide	5.816	106	166147	19.02	ug/L	98
17) ethyl ether	6.298	74	91223	18.79	ug/L	93
18) 2-chloropropane	6.503	43	261327	20.07	ug/L	99
19) acrolein	6.566	56	34790	19.15	ug/L	95
20) freon 113	6.697	151	95614	20.86	ug/L	95
21) 1,1-dichloroethene	6.728	61	215771	20.23	ug/L	99
22) acetone	6.781	58	65159	76.00	ug/L	93
23) acetonitrile	7.226	41	203263	191.36	ug/L	97
24) iodomethane	7.017	142	221887	20.13	ug/L	99
25) carbon disulfide	7.137	76	463555	19.45	ug/L	99
26) methylene chloride	7.452	84	158173	19.73	ug/L	98
27) methyl acetate	7.242	43	110617	19.25	ug/L	99
28) methyl tert butyl ether	7.772	73	435157	19.91	ug/L	99
29) trans-1,2-dichloroethene	7.819	61	212219	19.90	ug/L	99
30) hexane	8.107	56	110056	20.15	ug/L	99
31) di-isopropyl ether	8.354	45	566849	20.10	ug/L	85
32) ethyl tert-butyl ether	8.820	59	520689	20.44	ug/L	98
33) 2-butanone	9.093	72	66917	83.63	ug/L	92
34) 1,1-dichloroethane	8.385	63	276896	19.94	ug/L	98
35) chloroprene	8.495	53	222046	20.27	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141868.D
Acq On : 23 Mar 2018 3:26 pm
Operator : sydneys
Sample : IC6202-20
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 28 08:21:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) acrylonitrile	7.787	53	60823	19.65	ug/L		99
37) vinyl acetate	8.380	86	29949	20.05	ug/L	#	55
38) ethyl acetate	9.114	45	21788	18.76	ug/L	#	1
39) 2,2-dichloropropane	9.124	77	211441	19.19	ug/L		99
40) cis-1,2-dichloroethene	9.124	96	161978	19.90	ug/L		100
41) propionitrile	9.198	54	238200	209.08	ug/L		93
42) methyl acrylate	9.182	85	20577	20.21	ug/L	#	82
43) bromochloromethane	9.439	128	73542	20.11	ug/L		97
44) tetrahydrofuran	9.481	72	19699	20.61	ug/L		88
45) chloroform	9.491	83	240946	19.90	ug/L		98
46) t-butyl formate	9.518	59	121976	19.63	ug/L		93
47) 1,1-dichloropropene	9.916	75	198898	20.25	ug/L		98
48) carbon tetrachloride	9.942	117	170169	20.81	ug/L		97
49) isopropyl acetate	10.100	87	30853	19.70	ug/L	#	89
51) methacrylonitrile	9.381	67	62227	20.65	ug/L		99
52) 1,1,1-trichloroethane	9.738	97	203119	20.24	ug/L		99
53) Cyclohexane	9.806	84	240097	20.69	ug/L	#	77
54) iso-butyl alcohol	9.927	43	64595	201.36	ug/L		95
55) Tert Amyl Alcohol	10.052	73	38694	97.20	ug/L		97
58) 2,2,4-trimethylpentane	10.162	57	637628	20.95	ug/L		100
59) n-butyl alcohol	10.676	56	211285	1033.94	ug/L		100
60) benzene	10.183	78	606615	19.56	ug/L		99
61) tert-amyl methyl ether	10.204	73	484732	19.95	ug/L		99
62) heptane	10.335	57	123541	20.68	ug/L		98
63) 1,2-dichloroethane	10.199	62	181748	19.03	ug/L		100
64) ethyl acrylate	10.891	55	173915	20.48	ug/L		97
65) trichloroethene	10.891	95	141413	20.48	ug/L		96
66) 2-nitropropane	11.672	41	44924	18.74	ug/L		99
67) 2-chloroethyl vinyl ether	11.678	63	483224	104.36	ug/L		98
68) methyl methacrylate	11.153	100	38898	21.49	ug/L	#	83
69) 1,2-dichloropropane	11.159	63	167507	20.14	ug/L		99
70) methylcyclohexane	11.101	83	282917	21.45	ug/L		97
71) dibromomethane	11.321	93	82596	19.86	ug/L		97
72) bromodichloromethane	11.447	83	182635	20.02	ug/L		98
73) epichlorohydrin	11.809	57	74414	103.31	ug/L		97
74) cis-1,3-dichloropropene	11.898	75	251602	20.35	ug/L		99
75) 4-methyl-2-pentanone	11.987	58	228289	84.67	ug/L		97
76) 3-methyl-1-butanol	12.003	70	86077	435.88	ug/L		98
79) toluene	12.254	92	358964	20.23	ug/L		100
80) ethyl methacrylate	12.438	69	193594	20.98	ug/L		95
81) trans-1,3-dichloropropene	12.454	75	215275	20.71	ug/L		99
82) 1,1,2-trichloroethane	12.669	83	105621	20.49	ug/L		98
83) tetrachloroethene	12.831	164	111762	20.41	ug/L		97
84) 2-hexanone	12.831	58	220609	83.50	ug/L		97
85) 1,3-dichloropropane	12.847	76	223888	20.35	ug/L		98
86) butyl acetate	12.899	56	100628	20.56	ug/L		99
88) dibromochloromethane	13.109	129	125193	20.64	ug/L		96
89) 1,2-dibromoethane	13.261	107	127322	20.62	ug/L		99
90) n-butyl ether	13.612	57	722586	21.08	ug/L		100
91) chlorobenzene	13.712	112	382126	20.08	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141868.D
Acq On : 23 Mar 2018 3:26 pm
Operator : sydneys
Sample : IC6202-20
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 28 08:21:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

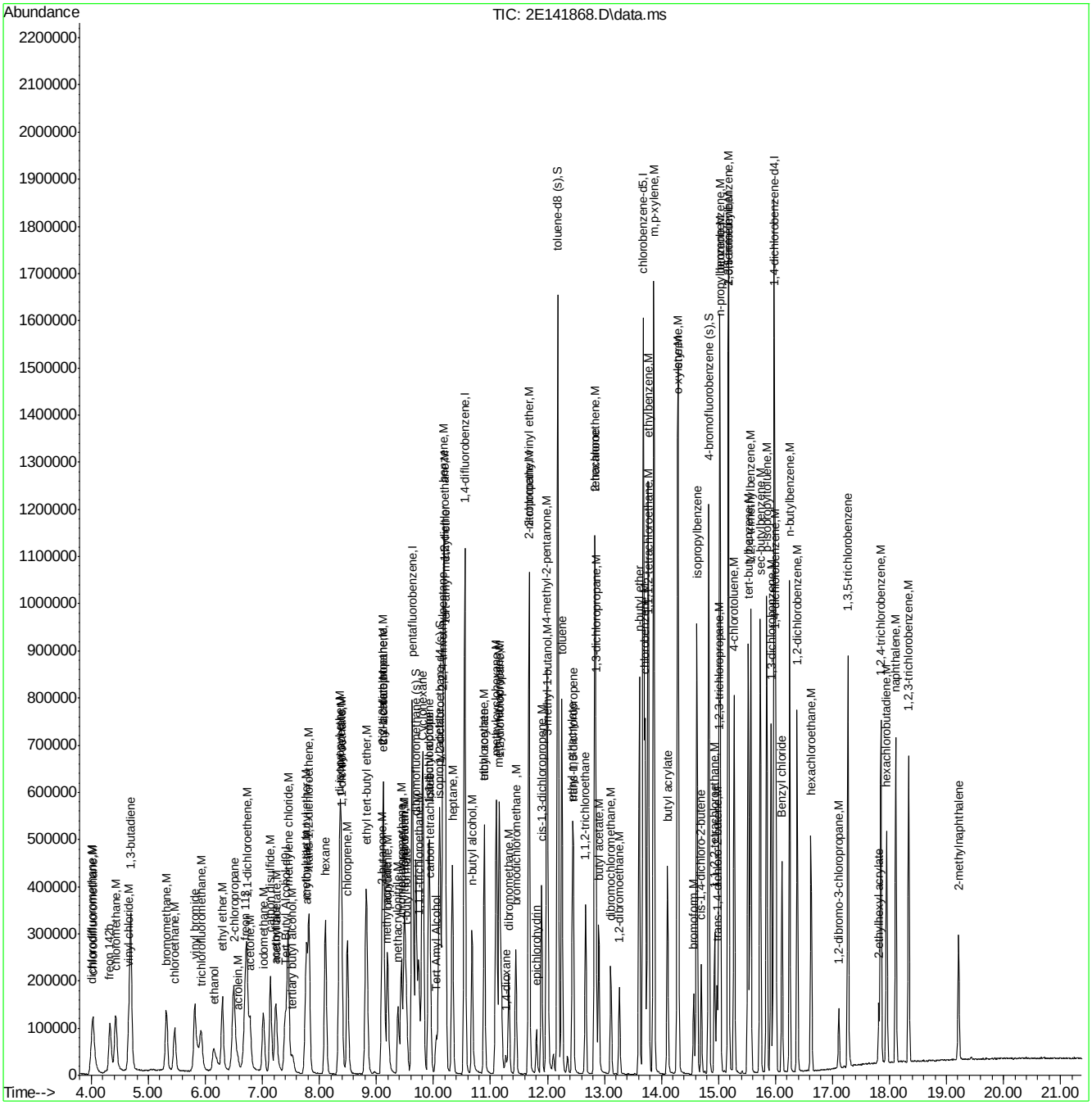
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	1,1,1,2-tetrachloroethane	13.775	131	132467	20.81	ug/L	98
93)	ethylbenzene	13.764	91	658576	20.22	ug/L	99
94)	m,p-xylene	13.869	106	507707	41.18	ug/L	99
95)	o-xylene	14.283	91	534065	20.43	ug/L	99
96)	styrene	14.294	104	427345	20.95	ug/L	99
97)	butyl acrylate	14.105	55	288216	21.02	ug/L	99
98)	bromoform	14.567	173	78839	20.44	ug/L	99
99)	isopropylbenzene	14.619	105	647677	21.07	ug/L	99
100)	cis-1,4-dichloro-2-butene	14.698	75	61255	20.06	ug/L	96
103)	bromobenzene	15.023	156	158866	19.88	ug/L	99
104)	1,1,2,2-tetrachloroethane	14.934	83	163757	20.56	ug/L	98
105)	trans-1,4-dichloro-2-b...	14.976	53	36863	19.76	ug/L	92
106)	1,2,3-trichloropropane	15.007	110	42381	20.22	ug/L	94
107)	n-propylbenzene	15.028	91	774760	20.47	ug/L	100
108)	2-chlorotoluene	15.175	126	155794	20.18	ug/L	94
109)	4-chlorotoluene	15.274	91	455791	19.88	ug/L	99
111)	1,3,5-trimethylbenzene	15.175	105	541992	20.66	ug/L	99
112)	tert-butylbenzene	15.521	119	468055	20.85	ug/L	96
113)	1,2,4-trimethylbenzene	15.568	105	546320	20.58	ug/L	100
114)	sec-butylbenzene	15.731	105	696798	20.67	ug/L	99
115)	1,3-dichlorobenzene	15.925	146	301248	19.64	ug/L	99
116)	p-isopropyltoluene	15.846	119	585459	20.80	ug/L	100
117)	1,4-dichlorobenzene	16.003	146	305225	19.18	ug/L	98
118)	1,2-dichlorobenzene	16.381	146	293124	19.63	ug/L	99
120)	n-butylbenzene	16.250	92	312318	20.50	ug/L	98
122)	1,2-dibromo-3-chloropr...	17.109	75	28873	19.38	ug/L	97
123)	1,3,5-trichlorobenzene	17.272	180	264558	19.54	ug/L	100
124)	1,2,4-trichlorobenzene	17.849	180	226995	20.02	ug/L	99
125)	2-ethylhexyl acrylate	17.812	70	33511	3.67	ug/L	96
126)	hexachlorobutadiene	17.948	225	110443	19.91	ug/L	99
127)	naphthalene	18.111	128	495421	20.50	ug/L	99
128)	1,2,3-trichlorobenzene	18.336	180	203903	19.89	ug/L	100
129)	hexachloroethane	16.627	201	90972	20.50	ug/L	97
130)	Benzyl chloride	16.113	91	312463	19.43	ug/L	100
131)	2-methylnaphthalene	19.212	142	134105	10.39	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141868.D
Acq On : 23 Mar 2018 3:26 pm
Operator : sydneys
Sample : IC6202-20
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 28 08:21:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141869.D
Acq On : 23 Mar 2018 3:53 pm
Operator : sydneys
Sample : ICC6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 08:22:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.405	65	289551	500.00	ug/L	0.00
5) pentafluorobenzene	9.633	168	637126	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.550	114	976943	50.00	ug/L	0.00
77) chlorobenzene-d5	13.681	117	856652	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	437606	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.691	113	269353	50.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.70%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	303911	49.94	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.88%			
78) toluene-d8 (s)	12.181	98	1093178	50.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.10%			
102) 4-bromofluorobenzene (s)	14.829	95	403448	50.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.38%			
Target Compounds						Qvalue
2) ethanol	6.146	45	330585	4954.98	ug/L	100
3) tertiary butyl alcohol	7.520	59	193651	250.37	ug/L	100
4) 1,4-dioxane	11.274	88	75303	1286.52	ug/L	100
6) chlorodifluoromethane	4.023	51	449615	52.50	ug/L	100
7) dichlorodifluoromethane	4.002	85	460329	52.67	ug/L	100
9) freon 142b	4.316	65	472433	52.62	ug/L	100
10) chloromethane	4.416	50	602801	49.74	ug/L	100
11) vinyl chloride	4.652	62	605046	51.90	ug/L	100
12) bromomethane	5.307	94	353111	49.01	ug/L	100
13) chloroethane	5.454	64	350570	49.17	ug/L	100
14) trichlorofluoromethane	5.916	101	508892	51.77	ug/L	100
15) 1,3-butadiene	4.683	54	536429	51.31	ug/L	100
16) vinyl bromide	5.805	106	412741	49.52	ug/L	100
17) ethyl ether	6.293	74	227305	49.07	ug/L	100
18) 2-chloropropane	6.498	43	637458	51.32	ug/L	100
19) acrolein	6.566	56	84672	48.87	ug/L	100
20) freon 113	6.697	151	229843	52.57	ug/L	100
21) 1,1-dichloroethene	6.723	61	528371	51.93	ug/L	100
22) acetone	6.775	58	152380	186.33	ug/L	100
23) acetonitrile	7.221	41	497550	491.04	ug/L	100
24) iodomethane	7.011	142	536946	51.08	ug/L	100
25) carbon disulfide	7.137	76	1114130	49.00	ug/L	100
26) methylene chloride	7.447	84	381944	49.95	ug/L	100
27) methyl acetate	7.237	43	280641	51.21	ug/L	100
28) methyl tert butyl ether	7.766	73	1090489	52.30	ug/L	100
29) trans-1,2-dichloroethene	7.814	61	523155	51.41	ug/L	100
30) hexane	8.102	56	267756	51.39	ug/L	100
31) di-isopropyl ether	8.354	45	1427908	53.09	ug/L	100
32) ethyl tert-butyl ether	8.820	59	1305818	53.73	ug/L	100
33) 2-butanone	9.088	72	165919	217.38	ug/L	100
34) 1,1-dichloroethane	8.385	63	675386	50.98	ug/L	100
35) chloroprene	8.490	53	550546	52.69	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141869.D
Acq On : 23 Mar 2018 3:53 pm
Operator : sydneys
Sample : ICC6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 08:22:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) acrylonitrile	7.777	53	150283	50.89	ug/L	100
37) vinyl acetate	8.369	86	76721	53.84	ug/L	100
38) ethyl acetate	9.103	45	55088	49.71	ug/L	100
39) 2,2-dichloropropane	9.124	77	520355	49.51	ug/L	100
40) cis-1,2-dichloroethene	9.124	96	392565	50.55	ug/L	100
41) propionitrile	9.198	54	587178	540.29	ug/L	100
42) methyl acrylate	9.187	85	53285	54.87	ug/L	100
43) bromochloromethane	9.439	128	179438	51.43	ug/L	100
44) tetrahydrofuran	9.476	72	48727	53.44	ug/L	100
45) chloroform	9.491	83	590135	51.10	ug/L	100
46) t-butyl formate	9.523	59	321910	54.30	ug/L	100
47) 1,1-dichloropropene	9.916	75	487881	52.07	ug/L	100
48) carbon tetrachloride	9.937	117	411534	52.75	ug/L	100
49) isopropyl acetate	10.094	87	78862	52.79	ug/L	100
51) methacrylonitrile	9.376	67	156971	54.60	ug/L	100
52) 1,1,1-trichloroethane	9.738	97	495080	51.72	ug/L	100
53) Cyclohexane	9.811	84	584246	52.77	ug/L	100
54) iso-butyl alcohol	9.921	43	164923	538.94	ug/L	100
55) Tert Amyl Alcohol	10.052	73	94630	249.20	ug/L	100
58) 2,2,4-trimethylpentane	10.162	57	1579719	53.25	ug/L	100
59) n-butyl alcohol	10.671	56	533216	2677.33	ug/L	100
60) benzene	10.183	78	1492883	49.40	ug/L	100
61) tert-amyl methyl ether	10.204	73	1218571	51.45	ug/L	100
62) heptane	10.330	57	300525	51.62	ug/L	100
63) 1,2-dichloroethane	10.199	62	447250	48.06	ug/L	100
64) ethyl acrylate	10.891	55	451175	54.52	ug/L	100
65) trichloroethene	10.891	95	345807	51.38	ug/L	100
66) 2-nitropropane	11.672	41	116732	49.95	ug/L	100
67) 2-chloroethyl vinyl ether	11.678	63	1225454	271.54	ug/L	100
68) methyl methacrylate	11.153	100	94129	53.36	ug/L	100
69) 1,2-dichloropropane	11.159	63	418270	51.59	ug/L	100
70) methylcyclohexane	11.101	83	686135	53.38	ug/L	100
71) dibromomethane	11.321	93	208230	51.38	ug/L	100
72) bromodichloromethane	11.447	83	467059	52.53	ug/L	100
73) epichlorohydrin	11.809	57	188921	269.12	ug/L	100
74) cis-1,3-dichloropropene	11.898	75	637018	52.88	ug/L	100
75) 4-methyl-2-pentanone	11.987	58	575194	218.89	ug/L	100
76) 3-methyl-1-butanol	12.003	70	215282	1118.55	ug/L	100
79) toluene	12.254	92	884218	50.82	ug/L	100
80) ethyl methacrylate	12.433	69	498631	55.11	ug/L	100
81) trans-1,3-dichloropropene	12.454	75	545997	53.57	ug/L	100
82) 1,1,2-trichloroethane	12.669	83	264612	52.34	ug/L	100
83) tetrachloroethene	12.831	164	269913	50.28	ug/L	100
84) 2-hexanone	12.826	58	557094	214.95	ug/L	100
85) 1,3-dichloropropane	12.847	76	559778	51.89	ug/L	100
86) butyl acetate	12.899	56	253760	52.88	ug/L	100
88) dibromochloromethane	13.114	129	320976	53.97	ug/L	100
89) 1,2-dibromoethane	13.261	107	320257	52.89	ug/L	100
90) n-butyl ether	13.612	57	1830847	54.47	ug/L	100
91) chlorobenzene	13.712	112	939443	50.35	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141869.D
Acq On : 23 Mar 2018 3:53 pm
Operator : sydneys
Sample : ICC6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 08:22:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

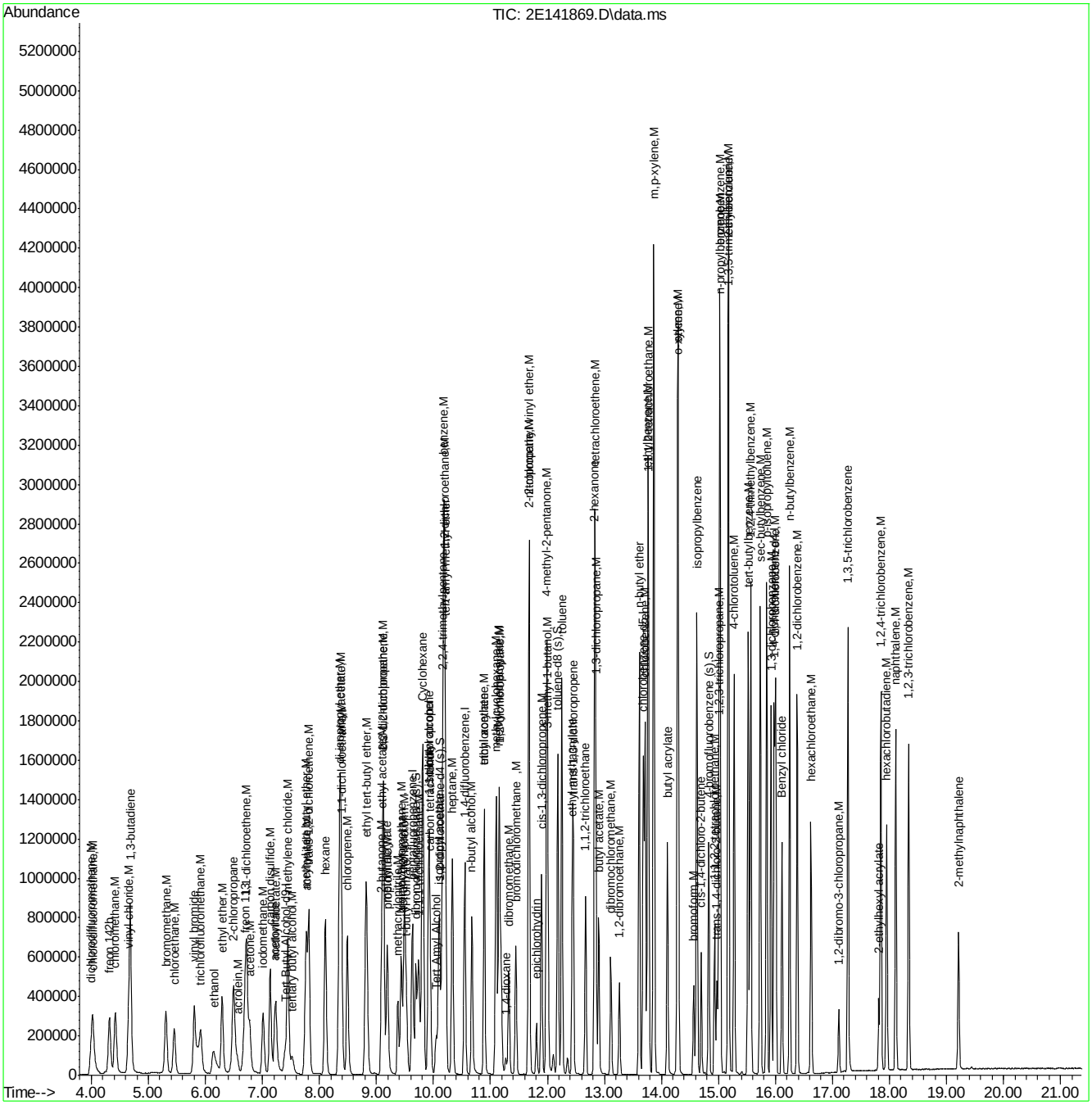
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	1,1,1,2-tetrachloroethane	13.770	131	334677	53.62	ug/L	100
93)	ethylbenzene	13.759	91	1630379	51.04	ug/L	100
94)	m,p-xylene	13.864	106	1258697	104.11	ug/L	100
95)	o-xylene	14.283	91	1327228	51.78	ug/L	100
96)	styrene	14.294	104	1066600	53.31	ug/L	100
97)	butyl acrylate	14.105	55	749616	55.74	ug/L	100
98)	bromoform	14.567	173	207325	54.81	ug/L	100
99)	isopropylbenzene	14.619	105	1597211	52.99	ug/L	100
100)	cis-1,4-dichloro-2-butene	14.698	75	161242	53.85	ug/L	100
103)	bromobenzene	15.023	156	397147	51.00	ug/L	100
104)	1,1,2,2-tetrachloroethane	14.934	83	408698	52.65	ug/L	100
105)	trans-1,4-dichloro-2-b...	14.970	53	93228	51.29	ug/L	100
106)	1,2,3-trichloropropane	15.007	110	105889	51.85	ug/L	100
107)	n-propylbenzene	15.028	91	1904763	51.65	ug/L	100
108)	2-chlorotoluene	15.180	126	383128	50.92	ug/L	100
109)	4-chlorotoluene	15.274	91	1136254	50.84	ug/L	100
111)	1,3,5-trimethylbenzene	15.175	105	1352048	52.89	ug/L	100
112)	tert-butylbenzene	15.521	119	1157836	52.93	ug/L	100
113)	1,2,4-trimethylbenzene	15.568	105	1360031	52.56	ug/L	100
114)	sec-butylbenzene	15.731	105	1739154	52.94	ug/L	100
115)	1,3-dichlorobenzene	15.925	146	743513	49.73	ug/L	100
116)	p-isopropyltoluene	15.846	119	1457763	53.14	ug/L	100
117)	1,4-dichlorobenzene	16.003	146	751683	48.46	ug/L	100
118)	1,2-dichlorobenzene	16.381	146	737047	50.64	ug/L	100
120)	n-butylbenzene	16.250	92	790847	53.26	ug/L	100
122)	1,2-dibromo-3-chloropr...	17.109	75	74442	51.25	ug/L	100
123)	1,3,5-trichlorobenzene	17.272	180	670879	50.84	ug/L	100
124)	1,2,4-trichlorobenzene	17.849	180	586260	53.07	ug/L	100
125)	2-ethylhexyl acrylate	17.812	70	94637	10.65	ug/L	100
126)	hexachlorobutadiene	17.948	225	277602	51.35	ug/L	100
127)	naphthalene	18.111	128	1272036	54.01	ug/L	100
128)	1,2,3-trichlorobenzene	18.336	180	524444	52.48	ug/L	100
129)	hexachloroethane	16.627	201	236969	54.78	ug/L	100
130)	Benzyl chloride	16.113	91	807158	51.49	ug/L	100
131)	2-methylnaphthalene	19.212	142	357309	28.40	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141869.D
Acq On : 23 Mar 2018 3:53 pm
Operator : sydneys
Sample : ICC6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 08:22:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141870.D
Acq On : 23 Mar 2018 4:20 pm
Operator : sydneys
Sample : IC6202-100
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 28 08:22:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.410	65	282260	500.00	ug/L	0.00
5) pentafluorobenzene	9.633	168	674366	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.550	114	1025372	50.00	ug/L	0.00
77) chlorobenzene-d5	13.680	117	904987	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	461815	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.690	113	284499	50.74	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.48%			
57) 1,2-dichloroethane-d4 (s)	10.115	65	325552	50.97	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.94%			
78) toluene-d8 (s)	12.181	98	1162194	50.37	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.74%			
102) 4-bromofluorobenzene (s)	14.829	95	427389	50.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.76%			
Target Compounds						Qvalue
2) ethanol	6.146	45	591752	9098.59	ug/L	98
3) tertiary butyl alcohol	7.525	59	370068	490.81	ug/L	86
4) 1,4-dioxane	11.269	88	134370	2354.95	ug/L	98
6) chlorodifluoromethane	4.028	51	913356	100.75	ug/L	99
7) dichlorodifluoromethane	4.002	85	944977	102.16	ug/L	98
9) freon 142b	4.322	65	936277	98.53	ug/L	97
10) chloromethane	4.421	50	1235300	96.30	ug/L	100
11) vinyl chloride	4.657	62	1228065	99.52	ug/L	99
12) bromomethane	5.307	94	710733	93.19	ug/L	100
13) chloroethane	5.454	64	705764	93.52	ug/L	99
14) trichlorofluoromethane	5.915	101	1026823	98.69	ug/L	96
15) 1,3-butadiene	4.689	54	1061386	95.92	ug/L	99
16) vinyl bromide	5.805	106	828504	93.92	ug/L	99
17) ethyl ether	6.293	74	462893	94.42	ug/L	99
18) 2-chloropropane	6.497	43	1283471	97.62	ug/L	99
19) acrolein	6.560	56	163947	89.39	ug/L	99
20) freon 113	6.691	151	460711	99.55	ug/L	98
21) 1,1-dichloroethene	6.728	61	1058771	98.31	ug/L	99
22) acetone	6.781	58	302677	349.67	ug/L	90
23) acetonitrile	7.226	41	969652	904.12	ug/L	99
24) iodomethane	7.011	142	1089113	97.88	ug/L	99
25) carbon disulfide	7.137	76	2233804	92.81	ug/L	99
26) methylene chloride	7.452	84	771061	95.26	ug/L	98
27) methyl acetate	7.242	43	555628	95.79	ug/L	99
28) methyl tert butyl ether	7.771	73	2213103	100.28	ug/L	99
29) trans-1,2-dichloroethene	7.819	61	1067194	99.09	ug/L	98
30) hexane	8.102	56	538460	97.63	ug/L	99
31) di-isopropyl ether	8.353	45	2917677	102.48	ug/L	99
32) ethyl tert-butyl ether	8.820	59	2673000	103.91	ug/L	99
33) 2-butanone	9.088	72	334782	414.40	ug/L	96
34) 1,1-dichloroethane	8.385	63	1379093	98.35	ug/L	99
35) chloroprene	8.490	53	1122362	101.49	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141870.D
Acq On : 23 Mar 2018 4:20 pm
Operator : sydneys
Sample : IC6202-100
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 28 08:22:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) acrylonitrile	7.777	53	302378	96.74	ug/L		98
37) vinyl acetate	8.369	86	149871	99.37	ug/L	#	94
38) ethyl acetate	9.103	45	111009	94.64	ug/L	#	86
39) 2,2-dichloropropane	9.124	77	1041519	93.63	ug/L		99
40) cis-1,2-dichloroethene	9.124	96	803149	97.71	ug/L		99
41) propionitrile	9.198	54	1155325	1004.37	ug/L		97
42) methyl acrylate	9.187	85	107686	104.76	ug/L		97
43) bromochloromethane	9.439	128	367380	99.49	ug/L		99
44) tetrahydrofuran	9.475	72	96783	100.28	ug/L		95
45) chloroform	9.491	83	1208558	98.87	ug/L		98
46) t-butyl formate	9.517	59	643164	102.50	ug/L		97
47) 1,1-dichloropropene	9.916	75	993494	100.17	ug/L		100
48) carbon tetrachloride	9.942	117	843078	102.10	ug/L		100
49) isopropyl acetate	10.094	87	162280	102.63	ug/L		98
51) methacrylonitrile	9.376	67	316999	104.17	ug/L		98
52) 1,1,1-trichloroethane	9.738	97	1003319	99.03	ug/L		100
53) Cyclohexane	9.806	84	1166447	99.54	ug/L	#	79
54) iso-butyl alcohol	9.921	43	317261	979.49	ug/L		97
55) Tert Amyl Alcohol	10.052	73	181107	450.60	ug/L		98
58) 2,2,4-trimethylpentane	10.168	57	3203513	102.89	ug/L		99
59) n-butyl alcohol	10.671	56	1007786	4821.20	ug/L		99
60) benzene	10.183	78	3048218	96.11	ug/L		100
61) tert-amyl methyl ether	10.204	73	2488475	100.11	ug/L		99
62) heptane	10.335	57	613301	100.38	ug/L		99
63) 1,2-dichloroethane	10.199	62	914978	93.67	ug/L		98
64) ethyl acrylate	10.891	55	931772	107.27	ug/L		99
65) trichloroethene	10.891	95	712678	100.88	ug/L		99
66) 2-nitropropane	11.667	41	235946	96.20	ug/L	#	60
67) 2-chloroethyl vinyl ether	11.678	63	2520213	532.07	ug/L		99
68) methyl methacrylate	11.153	100	195413	105.54	ug/L		94
69) 1,2-dichloropropane	11.159	63	865149	101.67	ug/L		100
70) methylcyclohexane	11.101	83	1383361	102.54	ug/L		98
71) dibromomethane	11.321	93	426912	100.35	ug/L		99
72) bromodichloromethane	11.447	83	961632	103.05	ug/L		98
73) epichlorohydrin	11.809	57	385286	522.92	ug/L		99
74) cis-1,3-dichloropropene	11.898	75	1313889	103.91	ug/L		100
75) 4-methyl-2-pentanone	11.987	58	1162748	421.59	ug/L		97
76) 3-methyl-1-butanol	12.003	70	403995	1999.92	ug/L		99
79) toluene	12.254	92	1817528	98.88	ug/L		99
80) ethyl methacrylate	12.433	69	1035042	108.29	ug/L		99
81) trans-1,3-dichloropropene	12.454	75	1133127	105.24	ug/L		99
82) 1,1,2-trichloroethane	12.669	83	544459	101.95	ug/L		99
83) tetrachloroethene	12.831	164	552587	97.43	ug/L		99
84) 2-hexanone	12.831	58	1134866	414.49	ug/L		95
85) 1,3-dichloropropane	12.847	76	1148583	100.78	ug/L		99
86) butyl acetate	12.899	56	513500	101.30	ug/L		99
88) dibromochloromethane	13.114	129	675125	107.46	ug/L		99
89) 1,2-dibromoethane	13.261	107	657062	102.72	ug/L		98
90) n-butyl ether	13.612	57	3748081	105.56	ug/L		100
91) chlorobenzene	13.712	112	1944791	98.67	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141870.D
Acq On : 23 Mar 2018 4:20 pm
Operator : sydneys
Sample : IC6202-100
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 28 08:22:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

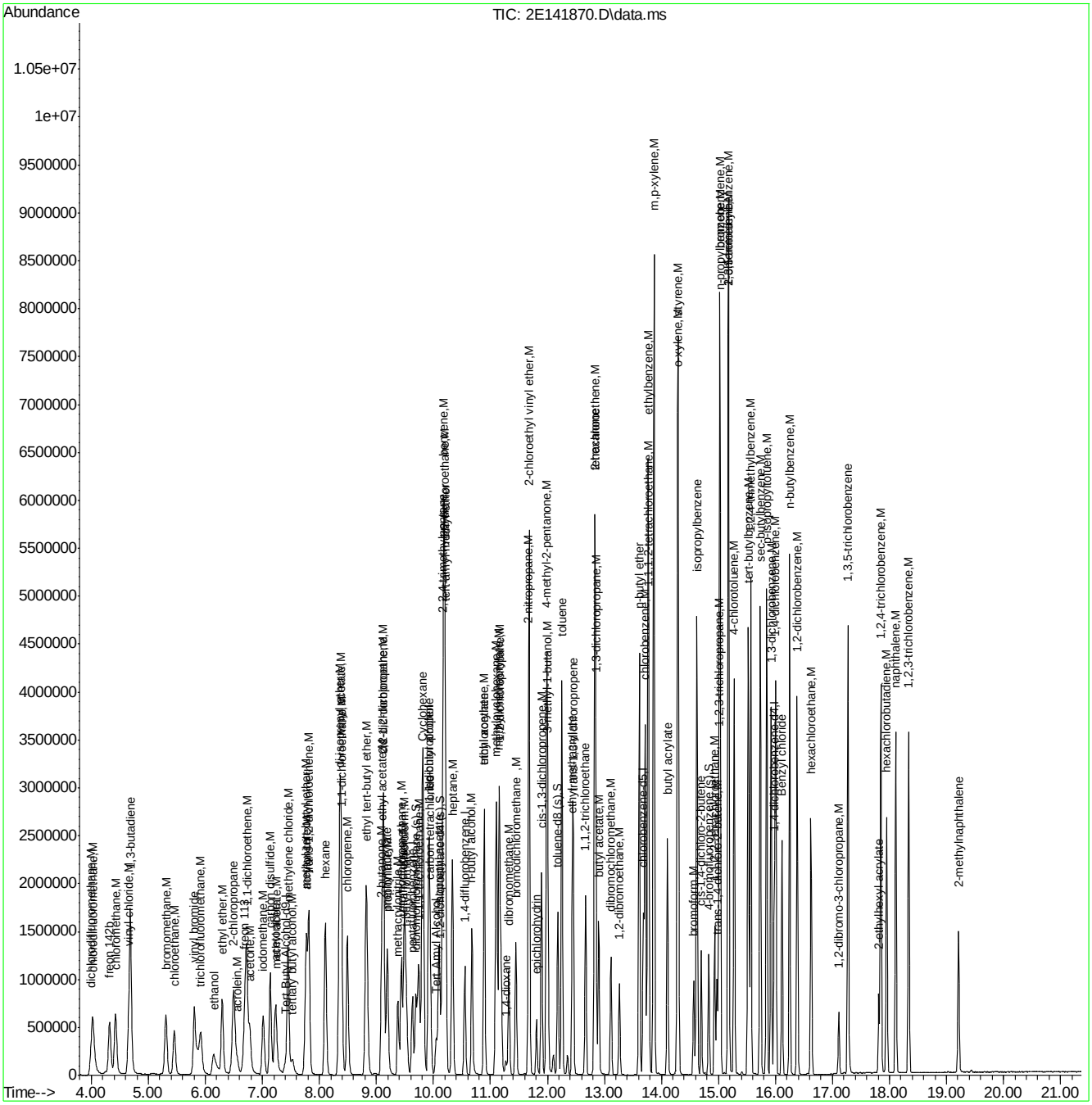
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	1,1,1,2-tetrachloroethane	13.775	131	692673	105.05	ug/L	99
93)	ethylbenzene	13.764	91	3346506	99.17	ug/L	99
94)	m,p-xylene	13.869	106	2587043	202.55	ug/L	96
95)	o-xylene	14.283	91	2715616	100.28	ug/L	98
96)	styrene	14.294	104	2212484	104.68	ug/L	99
97)	butyl acrylate	14.105	55	1548721	109.01	ug/L	99
98)	bromoform	14.566	173	438959	109.85	ug/L	99
99)	isopropylbenzene	14.619	105	3250941	102.09	ug/L	99
100)	cis-1,4-dichloro-2-butene	14.698	75	336284	106.31	ug/L	97
103)	bromobenzene	15.023	156	824136	100.28	ug/L	94
104)	1,1,2,2-tetrachloroethane	14.934	83	833747	101.78	ug/L	99
105)	trans-1,4-dichloro-2-b...	14.975	53	192221	100.20	ug/L	95
106)	1,2,3-trichloropropane	15.007	110	216637	100.51	ug/L	99
107)	n-propylbenzene	15.028	91	3895129	100.08	ug/L	99
108)	2-chlorotoluene	15.175	126	808789	101.85	ug/L	94
109)	4-chlorotoluene	15.274	91	2344174	99.40	ug/L	99
111)	1,3,5-trimethylbenzene	15.175	105	2776891	102.93	ug/L	100
112)	tert-butylbenzene	15.521	119	2375180	102.89	ug/L	99
113)	1,2,4-trimethylbenzene	15.568	105	2788157	102.11	ug/L	99
114)	sec-butylbenzene	15.730	105	3540281	102.12	ug/L	99
115)	1,3-dichlorobenzene	15.924	146	1542976	97.79	ug/L	100
116)	p-isopropyltoluene	15.846	119	2989197	103.26	ug/L	99
117)	1,4-dichlorobenzene	16.003	146	1571743	96.02	ug/L	99
118)	1,2-dichlorobenzene	16.381	146	1530622	99.64	ug/L	100
120)	n-butylbenzene	16.250	92	1618452	103.28	ug/L	98
122)	1,2-dibromo-3-chloropr...	17.109	75	153887	100.53	ug/L	99
123)	1,3,5-trichlorobenzene	17.272	180	1404255	100.84	ug/L	99
124)	1,2,4-trichlorobenzene	17.849	180	1223852	104.97	ug/L	99
125)	2-ethylhexyl acrylate	17.812	70	212025	22.60	ug/L	97
126)	hexachlorobutadiene	17.948	225	586907	102.87	ug/L	98
127)	naphthalene	18.111	128	2602678	104.72	ug/L	100
128)	1,2,3-trichlorobenzene	18.336	180	1098604	104.17	ug/L	100
129)	hexachloroethane	16.627	201	506538	110.97	ug/L	98
130)	Benzyl chloride	16.113	91	1655238	100.05	ug/L	99
131)	2-methylnaphthalene	19.212	142	763461	57.51	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141870.D
Acq On : 23 Mar 2018 4:20 pm
Operator : sydneys
Sample : IC6202-100
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 28 08:22:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141871.D
Acq On : 23 Mar 2018 4:48 pm
Operator : sydneys
Sample : IC6202-200
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 08:23:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.410	65	250587	500.00	ug/L	0.00
5) pentafluorobenzene	9.633	168	603361	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.550	114	944282	50.00	ug/L	0.00
77) chlorobenzene-d5	13.681	117	834610	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	427635	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.691	113	258863	51.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.22%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	306243	52.07	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.14%			
78) toluene-d8 (s)	12.181	98	1069913	50.28	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.56%			
102) 4-bromofluorobenzene (s)	14.829	95	397416	50.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.20%			
Target Compounds						Qvalue
2) ethanol	6.146	45	1020105	17667.30	ug/L	100
3) tertiary butyl alcohol	7.525	59	665345	993.96	ug/L	91
4) 1,4-dioxane	11.269	88	242272	4782.71	ug/L	99
6) chlorodifluoromethane	4.023	51	1708725	210.68	ug/L	98
7) dichlorodifluoromethane	4.002	85	1725920	208.55	ug/L	99
9) freon 142b	4.316	65	1830055	215.26	ug/L	96
10) chloromethane	4.416	50	2312998	201.53	ug/L	100
11) vinyl chloride	4.652	62	2305863	208.86	ug/L	99
12) bromomethane	5.297	94	1246991	182.75	ug/L	99
13) chloroethane	5.449	64	1287234	190.65	ug/L	99
14) trichlorofluoromethane	5.916	101	1905140	204.65	ug/L	98
15) 1,3-butadiene	4.684	54	2067088	208.80	ug/L	100
16) vinyl bromide	5.800	106	1527113	193.48	ug/L	100
17) ethyl ether	6.293	74	865430	197.30	ug/L	97
18) 2-chloropropane	6.498	43	2518946	214.14	ug/L	99
19) acrolein	6.561	56	312148	190.23	ug/L	98
20) freon 113	6.692	151	884097	213.52	ug/L	98
21) 1,1-dichloroethene	6.723	61	2087574	216.66	ug/L	99
22) acetone	6.775	58	557554	719.91	ug/L	91
23) acetonitrile	7.221	41	1815002	1891.49	ug/L	98
24) iodomethane	7.011	142	2058462	206.77	ug/L	100
25) carbon disulfide	7.137	76	4314193	200.35	ug/L	99
26) methylene chloride	7.447	84	1477390	204.01	ug/L	96
27) methyl acetate	7.237	43	1041000	200.58	ug/L	99
28) methyl tert butyl ether	7.766	73	4177399	211.57	ug/L	99
29) trans-1,2-dichloroethene	7.814	61	2081343	216.00	ug/L	99
30) hexane	8.102	56	1058200	214.44	ug/L	99
31) di-isopropyl ether	8.354	45	5635335	221.23	ug/L	93
32) ethyl tert-butyl ether	8.820	59	5121050	222.50	ug/L	99
33) 2-butanone	9.088	72	613709	849.07	ug/L #	89
34) 1,1-dichloroethane	8.385	63	2653639	211.51	ug/L	99
35) chloroprene	8.490	53	2223029	224.68	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141871.D
Acq On : 23 Mar 2018 4:48 pm
Operator : sydneys
Sample : IC6202-200
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 08:23:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) acrylonitrile	7.777	53	573430	205.04	ug/L		97
37) vinyl acetate	8.364	86	294201	218.03	ug/L	#	85
38) ethyl acetate	9.098	45	212105	202.12	ug/L	#	49
39) 2,2-dichloropropane	9.124	77	2003614	201.32	ug/L		99
40) cis-1,2-dichloroethene	9.124	96	1527466	207.70	ug/L		99
41) propionitrile	9.198	54	2154059	2092.99	ug/L		96
42) methyl acrylate	9.182	85	199862	217.31	ug/L		96
43) bromochloromethane	9.434	128	690294	208.94	ug/L		94
44) tetrahydrofuran	9.470	72	178025	206.17	ug/L		94
45) chloroform	9.486	83	2286298	209.05	ug/L		98
46) t-butyl formate	9.518	59	1272657	226.68	ug/L		96
47) 1,1-dichloropropene	9.916	75	1948519	219.58	ug/L		99
48) carbon tetrachloride	9.942	117	1635298	221.35	ug/L		99
49) isopropyl acetate	10.094	87	305606	216.03	ug/L		97
51) methacrylonitrile	9.376	67	596629	219.13	ug/L		97
52) 1,1,1-trichloroethane	9.738	97	1933000	213.24	ug/L		99
53) Cyclohexane	9.806	84	2296295	219.03	ug/L	#	85
54) iso-butyl alcohol	9.921	43	594238	2050.52	ug/L		97
55) Tert Amyl Alcohol	10.052	73	323851	900.58	ug/L		99
58) 2,2,4-trimethylpentane	10.168	57	6315854	220.28	ug/L		98
59) n-butyl alcohol	10.671	56	1814245	9424.58	ug/L		99
60) benzene	10.183	78	5779497	197.87	ug/L		99
61) tert-amyl methyl ether	10.204	73	4714582	205.94	ug/L		99
62) heptane	10.330	57	1209727	214.99	ug/L		99
63) 1,2-dichloroethane	10.199	62	1732013	192.55	ug/L		97
64) ethyl acrylate	10.886	55	1776050	222.02	ug/L		98
65) trichloroethene	10.891	95	1363918	209.65	ug/L		99
66) 2-nitropropane	11.667	41	455806	201.81	ug/L	#	62
67) 2-chloroethyl vinyl ether	11.678	63	4670577	1070.73	ug/L		99
68) methyl methacrylate	11.153	100	365822	214.53	ug/L		98
69) 1,2-dichloropropane	11.159	63	1663792	212.32	ug/L		99
70) methylcyclohexane	11.101	83	2738002	220.38	ug/L		97
71) dibromomethane	11.321	93	804260	205.29	ug/L		99
72) bromodichloromethane	11.447	83	1842480	214.40	ug/L		99
73) epichlorohydrin	11.804	57	716428	1055.85	ug/L		100
74) cis-1,3-dichloropropene	11.898	75	2514174	215.92	ug/L		99
75) 4-methyl-2-pentanone	11.987	58	2152808	847.60	ug/L		95
76) 3-methyl-1-butanol	12.003	70	711168	3822.86	ug/L		98
79) toluene	12.254	92	3468801	204.62	ug/L		98
80) ethyl methacrylate	12.433	69	1949155	221.12	ug/L		99
81) trans-1,3-dichloropropene	12.454	75	2143512	215.87	ug/L		99
82) 1,1,2-trichloroethane	12.669	83	1027885	208.70	ug/L		99
83) tetrachloroethene	12.831	164	1069022	204.38	ug/L		99
84) 2-hexanone	12.826	58	2064927	817.77	ug/L		96
85) 1,3-dichloropropane	12.847	76	2156219	205.15	ug/L		98
86) butyl acetate	12.899	56	968086	207.07	ug/L		100
88) dibromochloromethane	13.114	129	1286268	221.99	ug/L		98
89) 1,2-dibromoethane	13.261	107	1224809	207.63	ug/L		100
90) n-butyl ether	13.612	57	7132871	217.83	ug/L		98
91) chlorobenzene	13.712	112	3674603	202.15	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141871.D
Acq On : 23 Mar 2018 4:48 pm
Operator : sydneys
Sample : IC6202-200
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 08:23:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

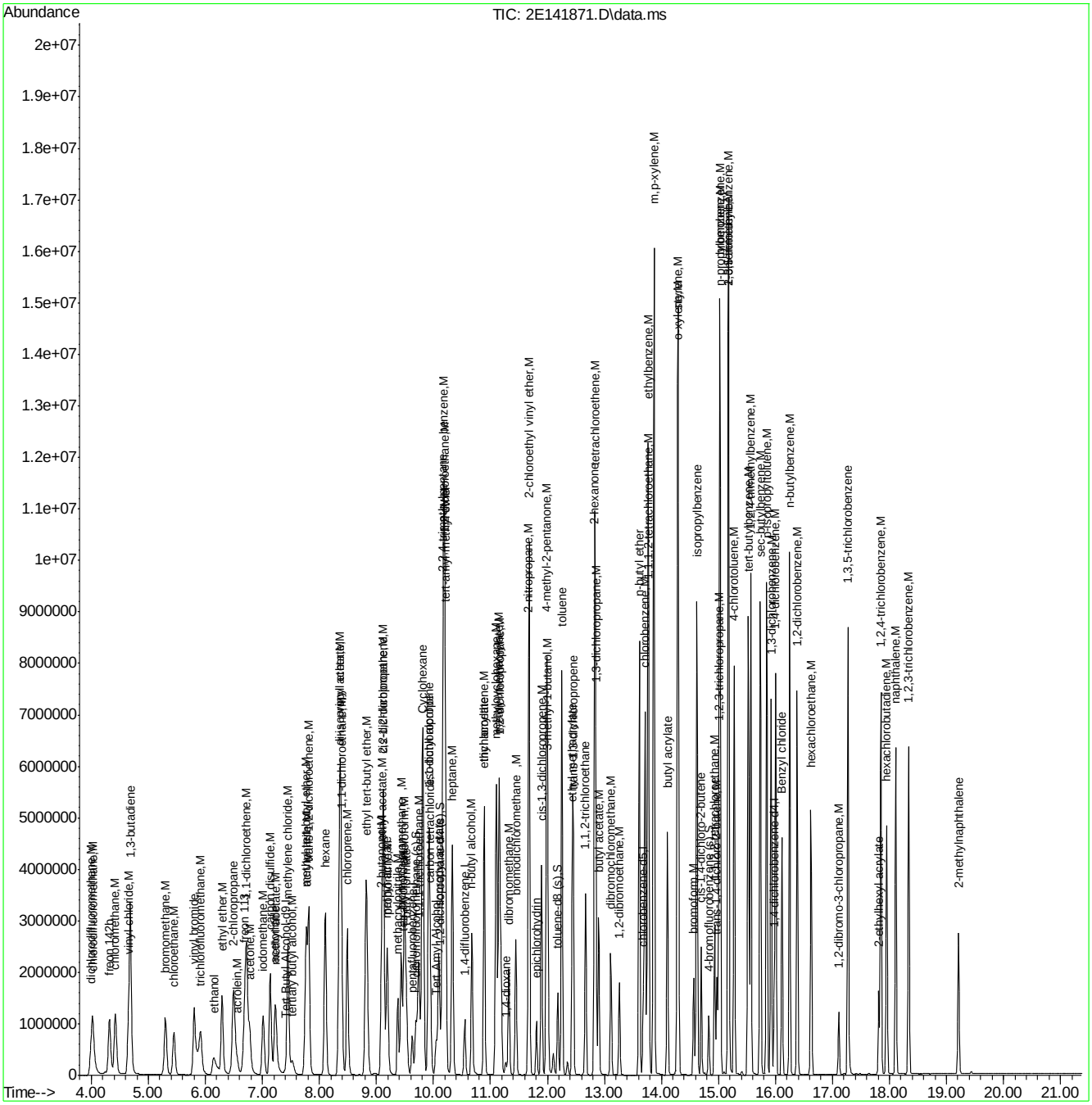
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	1,1,1,2-tetrachloroethane	13.775	131	1316733	216.54	ug/L	100
93)	ethylbenzene	13.764	91	6332072	203.47	ug/L	97
94)	m,p-xylene	13.869	106	4879675	414.28	ug/L	91
95)	o-xylene	14.284	91	5145284	206.02	ug/L	98
96)	styrene	14.294	104	4185907	214.76	ug/L	98
97)	butyl acrylate	14.105	55	2944249	224.71	ug/L	98
98)	bromoform	14.567	173	829421	225.08	ug/L	99
99)	isopropylbenzene	14.619	105	6161715	209.81	ug/L	97
100)	cis-1,4-dichloro-2-butene	14.698	75	643103	220.45	ug/L	99
103)	bromobenzene	15.023	156	1552037	203.95	ug/L	97
104)	1,1,2,2-tetrachloroethane	14.934	83	1581451	208.48	ug/L	99
105)	trans-1,4-dichloro-2-b...	14.970	53	368787	207.61	ug/L	99
106)	1,2,3-trichloropropane	15.007	110	401361	201.10	ug/L	98
107)	n-propylbenzene	15.028	91	7308328	202.79	ug/L	96
108)	2-chlorotoluene	15.180	126	1531421	208.27	ug/L	99
109)	4-chlorotoluene	15.274	91	4479282	205.11	ug/L	100
111)	1,3,5-trimethylbenzene	15.175	105	5256487	210.42	ug/L	99
112)	tert-butylbenzene	15.521	119	4541873	212.47	ug/L	98
113)	1,2,4-trimethylbenzene	15.568	105	5285551	209.04	ug/L	98
114)	sec-butylbenzene	15.731	105	6711082	209.05	ug/L	98
115)	1,3-dichlorobenzene	15.925	146	2930887	200.60	ug/L	99
116)	p-isopropyltoluene	15.846	119	5638537	210.34	ug/L	96
117)	1,4-dichlorobenzene	16.003	146	2969850	195.94	ug/L	100
118)	1,2-dichlorobenzene	16.381	146	2861271	201.16	ug/L	98
120)	n-butylbenzene	16.250	92	3142898	216.60	ug/L	95
122)	1,2-dibromo-3-chloropr...	17.110	75	288570	203.61	ug/L	99
123)	1,3,5-trichlorobenzene	17.272	180	2566290	199.02	ug/L	99
124)	1,2,4-trichlorobenzene	17.849	180	2216847	205.34	ug/L	99
125)	2-ethylhexyl acrylate	17.812	70	422949	48.69	ug/L	98
126)	hexachlorobutadiene	17.948	225	1070310	202.60	ug/L	99
127)	naphthalene	18.111	128	4523865	196.57	ug/L	99
128)	1,2,3-trichlorobenzene	18.336	180	1961950	200.91	ug/L	100
129)	hexachloroethane	16.627	201	976861	231.10	ug/L	97
130)	Benzyl chloride	16.113	91	3098783	202.28	ug/L	99
131)	2-methylnaphthalene	19.212	142	1384736	112.65	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141871.D
Acq On : 23 Mar 2018 4:48 pm
Operator : sydneys
Sample : IC6202-200
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 08:23:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141874.D
Acq On : 23 Mar 2018 6:12 pm
Operator : sydneys
Sample : ICV6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 08:26:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.405	65	292379	500.00	ug/L		0.00
5) pentafluorobenzene	9.628	168	601088	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.545	114	942595	50.00	ug/L		0.00
77) chlorobenzene-d5	13.681	117	821883	50.00	ug/L		0.00
101) 1,4-dichlorobenzene-d4	15.977	152	412374	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.685	113	260231	52.07	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.14%				
57) 1,2-dichloroethane-d4 (s)	10.110	65	305958	52.11	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.22%				
78) toluene-d8 (s)	12.181	98	1064326	50.80	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.60%				
102) 4-bromofluorobenzene (s)	14.829	95	390830	51.60	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.20%				
Target Compounds							Qvalue
2) ethanol	6.141	45	332602	4936.99	ug/L		99
3) tertiary butyl alcohol	7.525	59	203703	260.81	ug/L		91
4) 1,4-dioxane	11.269	88	73346	1240.97	ug/L		86
6) chlorodifluoromethane	4.023	51	510689	63.20	ug/L		99
7) dichlorodifluoromethane	3.997	85	484291	58.74	ug/L		98
10) chloromethane	4.411	50	630825	55.17	ug/L		99
11) vinyl chloride	4.647	62	571928	52.00	ug/L		99
12) bromomethane	5.302	94	347789	51.16	ug/L		98
13) chloroethane	5.449	64	351160	52.21	ug/L		99
14) trichlorofluoromethane	5.910	101	482471	52.02	ug/L		98
16) vinyl bromide	5.800	106	368010	46.80	ug/L		99
17) ethyl ether	6.293	74	243742	55.78	ug/L		97
18) 2-chloropropane	6.498	43	792762	67.65	ug/L		99
19) acrolein	6.560	56	91335	55.87	ug/L		98
20) freon 113	6.686	151	276720	67.08	ug/L		97
21) 1,1-dichloroethene	6.718	61	556005	57.92	ug/L		98
22) acetone	6.775	58	178278	231.06	ug/L		88
24) iodomethane	7.006	142	545752	55.03	ug/L		98
25) carbon disulfide	7.132	76	1264173	58.93	ug/L		99
26) methylene chloride	7.447	84	395274	54.79	ug/L		96
27) methyl acetate	7.237	43	306566	59.29	ug/L		99
28) methyl tert butyl ether	7.766	73	2330766	118.49	ug/L		90
29) trans-1,2-dichloroethene	7.814	61	557283	58.05	ug/L		98
30) hexane	8.102	56	269713	54.86	ug/L		100
31) di-isopropyl ether	8.354	45	1559724	61.46	ug/L		92
32) ethyl tert-butyl ether	8.815	59	1381022	60.23	ug/L		98
33) 2-butanone	9.082	72	181179	251.61	ug/L		97
34) 1,1-dichloroethane	8.385	63	715454	57.24	ug/L		99
35) chloroprene	8.485	53	643403	65.27	ug/L		96
36) acrylonitrile	7.777	53	174787	62.73	ug/L		96
37) vinyl acetate	8.364	86	83461	62.09	ug/L	#	92
38) ethyl acetate	9.103	45	67898	64.94	ug/L	#	78

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141874.D
Acq On : 23 Mar 2018 6:12 pm
Operator : sydneys
Sample : ICV6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 08:26:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) 2,2-dichloropropane	9.119	77	555321	56.01	ug/L		99
40) cis-1,2-dichloroethene	9.119	96	408041	55.69	ug/L		97
41) propionitrile	9.192	54	624228	608.82	ug/L		93
42) methyl acrylate	9.182	85	53978	58.91	ug/L		93
43) bromochloromethane	9.434	128	182300	55.39	ug/L		94
44) tetrahydrofuran	9.476	72	51291	59.62	ug/L		98
45) chloroform	9.486	83	609400	55.93	ug/L		100
46) t-butyl formate	9.518	59	253010	45.24	ug/L		95
47) 1,1-dichloropropene	9.916	75	524689	59.35	ug/L		99
48) carbon tetrachloride	9.937	117	426381	57.93	ug/L		99
49) isopropyl acetate	10.094	87	84817	60.18	ug/L		98
51) methacrylonitrile	9.376	67	157466	58.05	ug/L		95
52) 1,1,1-trichloroethane	9.738	97	503024	55.70	ug/L		99
53) Cyclohexane	9.806	84	591286	56.61	ug/L		96
54) iso-butyl alcohol	9.921	43	179075	620.27	ug/L		96
55) Tert Amyl Alcohol	10.047	73	100688	281.06	ug/L		96
58) 2,2,4-trimethylpentane	10.162	57	1796857	62.78	ug/L		99
59) n-butyl alcohol	10.671	56	546692	2845.02	ug/L		100
60) benzene	10.178	78	1567121	53.75	ug/L		99
61) tert-amyl methyl ether	10.199	73	1261658	55.21	ug/L		99
62) heptane	10.330	57	386544	68.82	ug/L		97
63) 1,2-dichloroethane	10.199	62	475442	52.95	ug/L		99
64) ethyl acrylate	10.886	55	492682	61.70	ug/L		97
65) trichloroethene	10.891	95	358914	55.27	ug/L		100
66) 2-nitropropane	11.667	41	127516	56.56	ug/L	#	71
67) 2-chloroethyl vinyl ether	11.672	63	1371978	315.09	ug/L		98
68) methyl methacrylate	11.153	100	96730	56.83	ug/L		96
69) 1,2-dichloropropane	11.159	63	435319	55.65	ug/L		100
70) methylcyclohexane	11.101	83	714892	57.64	ug/L		96
71) dibromomethane	11.321	93	217242	55.55	ug/L		99
72) bromodichloromethane	11.447	83	470468	54.85	ug/L		97
73) epichlorohydrin	11.803	57	209324	309.05	ug/L		98
74) cis-1,3-dichloropropene	11.893	75	665929	57.29	ug/L		97
75) 4-methyl-2-pentanone	11.987	58	632236	249.37	ug/L		99
76) 3-methyl-1-butanol	12.003	70	227171	1223.34	ug/L		99
79) toluene	12.254	92	914263	54.77	ug/L		100
80) ethyl methacrylate	12.433	69	506586	58.36	ug/L		99
81) trans-1,3-dichloropropene	12.454	75	547032	55.94	ug/L		99
82) 1,1,2-trichloroethane	12.669	83	269412	55.55	ug/L		98
84) 2-hexanone	12.826	58	629151	253.02	ug/L		100
85) 1,3-dichloropropane	12.847	76	586295	56.65	ug/L		99
86) butyl acetate	12.899	56	283921	61.67	ug/L		97
88) dibromochloromethane	13.109	129	332924	58.35	ug/L		100
89) 1,2-dibromoethane	13.261	107	324320	55.83	ug/L		99
90) n-butyl ether	13.612	57	1906159	59.11	ug/L		99
91) chlorobenzene	13.712	112	950679	53.11	ug/L		99
92) 1,1,1,2-tetrachloroethane	13.770	131	343479	57.36	ug/L		99
93) ethylbenzene	13.759	91	1694154	55.28	ug/L		99
94) m,p-xylene	13.864	106	1290242	111.24	ug/L		99
95) o-xylene	14.283	91	1364223	55.47	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141874.D
Acq On : 23 Mar 2018 6:12 pm
Operator : sydneys
Sample : ICV6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 08:26:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

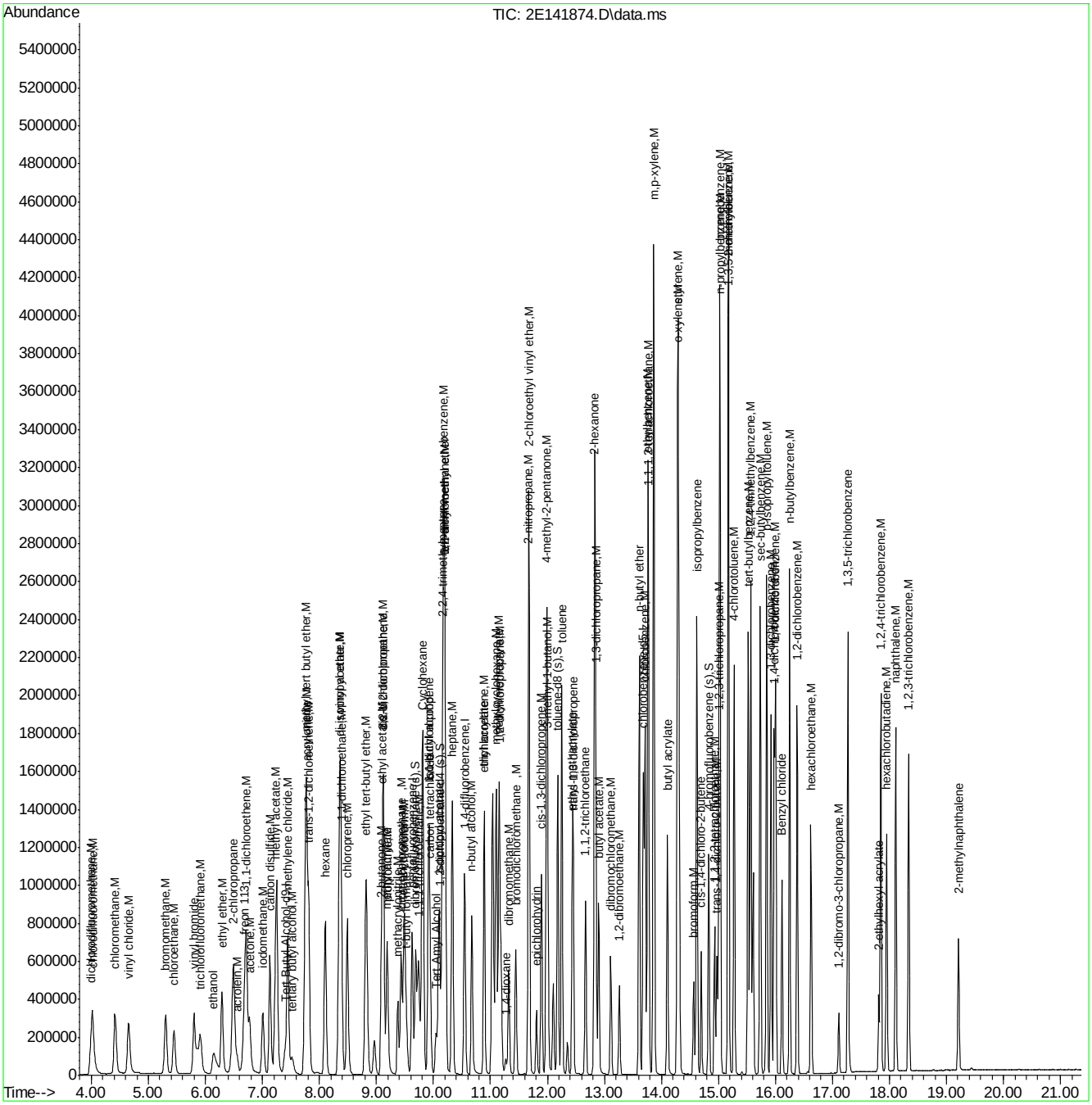
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96)	styrene	14.294	104	1095837	57.09	ug/L	99
97)	butyl acrylate	14.105	55	814124	63.10	ug/L	100
98)	bromoform	14.567	173	215968	59.51	ug/L	99
99)	isopropylbenzene	14.619	105	1631929	56.43	ug/L	99
100)	cis-1,4-dichloro-2-butene	14.698	75	163390	56.88	ug/L	98
103)	bromobenzene	15.023	156	394528	53.76	ug/L	99
104)	1,1,2,2-tetrachloroethane	14.934	83	419656	57.37	ug/L	99
105)	trans-1,4-dichloro-2-b...	14.970	53	123681	72.20	ug/L	98
106)	1,2,3-trichloropropane	15.007	110	107308	55.75	ug/L	99
107)	n-propylbenzene	15.028	91	1987032	57.18	ug/L	100
108)	2-chlorotoluene	15.180	126	384311	54.20	ug/L	99
109)	4-chlorotoluene	15.274	91	1199691	56.97	ug/L	99
111)	1,3,5-trimethylbenzene	15.175	105	1379227	57.25	ug/L	98
112)	tert-butylbenzene	15.521	119	1170908	56.80	ug/L	99
113)	1,2,4-trimethylbenzene	15.568	105	1412997	57.95	ug/L	99
114)	sec-butylbenzene	15.731	105	1788975	57.79	ug/L	99
115)	1,3-dichlorobenzene	15.919	146	746249	52.97	ug/L	98
116)	p-isopropyltoluene	15.846	119	1494731	57.82	ug/L	99
117)	1,4-dichlorobenzene	16.003	146	758294	51.88	ug/L	99
118)	1,2-dichlorobenzene	16.381	146	730338	53.25	ug/L	99
120)	n-butylbenzene	16.250	92	814814	58.23	ug/L	99
122)	1,2-dibromo-3-chloropr...	17.109	75	76174	55.74	ug/L	98
123)	1,3,5-trichlorobenzene	17.272	180	672252	54.06	ug/L	98
124)	1,2,4-trichlorobenzene	17.849	180	579588	55.67	ug/L	98
125)	2-ethylhexyl acrylate	17.812	70	104589	12.49	ug/L	97
126)	hexachlorobutadiene	17.948	225	269290	52.86	ug/L	98
127)	naphthalene	18.111	128	1292821	58.25	ug/L	100
128)	1,2,3-trichlorobenzene	18.336	180	512940	54.47	ug/L	100
129)	hexachloroethane	16.627	201	238261	58.45	ug/L	99
130)	Benzyl chloride	16.113	91	691385	46.80	ug/L	100
131)	2-methylnaphthalene	19.212	142	356691	30.09	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141874.D
Acq On : 23 Mar 2018 6:12 pm
Operator : sydneys
Sample : ICV6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 08:26:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141875.D
Acq On : 23 Mar 2018 6:40 pm
Operator : sydneys
Sample : ICV6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 28 08:27:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

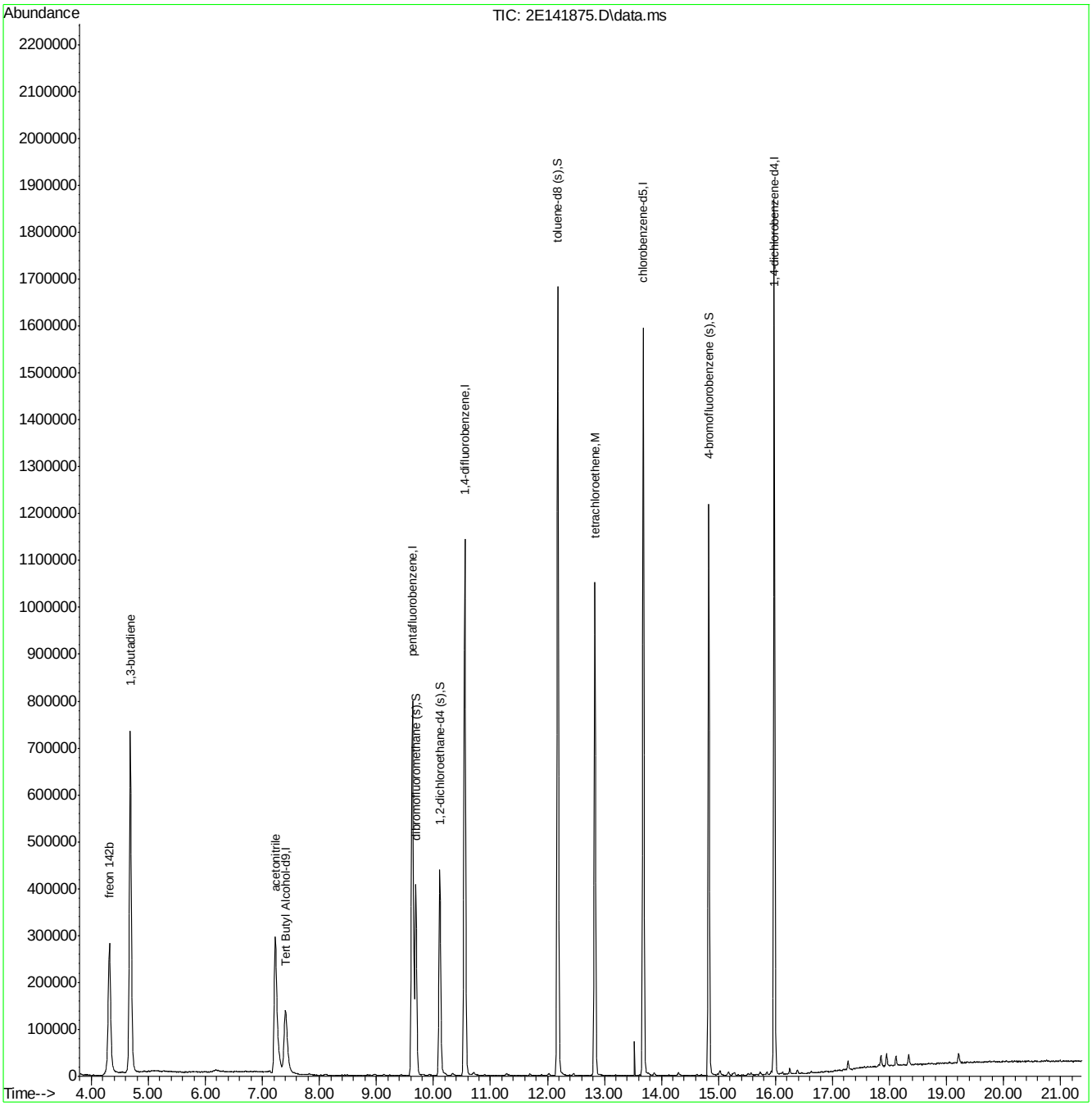
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.405	65	325488	500.00	ug/L	0.00
5) pentafluorobenzene	9.633	168	677715	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.550	114	1031399	50.00	ug/L	0.00
77) chlorobenzene-d5	13.680	117	888310	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	449820	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.691	113	282251	50.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.18%			
57) 1,2-dichloroethane-d4 (s)	10.110	65	329999	51.37	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.74%			
78) toluene-d8 (s)	12.181	98	1146194	50.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.22%			
102) 4-bromofluorobenzene (s)	14.829	95	423084	51.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.42%			
Target Compounds						Qvalue
9) freon 142b	4.316	65	467228	48.93	ug/L	98
15) 1,3-butadiene	4.683	54	525493	47.26	ug/L	99
23) acetonitrile	7.226	41	604612	560.96	ug/L	99
83) tetrachloroethene	12.831	164	253782	45.59	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141875.D
Acq On : 23 Mar 2018 6:40 pm
Operator : sydneys
Sample : ICV6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 28 08:27:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141877.D
Acq On : 27 Mar 2018 3:14 pm
Operator : sydneys
Sample : ICV6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 08:31:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	7.394	65	413484	500.00	ug/L		-0.01
5) pentafluorobenzene	9.627	168	757394	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.545	114	1142154	50.00	ug/L		0.00
77) chlorobenzene-d5	13.680	117	1030665	50.00	ug/L		0.00
101) 1,4-dichlorobenzene-d4	15.977	152	535871	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.685	113	313765	49.83	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.66%				
57) 1,2-dichloroethane-d4 (s)	10.110	65	375335	52.76	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.52%				
78) toluene-d8 (s)	12.181	98	1306939	49.74	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.48%				
102) 4-bromofluorobenzene (s)	14.829	95	493029	50.09	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.18%				
Target Compounds							Qvalue
2) ethanol	6.136	45	436568	4582.23	ug/L		100
3) tertiary butyl alcohol	7.514	59	207229	187.62	ug/L		91
4) 1,4-dioxane	11.269	88	94067	1125.40	ug/L		98
6) chlorodifluoromethane	4.028	51	386294	37.94	ug/L		92
17) ethyl ether	6.288	74	219652	39.89	ug/L		92
18) 2-chloropropane	6.492	43	742952	50.32	ug/L		96
20) freon 113	6.686	151	245480	47.23	ug/L		99
21) 1,1-dichloroethene	6.723	61	509958	42.16	ug/L		99
22) acetone	6.775	58	148539	152.79	ug/L		91
24) iodomethane	7.006	142	499617	39.98	ug/L		98
25) carbon disulfide	7.132	76	1108753	41.02	ug/L		99
26) methylene chloride	7.446	84	370438	40.75	ug/L		96
27) methyl acetate	7.231	43	283004	43.44	ug/L		99
28) methyl tert butyl ether	7.761	73	2215942	89.40	ug/L		98
29) trans-1,2-dichloroethene	7.813	61	526549	43.53	ug/L		98
31) di-isopropyl ether	8.348	45	1501617	46.96	ug/L		96
32) ethyl tert-butyl ether	8.815	59	1323332	45.80	ug/L		99
33) 2-butanone	9.087	72	162745	179.37	ug/L	#	78
34) 1,1-dichloroethane	8.380	63	690591	43.85	ug/L		99
35) chloroprene	8.484	53	613153	49.37	ug/L		97
36) acrylonitrile	7.777	53	158752	45.22	ug/L		98
37) vinyl acetate	8.364	86	78534	46.36	ug/L	#	86
38) ethyl acetate	9.093	45	56928	43.21	ug/L	#	23
39) 2,2-dichloropropane	9.119	77	570805	45.69	ug/L		98
40) cis-1,2-dichloroethene	9.119	96	394030	42.68	ug/L		95
41) propionitrile	9.192	54	599441	463.99	ug/L		99
42) methyl acrylate	9.187	85	50419	43.67	ug/L		99
43) bromochloromethane	9.433	128	174716	42.13	ug/L		93
44) tetrahydrofuran	9.465	72	47430	43.76	ug/L		89
45) chloroform	9.486	83	590909	43.04	ug/L		98
46) t-butyl formate	9.512	59	247569	35.13	ug/L		97
47) 1,1-dichloropropene	9.911	75	510924	45.87	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141877.D
Acq On : 27 Mar 2018 3:14 pm
Operator : sydneys
Sample : ICV6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 08:31:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48)	carbon tetrachloride	9.937	117	428385	46.19	ug/L		98
49)	isopropyl acetate	10.094	87	78387	44.14	ug/L		94
51)	methacrylonitrile	9.371	67	146912	42.99	ug/L		92
52)	1,1,1-trichloroethane	9.738	97	494647	43.47	ug/L		99
54)	iso-butyl alcohol	9.921	43	182897	502.77	ug/L		96
55)	Tert Amyl Alcohol	10.042	73	98329	217.83	ug/L		97
58)	2,2,4-trimethylpentane	10.162	57	1687170	48.65	ug/L		99
59)	n-butyl alcohol	10.671	56	584528	2510.43	ug/L		99
60)	benzene	10.178	78	1512992	42.83	ug/L		100
61)	tert-amyl methyl ether	10.199	73	1219567	44.04	ug/L		99
62)	heptane	10.330	57	363299	53.38	ug/L		98
63)	1,2-dichloroethane	10.199	62	452335	41.57	ug/L		99
64)	ethyl acrylate	10.886	55	453852	46.91	ug/L		98
65)	trichloroethene	10.886	95	344398	43.77	ug/L		97
66)	2-nitropropane	11.667	41	126990	46.48	ug/L	#	78
67)	2-chloroethyl vinyl ether	11.672	63	1260796	238.96	ug/L		98
68)	methyl methacrylate	11.153	100	88132	42.73	ug/L	#	87
69)	1,2-dichloropropane	11.158	63	421826	44.50	ug/L		100
70)	methylcyclohexane	11.101	83	688218	45.80	ug/L		99
71)	dibromomethane	11.316	93	207502	43.79	ug/L		98
72)	bromodichloromethane	11.442	83	460772	44.33	ug/L		98
73)	epichlorohydrin	11.803	57	202268	246.45	ug/L		97
74)	cis-1,3-dichloropropene	11.892	75	653226	46.38	ug/L		98
75)	4-methyl-2-pentanone	11.982	58	589763	191.97	ug/L		99
76)	3-methyl-1-butanol	11.997	70	217624	967.16	ug/L		97
79)	toluene	12.249	92	909071	43.42	ug/L		99
80)	ethyl methacrylate	12.432	69	468558	43.04	ug/L		98
81)	trans-1,3-dichloropropene	12.448	75	533185	43.48	ug/L		98
82)	1,1,2-trichloroethane	12.668	83	260258	42.79	ug/L		98
84)	2-hexanone	12.826	58	583343	187.08	ug/L		99
85)	1,3-dichloropropane	12.847	76	564546	43.50	ug/L		97
86)	butyl acetate	12.894	56	267968	46.41	ug/L		96
88)	dibromochloromethane	13.109	129	330656	46.21	ug/L		100
89)	1,2-dibromoethane	13.261	107	291791	40.06	ug/L		99
90)	n-butyl ether	13.612	57	1858042	45.95	ug/L		99
91)	chlorobenzene	13.712	112	941315	41.93	ug/L		100
92)	1,1,1,2-tetrachloroethane	13.769	131	339481	45.21	ug/L		99
93)	ethylbenzene	13.759	91	1676242	43.62	ug/L		100
94)	m,p-xylene	13.864	106	1288719	88.60	ug/L		98
95)	o-xylene	14.283	91	1356868	44.00	ug/L		99
96)	styrene	14.294	104	1074686	44.65	ug/L		99
97)	butyl acrylate	14.105	55	746520	46.14	ug/L		98
98)	bromoform	14.566	173	214891	47.22	ug/L		98
99)	isopropylbenzene	14.619	105	1643818	45.33	ug/L		99
100)	cis-1,4-dichloro-2-butene	14.697	75	163653	45.43	ug/L		98
103)	bromobenzene	15.023	156	385855	40.46	ug/L		98
104)	1,1,2,2-tetrachloroethane	14.933	83	399776	42.06	ug/L		100
105)	trans-1,4-dichloro-2-b...	14.970	53	120367	54.07	ug/L		98
106)	1,2,3-trichloropropane	15.007	110	103790	41.50	ug/L		99
107)	n-propylbenzene	15.028	91	1970988	43.64	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141877.D
Acq On : 27 Mar 2018 3:14 pm
Operator : sydneys
Sample : ICV6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 08:31:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration

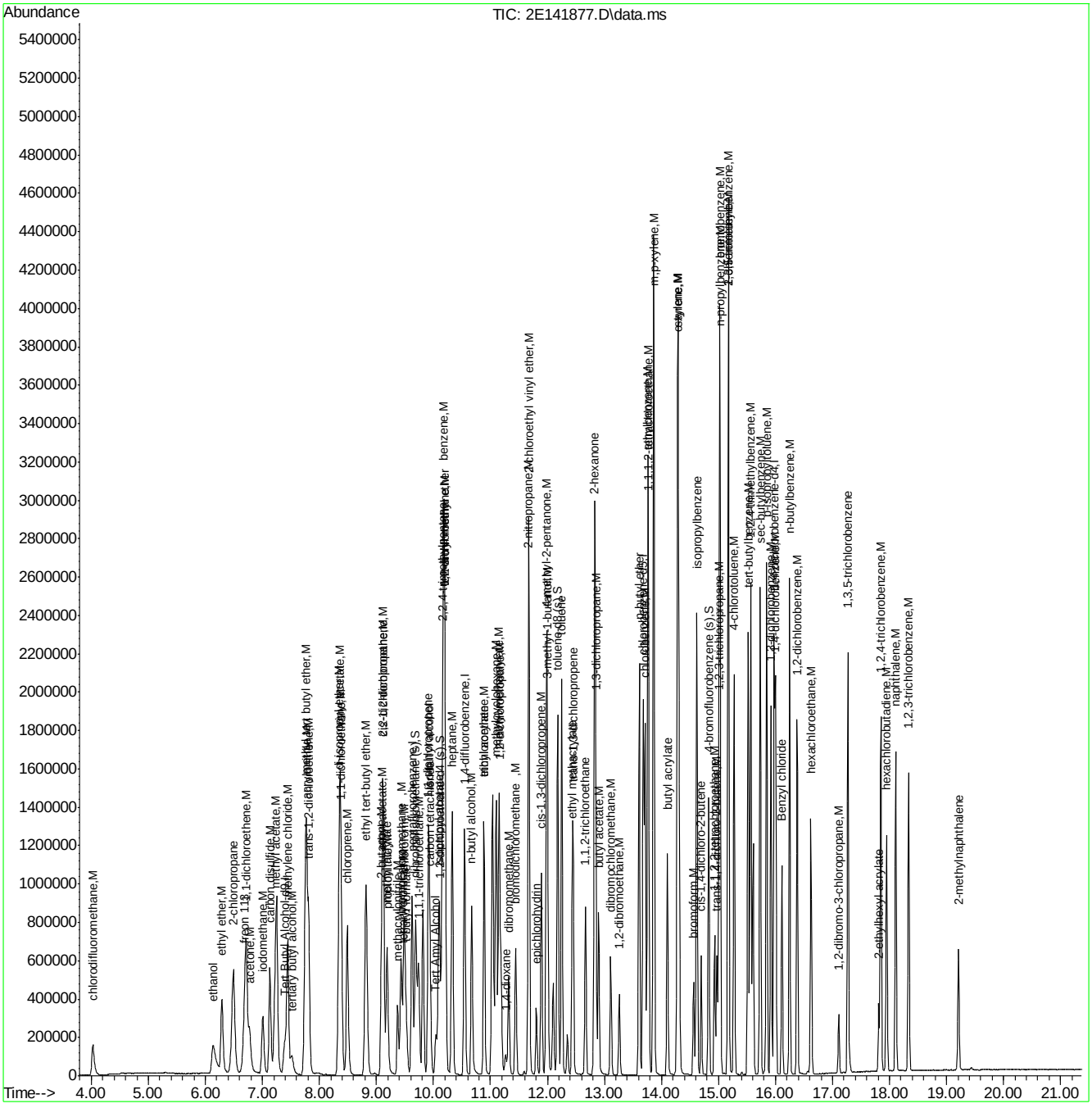
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 2-chlorotoluene	15.175	126	385661	41.86	ug/L	91
109) 4-chlorotoluene	15.274	91	1183082	43.23	ug/L	99
111) 1,3,5-trimethylbenzene	15.175	105	1373779	43.89	ug/L	99
112) tert-butylbenzene	15.521	119	1182119	44.13	ug/L	98
113) 1,2,4-trimethylbenzene	15.568	105	1420399	44.83	ug/L	99
114) sec-butylbenzene	15.730	105	1796172	44.65	ug/L	99
115) 1,3-dichlorobenzene	15.919	146	739410	40.39	ug/L	98
116) p-isopropyltoluene	15.846	119	1500686	44.68	ug/L	100
117) 1,4-dichlorobenzene	16.003	146	749771	39.48	ug/L	99
118) 1,2-dichlorobenzene	16.380	146	725149	40.68	ug/L	99
120) n-butylbenzene	16.249	92	809839	44.54	ug/L	99
122) 1,2-dibromo-3-chloropr...	17.109	75	71869	40.47	ug/L	98
123) 1,3,5-trichlorobenzene	17.272	180	660537	40.88	ug/L	98
124) 1,2,4-trichlorobenzene	17.849	180	560470	41.43	ug/L	97
125) 2-ethylhexyl acrylate	17.812	70	88973	8.17	ug/L	99
126) hexachlorobutadiene	17.948	225	266059	40.19	ug/L	97
127) naphthalene	18.111	128	1223189	42.41	ug/L	99
128) 1,2,3-trichlorobenzene	18.336	180	493343	40.32	ug/L	99
129) hexachloroethane	16.622	201	243844	46.04	ug/L	97
130) Benzyl chloride	16.113	91	737305	38.41	ug/L	99
131) 2-methylnaphthalene	19.212	142	321948	20.90	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2E6202\
Data File : 2E141877.D
Acq On : 27 Mar 2018 3:14 pm
Operator : sydneys
Sample : ICV6202-50
Misc : MS24904,V2E6202,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 08:31:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:04:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141949.d
Acq On : 29 Mar 2018 7:13 am
Operator : sydneys
Sample : cc6202-20 Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:10:06 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.399	65	310917	500.00	ug/L	0.00
5) pentafluorobenzene	9.627	168	638253	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.545	114	957905	50.00	ug/L	0.00
77) chlorobenzene-d5	13.680	117	814682	50.00	ug/L	0.00
101) 1,4-dichlorobenzene-d4	15.977	152	409140	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.685	113	265516	50.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.08%			
57) 1,2-dichloroethane-d4 (s)	10.105	65	297220	49.81	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.62%			
78) toluene-d8 (s)	12.176	98	1055381	50.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.62%			
102) 4-bromofluorobenzene (s)	14.829	95	378323	50.34	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.68%			
Target Compounds						Qvalue
2) ethanol	6.136	45	180297	2516.68	ug/L	98
3) tertiary butyl alcohol	7.520	59	80368	96.77	ug/L	89
4) 1,4-dioxane	11.269	88	37239	592.49	ug/L	98
6) chlorodifluoromethane	4.023	51	230238	26.84	ug/L	97
7) dichlorodifluoromethane	3.996	85	192968	22.04	ug/L	99
10) chloromethane	4.411	50	257855	21.24	ug/L	97
11) vinyl chloride	4.647	62	253367	21.69	ug/L	100
12) bromomethane	5.302	94	147102	20.38	ug/L	97
13) chloroethane	5.449	64	148797	20.83	ug/L	97
14) trichlorofluoromethane	5.910	101	210958	21.42	ug/L	99
16) vinyl bromide	5.795	106	171040	20.49	ug/L	98
17) ethyl ether	6.293	74	66361	14.30	ug/L	97
18) 2-chloropropane	6.497	43	286871	23.05	ug/L	96
19) acrolein	6.566	56	33502	19.30	ug/L	89
20) freon 113	6.691	151	102841	23.48	ug/L	98
21) 1,1-dichloroethene	6.718	61	236549	23.21	ug/L	99
22) acetone	6.775	58	51773	63.19	ug/L	96
23) acetonitrile	7.216	41	218120	214.89	ug/L	98
24) iodomethane	7.006	142	163587	15.53	ug/L	98
25) carbon disulfide	7.132	76	357278	15.68	ug/L	98
26) methylene chloride	7.441	84	167238	21.83	ug/L	98
27) methyl acetate	7.231	43	114753	20.90	ug/L	99
28) methyl tert butyl ether	7.766	73	312438	14.96	ug/L	99
29) trans-1,2-dichloroethene	7.813	61	232395	22.80	ug/L	97
30) hexane	8.102	56	123175	23.60	ug/L	97
31) di-isopropyl ether	8.353	45	579238	21.50	ug/L	98
32) ethyl tert-butyl ether	8.815	59	536521	22.04	ug/L	99
33) 2-butanone	9.087	72	62750	82.07	ug/L	92
34) 1,1-dichloroethane	8.385	63	289330	21.80	ug/L	98
35) chloroprene	8.484	53	233742	22.33	ug/L	98
36) acrylonitrile	7.782	53	43723	14.78	ug/L	99
37) vinyl acetate	8.369	86	30222	21.17	ug/L #	87
38) ethyl acetate	9.103	45	23266	20.96	ug/L #	47
39) 2,2-dichloropropane	9.119	77	232415	22.08	ug/L	98
40) cis-1,2-dichloroethene	9.124	96	167749	21.56	ug/L	98
41) propionitrile	9.192	54	233560	214.53	ug/L	93
42) methyl acrylate	9.187	85	13823	14.21	ug/L #	75
43) bromochloromethane	9.433	128	74457	21.30	ug/L	99
44) tetrahydrofuran	9.470	72	14259	15.61	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141949.d
Acq On : 29 Mar 2018 7:13 am
Operator : sydneys
Sample : cc6202-20 Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:10:06 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	chloroform	9.486	83	247069	21.36	ug/L		100
46)	t-butyl formate	9.512	59	138849	23.38	ug/L		95
47)	1,1-dichloropropene	9.911	75	207425	22.10	ug/L		99
48)	carbon tetrachloride	9.937	117	176707	22.61	ug/L		99
49)	isopropyl acetate	10.094	87	30560	20.42	ug/L		95
51)	methacrylonitrile	9.376	67	42140	14.63	ug/L		96
52)	1,1,1-trichloroethane	9.738	97	212896	22.20	ug/L		99
53)	Cyclohexane	9.800	84	230520	20.79	ug/L	#	61
54)	iso-butyl alcohol	9.921	43	64851	211.55	ug/L		98
55)	Tert Amyl Alcohol	10.047	73	38634	101.56	ug/L		97
58)	2,2,4-trimethylpentane	10.162	57	682393	23.46	ug/L		100
59)	n-butyl alcohol	10.671	56	220130	1127.26	ug/L		98
60)	benzene	10.178	78	627445	21.18	ug/L		99
61)	tert-amyl methyl ether	10.199	73	493388	21.25	ug/L		99
62)	heptane	10.330	57	128066	22.44	ug/L		97
63)	1,2-dichloroethane	10.199	62	184530	20.22	ug/L		99
64)	ethyl acrylate	10.891	55	169443	20.88	ug/L		97
65)	trichloroethene	10.891	95	141709	21.47	ug/L		99
66)	2-nitropropane	11.672	41	35212	15.37	ug/L	#	49
67)	2-chloroethyl vinyl ether	11.672	63	470724	106.38	ug/L		98
68)	methyl methacrylate	11.153	100	25085	14.50	ug/L	#	72
69)	1,2-dichloropropane	11.158	63	167049	21.01	ug/L		98
70)	methylcyclohexane	11.101	83	293313	23.27	ug/L		97
71)	dibromomethane	11.321	93	83074	20.90	ug/L		97
72)	bromodichloromethane	11.442	83	179304	20.57	ug/L		96
73)	epichlorohydrin	11.803	57	71566	103.97	ug/L		96
74)	cis-1,3-dichloropropene	11.892	75	246372	20.86	ug/L		98
75)	4-methyl-2-pentanone	11.982	58	221055	85.80	ug/L		94
76)	3-methyl-1-butanol	12.003	70	81841	433.68	ug/L		92
79)	toluene	12.254	92	359952	21.75	ug/L		100
80)	ethyl methacrylate	12.438	69	127860	14.86	ug/L		97
81)	trans-1,3-dichloropropene	12.453	75	205626	21.21	ug/L		99
82)	1,1,2-trichloroethane	12.663	83	102789	21.38	ug/L		98
83)	tetrachloroethene	12.831	164	110872	21.72	ug/L		98
84)	2-hexanone	12.831	58	198442	80.51	ug/L		96
85)	1,3-dichloropropane	12.847	76	218375	21.29	ug/L		98
86)	butyl acetate	12.899	56	96205	21.08	ug/L		99
88)	dibromochloromethane	13.109	129	116965	20.68	ug/L		98
89)	1,2-dibromoethane	13.261	107	120297	20.89	ug/L		99
90)	n-butyl ether	13.612	57	701087	21.93	ug/L		99
91)	chlorobenzene	13.712	112	375651	21.17	ug/L		99
92)	1,1,1,2-tetrachloroethane	13.769	131	127778	21.53	ug/L		99
93)	ethylbenzene	13.759	91	648833	21.36	ug/L		100
94)	m,p-xylene	13.864	106	499686	43.46	ug/L		100
95)	o-xylene	14.283	91	518981	21.29	ug/L		99
96)	styrene	14.294	104	406972	21.39	ug/L		100
97)	butyl acrylate	14.105	55	264553	20.69	ug/L		98
98)	bromoform	14.566	173	72179	20.07	ug/L		97
99)	isopropylbenzene	14.619	105	631324	22.02	ug/L		99
100)	cis-1,4-dichloro-2-butene	14.697	75	54769	19.23	ug/L		92
103)	bromobenzene	15.023	156	153333	21.06	ug/L		99
104)	1,1,2,2-tetrachloroethane	14.933	83	152267	20.98	ug/L		97
105)	trans-1,4-dichloro-2-b...	14.975	53	23556	13.86	ug/L		94
106)	1,2,3-trichloropropane	15.007	110	39694	20.79	ug/L		94
107)	n-propylbenzene	15.023	91	752834	21.83	ug/L		99
108)	2-chlorotoluene	15.175	126	150658	21.42	ug/L		91
109)	4-chlorotoluene	15.274	91	443492	21.23	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141949.d
Acq On : 29 Mar 2018 7:13 am
Operator : sydneys
Sample : cc6202-20 Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:10:06 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration

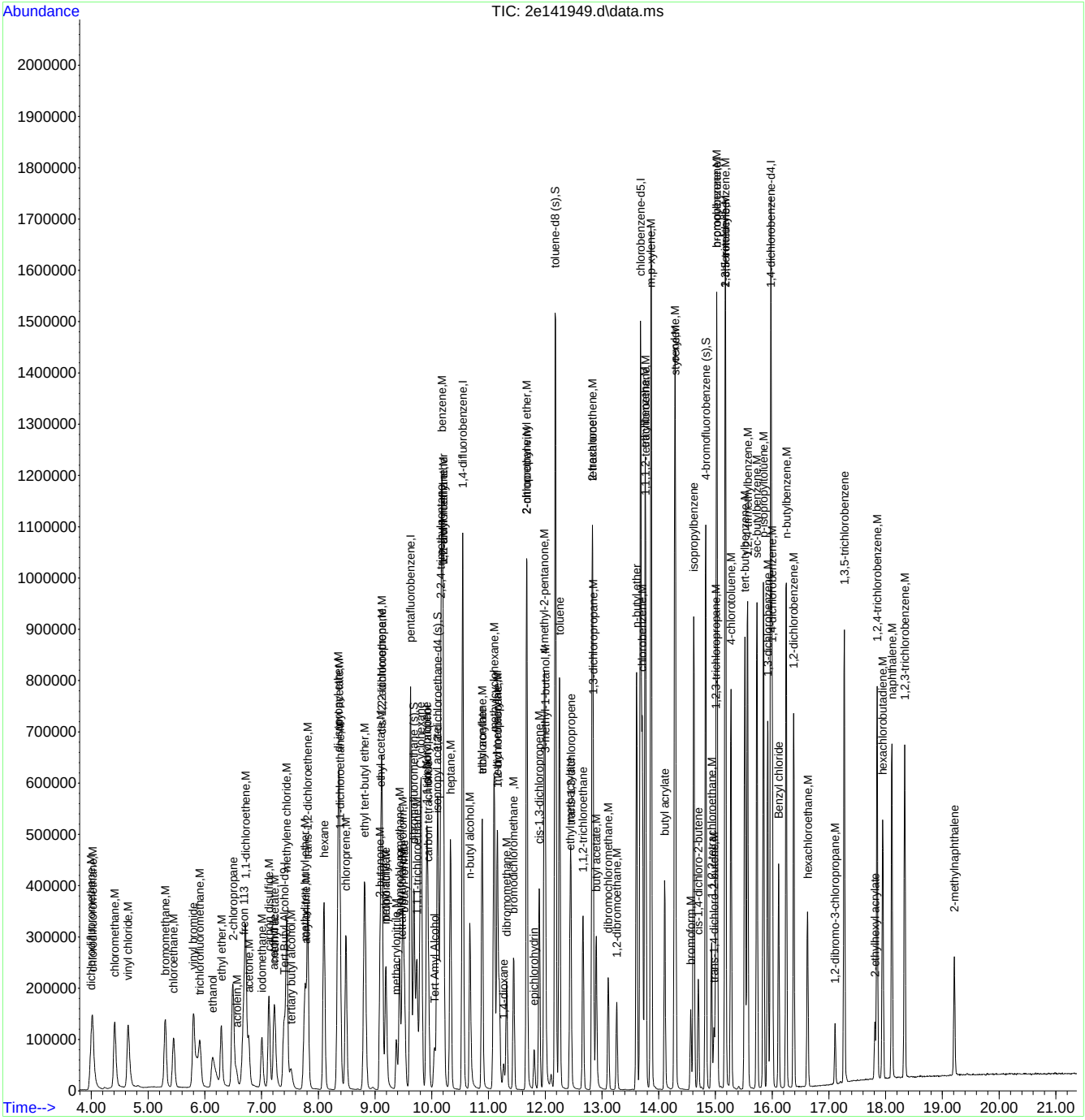
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,3,5-trimethylbenzene	15.175	105	529334	22.15	ug/L	99
112) tert-butylbenzene	15.521	119	452922	22.15	ug/L	99
113) 1,2,4-trimethylbenzene	15.568	105	530126	21.91	ug/L	100
114) sec-butylbenzene	15.730	105	684010	22.27	ug/L	100
115) 1,3-dichlorobenzene	15.919	146	291670	20.87	ug/L	98
116) p-isopropyltoluene	15.846	119	571231	22.27	ug/L	99
117) 1,4-dichlorobenzene	16.003	146	294192	20.29	ug/L	100
118) 1,2-dichlorobenzene	16.380	146	284167	20.88	ug/L	99
120) n-butylbenzene	16.249	92	304831	21.96	ug/L	98
122) 1,2-dibromo-3-chloropr...	17.104	75	28249	20.83	ug/L	84
123) 1,3,5-trichlorobenzene	17.272	180	264712	21.46	ug/L	100
124) 1,2,4-trichlorobenzene	17.849	180	228798	22.15	ug/L	100
125) 2-ethylhexyl acrylate	17.812	70	28795	3.46	ug/L	92
126) hexachlorobutadiene	17.948	225	113404	22.44	ug/L	99
127) naphthalene	18.111	128	484730	22.01	ug/L	100
128) 1,2,3-trichlorobenzene	18.336	180	202852	21.71	ug/L	99
129) hexachloroethane	16.627	201	62120	15.36	ug/L	97
130) Benzyl chloride	16.113	91	300862	20.53	ug/L	100
131) 2-methylnaphthalene	19.212	142	118904	10.11	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v2e6206\
Data File : 2e141949.d
Acq On : 29 Mar 2018 7:13 am
Operator : sydneys
Sample : cc6202-20 Inst : VOAMS2E
Misc : MS25158,V2E6206,5,,,,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6202.M
Quant Results File: M2E6202.RES
Quant Time: Apr 03 05:10:06 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Wed Mar 28 08:23:52 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144367.D
Acq On : 27 Feb 2018 8:27 pm
Operator : EddieH
Sample : ic6383-0.2
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 15:33:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.013	65	207569	500.00	ug/L		0.00
5) pentafluorobenzene	10.518	168	164396	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.491	114	221123	50.00	ug/L		0.00
75) chlorobenzene-d5	14.828	117	179677	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.323	152	122272	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.545	113	76196	48.86	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.72%				
55) 1,2-dichloroethane-d4 (s)	10.989	65	91861	50.55	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.10%				
76) toluene-d8 (s)	13.207	98	238637	52.13	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.26%				
100) 4-bromofluorobenzene (s)	16.083	95	90118	47.40	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.80%				
Target Compounds							Qvalue
8) chloromethane	4.614	50	685	0.22	ug/L		60
23) carbon disulfide	7.652	76	1627	0.22	ug/L		79
26) methyl tert butyl ether	8.453	73	1332	0.20	ug/L		55
29) di-isopropyl ether	9.127	45	1016	0.18	ug/L		72
31) 1,1-dichloroethane	9.127	63	565	0.18	ug/L	#	54
35) ethyl tert-butyl ether	9.640	59	1089	0.17	ug/L	#	44
39) propionitrile	9.938	54	713	1.81	ug/L	#	43
44) chloroform	10.335	83	938	0.27	ug/L		67
47) 1,1,1-trichloroethane	10.602	97	598	0.15	ug/L	#	43
50) 1,1-dichloropropene	10.785	75	437	0.17	ug/L	#	42
51) carbon tetrachloride	10.822	117	547	0.15	ug/L		75
57) 2,2,4-Trimethylpentane	11.146	57	1103	0.16	ug/L		85
58) benzene	11.052	78	1426	0.21	ug/L		63
59) tert-amyl methyl ether	11.146	73	1299	0.21	ug/L		67
63) trichloroethene	11.816	95	279	0.15	ug/L	#	74
64) 2-chloroethyl vinyl ether	12.652	63	974	0.93	ug/L	#	45
66) methylcyclohexane	12.119	83	499	0.13	ug/L	#	65
72) cis-1,3-dichloropropene	12.883	75	521	0.18	ug/L	#	68
73) 4-methyl-2-pentanone	12.998	58	531	0.60	ug/L	#	26
77) toluene	13.291	92	699	0.19	ug/L	#	76
79) trans-1,3-dichloropropene	13.500	75	434	0.18	ug/L	#	73
82) 2-hexanone	13.913	58	458	0.66	ug/L	#	91
83) 1,3-dichloropropane	13.918	76	327	0.15	ug/L	#	81
85) 3,3-Dimethyl-1-Butanol	14.106	69	552	1.91	ug/L	#	66
88) n-butyl ether	14.828	57	1368	0.22	ug/L	#	1
89) chlorobenzene	14.860	112	915	0.22	ug/L		91
91) ethylbenzene	14.933	91	1437	0.20	ug/L		88
92) m,p-xylene	15.064	106	1102	0.40	ug/L	#	76
93) o-xylene	15.498	91	1292	0.19	ug/L		75
94) styrene	15.508	104	846	0.19	ug/L		83
95) butyl acrylate	15.315	55	726	0.24	ug/L		96
96) isopropylbenzene	15.869	105	1393	0.16	ug/L		82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144367.D
Acq On : 27 Feb 2018 8:27 pm
Operator : EddieH
Sample : ic6383-0.2
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 15:33:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

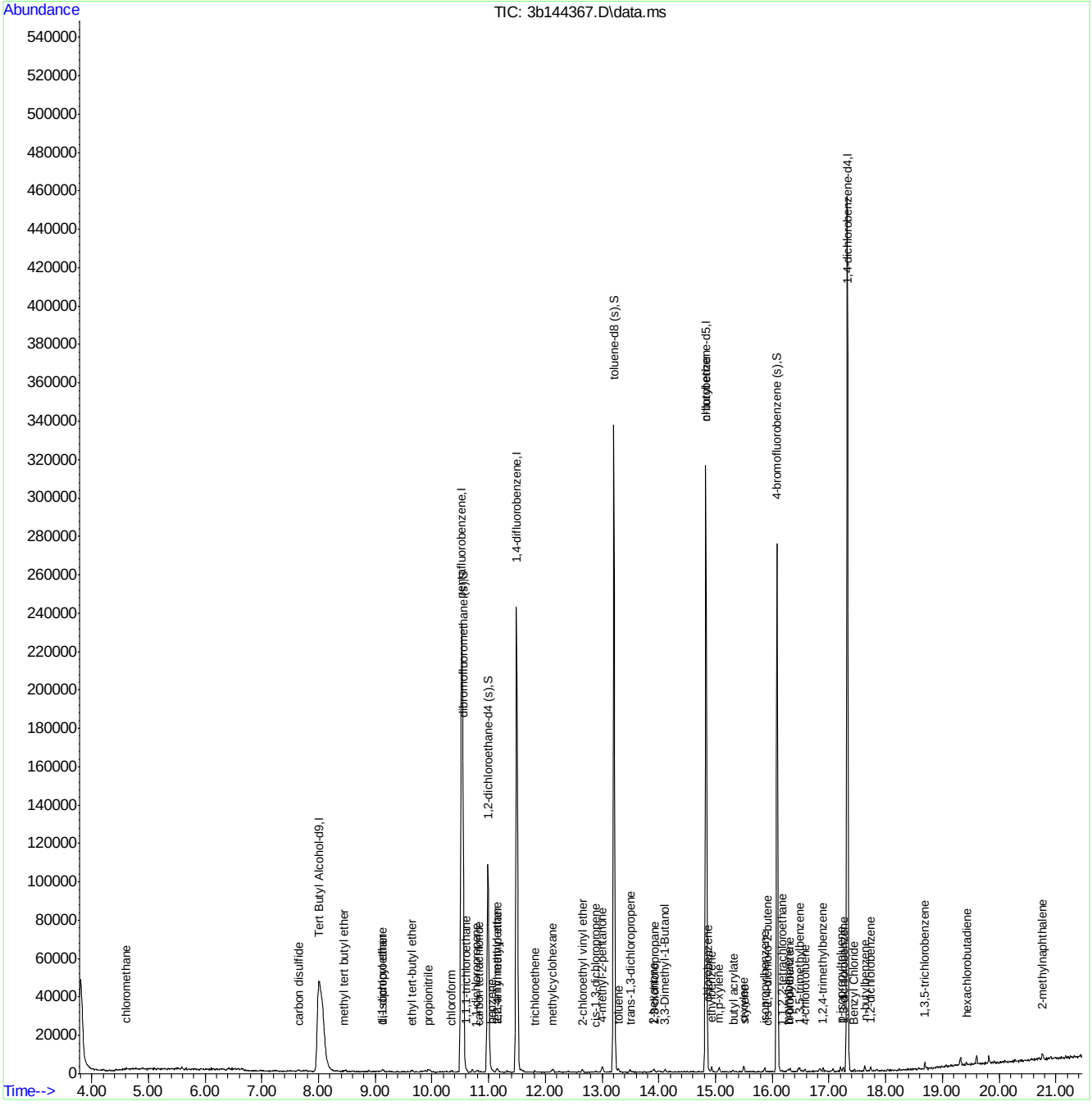
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
98) cis-1,4-dichloro-2-butene	15.916	88	183	0.20	ug/L	#	51
101) 1,1,2,2-tetrachloroethane	16.167	83	511	0.20	ug/L		86
104) bromobenzene	16.282	156	365	0.16	ug/L	#	80
105) n-propylbenzene	16.308	91	1789	0.18	ug/L		86
107) 4-chlorotoluene	16.575	91	1155	0.20	ug/L		91
108) 1,3,5-trimethylbenzene	16.481	105	1464	0.17	ug/L		77
110) 1,2,4-trimethylbenzene	16.894	105	1477	0.17	ug/L		91
112) p-isopropyltoluene	17.208	119	1659	0.17	ug/L		90
113) 1,3-dichlorobenzene	17.255	146	979	0.22	ug/L		98
115) 1,2-dichlorobenzene	17.731	146	1064	0.21	ug/L		93
116) Benzyl Chloride	17.443	91	1244	0.22	ug/L		67
117) n-butylbenzene	17.632	92	1103	0.23	ug/L	#	72
120) 1,3,5-trichlorobenzene	18.693	180	1374	0.24	ug/L		85
123) hexachlorobutadiene	19.426	225	359	0.14	ug/L	#	79
126) 2-methylnaphthalene	20.765	142	1826	0.20	ug/L		90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144367.D
Acq On : 27 Feb 2018 8:27 pm
Operator : EddieH
Sample : ic6383-0.2
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 15:33:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144368.D
Acq On : 27 Feb 2018 8:55 pm
Operator : EddieH
Sample : ic6383-0.5
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 09:48:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.019	65	177537	500.00	ug/L		0.00
5) pentafluorobenzene	10.524	168	153655	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.497	114	205460	50.00	ug/L		0.00
75) chlorobenzene-d5	14.828	117	175068	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.323	152	120060	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.545	113	72590	49.80	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.60%				
55) 1,2-dichloroethane-d4 (s)	10.989	65	85911	50.88	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.76%				
76) toluene-d8 (s)	13.207	98	224738	50.38	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.76%				
100) 4-bromofluorobenzene (s)	16.084	95	88024	47.15	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.30%				
Target Compounds							Qvalue
8) chloromethane	4.619	50	1609	0.54	ug/L		88
9) vinyl chloride	4.875	62	1187	0.39	ug/L		81
10) 1,3-Butadiene	4.917	54	1093	0.48	ug/L	#	66
14) vinyl bromide	6.167	106	944	0.41	ug/L		81
18) freon 113	7.255	151	526	0.28	ug/L	#	67
19) 1,1-dichloroethene	7.229	96	841	0.48	ug/L	#	44
22) iodomethane	7.506	142	1733	0.45	ug/L		89
23) carbon disulfide	7.647	76	3668	0.54	ug/L		81
24) methylene chloride	8.055	84	836	0.44	ug/L	#	59
25) methyl acetate	7.783	43	794	0.55	ug/L		62
26) methyl tert butyl ether	8.447	73	3278	0.53	ug/L		98
27) trans-1,2-dichloroethene	8.494	96	1064	0.65	ug/L	#	74
29) di-isopropyl ether	9.138	45	2930	0.54	ug/L		81
31) 1,1-dichloroethane	9.143	63	1639	0.54	ug/L		80
32) chloroprene	9.258	53	1286	0.49	ug/L		74
35) ethyl tert-butyl ether	9.650	59	3231	0.53	ug/L		92
37) 2,2-dichloropropane	9.964	77	1938	0.56	ug/L		90
38) cis-1,2-dichloroethene	9.922	96	1145	0.60	ug/L	#	70
39) propionitrile	9.943	54	2107	5.73	ug/L		79
42) bromochloromethane	10.247	128	383	0.38	ug/L	#	73
44) chloroform	10.341	83	1937	0.60	ug/L		90
47) 1,1,1-trichloroethane	10.613	97	1897	0.52	ug/L		74
48) cyclohexane	10.723	84	1316	0.44	ug/L		94
50) 1,1-dichloropropene	10.796	75	1263	0.53	ug/L	#	65
51) carbon tetrachloride	10.817	117	1470	0.44	ug/L		96
56) n-butyl alcohol	11.570	56	2274	24.91	ug/L		96
57) 2,2,4-Trimethylpentane	11.157	57	2913	0.44	ug/L		81
58) benzene	11.047	78	3588	0.57	ug/L		89
59) tert-amyl methyl ether	11.146	73	3225	0.56	ug/L		83
60) heptane	11.335	57	421	0.38	ug/L	#	59
61) 1,2-dichloroethane	11.083	62	1559	0.63	ug/L		86
62) ethyl acrylate	11.816	55	928	0.47	ug/L		78

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144368.D
Acq On : 27 Feb 2018 8:55 pm
Operator : EddieH
Sample : ic6383-0.5
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 09:48:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
63)	trichloroethene	11.816	95	893	0.52	ug/L		87
64)	2-chloroethyl vinyl ether	12.658	63	2353	2.41	ug/L		86
66)	methylcyclohexane	12.129	83	1771	0.50	ug/L		86
67)	1,2-dichloropropane	12.129	63	879	0.56	ug/L	#	45
68)	dibromomethane	12.224	93	436	0.40	ug/L		85
69)	bromodichloromethane	12.396	83	1105	0.45	ug/L		92
70)	2-nitropropane	12.621	41	333	0.41	ug/L	#	44
72)	cis-1,3-dichloropropene	12.883	75	1278	0.49	ug/L		96
73)	4-methyl-2-pentanone	12.998	58	1569	1.90	ug/L		98
74)	isoamyl alcohol	13.013	70	781	7.76	ug/L		86
77)	toluene	13.285	92	1879	0.52	ug/L		90
78)	ethyl methacrylate	13.489	69	1005	0.50	ug/L		74
79)	trans-1,3-dichloropropene	13.489	75	1128	0.48	ug/L		96
80)	1,1,2-trichloroethane	13.735	83	487	0.44	ug/L	#	77
81)	tetrachloroethene	13.882	164	613	0.45	ug/L		90
82)	2-hexanone	13.908	58	1396	2.06	ug/L	#	91
83)	1,3-dichloropropane	13.923	76	1163	0.54	ug/L		86
84)	butyl acetate	13.997	56	387	0.38	ug/L	#	45
85)	3,3-Dimethyl-1-Butanol	14.107	69	1205	4.29	ug/L		95
86)	dibromochloromethane	14.180	129	881	0.49	ug/L		73
87)	1,2-dibromoethane	14.342	107	717	0.49	ug/L		97
88)	n-butyl ether	14.818	57	3377	0.55	ug/L		55
89)	chlorobenzene	14.865	112	2191	0.54	ug/L		97
90)	1,1,1,2-tetrachloroethane	14.938	131	948	0.44	ug/L		81
91)	ethylbenzene	14.933	91	3858	0.54	ug/L		96
92)	m,p-xylene	15.064	106	2580	0.96	ug/L		87
93)	o-xylene	15.498	91	3333	0.51	ug/L		98
94)	styrene	15.503	104	2276	0.52	ug/L		95
95)	butyl acrylate	15.315	55	1550	0.53	ug/L		91
96)	isopropylbenzene	15.869	105	4130	0.47	ug/L		94
97)	bromoform	15.749	173	709	0.52	ug/L		86
98)	cis-1,4-dichloro-2-butene	15.906	88	462	0.51	ug/L	#	74
101)	1,1,2,2-tetrachloroethane	16.167	83	1109	0.45	ug/L		74
102)	trans-1,4-dichloro-2-b...	16.199	53	292	0.49	ug/L	#	49
103)	1,2,3-trichloropropane	16.256	110	355	0.48	ug/L	#	55
104)	bromobenzene	16.282	156	1057	0.48	ug/L	#	70
105)	n-propylbenzene	16.314	91	5049	0.50	ug/L		95
106)	2-chlorotoluene	16.460	126	1141	0.51	ug/L	#	72
107)	4-chlorotoluene	16.580	91	3167	0.55	ug/L		98
108)	1,3,5-trimethylbenzene	16.476	105	3711	0.43	ug/L		98
109)	tert-butylbenzene	16.842	119	3039	0.39	ug/L		96
110)	1,2,4-trimethylbenzene	16.894	105	3943	0.47	ug/L		95
111)	sec-butylbenzene	17.067	105	4864	0.43	ug/L		94
112)	p-isopropyltoluene	17.203	119	4171	0.43	ug/L		96
113)	1,3-dichlorobenzene	17.250	146	2249	0.51	ug/L		98
114)	1,4-dichlorobenzene	17.349	146	2619	0.58	ug/L		94
115)	1,2-dichlorobenzene	17.742	146	2705	0.55	ug/L		86
116)	Benzyl Chloride	17.449	91	3036	0.55	ug/L		97
117)	n-butylbenzene	17.637	92	2352	0.51	ug/L	#	79
118)	hexachloroethane	18.040	201	703	0.34	ug/L		86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144368.D
Acq On : 27 Feb 2018 8:55 pm
Operator : EddieH
Sample : ic6383-0.5
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 09:48:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

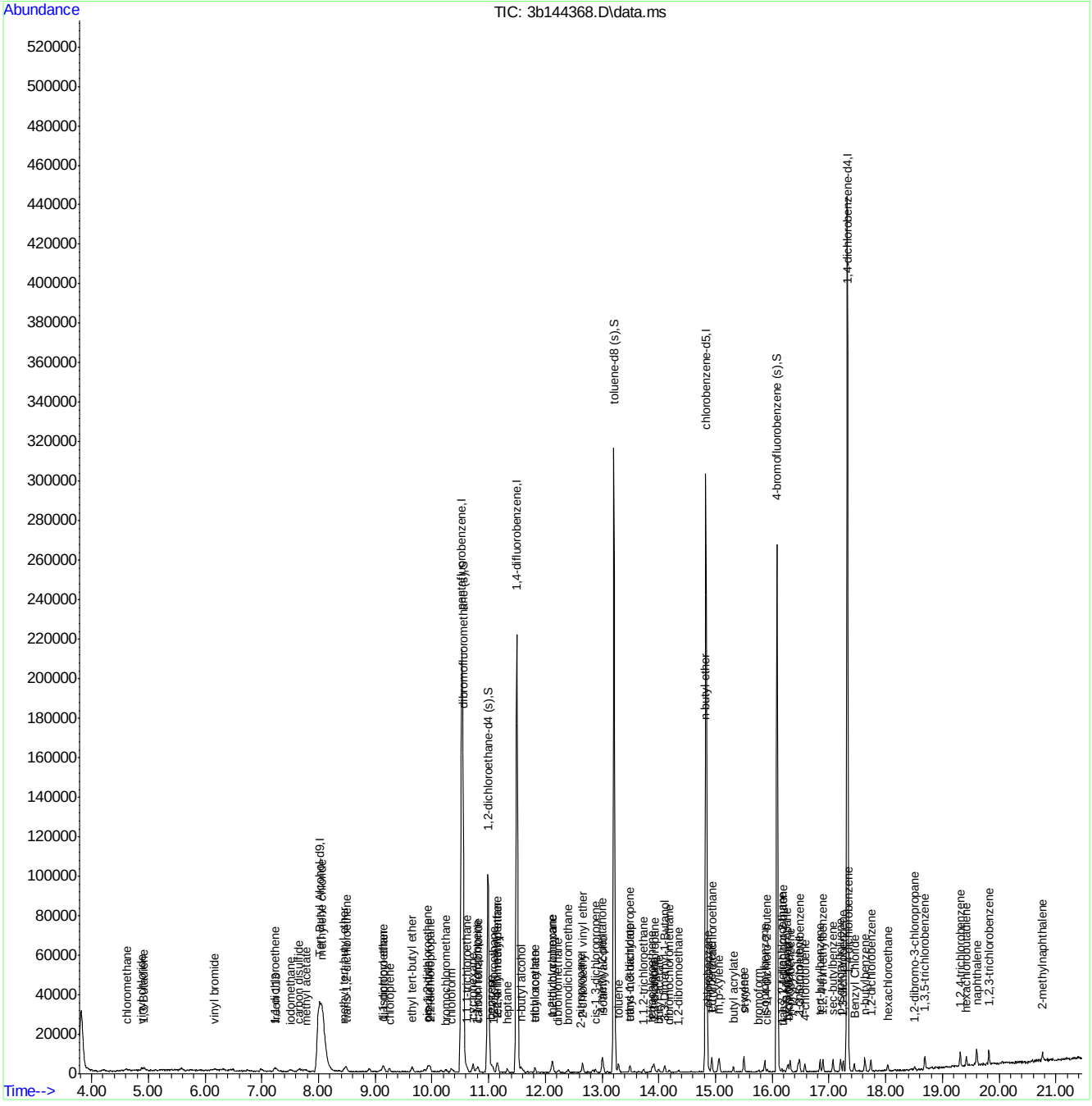
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2-dibromo-3-chloropr...	18.510	157	405	0.39	ug/L	83
120) 1,3,5-trichlorobenzene	18.693	180	2711	0.49	ug/L	89
122) 1,2,4-trichlorobenzene	19.316	180	2623	0.47	ug/L	98
123) hexachlorobutadiene	19.420	225	1088	0.43	ug/L	76
124) naphthalene	19.604	128	7018	0.49	ug/L	98
125) 1,2,3-trichlorobenzene	19.823	180	2820	0.51	ug/L	79
126) 2-methylnaphthalene	20.759	142	2204	0.24	ug/L #	72

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144368.D
Acq On : 27 Feb 2018 8:55 pm
Operator : EddieH
Sample : ic6383-0.5
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 09:48:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144369.D
Acq On : 27 Feb 2018 9:24 pm
Operator : EddieH
Sample : ic6383-1
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 15:35:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.013	65	171584	500.00	ug/L		0.00
5) pentafluorobenzene	10.524	168	144983	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.497	114	195778	50.00	ug/L		0.00
75) chlorobenzene-d5	14.833	117	154858	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.323	152	108335	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.545	113	70016	50.91	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.82%				
55) 1,2-dichloroethane-d4 (s)	10.989	65	82973	51.57	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.14%				
76) toluene-d8 (s)	13.207	98	204299	51.78	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.56%				
100) 4-bromofluorobenzene (s)	16.083	95	80109	47.56	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.12%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.144	59	2340	4.71	ug/L		79
7) dichlorodifluoromethane	4.190	85	2524	0.74	ug/L		92
8) chloromethane	4.614	50	2976	1.07	ug/L		88
9) vinyl chloride	4.880	62	2707	0.93	ug/L		90
10) 1,3-Butadiene	4.922	54	2235	1.03	ug/L	#	81
11) bromomethane	5.592	94	1938	0.96	ug/L		78
12) chloroethane	5.780	64	1385	1.00	ug/L	#	46
13) trichlorofluoromethane	6.319	101	3923	1.03	ug/L		77
14) vinyl bromide	6.177	106	2011	0.93	ug/L		86
15) ethyl ether	6.753	74	520	0.67	ug/L	#	49
16) 2-chloropropane	6.993	43	3064	1.09	ug/L		83
18) freon 113	7.255	151	1653	0.92	ug/L	#	72
19) 1,1-dichloroethene	7.229	96	1474	0.89	ug/L	#	68
21) acetonitrile	7.757	41	3530	11.93	ug/L		70
22) iodomethane	7.506	142	3446	0.94	ug/L		92
23) carbon disulfide	7.658	76	6310	0.99	ug/L		79
24) methylene chloride	8.050	84	1742	0.97	ug/L		81
25) methyl acetate	7.778	43	1315	0.97	ug/L		62
26) methyl tert butyl ether	8.463	73	5623	0.96	ug/L		83
27) trans-1,2-dichloroethene	8.494	96	1431	0.92	ug/L		84
28) hexane	8.892	56	920	0.92	ug/L		83
29) di-isopropyl ether	9.143	45	4958	0.97	ug/L		87
31) 1,1-dichloroethane	9.143	63	2898	1.02	ug/L		92
32) chloroprene	9.248	53	2423	0.97	ug/L		86
35) ethyl tert-butyl ether	9.645	59	5520	0.96	ug/L		85
37) 2,2-dichloropropane	9.959	77	3109	0.95	ug/L		94
38) cis-1,2-dichloroethene	9.927	96	1852	1.02	ug/L	#	60
39) propionitrile	9.954	54	3637	10.48	ug/L		97
41) methacrylonitrile	10.152	67	554	0.74	ug/L		97
42) bromochloromethane	10.236	128	839	0.89	ug/L	#	73
44) chloroform	10.341	83	3258	1.06	ug/L		87
45) tert-Butyl Formate	10.393	59	711	0.85	ug/L		84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144369.D
Acq On : 27 Feb 2018 9:24 pm
Operator : EddieH
Sample : ic6383-1
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 15:35:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 1,1,1-trichloroethane	10.602	97	3253	0.94	ug/L		88
48) cyclohexane	10.722	84	2563	0.90	ug/L		96
49) isobutyl alcohol	10.796	43	1484	11.06	ug/L		81
50) 1,1-dichloropropene	10.796	75	1935	0.86	ug/L		96
51) carbon tetrachloride	10.817	117	3079	0.98	ug/L		89
52) tert-amyl alcohol	10.947	73	1373	6.25	ug/L	#	51
56) n-butyl alcohol	11.570	56	4515	51.90	ug/L		91
57) 2,2,4-Trimethylpentane	11.157	57	5281	0.84	ug/L		97
58) benzene	11.052	78	6047	1.02	ug/L		95
59) tert-amyl methyl ether	11.141	73	5580	1.01	ug/L		96
60) heptane	11.324	57	918	0.86	ug/L		87
61) 1,2-dichloroethane	11.089	62	2775	1.17	ug/L		86
62) ethyl acrylate	11.810	55	1564	0.83	ug/L		78
63) trichloroethene	11.816	95	1658	1.01	ug/L		84
64) 2-chloroethyl vinyl ether	12.652	63	3981	4.29	ug/L		87
65) methyl methacrylate	12.098	100	354	0.81	ug/L	#	88
66) methylcyclohexane	12.124	83	3219	0.95	ug/L		83
67) 1,2-dichloropropane	12.124	63	1355	0.90	ug/L		95
68) dibromomethane	12.229	93	934	0.90	ug/L		90
69) bromodichloromethane	12.401	83	2501	1.07	ug/L		84
70) 2-nitropropane	12.616	41	447	0.58	ug/L	#	44
71) epichlorohydrin	12.747	57	985	4.87	ug/L		52
72) cis-1,3-dichloropropene	12.877	75	2173	0.87	ug/L		96
73) 4-methyl-2-pentanone	13.003	58	2924	3.71	ug/L		98
74) isoamyl alcohol	13.003	70	1642	17.13	ug/L		95
77) toluene	13.291	92	3256	1.02	ug/L		98
78) ethyl methacrylate	13.489	69	1625	0.91	ug/L	#	76
79) trans-1,3-dichloropropene	13.489	75	1871	0.91	ug/L		89
80) 1,1,2-trichloroethane	13.725	83	1008	1.04	ug/L	#	82
81) tetrachloroethene	13.876	164	1241	1.02	ug/L		82
82) 2-hexanone	13.908	58	2362	3.93	ug/L		94
83) 1,3-dichloropropane	13.918	76	1903	1.00	ug/L		90
84) butyl acetate	13.997	56	999	1.12	ug/L	#	54
85) 3,3-Dimethyl-1-Butanol	14.101	69	2599	10.45	ug/L		90
86) dibromochloromethane	14.180	129	1601	1.01	ug/L		81
87) 1,2-dibromoethane	14.342	107	1319	1.02	ug/L		97
88) n-butyl ether	14.828	57	5641	1.04	ug/L		58
89) chlorobenzene	14.870	112	3639	1.01	ug/L		85
90) 1,1,1,2-tetrachloroethane	14.938	131	1943	1.02	ug/L		99
91) ethylbenzene	14.928	91	6512	1.04	ug/L		93
92) m,p-xylene	15.069	106	4828	2.03	ug/L	#	76
93) o-xylene	15.492	91	5670	0.98	ug/L		97
94) styrene	15.508	104	3904	1.01	ug/L		88
95) butyl acrylate	15.315	55	2702	1.05	ug/L		90
96) isopropylbenzene	15.869	105	7111	0.92	ug/L		98
97) bromoform	15.749	173	1089	0.90	ug/L		87
98) cis-1,4-dichloro-2-butene	15.906	88	729	0.92	ug/L	#	77
101) 1,1,2,2-tetrachloroethane	16.167	83	2171	0.97	ug/L		93
102) trans-1,4-dichloro-2-b...	16.209	53	444	0.83	ug/L	#	72
103) 1,2,3-trichloropropane	16.256	110	524	0.78	ug/L		84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144369.D
Acq On : 27 Feb 2018 9:24 pm
Operator : EddieH
Sample : ic6383-1
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 15:35:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

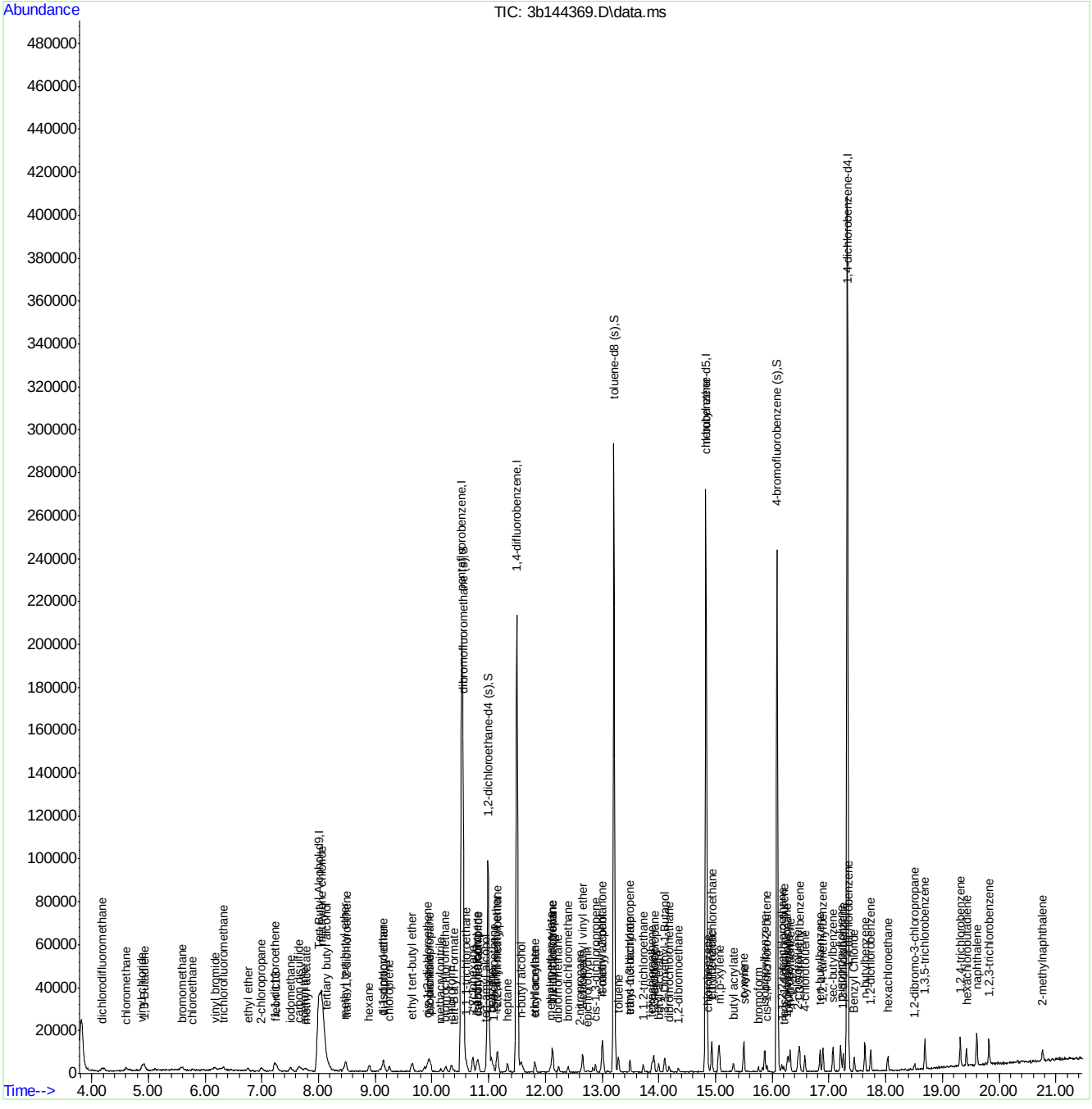
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
104) bromobenzene	16.282	156	1814	0.91 ug/L	81
105) n-propylbenzene	16.314	91	8257	0.92 ug/L	99
106) 2-chlorotoluene	16.455	126	1750	0.87 ug/L	90
107) 4-chlorotoluene	16.575	91	4870	0.94 ug/L	92
108) 1,3,5-trimethylbenzene	16.481	105	6613	0.86 ug/L	94
109) tert-butylbenzene	16.842	119	5448	0.78 ug/L	97
110) 1,2,4-trimethylbenzene	16.894	105	6752	0.89 ug/L	96
111) sec-butylbenzene	17.072	105	8355	0.82 ug/L	98
112) p-isopropyltoluene	17.208	119	7547	0.87 ug/L	95
113) 1,3-dichlorobenzene	17.250	146	3715	0.93 ug/L	96
114) 1,4-dichlorobenzene	17.349	146	4168	1.03 ug/L	99
115) 1,2-dichlorobenzene	17.736	146	3978	0.89 ug/L	93
116) Benzyl Chloride	17.443	91	5208	1.04 ug/L	99
117) n-butylbenzene	17.632	92	3718	0.89 ug/L	95
118) hexachloroethane	18.040	201	1472	0.80 ug/L	90
119) 1,2-dibromo-3-chloropr...	18.515	157	910	0.97 ug/L	91
120) 1,3,5-trichlorobenzene	18.693	180	4798	0.96 ug/L	94
122) 1,2,4-trichlorobenzene	19.316	180	4273	0.85 ug/L	82
123) hexachlorobutadiene	19.426	225	2062	0.90 ug/L	95
124) naphthalene	19.603	128	11721	0.90 ug/L	99
125) 1,2,3-trichlorobenzene	19.823	180	4390	0.88 ug/L	94
126) 2-methylnaphthalene	20.765	142	3303	0.40 ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144369.D
Acq On : 27 Feb 2018 9:24 pm
Operator : EddieH
Sample : ic6383-1
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 15:35:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144370.D
Acq On : 27 Feb 2018 9:52 pm
Operator : EddieH
Sample : ic6383-2
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 15:35:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.019	65	163788	500.00	ug/L		0.00
5) pentafluorobenzene	10.524	168	142400	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.497	114	188892	50.00	ug/L		0.00
75) chlorobenzene-d5	14.834	117	155200	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.323	152	106791	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.545	113	69058	51.12	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.24%				
55) 1,2-dichloroethane-d4 (s)	10.984	65	82116	52.90	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.80%				
76) toluene-d8 (s)	13.207	98	201835	51.04	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.08%				
100) 4-bromofluorobenzene (s)	16.084	95	78107	47.04	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.08%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.144	59	4432	9.35	ug/L		79
6) chlorodifluoromethane	4.216	51	6761	2.04	ug/L		93
7) dichlorodifluoromethane	4.206	85	5997	1.80	ug/L		85
8) chloromethane	4.624	50	5878	2.14	ug/L		88
9) vinyl chloride	4.886	62	5834	2.04	ug/L		91
10) 1,3-Butadiene	4.928	54	4094	1.93	ug/L	#	88
11) bromomethane	5.597	94	3969	2.00	ug/L		89
12) chloroethane	5.791	64	3032	2.24	ug/L		83
13) trichlorofluoromethane	6.335	101	7441	2.00	ug/L		84
14) vinyl bromide	6.172	106	4574	2.14	ug/L		93
15) ethyl ether	6.758	74	1493	1.97	ug/L	#	76
16) 2-chloropropane	6.999	43	6479	2.34	ug/L		92
17) acrolein	6.999	56	456	1.31	ug/L		95
18) freon 113	7.271	151	3392	1.92	ug/L		89
19) 1,1-dichloroethene	7.234	96	3289	2.01	ug/L	#	80
20) acetone	7.255	58	1316	6.44	ug/L	#	32
21) acetonitrile	7.741	41	6160	21.20	ug/L		92
22) iodomethane	7.506	142	7530	2.09	ug/L		94
23) carbon disulfide	7.658	76	13238	2.11	ug/L		94
24) methylene chloride	8.045	84	3802	2.16	ug/L		90
25) methyl acetate	7.783	43	2329	1.74	ug/L		80
26) methyl tert butyl ether	8.468	73	11559	2.01	ug/L		93
27) trans-1,2-dichloroethene	8.495	96	3333	2.18	ug/L		93
28) hexane	8.887	56	2013	2.04	ug/L		90
29) di-isopropyl ether	9.143	45	10184	2.03	ug/L		87
30) 2-butanone	9.854	72	1613	6.98	ug/L	#	21
31) 1,1-dichloroethane	9.138	63	6059	2.17	ug/L		95
32) chloroprene	9.248	53	5083	2.08	ug/L		94
33) acrylonitrile	8.385	53	1378	1.90	ug/L	#	78
35) ethyl tert-butyl ether	9.650	59	11243	1.99	ug/L		95
37) 2,2-dichloropropane	9.964	77	6909	2.16	ug/L		97
38) cis-1,2-dichloroethene	9.922	96	3902	2.19	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144370.D
Acq On : 27 Feb 2018 9:52 pm
Operator : EddieH
Sample : ic6383-2
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 15:35:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) propionitrile	9.943	54	6715	19.69	ug/L		99
40) methyl acrylate	9.959	85	440	1.60	ug/L	#	18
41) methacrylonitrile	10.163	67	1360	1.85	ug/L	#	79
42) bromochloromethane	10.242	128	1975	2.12	ug/L		85
43) tetrahydrofuran	10.262	42	1209	1.92	ug/L		81
44) chloroform	10.341	83	6501	2.16	ug/L		87
45) tert-Butyl Formate	10.388	59	1436	1.74	ug/L		91
47) 1,1,1-trichloroethane	10.608	97	6832	2.02	ug/L		90
48) cyclohexane	10.723	84	5457	1.95	ug/L		83
49) isobutyl alcohol	10.791	43	2504	18.99	ug/L		79
50) 1,1-dichloropropene	10.796	75	4637	2.11	ug/L		89
51) carbon tetrachloride	10.812	117	6222	2.02	ug/L		93
52) tert-amyl alcohol	10.953	73	2357	10.93	ug/L	#	57
53) isopropyl acetate	10.984	87	552	1.43	ug/L	#	1
56) n-butyl alcohol	11.570	56	8498	101.25	ug/L		94
57) 2,2,4-Trimethylpentane	11.157	57	10471	1.73	ug/L		91
58) benzene	11.052	78	12450	2.17	ug/L		97
59) tert-amyl methyl ether	11.152	73	10963	2.06	ug/L		92
60) heptane	11.324	57	1802	1.76	ug/L		92
61) 1,2-dichloroethane	11.089	62	5105	2.23	ug/L		86
62) ethyl acrylate	11.811	55	3272	1.80	ug/L		88
63) trichloroethene	11.821	95	3200	2.02	ug/L		91
64) 2-chloroethyl vinyl ether	12.658	63	7957	8.88	ug/L		96
65) methyl methacrylate	12.093	100	622	1.47	ug/L	#	50
66) methylcyclohexane	12.124	83	6597	2.03	ug/L		86
67) 1,2-dichloropropane	12.124	63	2940	2.03	ug/L		98
68) dibromomethane	12.239	93	2048	2.04	ug/L		97
69) bromodichloromethane	12.396	83	4595	2.05	ug/L		93
70) 2-nitropropane	12.621	41	1516	2.05	ug/L		89
71) epichlorohydrin	12.742	57	1781	9.12	ug/L		92
72) cis-1,3-dichloropropene	12.888	75	4652	1.93	ug/L		98
73) 4-methyl-2-pentanone	13.003	58	5395	7.10	ug/L		98
74) isoamyl alcohol	13.014	70	3518	38.04	ug/L	#	64
77) toluene	13.291	92	6554	2.05	ug/L		89
78) ethyl methacrylate	13.484	69	3557	2.00	ug/L		91
79) trans-1,3-dichloropropene	13.495	75	4252	2.06	ug/L		96
80) 1,1,2-trichloroethane	13.725	83	1940	2.00	ug/L	#	81
81) tetrachloroethene	13.882	164	2694	2.22	ug/L	#	81
82) 2-hexanone	13.908	58	4643	7.71	ug/L		98
83) 1,3-dichloropropane	13.918	76	3846	2.02	ug/L		93
84) butyl acetate	13.997	56	1763	1.97	ug/L		97
85) 3,3-Dimethyl-1-Butanol	14.107	69	4592	18.42	ug/L		95
86) dibromochloromethane	14.185	129	3176	2.01	ug/L		93
87) 1,2-dibromoethane	14.347	107	2586	2.00	ug/L		95
88) n-butyl ether	14.823	57	11305	2.07	ug/L		83
89) chlorobenzene	14.865	112	7513	2.08	ug/L		96
90) 1,1,1,2-tetrachloroethane	14.938	131	4032	2.12	ug/L		95
91) ethylbenzene	14.933	91	13614	2.16	ug/L		93
92) m,p-xylene	15.059	106	9707	4.07	ug/L		98
93) o-xylene	15.493	91	12118	2.08	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144370.D
Acq On : 27 Feb 2018 9:52 pm
Operator : EddieH
Sample : ic6383-2
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 15:35:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

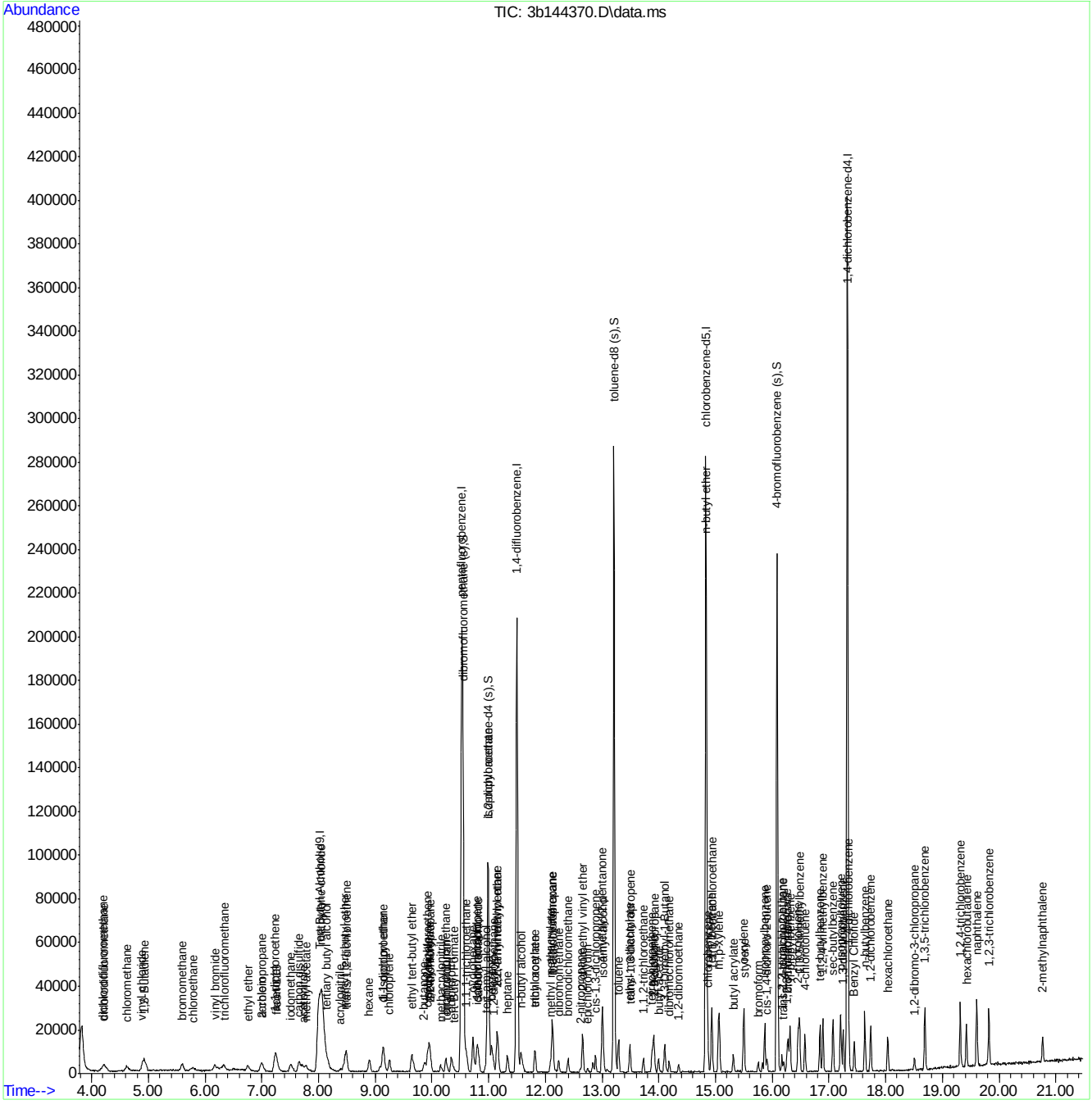
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
94) styrene	15.508	104	7969	2.05	ug/L		100
95) butyl acrylate	15.310	55	5215	2.02	ug/L		93
96) isopropylbenzene	15.869	105	15413	2.00	ug/L		99
97) bromoform	15.754	173	2336	1.93	ug/L		94
98) cis-1,4-dichloro-2-butene	15.906	88	1700	2.14	ug/L		95
101) 1,1,2,2-tetrachloroethane	16.167	83	4469	2.02	ug/L		96
102) trans-1,4-dichloro-2-b...	16.199	53	1048	1.99	ug/L	#	77
103) 1,2,3-trichloropropane	16.262	110	1320	1.99	ug/L		92
104) bromobenzene	16.277	156	3887	1.99	ug/L		98
105) n-propylbenzene	16.314	91	16968	1.91	ug/L		96
106) 2-chlorotoluene	16.455	126	3670	1.84	ug/L		95
107) 4-chlorotoluene	16.575	91	10395	2.03	ug/L		97
108) 1,3,5-trimethylbenzene	16.481	105	13523	1.78	ug/L		98
109) tert-butylbenzene	16.842	119	11283	1.63	ug/L		97
110) 1,2,4-trimethylbenzene	16.894	105	13693	1.84	ug/L		94
111) sec-butylbenzene	17.072	105	17098	1.70	ug/L		97
112) p-isopropyltoluene	17.208	119	15819	1.84	ug/L		97
113) 1,3-dichlorobenzene	17.250	146	8861	2.25	ug/L		99
114) 1,4-dichlorobenzene	17.349	146	8357	2.09	ug/L		93
115) 1,2-dichlorobenzene	17.736	146	9053	2.06	ug/L		100
116) Benzyl Chloride	17.444	91	10335	2.10	ug/L		100
117) n-butylbenzene	17.632	92	7761	1.89	ug/L		99
118) hexachloroethane	18.040	201	2974	1.63	ug/L		94
119) 1,2-dibromo-3-chloropr...	18.511	157	1869	2.01	ug/L		90
120) 1,3,5-trichlorobenzene	18.694	180	9509	1.92	ug/L		93
122) 1,2,4-trichlorobenzene	19.316	180	9045	1.82	ug/L		97
123) hexachlorobutadiene	19.426	225	4396	1.95	ug/L		97
124) naphthalene	19.604	128	24082	1.88	ug/L		99
125) 1,2,3-trichlorobenzene	19.823	180	9139	1.85	ug/L		96
126) 2-methylnaphthalene	20.765	142	6685	0.82	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144370.D
Acq On : 27 Feb 2018 9:52 pm
Operator : EddieH
Sample : ic6383-2
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 15:35:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144371.D
Acq On : 27 Feb 2018 10:20 pm
Operator : EddieH
Sample : ic6383-5
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 15:40:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.019	65	166193	500.00	ug/L		0.00
5) pentafluorobenzene	10.524	168	142893	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.497	114	190430	50.00	ug/L		0.00
75) chlorobenzene-d5	14.834	117	154865	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.323	152	108337	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.545	113	68872	50.81	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.62%				
55) 1,2-dichloroethane-d4 (s)	10.989	65	82281	52.58	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.16%				
76) toluene-d8 (s)	13.207	98	206240	52.27	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.54%				
100) 4-bromofluorobenzene (s)	16.084	95	79483	47.18	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.36%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.139	59	11692	24.32	ug/L		96
4) 1,4-dioxane	12.171	88	3820	115.66	ug/L		89
6) chlorodifluoromethane	4.221	51	15406	4.63	ug/L		95
7) dichlorodifluoromethane	4.206	85	15634	4.66	ug/L		93
8) chloromethane	4.619	50	13146	4.77	ug/L		94
9) vinyl chloride	4.891	62	13467	4.70	ug/L		91
10) 1,3-Butadiene	4.933	54	9918	4.66	ug/L	#	76
11) bromomethane	5.592	94	9741	4.90	ug/L		91
12) chloroethane	5.780	64	6771	4.98	ug/L		94
13) trichlorofluoromethane	6.324	101	17779	4.76	ug/L		89
14) vinyl bromide	6.172	106	10045	4.69	ug/L		95
15) ethyl ether	6.758	74	3878	5.09	ug/L	#	72
16) 2-chloropropane	6.994	43	13372	4.82	ug/L		93
17) acrolein	7.009	56	1714	4.92	ug/L		86
18) freon 113	7.255	151	8196	4.63	ug/L		85
19) 1,1-dichloroethene	7.229	96	7526	4.59	ug/L		89
20) acetone	7.255	58	3932	19.18	ug/L	#	65
21) acetonitrile	7.731	41	15774	54.09	ug/L		89
22) iodomethane	7.501	142	16767	4.64	ug/L		96
23) carbon disulfide	7.658	76	29091	4.62	ug/L		97
24) methylene chloride	8.045	84	8407	4.75	ug/L		99
25) methyl acetate	7.778	43	6996	5.21	ug/L		93
26) methyl tert butyl ether	8.463	73	27979	4.86	ug/L		95
27) trans-1,2-dichloroethene	8.489	96	7687	5.02	ug/L		98
28) hexane	8.903	56	4706	4.76	ug/L	#	81
29) di-isopropyl ether	9.138	45	24469	4.85	ug/L		91
30) 2-butanone	9.865	72	4511	19.44	ug/L	#	82
31) 1,1-dichloroethane	9.133	63	14164	5.06	ug/L		93
32) chloroprene	9.243	53	11866	4.84	ug/L		98
33) acrylonitrile	8.390	53	3327	4.58	ug/L		89
34) vinyl acetate	9.086	86	1009	4.12	ug/L	#	21
35) ethyl tert-butyl ether	9.645	59	26729	4.73	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144371.D
Acq On : 27 Feb 2018 10:20 pm
Operator : EddieH
Sample : ic6383-5
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 15:40:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	9.886	45	1123	4.23	ug/L	#	71
37) 2,2-dichloropropane	9.964	77	15332	4.78	ug/L		97
38) cis-1,2-dichloroethene	9.928	96	8960	5.01	ug/L		90
39) propionitrile	9.943	54	17407	50.88	ug/L		86
40) methyl acrylate	9.975	85	1139	4.12	ug/L	#	51
41) methacrylonitrile	10.158	67	3609	4.90	ug/L		93
42) bromochloromethane	10.241	128	4811	5.15	ug/L		88
43) tetrahydrofuran	10.273	42	3044	4.81	ug/L		89
44) chloroform	10.341	83	15467	5.11	ug/L		98
45) tert-Butyl Formate	10.383	59	4136	5.00	ug/L		83
47) 1,1,1-trichloroethane	10.618	97	16609	4.89	ug/L		93
48) cyclohexane	10.723	84	13196	4.70	ug/L		99
49) isobutyl alcohol	10.796	43	7021	53.08	ug/L		90
50) 1,1-dichloropropene	10.796	75	10378	4.71	ug/L		93
51) carbon tetrachloride	10.812	117	14700	4.75	ug/L		99
52) tert-amyl alcohol	10.958	73	5723	26.45	ug/L		89
53) isopropyl acetate	10.989	87	1700	4.40	ug/L	#	89
56) n-butyl alcohol	11.570	56	21374	252.61	ug/L		94
57) 2,2,4-Trimethylpentane	11.157	57	26059	4.27	ug/L		96
58) benzene	11.052	78	29180	5.04	ug/L		94
59) tert-amyl methyl ether	11.152	73	26791	5.00	ug/L		97
60) heptane	11.329	57	4740	4.59	ug/L		93
61) 1,2-dichloroethane	11.084	62	12306	5.34	ug/L		94
62) ethyl acrylate	11.816	55	8357	4.57	ug/L		95
63) trichloroethene	11.816	95	8073	5.06	ug/L		93
64) 2-chloroethyl vinyl ether	12.658	63	20047	22.19	ug/L		97
65) methyl methacrylate	12.088	100	1822	4.28	ug/L	#	84
66) methylcyclohexane	12.130	83	16006	4.88	ug/L		92
67) 1,2-dichloropropane	12.124	63	6967	4.77	ug/L		91
68) dibromomethane	12.234	93	5168	5.11	ug/L		94
69) bromodichloromethane	12.402	83	11231	4.96	ug/L		98
70) 2-nitropropane	12.621	41	3617	4.86	ug/L		98
71) epichlorohydrin	12.747	57	4901	24.90	ug/L		96
72) cis-1,3-dichloropropene	12.883	75	10969	4.51	ug/L		95
73) 4-methyl-2-pentanone	12.998	58	14883	19.44	ug/L		95
74) isoamyl alcohol	13.008	70	9305	99.79	ug/L		93
77) toluene	13.291	92	16213	5.07	ug/L		96
78) ethyl methacrylate	13.489	69	8785	4.95	ug/L		93
79) trans-1,3-dichloropropene	13.495	75	10260	4.97	ug/L		93
80) 1,1,2-trichloroethane	13.730	83	5059	5.21	ug/L	#	88
81) tetrachloroethene	13.882	164	6113	5.05	ug/L		94
82) 2-hexanone	13.908	58	11961	19.92	ug/L		91
83) 1,3-dichloropropane	13.924	76	9734	5.12	ug/L		82
84) butyl acetate	13.992	56	4383	4.91	ug/L		87
85) 3,3-Dimethyl-1-Butanol	14.101	69	12942	52.04	ug/L		98
86) dibromochloromethane	14.185	129	7894	4.99	ug/L		98
87) 1,2-dibromoethane	14.347	107	6521	5.06	ug/L		94
88) n-butyl ether	14.823	57	28248	5.19	ug/L		94
89) chlorobenzene	14.865	112	17139	4.75	ug/L		98
90) 1,1,1,2-tetrachloroethane	14.938	131	9934	5.23	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144371.D
Acq On : 27 Feb 2018 10:20 pm
Operator : EddieH
Sample : ic6383-5
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 15:40:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

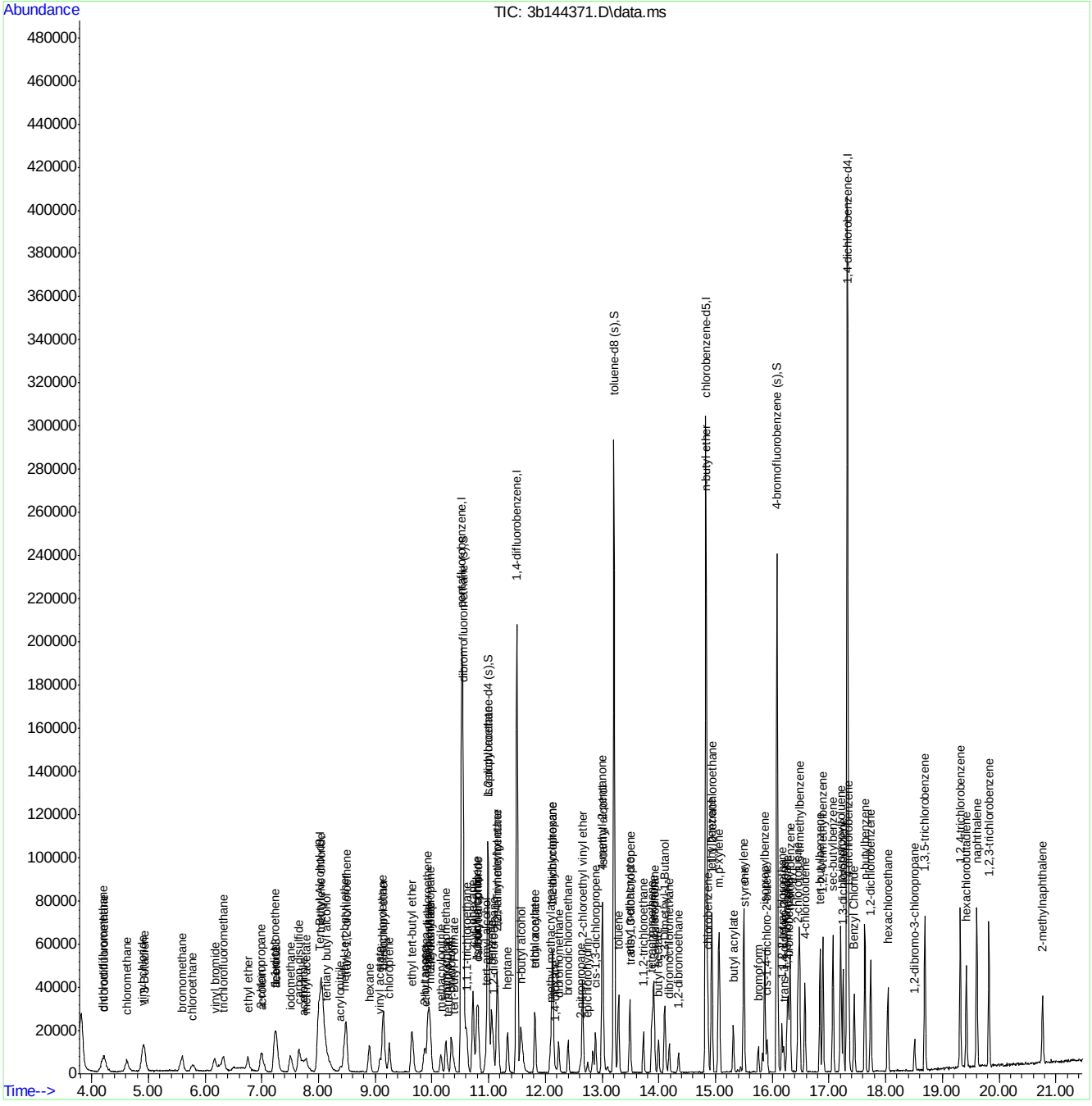
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) ethylbenzene	14.933	91	31850	5.07	ug/L	98
92) m,p-xylene	15.064	106	23645	9.93	ug/L	97
93) o-xylene	15.493	91	28796	4.96	ug/L	100
94) styrene	15.508	104	19806	5.11	ug/L	88
95) butyl acrylate	15.310	55	14498	5.62	ug/L	94
96) isopropylbenzene	15.869	105	38206	4.96	ug/L	96
97) bromoform	15.754	173	6187	5.14	ug/L	94
98) cis-1,4-dichloro-2-butene	15.906	88	4321	5.44	ug/L	93
101) 1,1,2,2-tetrachloroethane	16.167	83	10874	4.84	ug/L	95
102) trans-1,4-dichloro-2-b...	16.204	53	2540	4.76	ug/L	94
103) 1,2,3-trichloropropane	16.261	110	3017	4.48	ug/L	89
104) bromobenzene	16.282	156	9620	4.85	ug/L	88
105) n-propylbenzene	16.314	91	41908	4.64	ug/L	97
106) 2-chlorotoluene	16.455	126	9053	4.48	ug/L	95
107) 4-chlorotoluene	16.575	91	24074	4.63	ug/L	95
108) 1,3,5-trimethylbenzene	16.476	105	32900	4.27	ug/L	96
109) tert-butylbenzene	16.842	119	28132	4.02	ug/L	95
110) 1,2,4-trimethylbenzene	16.894	105	33862	4.48	ug/L	97
111) sec-butylbenzene	17.072	105	42425	4.16	ug/L	99
112) p-isopropyltoluene	17.208	119	38429	4.41	ug/L	99
113) 1,3-dichlorobenzene	17.250	146	19929	5.00	ug/L	96
114) 1,4-dichlorobenzene	17.349	146	19853	4.90	ug/L	96
115) 1,2-dichlorobenzene	17.736	146	21788	4.88	ug/L	99
116) Benzyl Chloride	17.444	91	25759	5.16	ug/L	100
117) n-butylbenzene	17.632	92	19597	4.71	ug/L	97
118) hexachloroethane	18.040	201	7224	3.91	ug/L	93
119) 1,2-dibromo-3-chloropr...	18.510	157	4592	4.87	ug/L	94
120) 1,3,5-trichlorobenzene	18.694	180	23691	4.72	ug/L	96
122) 1,2,4-trichlorobenzene	19.316	180	21932	4.35	ug/L	97
123) hexachlorobutadiene	19.421	225	10013	4.38	ug/L	98
124) naphthalene	19.604	128	57557	4.43	ug/L	99
125) 1,2,3-trichlorobenzene	19.818	180	22308	4.46	ug/L	99
126) 2-methylnaphthalene	20.765	142	16416	1.98	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144371.D
Acq On : 27 Feb 2018 10:20 pm
Operator : EddieH
Sample : ic6383-5
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 15:40:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144372.D
Acq On : 27 Feb 2018 10:49 pm
Operator : EddieH
Sample : ic6383-10
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 14:46:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.013	65	154414	500.00	ug/L		0.00
5) pentafluorobenzene	10.524	168	137784	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.497	114	182331	50.00	ug/L		0.00
75) chlorobenzene-d5	14.834	117	157128	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.323	152	104919	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.545	113	66344	50.76	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.52%				
55) 1,2-dichloroethane-d4 (s)	10.989	65	78520	52.40	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.80%				
76) toluene-d8 (s)	13.207	98	202764	50.65	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.30%				
100) 4-bromofluorobenzene (s)	16.084	95	76648	46.98	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.96%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.155	59	23096	51.71	ug/L		94
4) 1,4-dioxane	12.171	88	8049	262.29	ug/L		86
6) chlorodifluoromethane	4.221	51	31261	9.75	ug/L		98
7) dichlorodifluoromethane	4.190	85	30962	9.58	ug/L		94
8) chloromethane	4.624	50	26434	9.96	ug/L		98
9) vinyl chloride	4.896	62	27206	9.85	ug/L		99
10) 1,3-Butadiene	4.938	54	20615	10.04	ug/L		91
11) bromomethane	5.597	94	19406	10.12	ug/L		96
12) chloroethane	5.785	64	13458	10.27	ug/L		97
13) trichlorofluoromethane	6.324	101	36036	10.00	ug/L		95
14) vinyl bromide	6.178	106	20992	10.16	ug/L		95
15) ethyl ether	6.753	74	7536	10.26	ug/L		95
16) 2-chloropropane	6.994	43	28115	10.51	ug/L		93
17) acrolein	7.009	56	3516	10.46	ug/L		96
18) freon 113	7.250	151	16744	9.82	ug/L		89
19) 1,1-dichloroethene	7.229	96	15968	10.09	ug/L		95
20) acetone	7.245	58	7755	39.23	ug/L		92
21) acetonitrile	7.726	41	31226	111.05	ug/L		99
22) iodomethane	7.511	142	35722	10.25	ug/L		95
23) carbon disulfide	7.658	76	60581	9.98	ug/L		99
24) methylene chloride	8.055	84	17956	10.53	ug/L		88
25) methyl acetate	7.783	43	13787	10.66	ug/L		99
26) methyl tert butyl ether	8.463	73	57068	10.28	ug/L		95
27) trans-1,2-dichloroethene	8.489	96	14850	10.05	ug/L		95
28) hexane	8.892	56	9602	10.08	ug/L	#	77
29) di-isopropyl ether	9.143	45	49082	10.10	ug/L		95
30) 2-butanone	9.860	72	8613	38.50	ug/L	#	87
31) 1,1-dichloroethane	9.138	63	28104	10.41	ug/L		97
32) chloroprene	9.248	53	23408	9.89	ug/L		93
33) acrylonitrile	8.385	53	7431	10.60	ug/L		94
34) vinyl acetate	9.080	86	2319	9.83	ug/L	#	65
35) ethyl tert-butyl ether	9.645	59	54380	9.97	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144372.D
Acq On : 27 Feb 2018 10:49 pm
Operator : EddieH
Sample : ic6383-10
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 14:46:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	9.886	45	2433	9.49	ug/L		97
37) 2,2-dichloropropane	9.959	77	31615	10.21	ug/L		97
38) cis-1,2-dichloroethene	9.928	96	17959	10.42	ug/L		97
39) propionitrile	9.954	54	33669	102.06	ug/L		84
40) methyl acrylate	9.964	85	2663	9.99	ug/L	#	70
41) methacrylonitrile	10.163	67	6985	9.85	ug/L		93
42) bromochloromethane	10.247	128	9470	10.52	ug/L		87
43) tetrahydrofuran	10.262	42	6005	9.85	ug/L		95
44) chloroform	10.341	83	29513	10.12	ug/L		98
45) tert-Butyl Formate	10.377	59	8282	10.39	ug/L		95
47) 1,1,1-trichloroethane	10.613	97	32044	9.79	ug/L		96
48) cyclohexane	10.728	84	26637	9.83	ug/L		91
49) isobutyl alcohol	10.785	43	13705	107.45	ug/L		93
50) 1,1-dichloropropene	10.796	75	20831	9.80	ug/L		93
51) carbon tetrachloride	10.817	117	30246	10.14	ug/L		98
52) tert-amyl alcohol	10.963	73	10913	52.31	ug/L		97
53) isopropyl acetate	10.984	87	3547	9.53	ug/L	#	80
56) n-butyl alcohol	11.565	56	42717	527.27	ug/L		96
57) 2,2,4-Trimethylpentane	11.157	57	55581	9.50	ug/L		98
58) benzene	11.052	78	57815	10.43	ug/L		99
59) tert-amyl methyl ether	11.146	73	53336	10.40	ug/L		98
60) heptane	11.329	57	9599	9.71	ug/L		92
61) 1,2-dichloroethane	11.084	62	23840	10.80	ug/L		95
62) ethyl acrylate	11.811	55	17693	10.10	ug/L		95
63) trichloroethene	11.816	95	15663	10.25	ug/L		92
64) 2-chloroethyl vinyl ether	12.658	63	43113	49.85	ug/L		96
65) methyl methacrylate	12.088	100	3927	9.64	ug/L	#	89
66) methylcyclohexane	12.130	83	31926	10.16	ug/L		97
67) 1,2-dichloropropane	12.119	63	14503	10.37	ug/L		96
68) dibromomethane	12.229	93	10246	10.58	ug/L		95
69) bromodichloromethane	12.402	83	22184	10.24	ug/L		98
70) 2-nitropropane	12.621	41	7227	10.14	ug/L		97
71) epichlorohydrin	12.752	57	9964	52.87	ug/L		97
72) cis-1,3-dichloropropene	12.888	75	23232	9.97	ug/L		99
73) 4-methyl-2-pentanone	13.003	58	29391	40.09	ug/L		98
74) isoamyl alcohol	13.008	70	18455	206.71	ug/L		94
77) toluene	13.291	92	33043	10.19	ug/L		95
78) ethyl methacrylate	13.484	69	18195	10.10	ug/L		97
79) trans-1,3-dichloropropene	13.495	75	22446	10.72	ug/L		98
80) 1,1,2-trichloroethane	13.730	83	10611	10.78	ug/L		92
81) tetrachloroethene	13.882	164	12905	10.50	ug/L		98
82) 2-hexanone	13.908	58	25255	41.44	ug/L		97
83) 1,3-dichloropropane	13.918	76	19935	10.34	ug/L		92
84) butyl acetate	13.992	56	9261	10.23	ug/L		98
85) 3,3-Dimethyl-1-Butanol	14.101	69	25739	102.00	ug/L		92
86) dibromochloromethane	14.185	129	16316	10.17	ug/L		98
87) 1,2-dibromoethane	14.347	107	14118	10.79	ug/L		88
88) n-butyl ether	14.823	57	57251	10.37	ug/L		99
89) chlorobenzene	14.865	112	36877	10.07	ug/L		97
90) 1,1,1,2-tetrachloroethane	14.933	131	19343	10.04	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144372.D
Acq On : 27 Feb 2018 10:49 pm
Operator : EddieH
Sample : ic6383-10
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 14:46:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

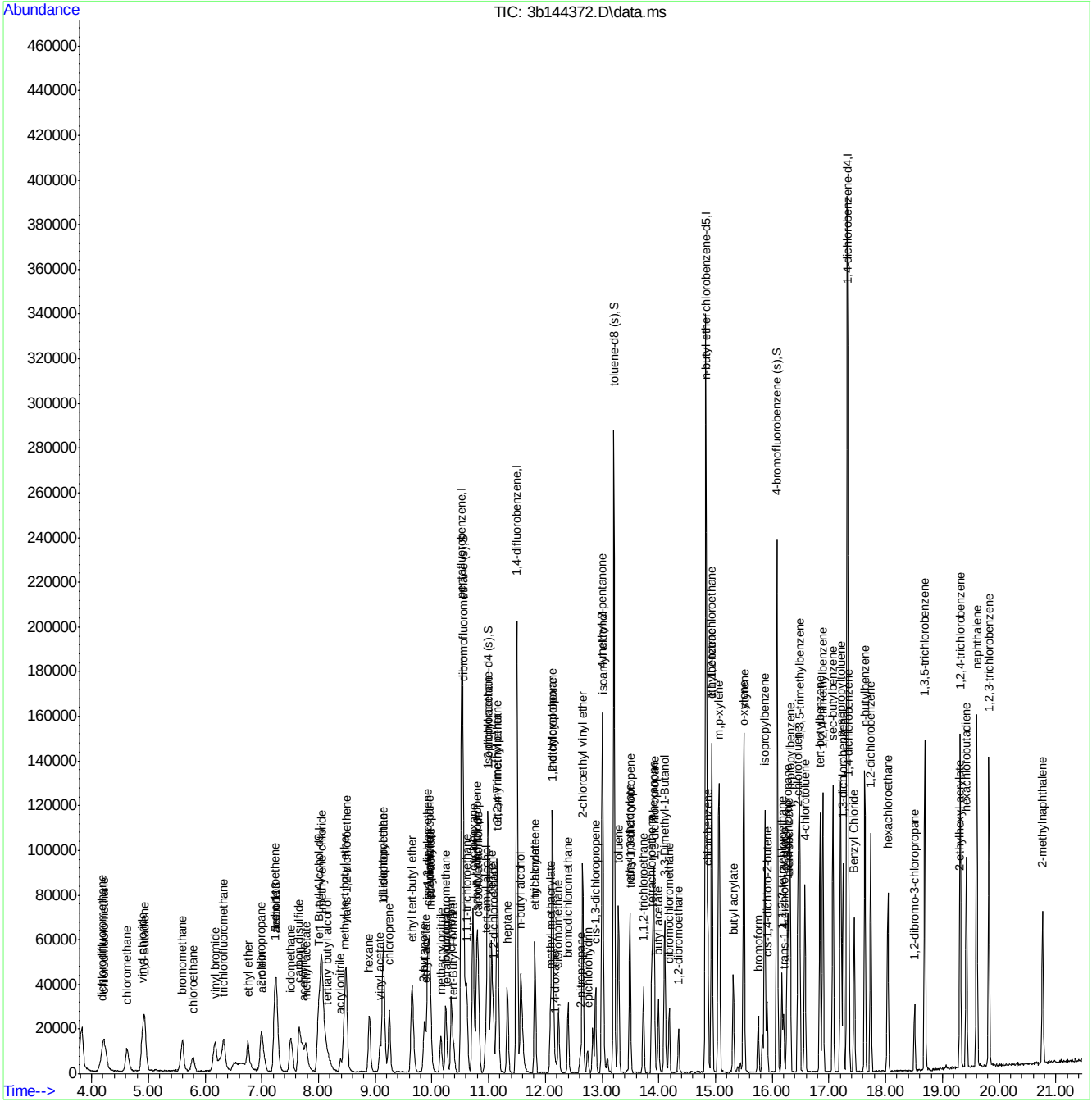
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
91) ethylbenzene	14.933	91	64820	10.16	ug/L		98
92) m,p-xylene	15.059	106	49454	20.48	ug/L		98
93) o-xylene	15.493	91	58290	9.89	ug/L		99
94) styrene	15.503	104	40686	10.35	ug/L		92
95) butyl acrylate	15.315	55	27742	10.60	ug/L		95
96) isopropylbenzene	15.869	105	77117	9.87	ug/L		98
97) bromoform	15.754	173	12659	10.36	ug/L		92
98) cis-1,4-dichloro-2-butene	15.911	88	9175	11.39	ug/L		95
101) 1,1,2,2-tetrachloroethane	16.167	83	21651	9.95	ug/L		97
102) trans-1,4-dichloro-2-b...	16.204	53	5346	10.35	ug/L		90
103) 1,2,3-trichloropropane	16.267	110	6737	10.33	ug/L	#	78
104) bromobenzene	16.282	156	19036	9.90	ug/L		94
105) n-propylbenzene	16.314	91	83425	9.55	ug/L		99
106) 2-chlorotoluene	16.455	126	17837	9.12	ug/L		92
107) 4-chlorotoluene	16.575	91	48906	9.71	ug/L		99
108) 1,3,5-trimethylbenzene	16.481	105	68135	9.12	ug/L		99
109) tert-butylbenzene	16.842	119	58925	8.69	ug/L		94
110) 1,2,4-trimethylbenzene	16.894	105	68728	9.39	ug/L		96
111) sec-butylbenzene	17.072	105	87573	8.86	ug/L		97
112) p-isopropyltoluene	17.208	119	78165	9.27	ug/L		98
113) 1,3-dichlorobenzene	17.250	146	38368	9.93	ug/L		99
114) 1,4-dichlorobenzene	17.349	146	40306	10.27	ug/L		96
115) 1,2-dichlorobenzene	17.736	146	42859	9.92	ug/L		98
116) Benzyl Chloride	17.444	91	50656	10.48	ug/L		97
117) n-butylbenzene	17.632	92	38135	9.46	ug/L		99
118) hexachloroethane	18.040	201	16014	8.96	ug/L		97
119) 1,2-dibromo-3-chloropr...	18.511	157	8853	9.70	ug/L		96
120) 1,3,5-trichlorobenzene	18.694	180	47702	9.82	ug/L		95
121) 2-ethylhexyl acrylate	19.300	70	4410	1.62	ug/L		92
122) 1,2,4-trichlorobenzene	19.316	180	46493	9.53	ug/L		98
123) hexachlorobutadiene	19.421	225	20863	9.43	ug/L		94
124) naphthalene	19.604	128	122206	9.71	ug/L		98
125) 1,2,3-trichlorobenzene	19.818	180	46111	9.51	ug/L		98
126) 2-methylnaphthalene	20.765	142	35086	4.38	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144372.D
Acq On : 27 Feb 2018 10:49 pm
Operator : EddieH
Sample : ic6383-10
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 14:46:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144373.D
Acq On : 27 Feb 2018 11:17 pm
Operator : EddieH
Sample : ic6383-20
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 15:36:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.024	65	155613	500.00	ug/L		0.00
5) pentafluorobenzene	10.524	168	134634	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.497	114	184252	50.00	ug/L		0.00
75) chlorobenzene-d5	14.834	117	156621	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.323	152	102819	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.545	113	63769	49.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.86%				
55) 1,2-dichloroethane-d4 (s)	10.989	65	76668	50.63	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.26%				
76) toluene-d8 (s)	13.207	98	204059	51.14	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.28%				
100) 4-bromofluorobenzene (s)	16.084	95	76757	48.01	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.02%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.139	59	44952	99.86	ug/L		90
4) 1,4-dioxane	12.177	88	15660	506.37	ug/L		97
6) chlorodifluoromethane	4.211	51	63730	20.35	ug/L		98
7) dichlorodifluoromethane	4.180	85	64153	20.32	ug/L		99
8) chloromethane	4.608	50	52716	20.32	ug/L		99
9) vinyl chloride	4.886	62	54680	20.27	ug/L		99
10) 1,3-Butadiene	4.912	54	40685	20.27	ug/L		93
11) bromomethane	5.592	94	38390	20.48	ug/L		97
12) chloroethane	5.780	64	26298	20.53	ug/L		97
13) trichlorofluoromethane	6.319	101	72548	20.60	ug/L		98
14) vinyl bromide	6.167	106	41271	20.45	ug/L		98
15) ethyl ether	6.753	74	14536	20.25	ug/L		99
16) 2-chloropropane	6.988	43	52965	20.26	ug/L		95
17) acrolein	7.009	56	6814	20.75	ug/L		97
18) freon 113	7.250	151	33919	20.35	ug/L		96
19) 1,1-dichloroethene	7.218	96	30535	19.75	ug/L		99
20) acetone	7.244	58	15424	79.84	ug/L		93
21) acetonitrile	7.731	41	57756	210.21	ug/L		96
22) iodomethane	7.495	142	65603	19.26	ug/L		98
23) carbon disulfide	7.652	76	115847	19.54	ug/L		100
24) methylene chloride	8.045	84	33203	19.93	ug/L		92
25) methyl acetate	7.778	43	25902	20.49	ug/L		98
26) methyl tert butyl ether	8.458	73	111076	20.48	ug/L		98
27) trans-1,2-dichloroethene	8.484	96	28565	19.78	ug/L		94
28) hexane	8.897	56	18523	19.89	ug/L		97
29) di-isopropyl ether	9.138	45	93734	19.73	ug/L		98
30) 2-butanone	9.865	72	17297	79.12	ug/L		90
31) 1,1-dichloroethane	9.138	63	53008	20.10	ug/L		98
32) chloroprene	9.248	53	45931	19.87	ug/L		97
33) acrylonitrile	8.379	53	14212	20.75	ug/L		92
34) vinyl acetate	9.080	86	4358	18.90	ug/L	#	90
35) ethyl tert-butyl ether	9.645	59	104546	19.62	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144373.D
Acq On : 27 Feb 2018 11:17 pm
Operator : EddieH
Sample : ic6383-20
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 15:36:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	9.880	45	4778	19.08	ug/L	#	48
37) 2,2-dichloropropane	9.959	77	61455	20.31	ug/L		99
38) cis-1,2-dichloroethene	9.922	96	33281	19.76	ug/L		99
39) propionitrile	9.948	54	66247	205.51	ug/L		97
40) methyl acrylate	9.959	85	5142	19.74	ug/L	#	89
41) methacrylonitrile	10.158	67	14183	20.46	ug/L		97
42) bromochloromethane	10.241	128	17963	20.42	ug/L		97
43) tetrahydrofuran	10.262	42	12257	20.57	ug/L		90
44) chloroform	10.341	83	56679	19.89	ug/L		95
45) tert-Butyl Formate	10.383	59	15556	19.97	ug/L		93
47) 1,1,1-trichloroethane	10.613	97	64014	20.02	ug/L		100
48) cyclohexane	10.728	84	52260	19.74	ug/L		94
49) isobutyl alcohol	10.785	43	26579	213.25	ug/L		97
50) 1,1-dichloropropene	10.791	75	40748	19.61	ug/L		97
51) carbon tetrachloride	10.811	117	58753	20.16	ug/L		97
52) tert-amyl alcohol	10.947	73	21008	103.05	ug/L		96
53) isopropyl acetate	10.979	87	7107	19.54	ug/L	#	78
56) n-butyl alcohol	11.570	56	86564	1057.35	ug/L		96
57) 2,2,4-Trimethylpentane	11.157	57	110820	18.75	ug/L		97
58) benzene	11.052	78	111263	19.86	ug/L		98
59) tert-amyl methyl ether	11.146	73	105025	20.27	ug/L		98
60) heptane	11.329	57	20114	20.13	ug/L		96
61) 1,2-dichloroethane	11.078	62	45780	20.53	ug/L		97
62) ethyl acrylate	11.816	55	35242	19.91	ug/L		99
63) trichloroethene	11.816	95	30693	19.87	ug/L		99
64) 2-chloroethyl vinyl ether	12.658	63	86687	99.19	ug/L		99
65) methyl methacrylate	12.093	100	7982	19.39	ug/L		96
66) methylcyclohexane	12.124	83	64054	20.17	ug/L		97
67) 1,2-dichloropropane	12.119	63	28252	20.00	ug/L		100
68) dibromomethane	12.234	93	20065	20.51	ug/L		92
69) bromodichloromethane	12.401	83	44270	20.21	ug/L		96
70) 2-nitropropane	12.616	41	14538	20.19	ug/L		99
71) epichlorohydrin	12.747	57	19869	104.33	ug/L		95
72) cis-1,3-dichloropropene	12.883	75	46221	19.63	ug/L		96
73) 4-methyl-2-pentanone	13.003	58	59949	80.93	ug/L		91
74) isoamyl alcohol	13.008	70	38138	422.72	ug/L		95
77) toluene	13.285	92	65048	20.12	ug/L		98
78) ethyl methacrylate	13.484	69	36651	20.40	ug/L		99
79) trans-1,3-dichloropropene	13.489	75	43132	20.66	ug/L		88
80) 1,1,2-trichloroethane	13.730	83	20009	20.39	ug/L		96
81) tetrachloroethene	13.876	164	25325	20.68	ug/L		98
82) 2-hexanone	13.908	58	50653	83.39	ug/L		98
83) 1,3-dichloropropane	13.923	76	39172	20.38	ug/L		90
84) butyl acetate	13.991	56	18675	20.70	ug/L		88
85) 3,3-Dimethyl-1-Butanol	14.101	69	53874	214.19	ug/L		95
86) dibromochloromethane	14.185	129	33091	20.70	ug/L		99
87) 1,2-dibromoethane	14.347	107	26526	20.34	ug/L		98
88) n-butyl ether	14.823	57	113374	20.61	ug/L		99
89) chlorobenzene	14.865	112	73717	20.20	ug/L		97
90) 1,1,1,2-tetrachloroethane	14.938	131	39409	20.52	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144373.D
Acq On : 27 Feb 2018 11:17 pm
Operator : EddieH
Sample : ic6383-20
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 15:36:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

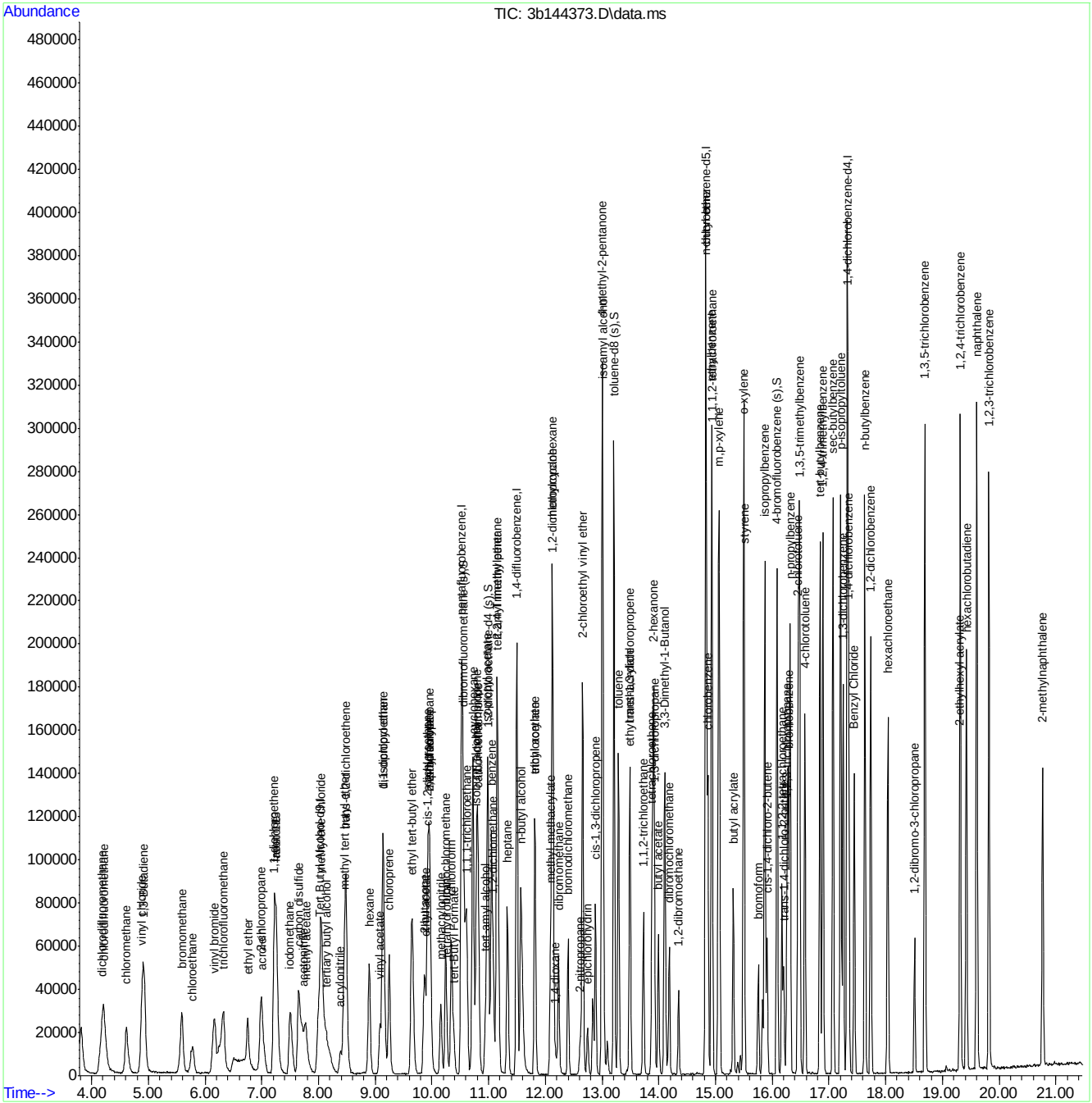
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) ethylbenzene	14.933	91	128196	20.16	ug/L	98
92) m,p-xylene	15.058	106	96396	40.04	ug/L	99
93) o-xylene	15.493	91	120317	20.47	ug/L	98
94) styrene	15.508	104	79789	20.36	ug/L	93
95) butyl acrylate	15.309	55	55736	21.37	ug/L	99
96) isopropylbenzene	15.869	105	156915	20.15	ug/L	99
97) bromoform	15.754	173	25057	20.56	ug/L	98
98) cis-1,4-dichloro-2-butene	15.911	88	17868	22.25	ug/L	91
101) 1,1,2,2-tetrachloroethane	16.167	83	41522	19.47	ug/L	95
102) trans-1,4-dichloro-2-b...	16.204	53	9990	19.73	ug/L	94
103) 1,2,3-trichloropropane	16.261	110	12494	19.55	ug/L	90
104) bromobenzene	16.282	156	36147	19.18	ug/L	98
105) n-propylbenzene	16.314	91	164056	19.16	ug/L	100
106) 2-chlorotoluene	16.455	126	36509	19.05	ug/L	97
107) 4-chlorotoluene	16.575	91	96670	19.58	ug/L	99
108) 1,3,5-trimethylbenzene	16.481	105	139289	19.03	ug/L	100
109) tert-butylbenzene	16.842	119	123618	18.60	ug/L	97
110) 1,2,4-trimethylbenzene	16.894	105	136582	19.04	ug/L	99
111) sec-butylbenzene	17.072	105	182019	18.79	ug/L	99
112) p-isopropyltoluene	17.208	119	157979	19.12	ug/L	98
113) 1,3-dichlorobenzene	17.250	146	76827	20.29	ug/L	96
114) 1,4-dichlorobenzene	17.349	146	75368	19.60	ug/L	98
115) 1,2-dichlorobenzene	17.736	146	84882	20.05	ug/L	98
116) Benzyl Chloride	17.443	91	97508	20.58	ug/L	98
117) n-butylbenzene	17.632	92	77325	19.56	ug/L	92
118) hexachloroethane	18.040	201	31798	18.15	ug/L	96
119) 1,2-dibromo-3-chloropr...	18.510	157	18412	20.58	ug/L	98
120) 1,3,5-trichlorobenzene	18.693	180	93152	19.57	ug/L	99
121) 2-ethylhexyl acrylate	19.300	70	9515	3.56	ug/L	97
122) 1,2,4-trichlorobenzene	19.316	180	94136	19.68	ug/L	98
123) hexachlorobutadiene	19.426	225	42103	19.41	ug/L	99
124) naphthalene	19.603	128	246338	19.98	ug/L	99
125) 1,2,3-trichlorobenzene	19.818	180	94369	19.87	ug/L	97
126) 2-methylnaphthalene	20.765	142	74258	9.45	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144373.D
Acq On : 27 Feb 2018 11:17 pm
Operator : EddieH
Sample : ic6383-20
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 15:36:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration



M3B6383.M Thu Mar 01 10:04:36 2018 Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144374.D
Acq On : 27 Feb 2018 11:46 pm
Operator : EddieH
Sample : icc6383-50
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 14:47:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.018	65	153259	500.00	ug/L	0.00
5) pentafluorobenzene	10.524	168	140514	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.497	114	195817	50.00	ug/L	0.00
75) chlorobenzene-d5	14.834	117	174145	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.323	152	107029	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.550	113	66646	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
55) 1,2-dichloroethane-d4 (s)	10.989	65	80462	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
76) toluene-d8 (s)	13.212	98	221846	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
100) 4-bromofluorobenzene (s)	16.084	95	83210	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.139	59	110836	250.00	ug/L	100
4) 1,4-dioxane	12.177	88	38073	1250.00	ug/L	100
6) chlorodifluoromethane	4.206	51	163428	50.00	ug/L	100
7) dichlorodifluoromethane	4.200	85	164633	49.96	ug/L	100
8) chloromethane	4.619	50	135389	50.00	ug/L	100
9) vinyl chloride	4.886	62	140784	50.00	ug/L	100
10) 1,3-Butadiene	4.922	54	104743	50.00	ug/L	100
11) bromomethane	5.592	94	97815	50.00	ug/L	100
12) chloroethane	5.780	64	67025	50.14	ug/L	100
13) trichlorofluoromethane	6.324	101	183919	50.05	ug/L	99
14) vinyl bromide	6.162	106	105324	50.00	ug/L	100
15) ethyl ether	6.753	74	37462	50.00	ug/L	100
16) 2-chloropropane	6.988	43	136444	50.00	ug/L	100
17) acrolein	7.009	56	17134	50.00	ug/L	100
18) freon 113	7.250	151	87097	50.06	ug/L	100
19) 1,1-dichloroethene	7.218	96	80660	50.00	ug/L	100
20) acetone	7.255	58	40324	200.00	ug/L	100
21) acetonitrile	7.731	41	143375	500.00	ug/L	100
22) iodomethane	7.506	142	177768	50.00	ug/L	100
23) carbon disulfide	7.652	76	309410	50.00	ug/L	100
24) methylene chloride	8.050	84	86937	50.00	ug/L	100
25) methyl acetate	7.778	43	65963	50.00	ug/L	100
26) methyl tert butyl ether	8.468	73	283065	50.00	ug/L	100
27) trans-1,2-dichloroethene	8.484	96	75361	50.00	ug/L	100
28) hexane	8.892	56	48590	50.00	ug/L	100
29) di-isopropyl ether	9.148	45	247909	50.00	ug/L	100
30) 2-butanone	9.865	72	45632	200.00	ug/L	100
31) 1,1-dichloroethane	9.138	63	137643	50.00	ug/L	100
32) chloroprene	9.248	53	120654	50.00	ug/L	100
33) acrylonitrile	8.390	53	35739	50.00	ug/L	100
34) vinyl acetate	9.085	86	12033	50.00	ug/L	100
35) ethyl tert-butyl ether	9.650	59	278075	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144374.D
Acq On : 27 Feb 2018 11:46 pm
Operator : EddieH
Sample : icc6383-50
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 14:47:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) ethyl acetate	9.891	45	13066	50.00	ug/L	100
37) 2,2-dichloropropane	9.964	77	157864	50.00	ug/L	100
38) cis-1,2-dichloroethene	9.922	96	87896	50.00	ug/L	100
39) propionitrile	9.948	54	168218	500.00	ug/L	100
40) methyl acrylate	9.969	85	13590	50.00	ug/L	100
41) methacrylonitrile	10.158	67	36177	50.00	ug/L	100
42) bromochloromethane	10.241	128	45912	50.00	ug/L	100
43) tetrahydrofuran	10.257	42	30985	49.82	ug/L	100
44) chloroform	10.341	83	148713	50.00	ug/L	100
45) tert-Butyl Formate	10.377	59	40649	50.00	ug/L	100
47) 1,1,1-trichloroethane	10.613	97	166887	50.00	ug/L	100
48) cyclohexane	10.728	84	138157	50.00	ug/L	100
49) isobutyl alcohol	10.785	43	65040	500.00	ug/L	100
50) 1,1-dichloropropene	10.791	75	108430	50.00	ug/L	100
51) carbon tetrachloride	10.817	117	152091	50.00	ug/L	100
52) tert-amyl alcohol	10.958	73	53191	250.00	ug/L	100
53) isopropyl acetate	10.984	87	18981	50.00	ug/L	100
56) n-butyl alcohol	11.570	56	216825	2492.04	ug/L	100
57) 2,2,4-Trimethylpentane	11.162	57	314059	50.00	ug/L	100
58) benzene	11.052	78	297631	50.00	ug/L	100
59) tert-amyl methyl ether	11.151	73	275365	50.00	ug/L	100
60) heptane	11.329	57	53106	50.00	ug/L	100
61) 1,2-dichloroethane	11.083	62	118480	50.00	ug/L	100
62) ethyl acrylate	11.816	55	94071	50.00	ug/L	100
63) trichloroethene	11.816	95	82073	50.00	ug/L	100
64) 2-chloroethyl vinyl ether	12.658	63	232212	250.00	ug/L	100
65) methyl methacrylate	12.093	100	21878	50.00	ug/L	100
66) methylcyclohexane	12.124	83	168737	50.00	ug/L	100
67) 1,2-dichloropropane	12.124	63	75075	50.00	ug/L	100
68) dibromomethane	12.234	93	51981	50.00	ug/L	100
69) bromodichloromethane	12.401	83	116372	50.00	ug/L	100
70) 2-nitropropane	12.621	41	38259	50.00	ug/L	100
71) epichlorohydrin	12.747	57	50600	250.00	ug/L	100
72) cis-1,3-dichloropropene	12.883	75	125144	50.00	ug/L	100
73) 4-methyl-2-pentanone	13.003	58	157455	200.00	ug/L	100
74) isoamyl alcohol	13.008	70	95884	1000.00	ug/L	100
77) toluene	13.291	92	179751	50.00	ug/L	100
78) ethyl methacrylate	13.484	69	99876	50.00	ug/L	100
79) trans-1,3-dichloropropene	13.495	75	116072	50.00	ug/L	100
80) 1,1,2-trichloroethane	13.730	83	54544	50.00	ug/L	100
81) tetrachloroethene	13.882	164	68090	50.00	ug/L	100
82) 2-hexanone	13.908	58	135072	200.00	ug/L	100
83) 1,3-dichloropropane	13.918	76	106860	50.00	ug/L	100
84) butyl acetate	13.991	56	50160	50.00	ug/L	100
85) 3,3-Dimethyl-1-Butanol	14.107	69	139835	500.00	ug/L	100
86) dibromochloromethane	14.185	129	88870	50.00	ug/L	100
87) 1,2-dibromoethane	14.347	107	72495	50.00	ug/L	100
88) n-butyl ether	14.823	57	305851	50.00	ug/L	100
89) chlorobenzene	14.865	112	202897	50.00	ug/L	100
90) 1,1,1,2-tetrachloroethane	14.938	131	106785	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144374.D
Acq On : 27 Feb 2018 11:46 pm
Operator : EddieH
Sample : icc6383-50
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 14:47:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

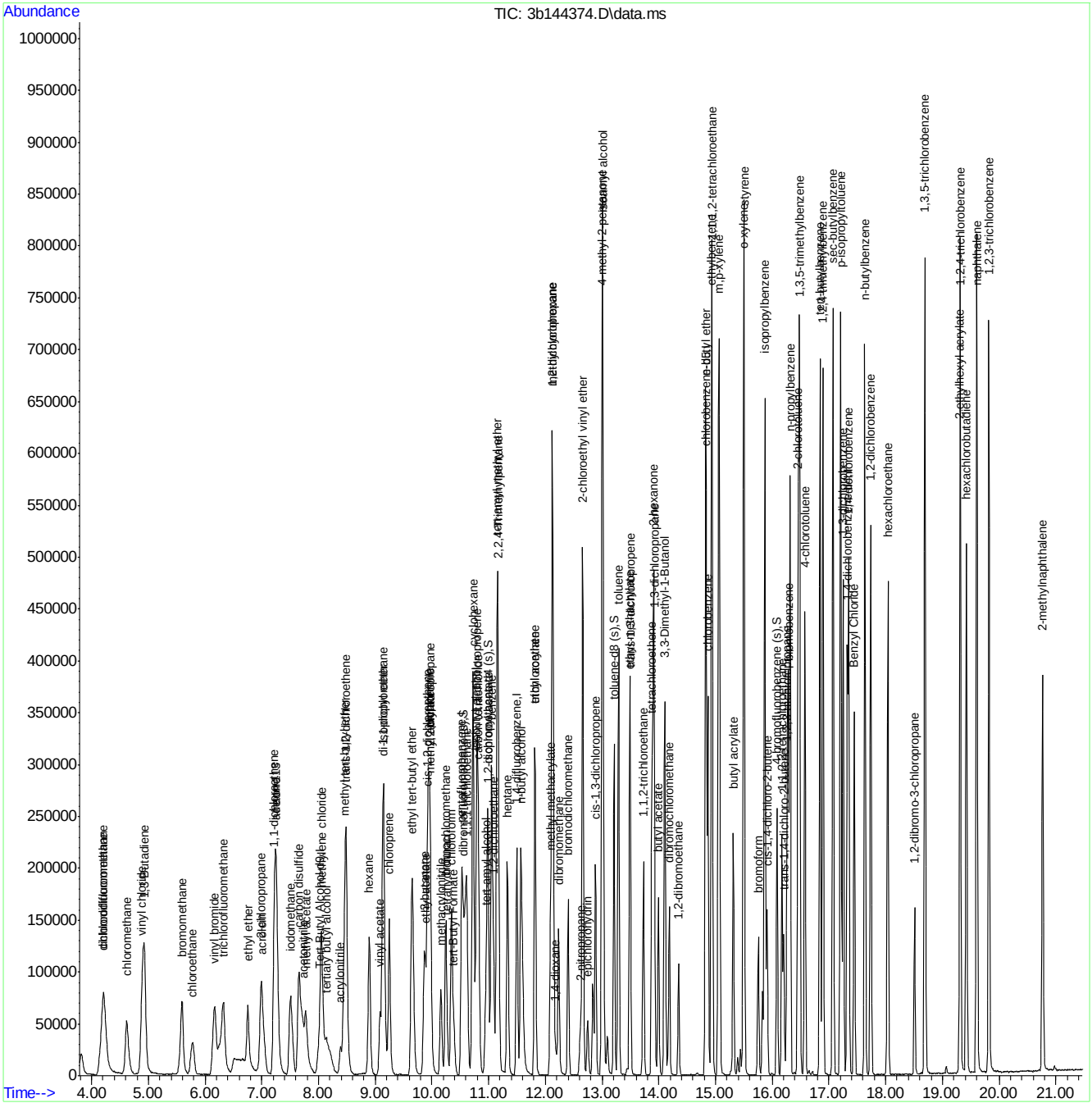
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) ethylbenzene	14.933	91	353493	50.00	ug/L	100
92) m,p-xylene	15.064	106	267679	100.00	ug/L	100
93) o-xylene	15.493	91	326699	50.00	ug/L	100
94) styrene	15.503	104	217872	50.00	ug/L	100
95) butyl acrylate	15.309	55	144996	50.00	ug/L	100
96) isopropylbenzene	15.869	105	433014	50.00	ug/L	100
97) bromoform	15.754	173	67740	50.00	ug/L	100
98) cis-1,4-dichloro-2-butene	15.911	88	44652	50.00	ug/L	100
101) 1,1,2,2-tetrachloroethane	16.167	83	110999	50.00	ug/L	100
102) trans-1,4-dichloro-2-b...	16.204	53	26355	50.00	ug/L	100
103) 1,2,3-trichloropropane	16.261	110	33268	50.00	ug/L	100
104) bromobenzene	16.282	156	98065	50.00	ug/L	100
105) n-propylbenzene	16.314	91	445685	50.00	ug/L	100
106) 2-chlorotoluene	16.455	126	99734	50.00	ug/L	100
107) 4-chlorotoluene	16.575	91	256959	50.00	ug/L	100
108) 1,3,5-trimethylbenzene	16.481	105	380893	50.00	ug/L	100
109) tert-butylbenzene	16.842	119	345840	50.00	ug/L	100
110) 1,2,4-trimethylbenzene	16.894	105	373438	50.00	ug/L	100
111) sec-butylbenzene	17.072	105	504061	50.00	ug/L	100
112) p-isopropyltoluene	17.208	119	430083	50.00	ug/L	100
113) 1,3-dichlorobenzene	17.250	146	197080	50.00	ug/L	100
114) 1,4-dichlorobenzene	17.349	146	200124	50.00	ug/L	100
115) 1,2-dichlorobenzene	17.736	146	220386	50.00	ug/L	100
116) Benzyl Chloride	17.443	91	246604	50.00	ug/L	100
117) n-butylbenzene	17.632	92	205718	50.00	ug/L	100
118) hexachloroethane	18.040	201	91178	50.00	ug/L	100
119) 1,2-dibromo-3-chloropr...	18.510	157	46563	50.00	ug/L	100
120) 1,3,5-trichlorobenzene	18.693	180	247800	50.00	ug/L	100
121) 2-ethylhexyl acrylate	19.305	70	27811	10.00	ug/L	100
122) 1,2,4-trichlorobenzene	19.316	180	248915	50.00	ug/L	100
123) hexachlorobutadiene	19.420	225	112892	50.00	ug/L	100
124) naphthalene	19.603	128	641651	50.00	ug/L	100
125) 1,2,3-trichlorobenzene	19.818	180	247230	50.00	ug/L	100
126) 2-methylnaphthalene	20.765	142	204520	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144374.D
Acq On : 27 Feb 2018 11:46 pm
Operator : EddieH
Sample : icc6383-50
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 14:47:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144375.D
Acq On : 28 Feb 2018 12:14 am
Operator : EddieH
Sample : ic6383-100
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 28 14:47:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.029	65	159056	500.00	ug/L	0.01
5) pentafluorobenzene	10.524	168	143966	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.497	114	208335	50.00	ug/L	0.00
75) chlorobenzene-d5	14.834	117	189175	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.323	152	110104	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.545	113	69148	50.63	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.26%			
55) 1,2-dichloroethane-d4 (s)	10.989	65	83241	48.62	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.24%			
76) toluene-d8 (s)	13.212	98	240244	49.84	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.68%			
100) 4-bromofluorobenzene (s)	16.084	95	88443	51.66	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.32%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.155	59	240364	522.40	ug/L	97
4) 1,4-dioxane	12.177	88	85343	2699.83	ug/L	96
6) chlorodifluoromethane	4.222	51	346775	103.55	ug/L	99
7) dichlorodifluoromethane	4.185	85	339789	100.63	ug/L	98
8) chloromethane	4.614	50	295911	106.66	ug/L	98
9) vinyl chloride	4.891	62	303847	105.32	ug/L	99
10) 1,3-Butadiene	4.928	54	247756	115.43	ug/L	97
11) bromomethane	5.592	94	207275	103.41	ug/L	98
12) chloroethane	5.780	64	142516	104.05	ug/L	97
13) trichlorofluoromethane	6.319	101	379888	100.89	ug/L	100
14) vinyl bromide	6.167	106	226405	104.90	ug/L	98
15) ethyl ether	6.753	74	80942	105.44	ug/L	96
16) 2-chloropropane	6.983	43	295406	105.66	ug/L	99
17) acrolein	7.014	56	37590	107.06	ug/L	93
18) freon 113	7.260	151	183188	102.77	ug/L	95
19) 1,1-dichloroethene	7.224	96	175507	106.19	ug/L	99
20) acetone	7.250	58	94236	456.19	ug/L	96
21) acetonitrile	7.731	41	316398	1076.94	ug/L	93
22) iodomethane	7.506	142	385806	105.91	ug/L	100
23) carbon disulfide	7.658	76	668672	105.47	ug/L	99
24) methylene chloride	8.050	84	189062	106.13	ug/L	95
25) methyl acetate	7.778	43	146593	108.45	ug/L	96
26) methyl tert butyl ether	8.463	73	608259	104.87	ug/L	99
27) trans-1,2-dichloroethene	8.484	96	158983	102.95	ug/L	97
28) hexane	8.892	56	100902	101.34	ug/L	98
29) di-isopropyl ether	9.143	45	530480	104.43	ug/L	98
30) 2-butanone	9.865	72	104511	447.08	ug/L	99
31) 1,1-dichloroethane	9.138	63	289421	102.61	ug/L	99
32) chloroprene	9.248	53	249779	101.03	ug/L	100
33) acrylonitrile	8.385	53	79010	107.89	ug/L	99
34) vinyl acetate	9.086	86	25656	104.05	ug/L #	86
35) ethyl tert-butyl ether	9.650	59	600582	105.40	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144375.D
Acq On : 28 Feb 2018 12:14 am
Operator : EddieH
Sample : ic6383-100
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 28 14:47:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	9.886	45	28203	105.34	ug/L	#	52
37) 2,2-dichloropropane	9.959	77	324860	100.43	ug/L		98
38) cis-1,2-dichloroethene	9.922	96	182198	101.16	ug/L		99
39) propionitrile	9.949	54	364314	1056.90	ug/L		98
40) methyl acrylate	9.970	85	30357	109.01	ug/L		97
41) methacrylonitrile	10.158	67	81137	109.45	ug/L		96
42) bromochloromethane	10.242	128	97871	104.03	ug/L		95
43) tetrahydrofuran	10.262	42	69667	109.32	ug/L		97
44) chloroform	10.341	83	310766	101.98	ug/L		99
45) tert-Butyl Formate	10.388	59	92374	110.90	ug/L		98
47) 1,1,1-trichloroethane	10.613	97	348083	101.79	ug/L		98
48) cyclohexane	10.728	84	284914	100.64	ug/L		99
49) isobutyl alcohol	10.785	43	145008	1088.03	ug/L		97
50) 1,1-dichloropropene	10.791	75	229350	103.22	ug/L		98
51) carbon tetrachloride	10.817	117	313671	100.65	ug/L		98
52) tert-amyl alcohol	10.958	73	118417	543.22	ug/L		96
53) isopropyl acetate	10.979	87	41983	107.94	ug/L	#	81
56) n-butyl alcohol	11.570	56	498309	5383.09	ug/L		100
57) 2,2,4-Trimethylpentane	11.162	57	708915	106.08	ug/L		98
58) benzene	11.052	78	643595	101.62	ug/L		99
59) tert-amyl methyl ether	11.152	73	591125	100.89	ug/L		99
60) heptane	11.335	57	115683	102.37	ug/L		97
61) 1,2-dichloroethane	11.084	62	248988	98.76	ug/L		99
62) ethyl acrylate	11.816	55	217284	108.55	ug/L		99
63) trichloroethene	11.816	95	177517	101.65	ug/L		98
64) 2-chloroethyl vinyl ether	12.658	63	523736	529.98	ug/L		99
65) methyl methacrylate	12.093	100	50210	107.86	ug/L		98
66) methylcyclohexane	12.124	83	361492	100.68	ug/L		98
67) 1,2-dichloropropane	12.124	63	166232	104.06	ug/L		97
68) dibromomethane	12.234	93	115676	104.58	ug/L		96
69) bromodichloromethane	12.402	83	255534	103.19	ug/L		98
70) 2-nitropropane	12.621	41	84517	103.82	ug/L		98
71) epichlorohydrin	12.747	57	119036	552.78	ug/L		99
72) cis-1,3-dichloropropene	12.888	75	278760	104.68	ug/L		98
73) 4-methyl-2-pentanone	13.003	58	357556	426.88	ug/L		99
74) isoamyl alcohol	13.008	70	216673	2123.96	ug/L		95
77) toluene	13.291	92	404386	103.55	ug/L		98
78) ethyl methacrylate	13.484	69	227676	104.92	ug/L		98
79) trans-1,3-dichloropropene	13.495	75	255380	101.27	ug/L		97
80) 1,1,2-trichloroethane	13.730	83	126082	106.40	ug/L		97
81) tetrachloroethene	13.882	164	152617	103.17	ug/L		99
82) 2-hexanone	13.908	58	314184	428.25	ug/L		99
83) 1,3-dichloropropane	13.924	76	239723	103.26	ug/L		91
84) butyl acetate	13.992	56	112917	103.61	ug/L		94
85) 3,3-Dimethyl-1-Butanol	14.107	69	309885	1020.00	ug/L		99
86) dibromochloromethane	14.185	129	197770	102.43	ug/L		99
87) 1,2-dibromoethane	14.347	107	165704	105.21	ug/L		94
88) n-butyl ether	14.823	57	686842	103.36	ug/L		99
89) chlorobenzene	14.865	112	451071	102.33	ug/L		98
90) 1,1,1,2-tetrachloroethane	14.938	131	230098	99.18	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144375.D
Acq On : 28 Feb 2018 12:14 am
Operator : EddieH
Sample : ic6383-100
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 28 14:47:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

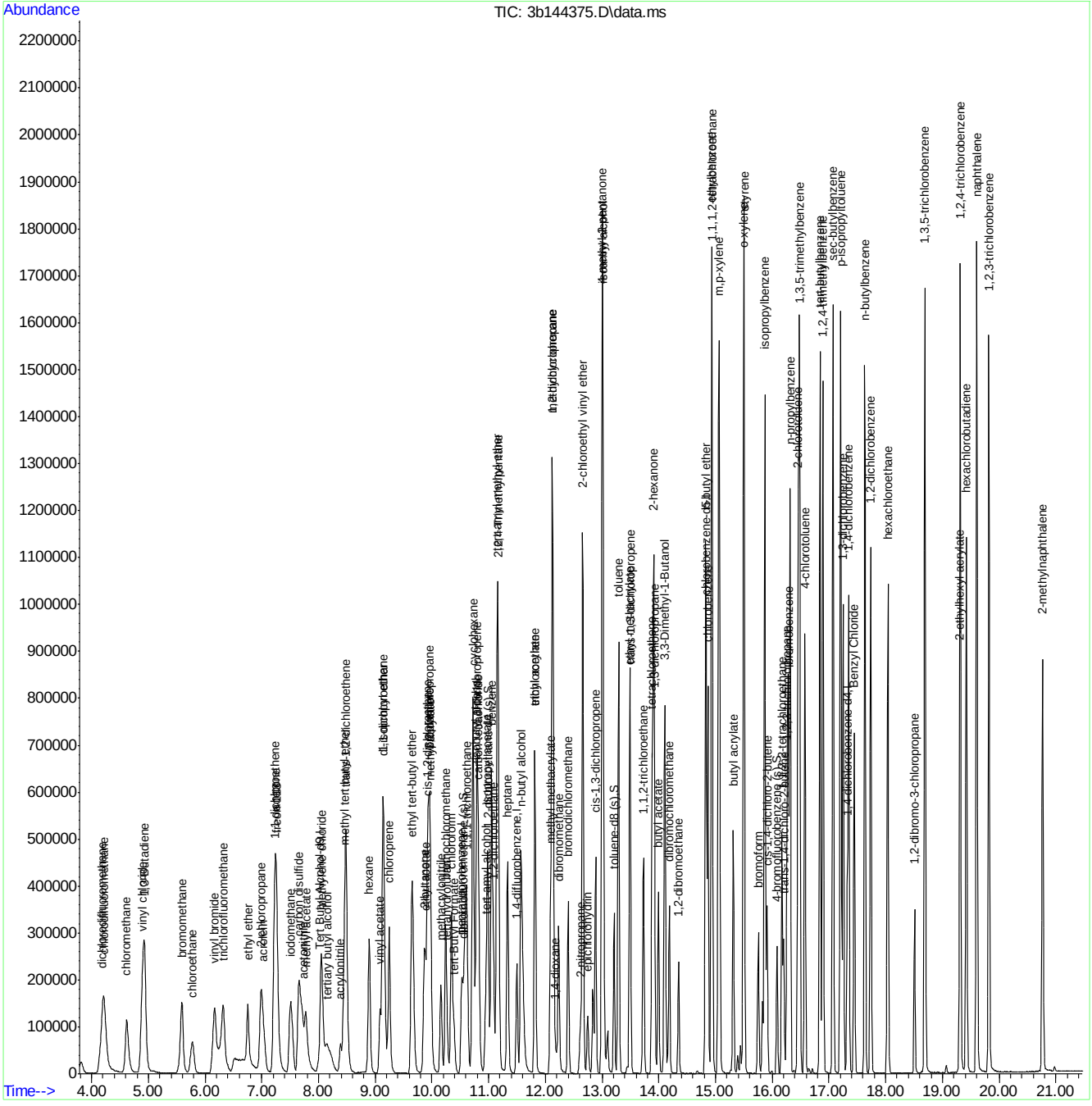
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) ethylbenzene	14.933	91	783856	102.06	ug/L	99
92) m,p-xylene	15.064	106	595778	204.89	ug/L	97
93) o-xylene	15.493	91	719442	101.36	ug/L	100
94) styrene	15.503	104	479797	101.36	ug/L	98
95) butyl acrylate	15.310	55	323989	102.85	ug/L	98
96) isopropylbenzene	15.869	105	959633	102.00	ug/L	99
97) bromoform	15.754	173	150906	102.54	ug/L	97
98) cis-1,4-dichloro-2-butene	15.911	88	95373	98.31	ug/L	98
101) 1,1,2,2-tetrachloroethane	16.167	83	252156	110.41	ug/L	99
102) trans-1,4-dichloro-2-b...	16.204	53	56313	103.85	ug/L	96
103) 1,2,3-trichloropropane	16.262	110	73161	106.89	ug/L	98
104) bromobenzene	16.282	156	213690	105.91	ug/L	97
105) n-propylbenzene	16.314	91	970205	105.80	ug/L	99
106) 2-chlorotoluene	16.455	126	215701	105.12	ug/L	99
107) 4-chlorotoluene	16.575	91	554428	104.87	ug/L	100
108) 1,3,5-trimethylbenzene	16.481	105	836487	106.74	ug/L	99
109) tert-butylbenzene	16.842	119	771917	108.48	ug/L	98
110) 1,2,4-trimethylbenzene	16.894	105	813158	105.83	ug/L	100
111) sec-butylbenzene	17.072	105	1123102	108.29	ug/L	99
112) p-isopropyltoluene	17.208	119	952908	107.69	ug/L	98
113) 1,3-dichlorobenzene	17.250	146	417275	102.91	ug/L	98
114) 1,4-dichlorobenzene	17.349	146	421692	102.42	ug/L	100
115) 1,2-dichlorobenzene	17.736	146	467346	103.07	ug/L	99
116) Benzyl Chloride	17.444	91	517757	102.05	ug/L	98
117) n-butylbenzene	17.632	92	443968	104.89	ug/L	96
118) hexachloroethane	18.040	201	202405	107.89	ug/L	98
119) 1,2-dibromo-3-chloropr...	18.511	157	102987	107.50	ug/L	95
120) 1,3,5-trichlorobenzene	18.694	180	526378	103.24	ug/L	98
121) 2-ethylhexyl acrylate	19.300	70	65753	22.98	ug/L	91
122) 1,2,4-trichlorobenzene	19.316	180	535330	104.53	ug/L	97
123) hexachlorobutadiene	19.421	225	248441	106.96	ug/L	99
124) naphthalene	19.604	128	1406962	106.57	ug/L	99
125) 1,2,3-trichlorobenzene	19.818	180	542510	106.65	ug/L	98
126) 2-methylnaphthalene	20.765	142	472528	56.15	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144375.D
Acq On : 28 Feb 2018 12:14 am
Operator : EddieH
Sample : ic6383-100
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 28 14:47:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144376.D
Acq On : 28 Feb 2018 12:42 am
Operator : EddieH
Sample : ic6383-200
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 28 14:47:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.024	65	185386	500.00	ug/L	0.00
5) pentafluorobenzene	10.524	168	164487	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.497	114	248790	50.00	ug/L	0.00
75) chlorobenzene-d5	14.834	117	243520	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.323	152	135819	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.545	113	78099	50.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.10%			
55) 1,2-dichloroethane-d4 (s)	10.989	65	93819	45.89	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 91.78%			
76) toluene-d8 (s)	13.212	98	296265	47.75	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.50%			
100) 4-bromofluorobenzene (s)	16.084	95	112924	53.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.94%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.165	59	517277	964.56	ug/L	97
4) 1,4-dioxane	12.182	88	192790	5232.71	ug/L	97
6) chlorodifluoromethane	4.211	51	697220	182.22	ug/L	99
7) dichlorodifluoromethane	4.195	85	691871	179.34	ug/L	97
8) chloromethane	4.614	50	617100	194.68	ug/L	98
9) vinyl chloride	4.891	62	649515	197.06	ug/L	98
10) 1,3-Butadiene	4.922	54	492882	200.99	ug/L	96
11) bromomethane	5.576	94	414915	181.18	ug/L	99
12) chloroethane	5.770	64	283226	180.99	ug/L	98
13) trichlorofluoromethane	6.313	101	783760	182.19	ug/L	98
14) vinyl bromide	6.157	106	469120	190.25	ug/L	99
15) ethyl ether	6.753	74	169606	193.38	ug/L	96
16) 2-chloropropane	6.983	43	623111	195.06	ug/L	98
17) acrolein	7.014	56	83589	208.38	ug/L	97
18) freon 113	7.255	151	380284	186.73	ug/L	98
19) 1,1-dichloroethene	7.218	96	366451	194.05	ug/L	99
20) acetone	7.255	58	211543	896.30	ug/L	95
21) acetonitrile	7.736	41	691208	2059.18	ug/L	95
22) iodomethane	7.501	142	783621	188.28	ug/L	99
23) carbon disulfide	7.652	76	1389443	191.81	ug/L	99
24) methylene chloride	8.045	84	392355	192.77	ug/L	94
25) methyl acetate	7.778	43	322095	208.57	ug/L	99
26) methyl tert butyl ether	8.463	73	1250207	188.65	ug/L	99
27) trans-1,2-dichloroethene	8.484	96	326953	185.31	ug/L	97
28) hexane	8.887	56	219655	193.09	ug/L	97
29) di-isopropyl ether	9.148	45	1144774	197.24	ug/L	98
30) 2-butanone	9.870	72	235031	879.98	ug/L	94
31) 1,1-dichloroethane	9.138	63	602562	186.98	ug/L	100
32) chloroprene	9.248	53	529563	187.47	ug/L	99
33) acrylonitrile	8.390	53	171397	204.84	ug/L	95
34) vinyl acetate	9.080	86	55342	196.44	ug/L	96
35) ethyl tert-butyl ether	9.656	59	1259111	193.40	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144376.D
Acq On : 28 Feb 2018 12:42 am
Operator : EddieH
Sample : ic6383-200
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 28 14:47:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	9.896	45	63596	207.90	ug/L	#	81
37) 2,2-dichloropropane	9.964	77	666120	180.23	ug/L		97
38) cis-1,2-dichloroethene	9.922	96	381633	185.45	ug/L		97
39) propionitrile	9.954	54	811350	2060.13	ug/L		94
40) methyl acrylate	9.975	85	66295	208.36	ug/L	#	93
41) methacrylonitrile	10.158	67	176492	208.38	ug/L		96
42) bromochloromethane	10.241	128	204461	190.21	ug/L		96
43) tetrahydrofuran	10.262	42	153061	210.22	ug/L		96
44) chloroform	10.341	83	646440	185.67	ug/L		99
45) tert-Butyl Formate	10.388	59	191975	201.72	ug/L		97
47) 1,1,1-trichloroethane	10.613	97	723078	185.06	ug/L		99
48) cyclohexane	10.728	84	639520	197.71	ug/L		99
49) isobutyl alcohol	10.791	43	325370	2136.76	ug/L		98
50) 1,1-dichloropropene	10.791	75	481698	189.75	ug/L		99
51) carbon tetrachloride	10.817	117	647025	181.71	ug/L		97
52) tert-amyl alcohol	10.968	73	284609	1142.72	ug/L		90
53) isopropyl acetate	10.984	87	91969	206.96	ug/L	#	77
56) n-butyl alcohol	11.575	56	1120153	10133.04	ug/L		99
57) 2,2,4-Trimethylpentane	11.162	57	1566706	196.32	ug/L		97
58) benzene	11.052	78	1400298	185.15	ug/L		99
59) tert-amyl methyl ether	11.151	73	1244868	177.91	ug/L		98
60) heptane	11.334	57	257516	190.83	ug/L		99
61) 1,2-dichloroethane	11.089	62	517942	172.04	ug/L		100
62) ethyl acrylate	11.816	55	491428	205.59	ug/L		98
63) trichloroethene	11.816	95	383181	183.73	ug/L		99
64) 2-chloroethyl vinyl ether	12.658	63	1205004	1021.08	ug/L		100
65) methyl methacrylate	12.093	100	115124	207.08	ug/L		97
66) methylcyclohexane	12.129	83	787012	183.55	ug/L		97
67) 1,2-dichloropropane	12.124	63	360967	189.22	ug/L		96
68) dibromomethane	12.234	93	249387	188.81	ug/L		98
69) bromodichloromethane	12.401	83	551134	186.38	ug/L		99
70) 2-nitropropane	12.621	41	186208	191.54	ug/L		98
71) epichlorohydrin	12.752	57	264060	1026.86	ug/L		98
72) cis-1,3-dichloropropene	12.888	75	625051	196.56	ug/L		97
73) 4-methyl-2-pentanone	13.003	58	796914	796.71	ug/L		96
74) isoamyl alcohol	13.013	70	468859	3848.70	ug/L		99
77) toluene	13.291	92	909658	180.95	ug/L		97
78) ethyl methacrylate	13.489	69	520417	186.31	ug/L		97
79) trans-1,3-dichloropropene	13.495	75	577032	177.75	ug/L		96
80) 1,1,2-trichloroethane	13.730	83	286499	187.81	ug/L		97
81) tetrachloroethene	13.882	164	342211	179.70	ug/L		99
82) 2-hexanone	13.908	58	730393	773.39	ug/L		99
83) 1,3-dichloropropane	13.923	76	542509	181.53	ug/L		95
84) butyl acetate	13.991	56	267250	190.51	ug/L		96
85) 3,3-Dimethyl-1-Butanol	14.107	69	659697	1686.84	ug/L		97
86) dibromochloromethane	14.185	129	447650	180.11	ug/L		98
87) 1,2-dibromoethane	14.352	107	386494	190.63	ug/L		94
88) n-butyl ether	14.823	57	1629923	190.55	ug/L		99
89) chlorobenzene	14.865	112	1065003	187.68	ug/L		97
90) 1,1,1,2-tetrachloroethane	14.938	131	493916	165.38	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144376.D
Acq On : 28 Feb 2018 12:42 am
Operator : EddieH
Sample : ic6383-200
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 28 14:47:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration

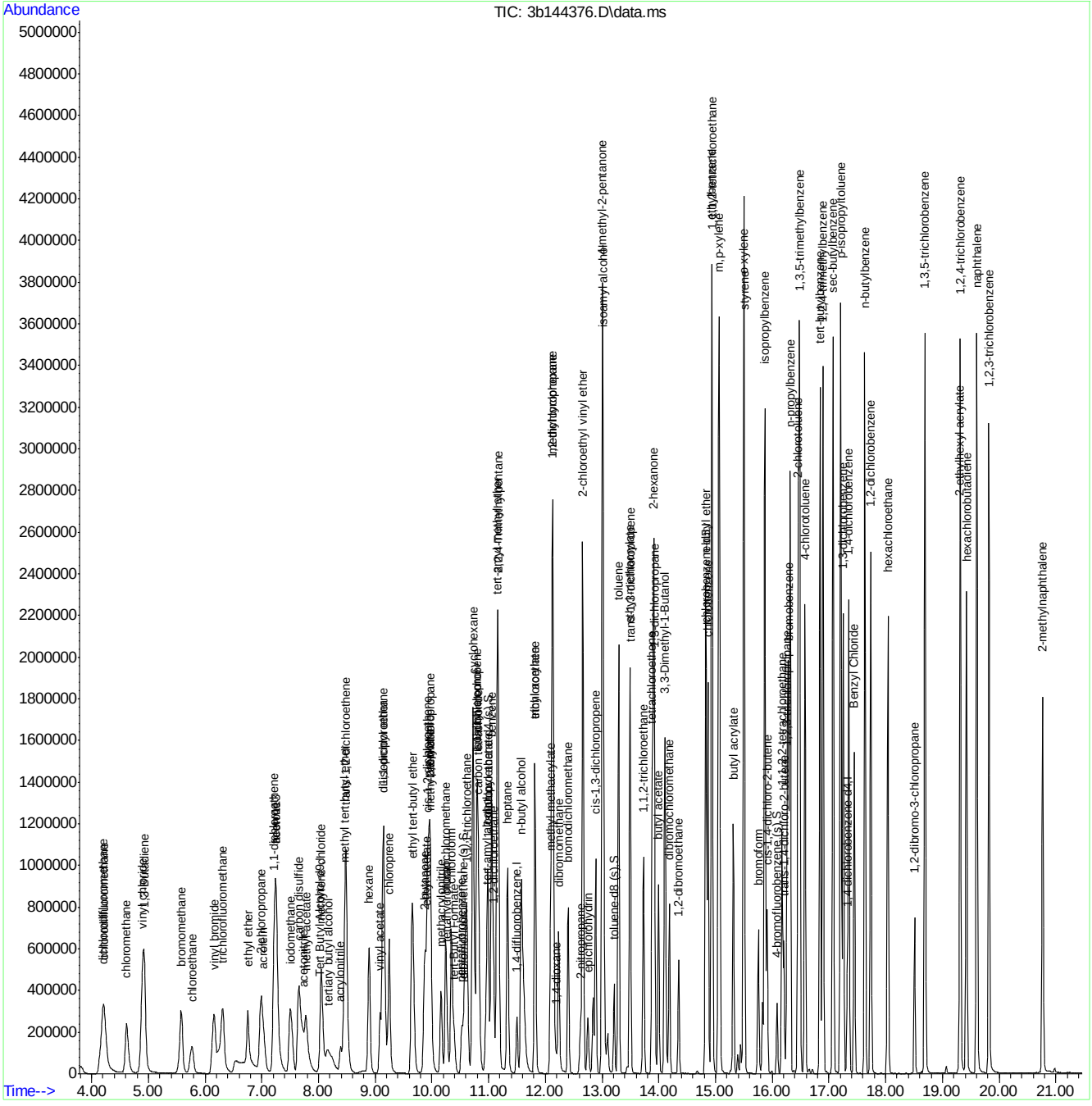
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91)	ethylbenzene	14.933	91	1821147	184.21	ug/L	99
92)	m,p-xylene	15.064	106	1388948	371.06	ug/L	99
93)	o-xylene	15.493	91	1639890	179.48	ug/L	99
94)	styrene	15.508	104	1147809	188.37	ug/L	94
95)	butyl acrylate	15.309	55	760598	187.56	ug/L	98
96)	isopropylbenzene	15.869	105	2140383	176.74	ug/L	99
97)	bromoform	15.754	173	346955	183.14	ug/L	98
98)	cis-1,4-dichloro-2-butene	15.911	88	210025	168.18	ug/L	95
101)	1,1,2,2-tetrachloroethane	16.172	83	574180	203.82	ug/L	99
102)	trans-1,4-dichloro-2-b...	16.204	53	123936	185.29	ug/L	96
103)	1,2,3-trichloropropane	16.261	110	164958	195.37	ug/L	97
104)	bromobenzene	16.282	156	500258	201.00	ug/L	96
105)	n-propylbenzene	16.314	91	2271089	200.78	ug/L	99
106)	2-chlorotoluene	16.455	126	497769	196.65	ug/L	98
107)	4-chlorotoluene	16.575	91	1304384	200.01	ug/L	99
108)	1,3,5-trimethylbenzene	16.481	105	1893451	195.87	ug/L	99
109)	tert-butylbenzene	16.842	119	1672489	190.55	ug/L	99
110)	1,2,4-trimethylbenzene	16.894	105	1858985	196.14	ug/L	99
111)	sec-butylbenzene	17.072	105	2496799	195.17	ug/L	99
112)	p-isopropyltoluene	17.208	119	2164775	198.32	ug/L	98
113)	1,3-dichlorobenzene	17.250	146	943425	188.61	ug/L	98
114)	1,4-dichlorobenzene	17.349	146	954222	187.87	ug/L	99
115)	1,2-dichlorobenzene	17.736	146	1045653	186.95	ug/L	99
116)	Benzyl Chloride	17.443	91	1115449	178.22	ug/L	98
117)	n-butylbenzene	17.632	92	1019982	195.36	ug/L	97
118)	hexachloroethane	18.040	201	435408	188.16	ug/L	99
119)	1,2-dibromo-3-chloropr...	18.510	157	221811	187.70	ug/L	97
120)	1,3,5-trichlorobenzene	18.693	180	1123757	178.68	ug/L	99
121)	2-ethylhexyl acrylate	19.305	70	144409	40.92	ug/L	97
122)	1,2,4-trichlorobenzene	19.316	180	1090073	172.55	ug/L	99
123)	hexachlorobutadiene	19.426	225	524053	182.90	ug/L	99
124)	naphthalene	19.604	128	2836378	174.17	ug/L	99
125)	1,2,3-trichlorobenzene	19.823	180	1097095	174.85	ug/L	98
126)	2-methylnaphthalene	20.765	142	976414	94.05	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144376.D
Acq On : 28 Feb 2018 12:42 am
Operator : EddieH
Sample : ic6383-200
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 28 14:47:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:11:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144379.D
Acq On : 28 Feb 2018 2:07 am
Operator : EddieH
Sample : icv6383-50
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 28 15:40:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 15:40:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.024	65	186339	500.00	ug/L		0.00
5) pentafluorobenzene	10.524	168	161819	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.497	114	232110	50.00	ug/L		0.00
75) chlorobenzene-d5	14.834	117	207296	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.323	152	120205	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.550	113	76831	49.77	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.54%				
55) 1,2-dichloroethane-d4 (s)	10.989	65	88763	45.98	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 91.96%				
76) toluene-d8 (s)	13.212	98	261642	48.86	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.72%				
100) 4-bromofluorobenzene (s)	16.084	95	93821	51.59	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.18%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.149	59	141507	266.07	ug/L		99
4) 1,4-dioxane	12.171	88	48566	1287.07	ug/L		94
6) chlorodifluoromethane	4.216	51	178249	47.50	ug/L		99
7) dichlorodifluoromethane	4.201	85	214638	60.74	ug/L		98
8) chloromethane	4.624	50	188767	58.71	ug/L		97
9) vinyl chloride	4.886	62	175901	56.10	ug/L		98
11) bromomethane	5.592	94	124648	55.91	ug/L		97
12) chloroethane	5.785	64	88924	56.90	ug/L		98
13) trichlorofluoromethane	6.324	101	211654	50.41	ug/L		98
14) vinyl bromide	6.167	106	133289	56.24	ug/L		99
15) ethyl ether	6.753	74	46797	56.11	ug/L		98
16) 2-chloropropane	6.988	43	168062	51.43	ug/L		97
17) acrolein	7.014	56	22831	59.23	ug/L		95
18) freon 113	7.255	151	114960	62.04	ug/L		98
19) 1,1-dichloroethene	7.224	96	96382	53.11	ug/L		98
20) acetone	7.250	58	56863	244.78	ug/L		100
21) acetonitrile	7.731	41	142973	402.61	ug/L		92
22) iodomethane	7.501	142	212598	53.16	ug/L		97
23) carbon disulfide	7.658	76	379303	52.36	ug/L		99
24) methylene chloride	8.050	84	107912	54.16	ug/L		94
25) methyl acetate	7.778	43	87667	56.46	ug/L		98
26) methyl tert butyl ether	8.463	73	708328	108.10	ug/L		99
27) trans-1,2-dichloroethene	8.484	96	90983	50.97	ug/L		98
28) hexane	8.892	56	51123	46.42	ug/L		98
29) di-isopropyl ether	9.143	45	318795	56.19	ug/L		97
30) 2-butanone	9.865	72	63042	239.48	ug/L		90
31) 1,1-dichloroethane	9.138	63	169927	53.12	ug/L		99
32) chloroprene	9.248	53	149104	54.35	ug/L		99
33) acrylonitrile	8.390	53	51055	61.43	ug/L		99
34) vinyl acetate	9.086	86	13495	50.59	ug/L	#	70
35) ethyl tert-butyl ether	9.656	59	351963	56.06	ug/L		97
36) ethyl acetate	9.886	45	17518	59.79	ug/L	#	69

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144379.D
Acq On : 28 Feb 2018 2:07 am
Operator : EddieH
Sample : icv6383-50
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 28 15:40:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 15:40:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	9.959	77	179879	49.18	ug/L		98
38) cis-1,2-dichloroethene	9.922	96	109001	52.23	ug/L		95
39) propionitrile	9.949	54	204119	514.67	ug/L		98
40) methyl acrylate	9.969	85	17476	57.98	ug/L	#	87
41) methacrylonitrile	10.163	67	45720	56.32	ug/L		95
42) bromochloromethane	10.241	128	56532	54.65	ug/L		98
43) tetrahydrofuran	10.262	42	40258	55.61	ug/L		93
44) chloroform	10.346	83	180991	49.59	ug/L		99
45) tert-Butyl Formate	10.383	59	62162	67.45	ug/L		98
47) 1,1,1-trichloroethane	10.613	97	189980	51.16	ug/L		99
48) cyclohexane	10.728	84	169883	55.56	ug/L		96
49) isobutyl alcohol	10.785	43	88344	560.71	ug/L		99
50) 1,1-dichloropropene	10.791	75	132763	54.64	ug/L		99
51) carbon tetrachloride	10.817	117	174980	52.41	ug/L		95
52) tert-amyl alcohol	10.958	73	68940	258.49	ug/L		98
53) isopropyl acetate	10.984	87	25405	61.24	ug/L		96
56) n-butyl alcohol	11.570	56	285924	2695.70	ug/L		96
57) 2,2,4-Trimethylpentane	11.162	57	404987	59.45	ug/L		97
58) benzene	11.052	78	371239	51.10	ug/L		99
59) tert-amyl methyl ether	11.152	73	341796	51.54	ug/L		98
60) heptane	11.335	57	72823	62.18	ug/L		96
61) 1,2-dichloroethane	11.084	62	140676	47.13	ug/L		99
62) ethyl acrylate	11.816	55	126246	58.53	ug/L		99
63) trichloroethene	11.816	95	101739	53.49	ug/L		98
64) 2-chloroethyl vinyl ether	12.658	63	303302	287.04	ug/L		99
65) methyl methacrylate	12.093	100	28020	58.02	ug/L	#	81
66) methylcyclohexane	12.124	83	195243	51.12	ug/L		100
67) 1,2-dichloropropane	12.124	63	93944	52.72	ug/L		99
68) dibromomethane	12.234	93	65935	54.63	ug/L		95
69) bromodichloromethane	12.402	83	138957	50.40	ug/L		100
70) 2-nitropropane	12.621	41	46360	54.55	ug/L		99
71) epichlorohydrin	12.747	57	69873	287.12	ug/L		98
72) cis-1,3-dichloropropene	12.888	75	157311	55.03	ug/L		96
73) 4-methyl-2-pentanone	13.003	58	211948	237.53	ug/L		96
74) isoamyl alcohol	13.013	70	124676	1135.32	ug/L		90
77) toluene	13.291	92	227117	53.06	ug/L		98
78) ethyl methacrylate	13.484	69	121970	51.79	ug/L		96
79) trans-1,3-dichloropropene	13.495	75	136009	50.19	ug/L		99
80) 1,1,2-trichloroethane	13.730	83	70154	53.62	ug/L		96
81) tetrachloroethene	13.882	164	144157	88.40	ug/L		97
82) 2-hexanone	13.908	58	181375	227.69	ug/L		98
83) 1,3-dichloropropane	13.924	76	137128	54.71	ug/L		88
84) butyl acetate	13.992	56	68649	58.12	ug/L		97
85) 3,3-Dimethyl-1-Butanol	14.101	69	183646	564.34	ug/L		96
86) dibromochloromethane	14.185	129	111217	52.70	ug/L		97
87) 1,2-dibromoethane	14.347	107	93329	53.36	ug/L		92
88) n-butyl ether	14.823	57	392111	52.04	ug/L		99
89) chlorobenzene	14.865	112	254959	52.04	ug/L		96
90) 1,1,1,2-tetrachloroethane	14.938	131	129906	51.91	ug/L		98
91) ethylbenzene	14.933	91	445461	52.07	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144379.D
Acq On : 28 Feb 2018 2:07 am
Operator : EddieH
Sample : icv6383-50
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 28 15:40:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 15:40:12 2018
Response via : Initial Calibration

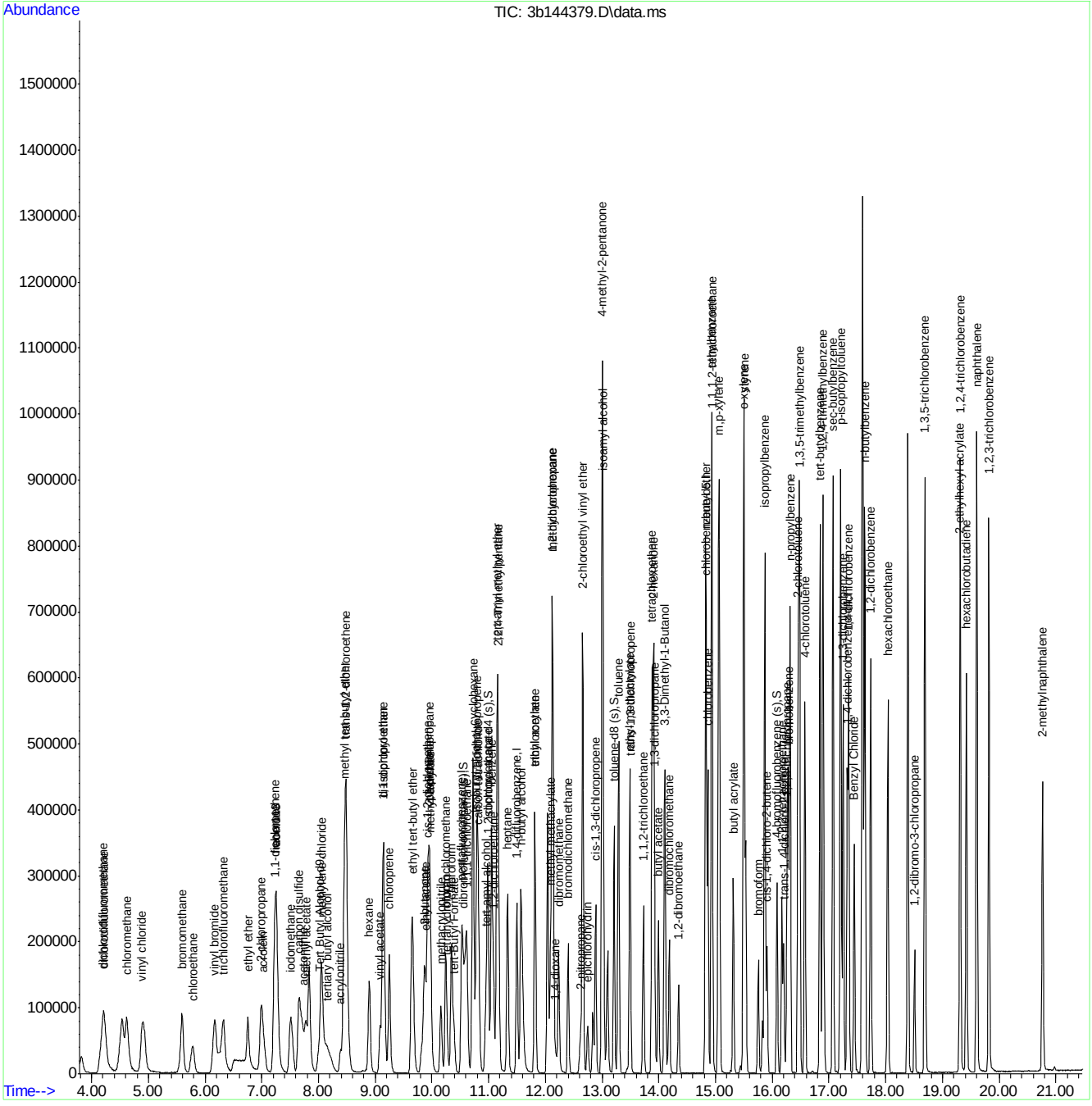
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	m,p-xylene	15.064	106	341188	107.53	ug/L	99
93)	o-xylene	15.493	91	406710	52.80	ug/L	99
94)	styrene	15.503	104	276324	53.04	ug/L	96
95)	butyl acrylate	15.310	55	185168	50.83	ug/L	96
96)	isopropylbenzene	15.869	105	539079	54.81	ug/L	99
97)	bromoform	15.754	173	85909	53.60	ug/L	98
98)	cis-1,4-dichloro-2-butene	15.906	88	51003	47.17	ug/L	93
101)	1,1,2,2-tetrachloroethane	16.167	83	136667	55.19	ug/L	98
102)	trans-1,4-dichloro-2-b...	16.204	53	38717	66.02	ug/L	91
103)	1,2,3-trichloropropane	16.261	110	40447	56.15	ug/L	97
104)	bromobenzene	16.282	156	120591	56.64	ug/L	97
105)	n-propylbenzene	16.314	91	554918	57.38	ug/L	99
106)	2-chlorotoluene	16.455	126	120624	56.32	ug/L	99
107)	4-chlorotoluene	16.575	91	319955	55.68	ug/L	99
108)	1,3,5-trimethylbenzene	16.481	105	468317	59.36	ug/L	98
109)	tert-butylbenzene	16.842	119	420446	60.74	ug/L	99
110)	1,2,4-trimethylbenzene	16.894	105	469245	59.23	ug/L	99
111)	sec-butylbenzene	17.072	105	626932	60.44	ug/L	99
112)	p-isopropyltoluene	17.208	119	541407	60.06	ug/L	99
113)	1,3-dichlorobenzene	17.250	146	238046	53.03	ug/L	98
114)	1,4-dichlorobenzene	17.349	146	238878	52.03	ug/L	99
115)	1,2-dichlorobenzene	17.736	146	259435	52.37	ug/L	99
116)	Benzyl Chloride	17.443	91	248672	43.52	ug/L	97
117)	n-butylbenzene	17.632	92	262988	57.37	ug/L	98
118)	hexachloroethane	18.040	201	109486	60.84	ug/L	98
119)	1,2-dibromo-3-chloropr...	18.510	157	55659	54.84	ug/L	95
120)	1,3,5-trichlorobenzene	18.694	180	290699	52.56	ug/L	99
121)	2-ethylhexyl acrylate	19.305	70	39037	12.83	ug/L	98
122)	1,2,4-trichlorobenzene	19.316	180	291434	55.76	ug/L	99
123)	hexachlorobutadiene	19.421	225	130921	56.08	ug/L	100
124)	naphthalene	19.604	128	771142	55.92	ug/L	99
125)	1,2,3-trichlorobenzene	19.818	180	289093	54.50	ug/L	98
126)	2-methylnaphthalene	20.765	142	234174	27.79	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144379.D
Acq On : 28 Feb 2018 2:07 am
Operator : EddieH
Sample : icv6383-50
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 28 15:40:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 15:40:12 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144380.D
Acq On : 28 Feb 2018 2:36 am
Operator : EddieH
Sample : icv6383-50
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 28 15:37:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 15:31:08 2018
Response via : Initial Calibration

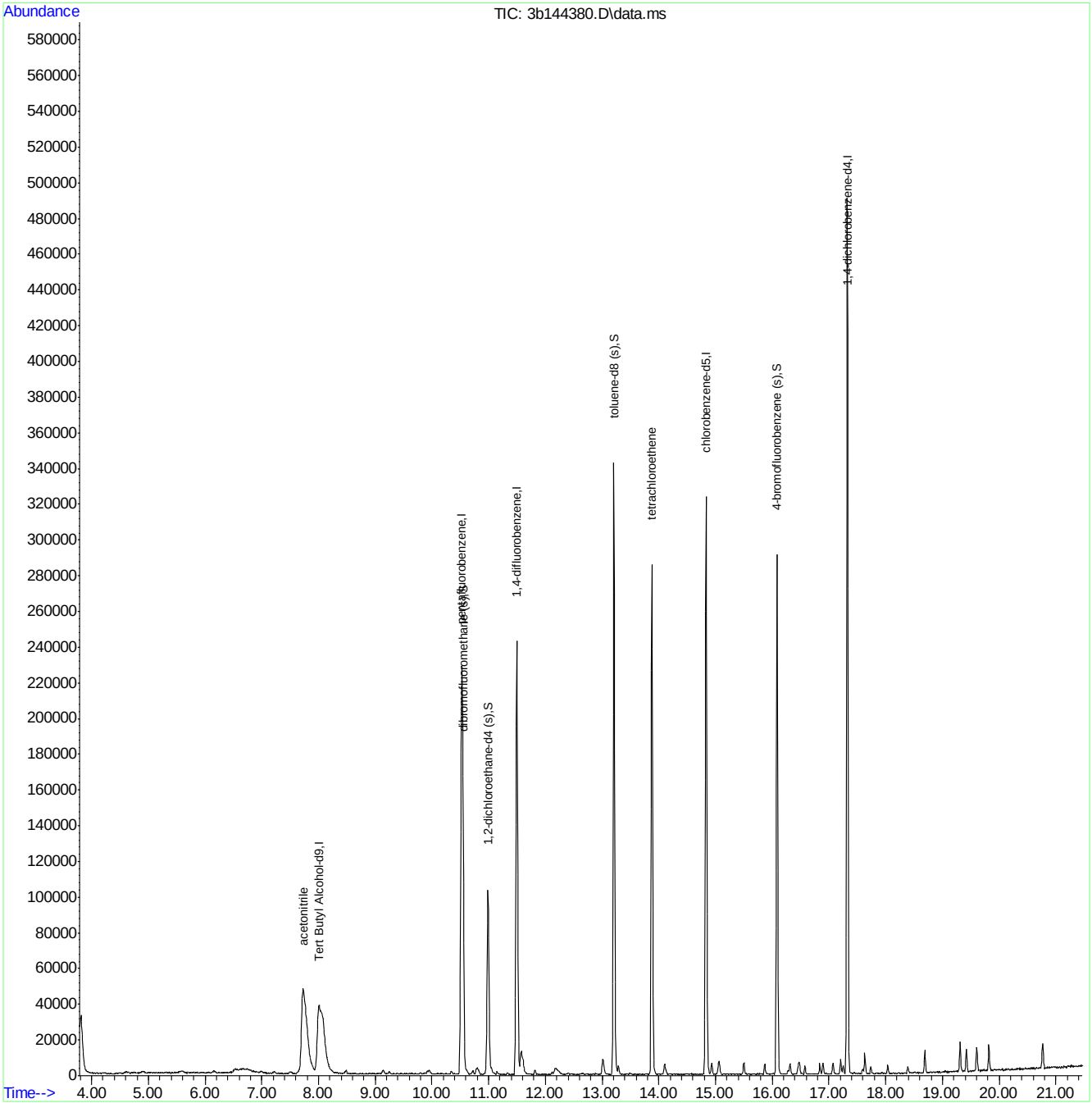
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.013	65	189147	500.00	ug/L	0.00
5) pentafluorobenzene	10.524	168	167154	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.497	114	224239	50.00	ug/L	0.00
75) chlorobenzene-d5	14.834	117	189164	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.323	152	133227	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.545	113	78587	49.28	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.56%			
55) 1,2-dichloroethane-d4 (s)	10.989	65	87919	47.14	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.28%			
76) toluene-d8 (s)	13.207	98	245056	50.15	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.30%			
100) 4-bromofluorobenzene (s)	16.084	95	96556	47.91	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.82%			
Target Compounds						Qvalue
21) acetonitrile	7.726	41	180650	492.47	ug/L	96
81) tetrachloroethene	13.882	164	72278	48.57	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\V3B6383\
Data File : 3b144380.D
Acq On : 28 Feb 2018 2:36 am
Operator : EddieH
Sample : icv6383-50
Misc : MS24260,V3B6383,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 28 15:37:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 15:31:08 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\
Data File : 3b144750.D
Acq On : 13 Mar 2018 1:20 pm
Operator : EddieH
Sample : icv6383-50
Misc : MS24844,V3B6401,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 09:01:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

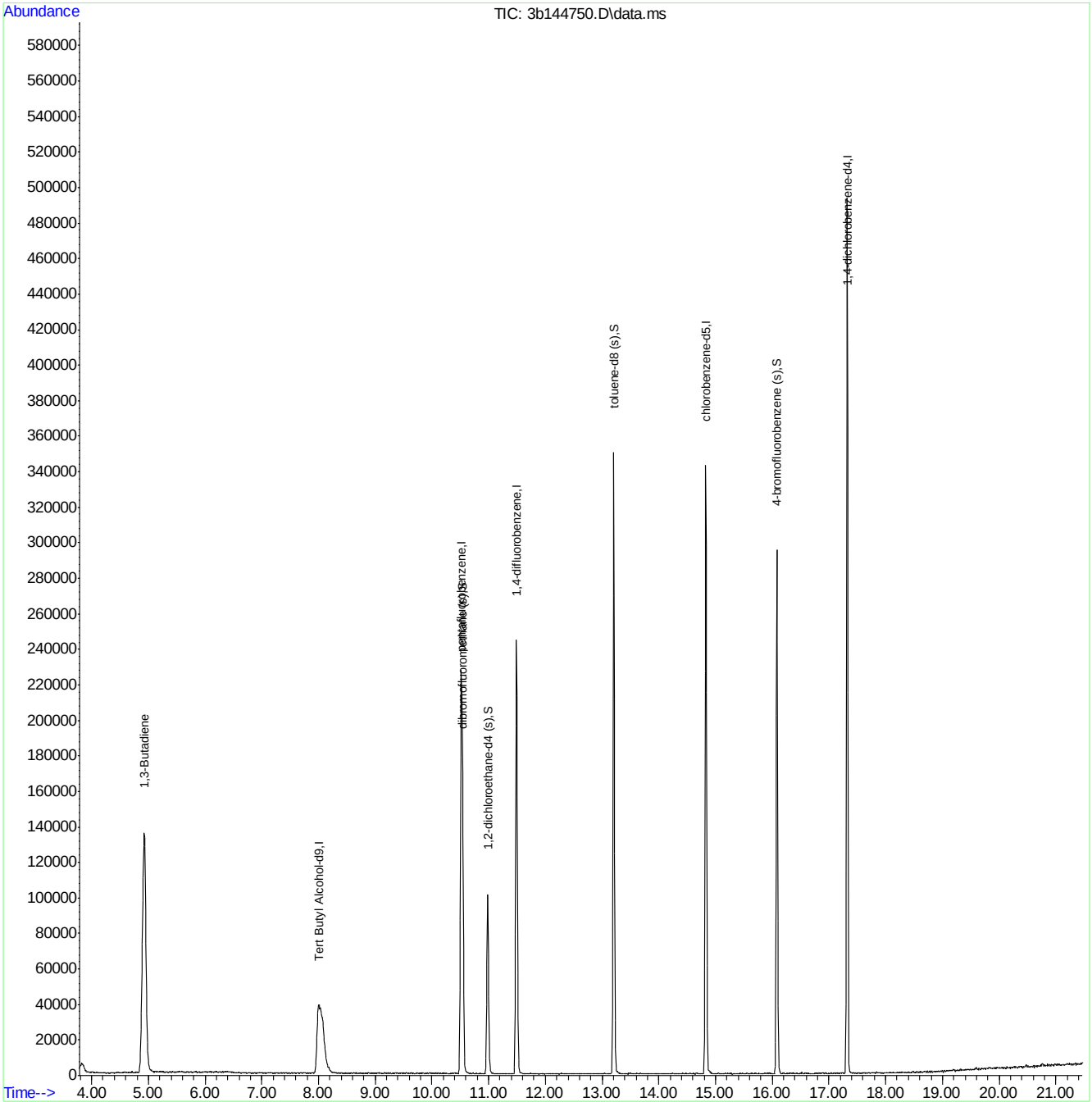
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.008	65	183309	500.00	ug/L	0.00
5) pentafluorobenzene	10.513	168	165669	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.492	114	224504	50.00	ug/L	0.00
75) chlorobenzene-d5	14.828	117	203385	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.323	152	138486	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.540	113	78164	49.45	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.90%			
55) 1,2-dichloroethane-d4 (s)	10.984	65	77553	41.53	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 83.06%			
76) toluene-d8 (s)	13.207	98	252475	48.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.10%			
100) 4-bromofluorobenzene (s)	16.084	95	99991	47.73	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.46%			
Target Compounds						Qvalue
10) 1,3-Butadiene	4.922	54	162014	65.16	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3B\
Data File : 3b144750.D
Acq On : 13 Mar 2018 1:20 pm
Operator : EddieH
Sample : icv6383-50
Misc : MS24844,V3B6401,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 09:01:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145266.d
Acq On : 28 Mar 2018 5:46 pm
Operator : EddieH
Sample : CC6383-50 Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:17:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.008	65	123799	500.00	ug/L	-0.01
5) pentafluorobenzene	10.513	168	118263	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.486	114	159900	50.00	ug/L	-0.01
75) chlorobenzene-d5	14.823	117	157900	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	17.318	152	98353	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.534	113	55621	49.30	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.60%			
55) 1,2-dichloroethane-d4 (s)	10.979	65	65492	49.25	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.50%			
76) toluene-d8 (s)	13.202	98	194514	47.68	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.36%			
100) 4-bromofluorobenzene (s)	16.078	95	74014	49.74	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.48%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.139	59	81194	229.79	ug/L	98
4) 1,4-dioxane	12.166	88	24744	987.02	ug/L	91
6) chlorodifluoromethane	4.221	51	139086	51.39	ug/L	99
7) dichlorodifluoromethane	4.200	85	144901	56.10	ug/L	96
8) chloromethane	4.619	50	133538	56.83	ug/L	95
9) vinyl chloride	4.886	62	133943	58.45	ug/L	96
10) 1,3-Butadiene	4.906	54	6873	3.87	ug/L #	65
11) bromomethane	5.592	94	100369	61.60	ug/L	98
12) chloroethane	5.780	64	67847	59.41	ug/L	96
13) trichlorofluoromethane	6.319	101	166028	54.11	ug/L	99
14) vinyl bromide	6.162	106	104164	60.14	ug/L	99
16) 2-chloropropane	6.978	43	106877	44.75	ug/L	98
17) acrolein	6.999	56	15209	53.99	ug/L	96
18) freon 113	7.255	151	76565	56.54	ug/L	93
19) 1,1-dichloroethene	7.213	96	62261	46.94	ug/L	98
20) acetone	7.234	58	29799	175.52	ug/L	92
21) acetonitrile	7.710	41	120706	465.09	ug/L	94
23) carbon disulfide	7.647	76	171379	32.37	ug/L	99
24) methylene chloride	8.034	84	70544	48.45	ug/L	96
25) methyl acetate	7.767	43	54313	47.86	ug/L	99
26) methyl tert butyl ether	8.453	73	164081	34.26	ug/L	98
27) trans-1,2-dichloroethene	8.479	96	63341	48.56	ug/L	94
28) hexane	8.887	56	39684	49.30	ug/L	99
29) di-isopropyl ether	9.132	45	212975	51.36	ug/L	96
30) 2-butanone	9.854	72	36142	187.86	ug/L	95
31) 1,1-dichloroethane	9.127	63	117552	50.28	ug/L	98
32) chloroprene	9.237	53	96370	48.07	ug/L	98
34) vinyl acetate	9.070	86	10866	55.74	ug/L	100
35) ethyl tert-butyl ether	9.640	59	231765	50.51	ug/L	99
36) ethyl acetate	9.875	45	10223	47.74	ug/L #	84
37) 2,2-dichloropropane	9.954	77	148026	55.37	ug/L	96
38) cis-1,2-dichloroethene	9.912	96	72772	47.71	ug/L	99
41) methacrylonitrile	10.142	67	19761	33.31	ug/L	95
42) bromochloromethane	10.231	128	38585	51.04	ug/L	94
44) chloroform	10.330	83	123335	46.24	ug/L	97
45) tert-Butyl Formate	10.377	59	78844	117.06	ug/L	97
47) 1,1,1-trichloroethane	10.607	97	144566	53.27	ug/L	96
48) cyclohexane	10.717	84	107797	48.24	ug/L	88
49) isobutyl alcohol	10.775	43	53131	461.42	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145266.d
Acq On : 28 Mar 2018 5:46 pm
Operator : EddieH
Sample : CC6383-50 Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:17:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50)	1,1-dichloropropene	10.785	75	86737	48.85	ug/L	99
51)	carbon tetrachloride	10.806	117	132233	54.20	ug/L	96
52)	tert-amyl alcohol	10.947	73	40884	209.75	ug/L	96
53)	isopropyl acetate	10.974	87	15850	52.28	ug/L	98
56)	n-butyl alcohol	11.559	56	162048	2217.74	ug/L	99
57)	2,2,4-Trimethylpentane	11.151	57	265954	56.67	ug/L	98
58)	benzene	11.042	78	243963	48.75	ug/L	100
59)	tert-amyl methyl ether	11.141	73	232035	50.79	ug/L	99
60)	heptane	11.329	57	44641	55.33	ug/L	94
61)	1,2-dichloroethane	11.073	62	98028	47.67	ug/L	99
62)	ethyl acrylate	11.805	55	78275	52.67	ug/L	97
63)	trichloroethene	11.810	95	65165	49.73	ug/L	94
64)	2-chloroethyl vinyl ether	12.647	63	146261	200.93	ug/L	98
66)	methylcyclohexane	12.119	83	134762	51.22	ug/L	96
67)	1,2-dichloropropane	12.114	63	64790	52.78	ug/L	94
68)	dibromomethane	12.224	93	43229	51.99	ug/L	98
69)	bromodichloromethane	12.391	83	98454	51.84	ug/L	97
71)	epichlorohydrin	12.736	57	41937	250.15	ug/L	99
72)	cis-1,3-dichloropropene	12.877	75	105551	53.60	ug/L	97
73)	4-methyl-2-pentanone	12.992	58	139964	227.69	ug/L	98
74)	isoamyl alcohol	13.003	70	76774	1014.83	ug/L	96
77)	toluene	13.285	92	156260	47.93	ug/L	95
79)	trans-1,3-dichloropropene	13.484	75	99110	48.01	ug/L	99
80)	1,1,2-trichloroethane	13.725	83	47839	48.00	ug/L	98
81)	tetrachloroethene	13.876	164	61391	49.42	ug/L	99
82)	2-hexanone	13.902	58	118236	194.86	ug/L	99
83)	1,3-dichloropropane	13.913	76	92508	48.45	ug/L	96
84)	butyl acetate	13.986	56	44960	49.97	ug/L	95
86)	dibromochloromethane	14.180	129	78234	48.67	ug/L	98
87)	1,2-dibromoethane	14.342	107	64865	48.69	ug/L	95
88)	n-butyl ether	14.818	57	290870	50.68	ug/L	100
89)	chlorobenzene	14.860	112	184004	49.31	ug/L	97
90)	1,1,1,2-tetrachloroethane	14.933	131	95150	49.91	ug/L	98
91)	ethylbenzene	14.928	91	331967	50.94	ug/L	99
92)	m,p-xylene	15.053	106	253620	104.94	ug/L	98
93)	o-xylene	15.487	91	305918	52.14	ug/L	99
94)	styrene	15.498	104	205082	51.68	ug/L	96
95)	butyl acrylate	15.304	55	136071	49.04	ug/L	99
96)	isopropylbenzene	15.864	105	397189	53.02	ug/L	99
97)	bromoform	15.749	173	61838	50.65	ug/L	97
98)	cis-1,4-dichloro-2-butene	15.900	88	34840	42.30	ug/L	98
101)	1,1,2,2-tetrachloroethane	16.162	83	109079	53.83	ug/L	99
103)	1,2,3-trichloropropane	16.256	110	31327	53.15	ug/L	89
104)	bromobenzene	16.277	156	93970	53.95	ug/L	95
105)	n-propylbenzene	16.308	91	433058	54.72	ug/L	100
106)	2-chlorotoluene	16.450	126	96145	54.86	ug/L	98
107)	4-chlorotoluene	16.570	91	240925	51.24	ug/L	99
108)	1,3,5-trimethylbenzene	16.476	105	360515	55.85	ug/L	99
109)	tert-butylbenzene	16.837	119	298562	52.72	ug/L	99
110)	1,2,4-trimethylbenzene	16.889	105	355583	54.86	ug/L	98
111)	sec-butylbenzene	17.067	105	463750	54.64	ug/L	100
112)	p-isopropyltoluene	17.203	119	410206	55.62	ug/L	98
113)	1,3-dichlorobenzene	17.245	146	187954	51.17	ug/L	97
114)	1,4-dichlorobenzene	17.344	146	187212	49.83	ug/L	97
115)	1,2-dichlorobenzene	17.731	146	207387	51.16	ug/L	99
116)	Benzyl Chloride	17.438	91	252077	53.92	ug/L	97
117)	n-butylbenzene	17.626	92	195119	52.02	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145266.d
Acq On : 28 Mar 2018 5:46 pm
Operator : EddieH
Sample : CC6383-50 Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:17:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration

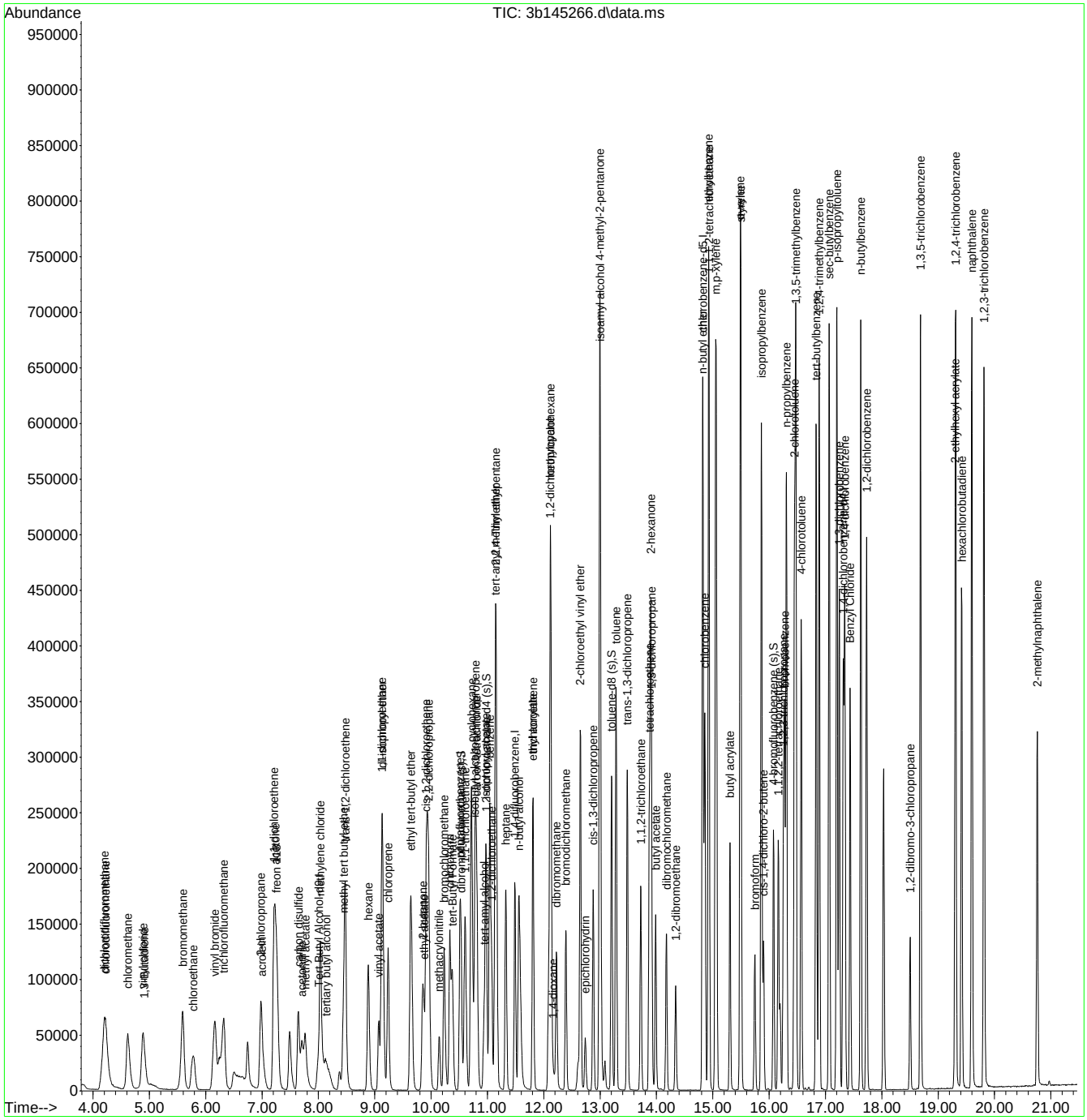
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2-dibromo-3-chloropr...	18.505	157	39772	47.90	ug/L	95
120) 1,3,5-trichlorobenzene	18.688	180	226196	49.98	ug/L	99
121) 2-ethylhexyl acrylate	19.300	70	21997	8.83	ug/L	98
122) 1,2,4-trichlorobenzene	19.311	180	220014	51.45	ug/L	97
123) hexachlorobutadiene	19.420	225	99731	52.21	ug/L	99
124) naphthalene	19.598	128	545528	48.35	ug/L	99
125) 1,2,3-trichlorobenzene	19.813	180	221898	51.12	ug/L	99
126) 2-methylnaphthalene	20.759	142	162579	23.58	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\v3b6426\
Data File : 3b145266.d
Acq On : 28 Mar 2018 5:46 pm
Operator : EddieH
Sample : CC6383-50 Inst : MS3B
Misc : MS25088,V3B6426,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Mar 30 06:17:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 02 08:44:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145291.d
Acq On : 29 Mar 2018 7:38 am
Operator : EddieH
Sample : cc6383-20 Inst : MS3B
Misc : MS25138,V3B6427,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:23:54 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:49:01 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.008	65	151597	500.00	ug/L		0.00
5) pentafluorobenzene	10.513	168	128575	50.00	ug/L		-0.01
54) 1,4-difluorobenzene	11.486	114	173252	50.00	ug/L		-0.01
75) chlorobenzene-d5	14.823	117	162475	50.00	ug/L		-0.01
99) 1,4-dichlorobenzene-d4	17.318	152	103595	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.534	113	62496	50.95	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.90%				
55) 1,2-dichloroethane-d4 (s)	10.979	65	79279	55.02	ug/L		-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 110.04%				
76) toluene-d8 (s)	13.202	98	205339	48.92	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.84%				
100) 4-bromofluorobenzene (s)	16.078	95	77555	49.49	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.98%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.134	59	43117	99.65	ug/L		96
4) 1,4-dioxane	12.171	88	12790	416.63	ug/L		91
6) chlorodifluoromethane	4.216	51	66175	22.49	ug/L		96
7) dichlorodifluoromethane	4.190	85	67563	24.06	ug/L		96
8) chloromethane	4.624	50	63520	24.86	ug/L		98
9) vinyl chloride	4.886	62	60847	24.42	ug/L		96
11) bromomethane	5.602	94	44619	25.19	ug/L		94
12) chloroethane	5.785	64	30887	24.87	ug/L		94
13) trichlorofluoromethane	6.319	101	76349	22.89	ug/L		96
14) vinyl bromide	6.172	106	48513	25.76	ug/L		98
16) 2-chloropropane	6.983	43	52971	20.40	ug/L		96
17) acrolein	6.999	56	8112	26.49	ug/L		81
18) freon 113	7.260	151	32901	22.35	ug/L		92
19) 1,1-dichloroethene	7.213	96	28263	19.60	ug/L		90
20) acetone	7.234	58	15076	81.68	ug/L		94
21) acetonitrile	7.726	41	62681	222.15	ug/L		99
22) iodomethane	7.496	142	46670	14.69	ug/L		94
23) carbon disulfide	7.647	76	78887	13.71	ug/L		99
24) methylene chloride	8.034	84	33615	21.23	ug/L		98
25) methyl acetate	7.768	43	28354	22.98	ug/L		97
26) methyl tert butyl ether	8.458	73	76064	14.61	ug/L		98
27) trans-1,2-dichloroethene	8.479	96	27498	19.39	ug/L		90
28) hexane	8.882	56	16660	19.04	ug/L	#	83
29) di-isopropyl ether	9.133	45	98468	21.84	ug/L		97
30) 2-butanone	9.854	72	18223	87.12	ug/L		90
31) 1,1-dichloroethane	9.133	63	53857	21.19	ug/L		99
32) chloroprene	9.237	53	44338	20.34	ug/L		95
34) vinyl acetate	9.075	86	4941	23.31	ug/L		94
35) ethyl tert-butyl ether	9.640	59	104928	21.03	ug/L		96
36) ethyl acetate	9.870	45	5168	22.20	ug/L	#	84
37) 2,2-dichloropropane	9.948	77	65064	22.39	ug/L		96
38) cis-1,2-dichloroethene	9.912	96	32497	19.60	ug/L		94
41) methacrylonitrile	10.142	67	9054	14.04	ug/L		92
42) bromochloromethane	10.231	128	17426	21.20	ug/L		95
44) chloroform	10.336	83	57092	19.69	ug/L		97
45) tert-Butyl Formate	10.377	59	34730	47.43	ug/L		95
47) 1,1,1-trichloroethane	10.602	97	64215	21.76	ug/L		92
48) cyclohexane	10.717	84	43172	17.77	ug/L		94
49) isobutyl alcohol	10.785	43	27037	215.97	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145291.d
Acq On : 29 Mar 2018 7:38 am
Operator : EddieH
Sample : cc6383-20 Inst : MS3B
Misc : MS25138,V3B6427,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:23:54 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:49:01 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50)	1,1-dichloropropene	10.785	75	37789	19.58	ug/L		98
51)	carbon tetrachloride	10.812	117	58579	22.08	ug/L		97
52)	tert-amyl alcohol	10.942	73	20276	95.68	ug/L		94
53)	isopropyl acetate	10.974	87	7082	21.49	ug/L	#	47
56)	n-butyl alcohol	11.559	56	80858	1021.31	ug/L		97
57)	2,2,4-Trimethylpentane	11.157	57	101436	19.95	ug/L		97
58)	benzene	11.042	78	106180	19.58	ug/L		97
59)	tert-amyl methyl ether	11.141	73	104284	21.07	ug/L		98
60)	heptane	11.329	57	17024	19.47	ug/L		96
61)	1,2-dichloroethane	11.073	62	47665	21.39	ug/L		96
62)	ethyl acrylate	11.805	55	36126	22.44	ug/L		96
63)	trichloroethene	11.810	95	28503	20.08	ug/L		92
64)	2-chloroethyl vinyl ether	12.647	63	55761	70.70	ug/L		98
66)	methylcyclohexane	12.119	83	52034	18.25	ug/L		99
67)	1,2-dichloropropane	12.114	63	28623	21.52	ug/L		97
68)	dibromomethane	12.229	93	20247	22.47	ug/L		97
69)	bromodichloromethane	12.391	83	44682	21.71	ug/L		97
71)	epichlorohydrin	12.741	57	20278	111.63	ug/L		95
72)	cis-1,3-dichloropropene	12.877	75	45483	21.32	ug/L		92
73)	4-methyl-2-pentanone	12.993	58	64056	96.17	ug/L		91
74)	isoamyl alcohol	13.003	70	37416	456.46	ug/L		93
77)	toluene	13.280	92	63925	19.05	ug/L		99
79)	trans-1,3-dichloropropene	13.484	75	42662	20.09	ug/L		94
80)	1,1,2-trichloroethane	13.720	83	20733	20.22	ug/L		97
81)	tetrachloroethene	13.876	164	25341	19.83	ug/L		96
82)	2-hexanone	13.897	58	55096	88.24	ug/L		91
83)	1,3-dichloropropane	13.913	76	40749	20.74	ug/L		99
84)	butyl acetate	13.986	56	20187	21.80	ug/L		96
86)	dibromochloromethane	14.175	129	33586	20.30	ug/L		99
87)	1,2-dibromoethane	14.337	107	28539	20.82	ug/L		93
88)	n-butyl ether	14.818	57	115447	19.55	ug/L		98
89)	chlorobenzene	14.860	112	74825	19.49	ug/L		97
90)	1,1,1,2-tetrachloroethane	14.933	131	40901	20.85	ug/L		97
91)	ethylbenzene	14.928	91	133232	19.87	ug/L		98
92)	m,p-xylene	15.058	106	100525	40.42	ug/L		95
93)	o-xylene	15.487	91	122951	20.36	ug/L		97
94)	styrene	15.498	104	83743	20.51	ug/L		95
95)	butyl acrylate	15.304	55	59989	21.01	ug/L		99
96)	isopropylbenzene	15.864	105	155637	20.19	ug/L		98
97)	bromoform	15.749	173	26556	21.14	ug/L		98
98)	cis-1,4-dichloro-2-butene	15.901	88	16227	19.15	ug/L		93
101)	1,1,2,2-tetrachloroethane	16.162	83	46626	21.85	ug/L		96
103)	1,2,3-trichloropropane	16.256	110	13909	22.41	ug/L		88
104)	bromobenzene	16.277	156	38629	21.05	ug/L		94
105)	n-propylbenzene	16.308	91	171658	20.59	ug/L		99
106)	2-chlorotoluene	16.450	126	37830	20.49	ug/L		98
107)	4-chlorotoluene	16.570	91	99329	20.06	ug/L		99
108)	1,3,5-trimethylbenzene	16.476	105	142676	20.98	ug/L		99
109)	tert-butylbenzene	16.837	119	114665	19.22	ug/L		99
110)	1,2,4-trimethylbenzene	16.889	105	142583	20.88	ug/L		98
111)	sec-butylbenzene	17.067	105	173984	19.46	ug/L		99
112)	p-isopropyltoluene	17.203	119	156252	20.11	ug/L		99
113)	1,3-dichlorobenzene	17.245	146	78537	20.30	ug/L		99
114)	1,4-dichlorobenzene	17.344	146	79259	20.03	ug/L		99
115)	1,2-dichlorobenzene	17.731	146	86033	20.15	ug/L		99
116)	Benzyl Chloride	17.438	91	107658	21.86	ug/L		97
117)	n-butylbenzene	17.627	92	76533	19.37	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145291.d
Acq On : 29 Mar 2018 7:38 am
Operator : EddieH
Sample : cc6383-20 Inst : MS3B
Misc : MS25138,V3B6427,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:23:54 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:49:01 2018
Response via : Initial Calibration

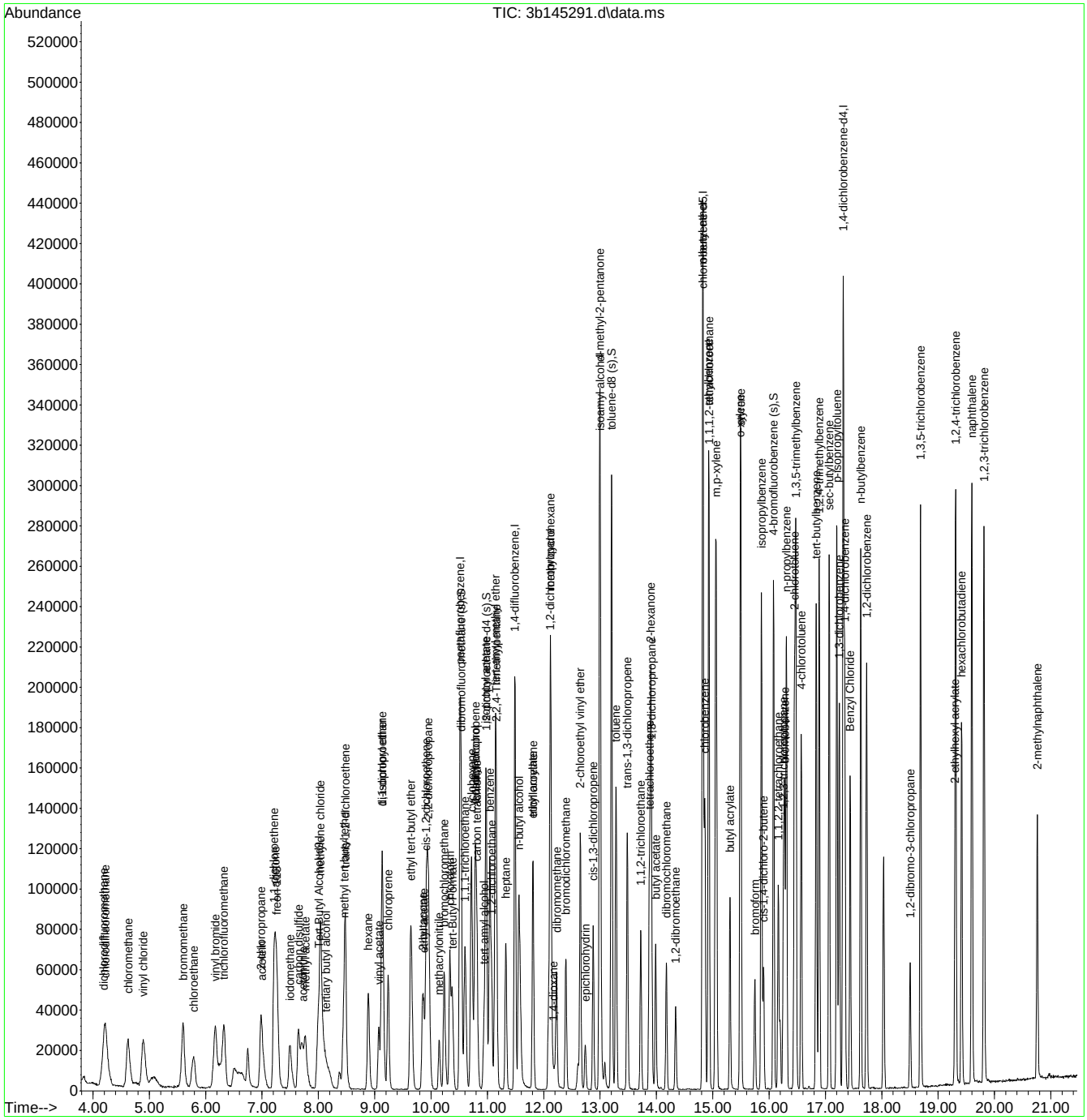
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2-dibromo-3-chloropr...	18.505	157	17789	20.34	ug/L	94
120) 1,3,5-trichlorobenzene	18.688	180	90734	19.03	ug/L	98
121) 2-ethylhexyl acrylate	19.295	70	8838	3.37	ug/L	92
122) 1,2,4-trichlorobenzene	19.311	180	89189	19.80	ug/L	97
123) hexachlorobutadiene	19.415	225	38920	19.34	ug/L	96
124) naphthalene	19.598	128	229587	19.32	ug/L	100
125) 1,2,3-trichlorobenzene	19.813	180	91127	19.93	ug/L	98
126) 2-methylnaphthalene	20.759	142	63448	8.74	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\04-03-18\v3b6427\
Data File : 3b145291.d
Acq On : 29 Mar 2018 7:38 am
Operator : EddieH
Sample : cc6383-20 Inst : MS3B
Misc : MS25138,V3B6427,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6383.M
Quant Results File: M3B6383.RES
Quant Time: Apr 03 01:23:54 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Wed Feb 28 14:49:01 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80106.D
Acq On : 15 Mar 2018 4:50 pm
Operator : HueanhT
Sample : IC3310-0.2
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 11:54:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	6.80	65	104578	500.00	ug/L		0.01
5) pentafluorobenzene	8.77	168	214559	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	280679	50.00	ug/L		0.00
75) chlorobenzene-d5	12.84	117	268372	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	167950	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.83	113	93246	49.09	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.18%				
55) 1,2-dichloroethane-d4 (s)	9.21	65	92797	52.08	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.16%				
76) toluene-d8 (s)	11.24	98	327162	48.66	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.32%				
99) 4-bromofluorobenzene (s)	14.11	95	129896	48.97	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.94%				
Target Compounds							Qvalue
19) 1,1-dichloroethene	6.21	61	885	0.11	ug/L	#	65
23) carbon disulfide	6.58	76	1978	0.10	ug/L		78
26) methyl tert butyl ether	7.13	73	1508	0.11	ug/L		55
29) di-isopropyl ether	7.66	45	2247	0.13	ug/L		83
31) 1,1-dichloroethane	7.67	63	848	0.10	ug/L		80
35) ethyl tert-butyl ether	8.06	59	1765	0.11	ug/L		89
37) 2,2-dichloropropane	8.35	77	833	0.11	ug/L		81
44) chloroform	8.65	83	910	0.12	ug/L		86
51) carbon tetrachloride	9.09	117	743	0.12	ug/L		89
57) 2,2,4-Trimethylpentane	9.35	57	2161	0.11	ug/L		90
58) benzene	9.27	78	1872	0.11	ug/L		92
59) tert-amyl methyl ether	9.33	73	1590	0.12	ug/L		76
64) 2-chloroethyl vinyl ether	10.71	63	1105	0.51	ug/L		72
69) bromodichloromethane	10.47	83	518	0.10	ug/L	#	25
72) cis-1,3-dichloropropene	10.94	75	663	0.11	ug/L	#	74
77) toluene	11.32	92	1043	0.11	ug/L		88
88) chlorobenzene	12.87	112	1187	0.11	ug/L		87
90) ethylbenzene	12.93	91	2185	0.12	ug/L		98
91) m,p-xylene	13.07	106	1537	0.21	ug/L		94
92) o-xylene	13.50	91	1935	0.12	ug/L		69
93) styrene	13.52	104	1372	0.11	ug/L		91
95) isopropylbenzene	13.88	105	2319	0.11	ug/L		92
100) 1,1,2,2-tetrachloroethane	14.20	83	529	0.10	ug/L		90
103) bromobenzene	14.31	156	580	0.11	ug/L		91
104) n-propylbenzene	14.34	91	2751	0.11	ug/L		91
106) 4-chlorotoluene	14.62	91	1627	0.11	ug/L		84
108) 1,3,5-trimethylbenzene	14.52	105	1895	0.10	ug/L		72
112) p-isopropyltoluene	15.28	119	2257	0.10	ug/L		89
113) 1,3-dichlorobenzene	15.33	146	1261	0.12	ug/L		86
114) 1,4-dichlorobenzene	15.44	146	1328	0.12	ug/L		90
115) 1,2-dichlorobenzene	15.85	146	1252	0.11	ug/L		93
122) 1,3,5-trichlorobenzene	16.90	180	1470	0.12	ug/L		91
123) 1,2,4-trichlorobenzene	17.58	180	1445	0.14	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80106.D
Acq On : 15 Mar 2018 4:50 pm
Operator : HueanhT
Sample : IC3310-0.2
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 11:54:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration

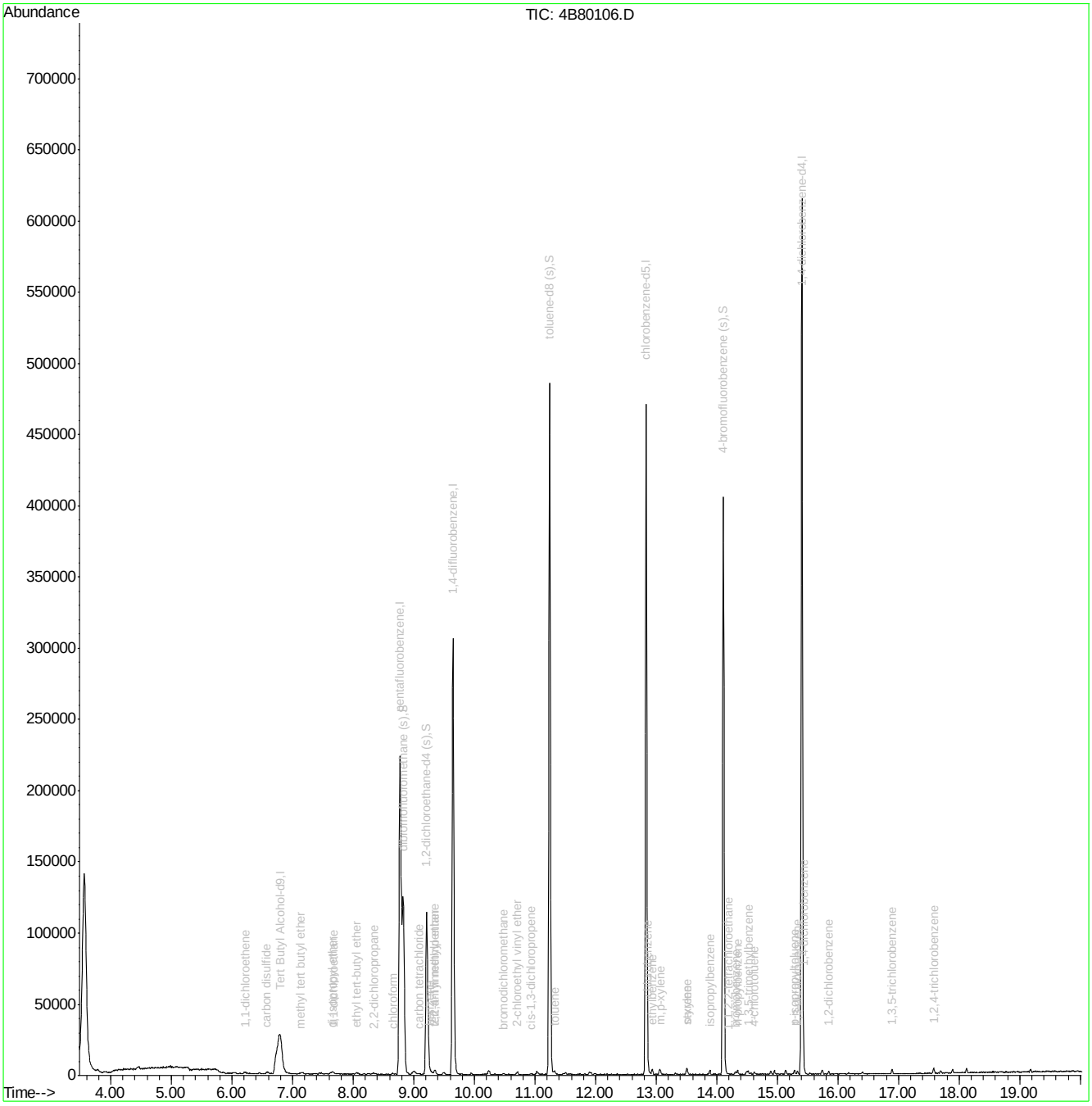
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80106.D
Acq On : 15 Mar 2018 4:50 pm
Operator : HueanhT
Sample : IC3310-0.2
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 11:54:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80107.D
Acq On : 15 Mar 2018 5:19 pm
Operator : HueanhT
Sample : IC3310-0.5
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 11:29:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	6.78	65	108248	500.00	ug/L		0.00
5) pentafluorobenzene	8.78	168	235034	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	319162	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	297064	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	178333	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.83	113	103112	49.56	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.12%				
55) 1,2-dichloroethane-d4 (s)	9.22	65	105011	51.83	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.66%				
76) toluene-d8 (s)	11.24	98	363745	48.88	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.76%				
99) 4-bromofluorobenzene (s)	14.11	95	140888	50.02	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.04%				
Target Compounds							Qvalue
6) chlorodifluoromethane	3.91	51	2791	0.28	ug/L		72
8) chloromethane	4.24	50	3426	0.29	ug/L		89
9) vinyl chloride	4.46	62	2691	0.25	ug/L		91
10) 1,3-butadiene	4.47	54	2570	0.49	ug/L		99
12) chloroethane	5.14	64	1660	0.32	ug/L		72
14) vinyl bromide	5.43	106	1748	0.28	ug/L		81
16) 2-chloropropane	6.04	43	3511	0.37	ug/L		74
18) freon 113	6.23	151	1126	0.23	ug/L	#	70
19) 1,1-dichloroethene	6.22	61	2483	0.29	ug/L		91
22) iodomethane	6.46	142	3003	0.28	ug/L		82
23) carbon disulfide	6.58	76	5198	0.24	ug/L		91
24) methylene chloride	6.83	84	1505	0.25	ug/L		85
26) methyl tert butyl ether	7.15	73	4149	0.28	ug/L		97
27) trans-1,2-dichloroethene	7.17	61	2038	0.28	ug/L		90
28) hexane	7.46	56	933	0.24	ug/L		85
29) di-isopropyl ether	7.65	45	5542	0.28	ug/L		82
31) 1,1-dichloroethane	7.67	63	2499	0.28	ug/L		86
32) chloroprene	7.75	53	1810	0.25	ug/L		84
35) ethyl tert-butyl ether	8.06	59	4718	0.27	ug/L		92
37) 2,2-dichloropropane	8.34	77	2404	0.30	ug/L		76
38) cis-1,2-dichloroethene	8.31	96	1410	0.26	ug/L		87
39) propionitrile	8.32	54	1581	2.43	ug/L		87
42) bromochloromethane	8.58	128	617	0.25	ug/L		97
44) chloroform	8.65	83	2333	0.28	ug/L		92
45) tert-Butyl Formate	8.69	59	951	0.22	ug/L	#	73
47) 1,1,1-trichloroethane	8.90	97	2232	0.27	ug/L		96
48) cyclohexane	9.01	84	2497	0.30	ug/L		93
50) 1,1-dichloropropene	9.04	75	1677	0.28	ug/L		86
51) carbon tetrachloride	9.08	117	1838	0.27	ug/L		96
57) 2,2,4-Trimethylpentane	9.34	57	6043	0.28	ug/L		94
58) benzene	9.28	78	5257	0.28	ug/L		96
59) tert-amyl methyl ether	9.34	73	4163	0.28	ug/L		99
60) heptane	9.49	57	1034	0.26	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80107.D
Acq On : 15 Mar 2018 5:19 pm
Operator : HueanhT
Sample : IC3310-0.5
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 11:29:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration

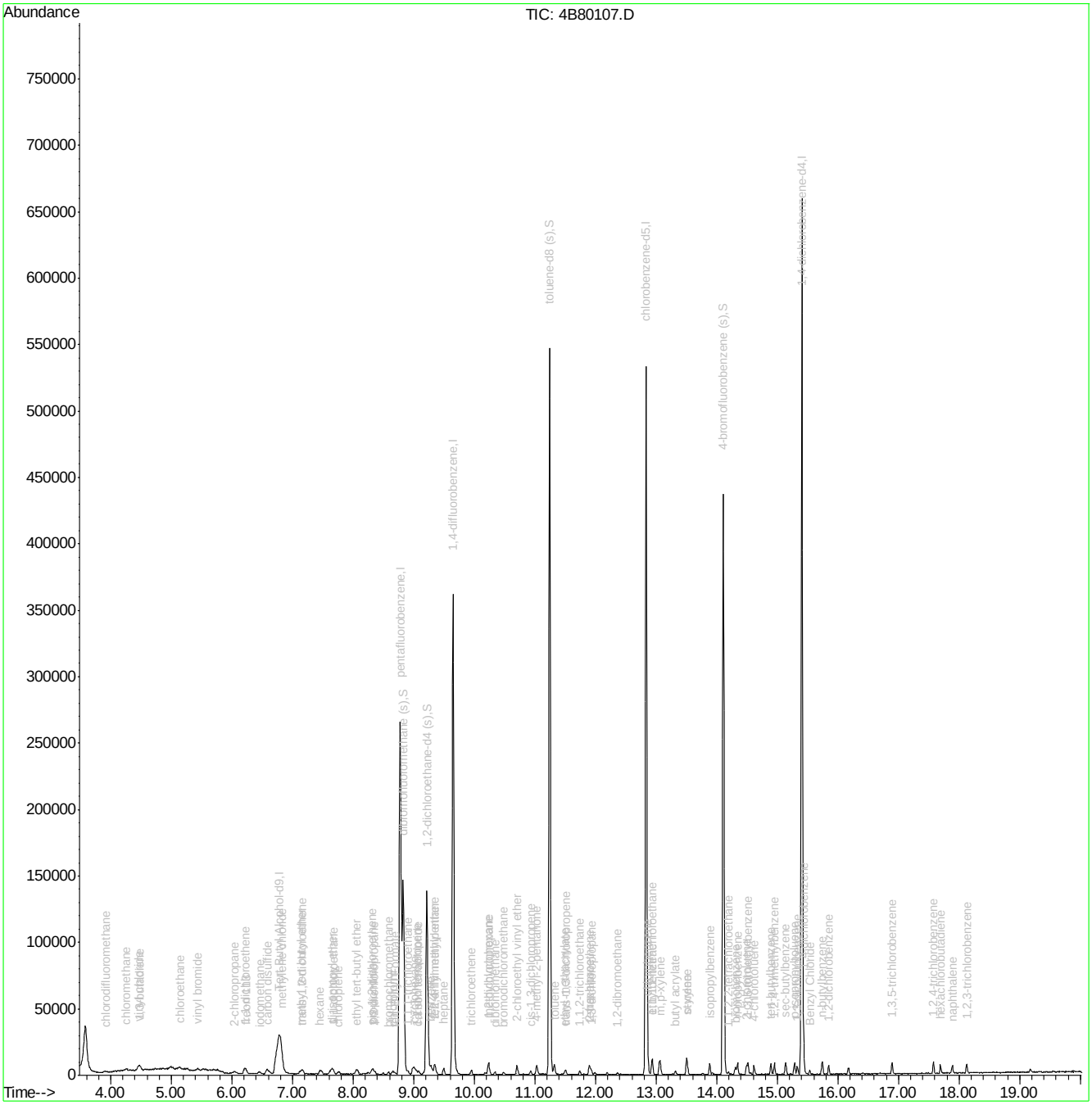
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
63) trichloroethene	9.95	95	1294	0.29 ug/L	86
64) 2-chloroethyl vinyl ether	10.70	63	3366	1.36 ug/L	95
66) methylcyclohexane	10.24	83	2879	0.28 ug/L	96
67) 1,2-dichloropropane	10.23	63	1354	0.28 ug/L	85
68) dibromomethane	10.34	93	730	0.28 ug/L #	62
69) bromodichloromethane	10.48	83	1424	0.24 ug/L	96
72) cis-1,3-dichloropropene	10.93	75	1806	0.26 ug/L	92
73) 4-methyl-2-pentanone	11.03	58	1573	1.03 ug/L	98
77) toluene	11.31	92	3012	0.27 ug/L	95
78) ethyl methacrylate	11.49	69	1251	0.24 ug/L	79
79) trans-1,3-dichloropropene	11.51	75	1422	0.24 ug/L	98
80) 1,1,2-trichloroethane	11.74	83	730	0.23 ug/L	96
81) tetrachloroethene	11.89	164	1108	0.28 ug/L	92
82) 2-hexanone	11.91	58	1581	1.19 ug/L	96
83) 1,3-dichloropropane	11.93	76	1646	0.29 ug/L	93
86) 1,2-dibromoethane	12.37	107	951	0.24 ug/L	87
88) chlorobenzene	12.87	112	3187	0.27 ug/L	93
89) 1,1,1,2-tetrachloroethane	12.94	131	1283	0.27 ug/L	80
90) ethylbenzene	12.93	91	6101	0.29 ug/L	87
91) m,p-xylene	13.06	106	4421	0.55 ug/L	92
92) o-xylene	13.50	91	4921	0.27 ug/L	95
93) styrene	13.52	104	3638	0.27 ug/L	92
94) butyl acrylate	13.31	55	2001	0.23 ug/L	95
95) isopropylbenzene	13.88	105	6251	0.26 ug/L	97
100) 1,1,2,2-tetrachloroethane	14.19	83	1283	0.24 ug/L	94
103) bromobenzene	14.31	156	1541	0.27 ug/L	84
104) n-propylbenzene	14.34	91	7682	0.30 ug/L	99
105) 2-chlorotoluene	14.49	126	1494	0.27 ug/L	90
106) 4-chlorotoluene	14.62	91	4440	0.29 ug/L	96
108) 1,3,5-trimethylbenzene	14.52	105	5400	0.28 ug/L	95
109) tert-butylbenzene	14.89	119	4413	0.26 ug/L	94
110) 1,2,4-trimethylbenzene	14.95	105	5396	0.27 ug/L	97
111) sec-butylbenzene	15.14	105	7306	0.27 ug/L	98
112) p-isopropyltoluene	15.28	119	6203	0.27 ug/L	98
113) 1,3-dichlorobenzene	15.33	146	3348	0.29 ug/L	90
114) 1,4-dichlorobenzene	15.44	146	3218	0.28 ug/L	91
115) 1,2-dichlorobenzene	15.84	146	3393	0.28 ug/L	89
116) Benzyl Chloride	15.54	91	2507	0.25 ug/L	91
118) n-butylbenzene	15.74	92	3420	0.28 ug/L	83
122) 1,3,5-trichlorobenzene	16.90	180	3537	0.28 ug/L	93
123) 1,2,4-trichlorobenzene	17.58	180	2983	0.27 ug/L	100
125) hexachlorobutadiene	17.69	225	1677	0.30 ug/L	87
126) naphthalene	17.89	128	5570	0.28 ug/L	96
127) 1,2,3-trichlorobenzene	18.12	180	2769	0.28 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80107.D
Acq On : 15 Mar 2018 5:19 pm
Operator : HueanhT
Sample : IC3310-0.5
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 11:29:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80108.D
Acq On : 15 Mar 2018 5:46 pm
Operator : HueanhT
Sample : IC3310-1
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 11:30:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	6.79	65	108632	500.00	ug/L		0.00
5) pentafluorobenzene	8.78	168	234125	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	319651	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	301051	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	184540	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.83	113	101085	48.77	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.54%				
55) 1,2-dichloroethane-d4 (s)	9.22	65	106265	52.37	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.74%				
76) toluene-d8 (s)	11.24	98	366741	48.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.26%				
99) 4-bromofluorobenzene (s)	14.11	95	144000	49.41	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.82%				
Target Compounds							Qvalue
6) chlorodifluoromethane	3.90	51	5325	0.53	ug/L		94
7) dichlorodifluoromethane	3.89	85	5010	0.55	ug/L		86
8) chloromethane	4.25	50	6858	0.59	ug/L		94
9) vinyl chloride	4.46	62	6319	0.59	ug/L		87
10) 1,3-butadiene	4.47	54	5038	0.95	ug/L		97
11) bromomethane	4.99	94	4766	0.71	ug/L		80
12) chloroethane	5.13	64	3138	0.60	ug/L		79
13) trichlorofluoromethane	5.54	101	5616	0.61	ug/L		94
14) vinyl bromide	5.43	106	3582	0.58	ug/L		86
15) ethyl ether	5.83	74	1184	0.52	ug/L	#	55
16) 2-chloropropane	6.04	43	6059	0.64	ug/L		91
18) freon 113	6.22	151	2385	0.50	ug/L		93
19) 1,1-dichloroethene	6.22	61	4685	0.54	ug/L		95
22) iodomethane	6.45	142	5724	0.53	ug/L		95
23) carbon disulfide	6.58	76	10470	0.49	ug/L		99
24) methylene chloride	6.83	84	2990	0.50	ug/L		93
26) methyl tert butyl ether	7.14	73	8188	0.55	ug/L		98
27) trans-1,2-dichloroethene	7.17	61	4088	0.56	ug/L		98
28) hexane	7.45	56	2327	0.60	ug/L	#	59
29) di-isopropyl ether	7.64	45	10477	0.54	ug/L		94
31) 1,1-dichloroethane	7.67	63	4884	0.54	ug/L		95
32) chloroprene	7.75	53	3737	0.53	ug/L		96
35) ethyl tert-butyl ether	8.06	59	9421	0.54	ug/L		96
37) 2,2-dichloropropane	8.35	77	4621	0.57	ug/L		98
38) cis-1,2-dichloroethene	8.31	96	2737	0.51	ug/L	#	77
39) propionitrile	8.32	54	3221	4.98	ug/L		90
42) bromochloromethane	8.58	128	1270	0.51	ug/L		87
44) chloroform	8.65	83	4597	0.55	ug/L		88
45) tert-Butyl Formate	8.69	59	1859	0.43	ug/L		91
47) 1,1,1-trichloroethane	8.90	97	4467	0.54	ug/L		93
48) cyclohexane	9.00	84	4884	0.59	ug/L		88
50) 1,1-dichloropropene	9.04	75	3501	0.58	ug/L		93
51) carbon tetrachloride	9.08	117	3758	0.56	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80108.D
Acq On : 15 Mar 2018 5:46 pm
Operator : HueanhT
Sample : IC3310-1
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 11:30:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
57) 2,2,4-Trimethylpentane	9.35	57	11734	0.54 ug/L	98
58) benzene	9.28	78	10022	0.54 ug/L	91
59) tert-amyl methyl ether	9.34	73	7898	0.53 ug/L	95
60) heptane	9.49	57	2314	0.58 ug/L	88
61) 1,2-dichloroethane	9.30	62	3315	0.62 ug/L	92
62) ethyl acrylate	9.92	55	2095	0.44 ug/L	82
63) trichloroethene	9.95	95	2586	0.57 ug/L	91
64) 2-chloroethyl vinyl ether	10.70	63	6543	2.64 ug/L	99
66) methylcyclohexane	10.24	83	5883	0.58 ug/L	91
67) 1,2-dichloropropane	10.23	63	2686	0.55 ug/L	95
68) dibromomethane	10.33	93	1266	0.48 ug/L #	71
69) bromodichloromethane	10.48	83	2755	0.47 ug/L	96
71) epichlorohydrin	10.80	57	929	2.33 ug/L	77
72) cis-1,3-dichloropropene	10.93	75	3824	0.54 ug/L	96
73) 4-methyl-2-pentanone	11.03	58	3367	2.21 ug/L #	80
74) isoamyl alcohol	11.03	70	870	9.03 ug/L #	74
77) toluene	11.32	92	5887	0.53 ug/L	93
78) ethyl methacrylate	11.49	69	2392	0.46 ug/L	91
79) trans-1,3-dichloropropene	11.51	75	3068	0.52 ug/L	93
80) 1,1,2-trichloroethane	11.74	83	1540	0.48 ug/L	90
81) tetrachloroethene	11.90	164	2288	0.57 ug/L	88
82) 2-hexanone	11.90	58	3639	2.70 ug/L	91
83) 1,3-dichloropropane	11.93	76	3300	0.56 ug/L	96
84) butyl acetate	11.98	56	1234	0.50 ug/L	92
85) dibromochloromethane	12.19	129	1923	0.46 ug/L	91
86) 1,2-dibromoethane	12.36	107	2022	0.51 ug/L	99
88) chlorobenzene	12.87	112	6575	0.55 ug/L	91
89) 1,1,1,2-tetrachloroethane	12.94	131	2396	0.49 ug/L	94
90) ethylbenzene	12.93	91	11711	0.55 ug/L	99
91) m,p-xylene	13.06	106	8783	1.08 ug/L	96
92) o-xylene	13.50	91	9972	0.54 ug/L	99
93) styrene	13.52	104	7300	0.53 ug/L	99
94) butyl acrylate	13.31	55	4120	0.47 ug/L	95
95) isopropylbenzene	13.88	105	12545	0.52 ug/L	96
96) bromoform	13.77	173	1271	0.47 ug/L	90
100) 1,1,2,2-tetrachloroethane	14.19	83	2674	0.48 ug/L	91
102) 1,2,3-trichloropropane	14.29	110	645	0.51 ug/L	91
103) bromobenzene	14.31	156	3221	0.54 ug/L	92
104) n-propylbenzene	14.34	91	14586	0.54 ug/L	96
105) 2-chlorotoluene	14.49	126	3105	0.54 ug/L	91
106) 4-chlorotoluene	14.61	91	8660	0.55 ug/L	98
108) 1,3,5-trimethylbenzene	14.52	105	10800	0.53 ug/L	97
109) tert-butylbenzene	14.90	119	8946	0.52 ug/L	94
110) 1,2,4-trimethylbenzene	14.95	105	10993	0.53 ug/L	96
111) sec-butylbenzene	15.14	105	14127	0.51 ug/L	98
112) p-isopropyltoluene	15.28	119	11918	0.50 ug/L	93
113) 1,3-dichlorobenzene	15.33	146	6593	0.55 ug/L	95
114) 1,4-dichlorobenzene	15.44	146	6578	0.56 ug/L	96
115) 1,2-dichlorobenzene	15.85	146	6676	0.53 ug/L	98
116) Benzyl Chloride	15.54	91	5028	0.48 ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80108.D
Acq On : 15 Mar 2018 5:46 pm
Operator : HueanhT
Sample : IC3310-1
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 11:30:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration

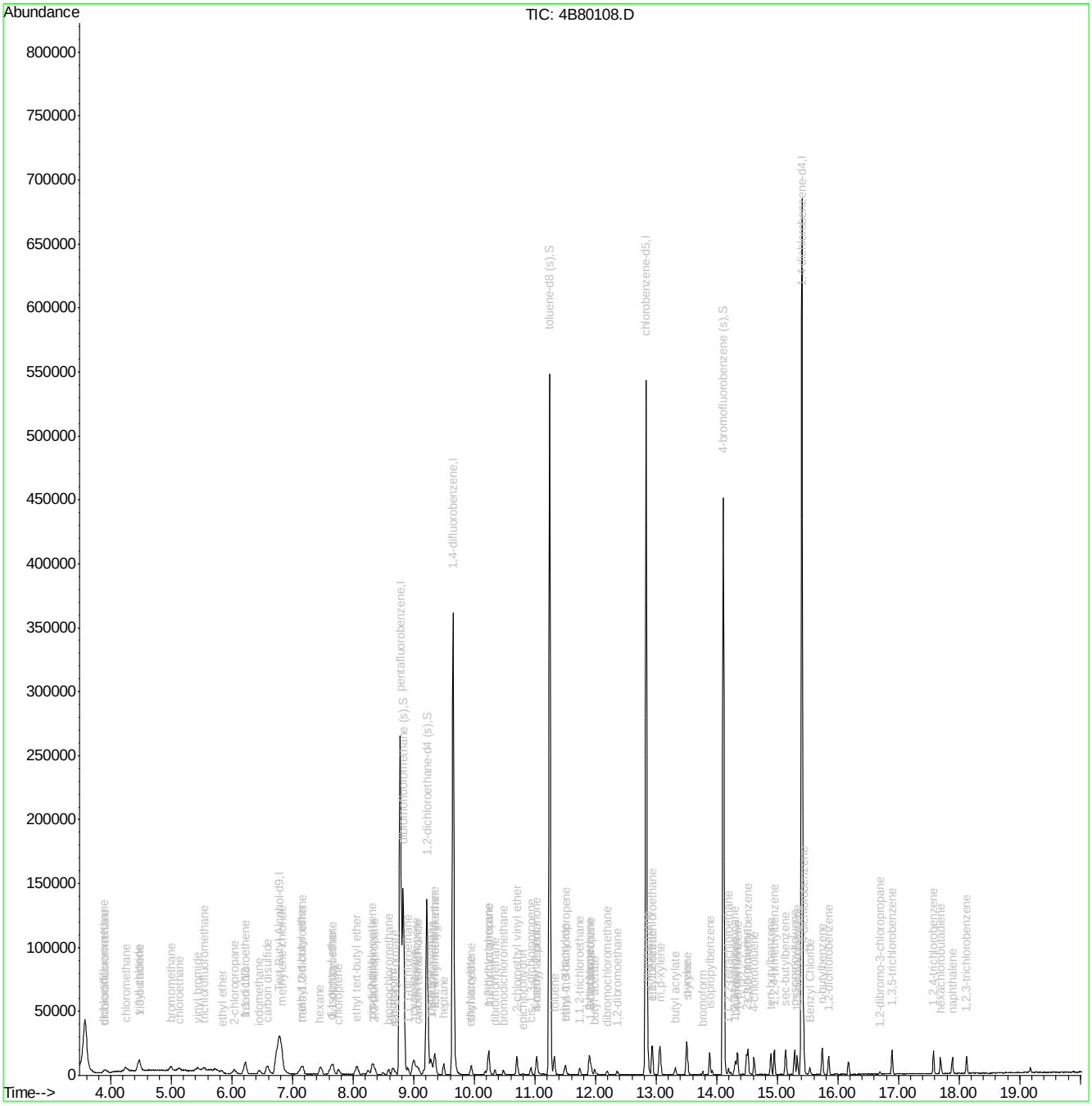
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
118) n-butylbenzene	15.74	92	6478	0.52	ug/L		95
121) 1,2-dibromo-3-chloropropan	16.69	157	616	0.46	ug/L	#	74
122) 1,3,5-trichlorobenzene	16.90	180	6860	0.52	ug/L		98
123) 1,2,4-trichlorobenzene	17.58	180	6037	0.53	ug/L		91
125) hexachlorobutadiene	17.70	225	3150	0.54	ug/L		87
126) naphthalene	17.89	128	10420	0.50	ug/L		98
127) 1,2,3-trichlorobenzene	18.12	180	5205	0.52	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80108.D
Acq On : 15 Mar 2018 5:46 pm
Operator : HueanhT
Sample : IC3310-1
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 11:30:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80109.D
Acq On : 15 Mar 2018 6:15 pm
Operator : HueanhT
Sample : IC3310-2
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 11:31:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	6.79	65	110526	500.00	ug/L		0.00
5) pentafluorobenzene	8.78	168	231643	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	314244	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	293546	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	176803	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.83	113	101218	49.36	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.72%				
55) 1,2-dichloroethane-d4 (s)	9.22	65	104885	52.58	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.16%				
76) toluene-d8 (s)	11.24	98	360735	49.05	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.10%				
99) 4-bromofluorobenzene (s)	14.11	95	139012	49.78	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.56%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.87	59	2686	5.38	ug/L		78
6) chlorodifluoromethane	3.91	51	11013	1.11	ug/L		92
7) dichlorodifluoromethane	3.89	85	10344	1.15	ug/L		97
8) chloromethane	4.25	50	13166	1.14	ug/L		94
9) vinyl chloride	4.46	62	12144	1.15	ug/L		96
10) 1,3-butadiene	4.47	54	9969	1.91	ug/L		96
11) bromomethane	4.99	94	8539	1.29	ug/L		92
12) chloroethane	5.13	64	6102	1.19	ug/L		98
13) trichlorofluoromethane	5.54	101	10594	1.16	ug/L		97
14) vinyl bromide	5.43	106	6979	1.14	ug/L		95
15) ethyl ether	5.83	74	2389	1.07	ug/L	#	70
16) 2-chloropropane	6.03	43	11679	1.24	ug/L		93
18) freon 113	6.23	151	5377	1.14	ug/L		94
19) 1,1-dichloroethene	6.22	61	9951	1.16	ug/L		96
20) acetone	6.23	58	2452	6.96	ug/L	#	67
21) acetonitrile	6.61	41	8847	12.65	ug/L		92
22) iodomethane	6.45	142	11583	1.08	ug/L		97
23) carbon disulfide	6.58	76	20106	0.96	ug/L		98
24) methylene chloride	6.83	84	6345	1.08	ug/L		90
25) methyl acetate	6.58	43	3794	1.31	ug/L		64
26) methyl tert butyl ether	7.14	73	16397	1.11	ug/L		96
27) trans-1,2-dichloroethene	7.17	61	7993	1.10	ug/L		96
28) hexane	7.46	56	4311	1.13	ug/L	#	78
29) di-isopropyl ether	7.65	45	20983	1.09	ug/L		99
30) 2-butanone	8.25	72	1823	4.92	ug/L	#	48
31) 1,1-dichloroethane	7.67	63	9959	1.12	ug/L		94
32) chloroprene	7.77	53	7794	1.11	ug/L		93
33) acrylonitrile	7.07	53	1469	0.89	ug/L		81
35) ethyl tert-butyl ether	8.06	59	18796	1.10	ug/L		98
37) 2,2-dichloropropane	8.35	77	9184	1.15	ug/L		93
38) cis-1,2-dichloroethene	8.31	96	5787	1.08	ug/L		91
39) propionitrile	8.32	54	6759	10.56	ug/L		94
41) methacrylonitrile	8.49	67	1624	1.01	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80109.D
Acq On : 15 Mar 2018 6:15 pm
Operator : HueanhT
Sample : IC3310-2
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 11:31:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) bromochloromethane	8.58	128	2588	1.04	ug/L		92
43) tetrahydrofuran	8.59	42	1378	1.08	ug/L		85
44) chloroform	8.65	83	9147	1.10	ug/L		90
45) tert-Butyl Formate	8.69	59	3897	0.91	ug/L		97
47) 1,1,1-trichloroethane	8.90	97	9180	1.11	ug/L		97
48) cyclohexane	9.01	84	9931	1.22	ug/L		94
50) 1,1-dichloropropene	9.04	75	6678	1.12	ug/L		97
51) carbon tetrachloride	9.09	117	7665	1.16	ug/L		98
52) tert-amyl alcohol	9.16	73	1280	5.93	ug/L		87
53) isopropyl acetate	9.18	87	641	0.90	ug/L	#	41
57) 2,2,4-Trimethylpentane	9.35	57	25355	1.18	ug/L		96
58) benzene	9.28	78	20149	1.10	ug/L		98
59) tert-amyl methyl ether	9.34	73	16132	1.11	ug/L		98
60) heptane	9.49	57	4396	1.12	ug/L		94
61) 1,2-dichloroethane	9.30	62	6403	1.21	ug/L		95
62) ethyl acrylate	9.92	55	4465	0.96	ug/L		92
63) trichloroethene	9.95	95	4957	1.12	ug/L		91
64) 2-chloroethyl vinyl ether	10.70	63	13283	5.45	ug/L		98
65) methyl methacrylate	10.17	100	884	0.99	ug/L	#	83
66) methylcyclohexane	10.24	83	11595	1.16	ug/L		97
67) 1,2-dichloropropane	10.23	63	5395	1.13	ug/L		91
68) dibromomethane	10.34	93	2800	1.08	ug/L		95
69) bromodichloromethane	10.48	83	5928	1.02	ug/L		93
70) 2-nitropropane	10.67	41	1663	1.17	ug/L		90
71) epichlorohydrin	10.80	57	1985	5.07	ug/L		100
72) cis-1,3-dichloropropene	10.93	75	7477	1.07	ug/L		99
73) 4-methyl-2-pentanone	11.03	58	6722	4.49	ug/L		88
74) isoamyl alcohol	11.02	70	2043	21.56	ug/L	#	81
77) toluene	11.32	92	11847	1.09	ug/L		95
78) ethyl methacrylate	11.49	69	5172	1.02	ug/L		97
79) trans-1,3-dichloropropene	11.50	75	6082	1.05	ug/L		97
80) 1,1,2-trichloroethane	11.74	83	3326	1.05	ug/L		91
81) tetrachloroethene	11.89	164	4216	1.08	ug/L		90
82) 2-hexanone	11.91	58	6775	5.15	ug/L		91
83) 1,3-dichloropropane	11.93	76	6520	1.14	ug/L		92
84) butyl acetate	11.98	56	2674	1.12	ug/L	#	80
85) dibromochloromethane	12.19	129	3866	0.96	ug/L		96
86) 1,2-dibromoethane	12.36	107	3957	1.02	ug/L		97
87) n-butyl ether	12.82	57	22740	1.05	ug/L		94
88) chlorobenzene	12.87	112	12754	1.09	ug/L		98
89) 1,1,1,2-tetrachloroethane	12.94	131	5050	1.06	ug/L		96
90) ethylbenzene	12.93	91	23183	1.12	ug/L		99
91) m,p-xylene	13.07	106	17695	2.23	ug/L		91
92) o-xylene	13.50	91	19540	1.08	ug/L		98
93) styrene	13.52	104	14227	1.06	ug/L		89
94) butyl acrylate	13.31	55	8188	0.95	ug/L		95
95) isopropylbenzene	13.88	105	25778	1.11	ug/L		98
96) bromoform	13.77	173	2339	0.88	ug/L		92
97) cis-1,4-dichloro-2-butene	13.92	88	1355	0.98	ug/L		94
100) 1,1,2,2-tetrachloroethane	14.20	83	5832	1.10	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80109.D
Acq On : 15 Mar 2018 6:15 pm
Operator : HueanhT
Sample : IC3310-2
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 11:31:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration

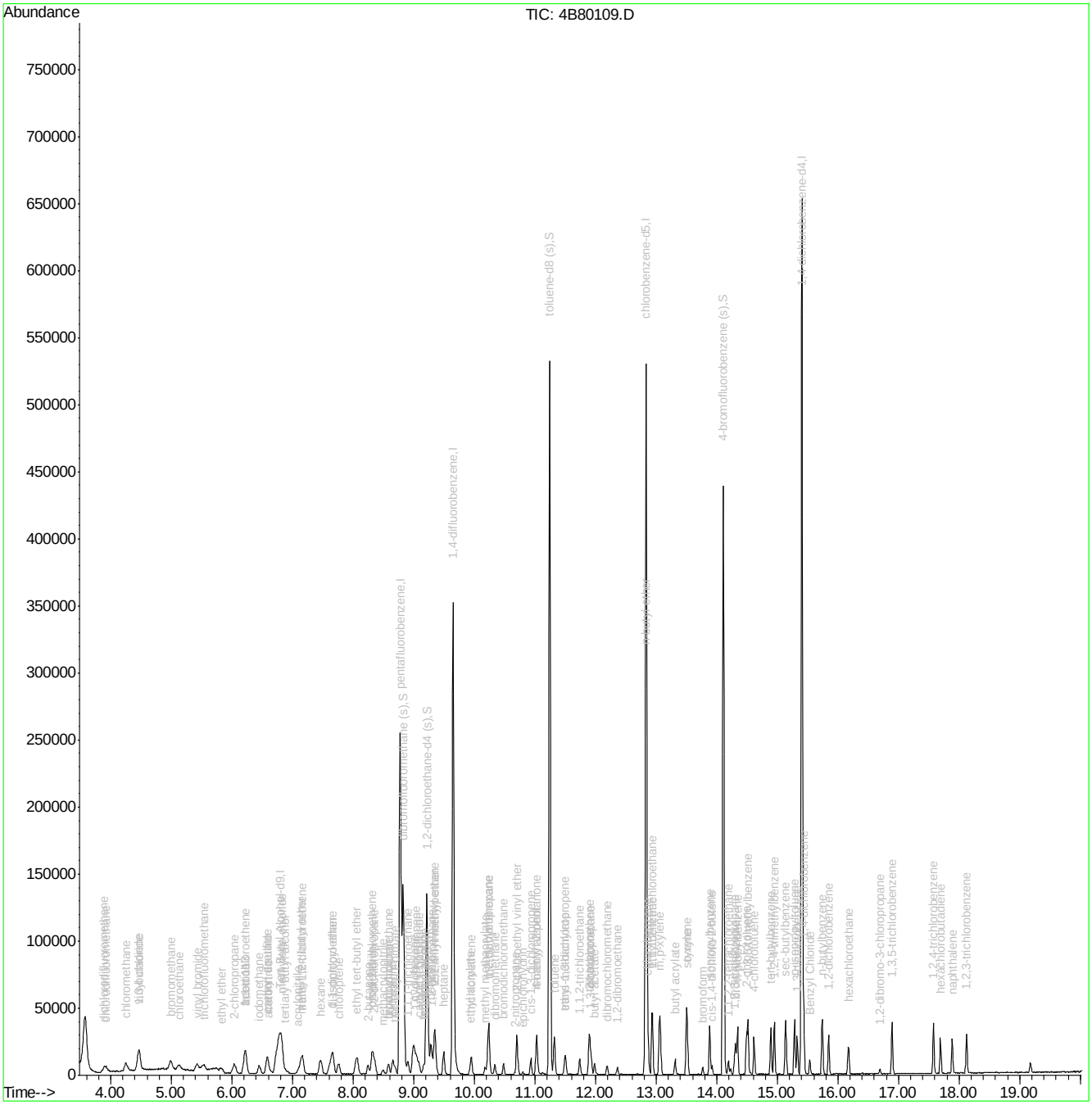
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,3-trichloropropane	14.29	110	1346	1.12	ug/L	89
103) bromobenzene	14.31	156	6440	1.12	ug/L	89
104) n-propylbenzene	14.34	91	28651	1.11	ug/L	98
105) 2-chlorotoluene	14.49	126	6083	1.10	ug/L	98
106) 4-chlorotoluene	14.61	91	16845	1.12	ug/L	96
108) 1,3,5-trimethylbenzene	14.52	105	22046	1.13	ug/L	98
109) tert-butylbenzene	14.89	119	18083	1.09	ug/L	98
110) 1,2,4-trimethylbenzene	14.95	105	21829	1.10	ug/L	97
111) sec-butylbenzene	15.14	105	28912	1.09	ug/L	99
112) p-isopropyltoluene	15.28	119	24906	1.10	ug/L	99
113) 1,3-dichlorobenzene	15.33	146	12837	1.12	ug/L	97
114) 1,4-dichlorobenzene	15.44	146	12230	1.08	ug/L	98
115) 1,2-dichlorobenzene	15.85	146	12953	1.08	ug/L	99
116) Benzyl Chloride	15.54	91	9040	0.90	ug/L	98
118) n-butylbenzene	15.74	92	12717	1.06	ug/L	99
120) hexachloroethane	16.17	201	3644	0.96	ug/L	84
121) 1,2-dibromo-3-chloropropan	16.69	157	1171	0.90	ug/L	88
122) 1,3,5-trichlorobenzene	16.90	180	13888	1.11	ug/L	98
123) 1,2,4-trichlorobenzene	17.58	180	11692	1.08	ug/L	94
125) hexachlorobutadiene	17.69	225	6559	1.17	ug/L	96
126) naphthalene	17.88	128	20719	1.05	ug/L	98
127) 1,2,3-trichlorobenzene	18.12	180	10626	1.10	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80109.D
Acq On : 15 Mar 2018 6:15 pm
Operator : HueanhT
Sample : IC3310-2
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 11:31:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:50:14 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80110.D
Acq On : 15 Mar 2018 6:43 pm
Operator : HueanhT
Sample : IC3310-5
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 11:31:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:48:40 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	6.80	65	110446	500.00	ug/L		0.01
5) pentafluorobenzene	8.78	168	231831	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	313151	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	294680	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	182834	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.82	113	100786	49.11	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.22%				
55) 1,2-dichloroethane-d4 (s)	9.22	65	104782	52.71	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.42%				
76) toluene-d8 (s)	11.24	98	359568	48.71	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.42%				
99) 4-bromofluorobenzene (s)	14.11	95	142238	49.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.52%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.88	59	7025	14.08	ug/L		78
4) 1,4-dioxane	10.28	88	3202	72.19	ug/L		95
6) chlorodifluoromethane	3.90	51	27415	2.76	ug/L		99
7) dichlorodifluoromethane	3.89	85	27662	3.09	ug/L		97
8) chloromethane	4.25	50	33990	2.94	ug/L		96
9) vinyl chloride	4.46	62	30853	2.92	ug/L		96
10) 1,3-butadiene	4.47	54	25651	4.91	ug/L		99
11) bromomethane	4.99	94	20415	3.08	ug/L		99
12) chloroethane	5.12	64	15620	3.04	ug/L		93
13) trichlorofluoromethane	5.53	101	27298	2.99	ug/L		94
14) vinyl bromide	5.42	106	18438	3.00	ug/L		94
15) ethyl ether	5.80	74	6302	2.81	ug/L		80
16) 2-chloropropane	6.04	43	28102	2.99	ug/L		97
17) acrolein	6.05	56	2539	2.59	ug/L		92
18) freon 113	6.22	151	13789	2.91	ug/L		87
19) 1,1-dichloroethene	6.22	61	24995	2.91	ug/L		97
20) acetone	6.22	58	6664	18.89	ug/L		99
21) acetonitrile	6.59	41	21265	30.38	ug/L		96
22) iodomethane	6.46	142	29880	2.79	ug/L		98
23) carbon disulfide	6.58	76	51933	2.47	ug/L		97
24) methylene chloride	6.83	84	16191	2.75	ug/L		98
25) methyl acetate	6.59	43	8838	3.04	ug/L		92
26) methyl tert butyl ether	7.13	73	41828	2.82	ug/L		97
27) trans-1,2-dichloroethene	7.17	61	21202	2.92	ug/L		95
28) hexane	7.47	56	10641	2.78	ug/L		92
29) di-isopropyl ether	7.65	45	53486	2.77	ug/L		96
30) 2-butanone	8.23	72	5129	13.83	ug/L	#	72
31) 1,1-dichloroethane	7.67	63	25034	2.81	ug/L		99
32) chloroprene	7.76	53	19415	2.76	ug/L		98
33) acrylonitrile	7.07	53	4331	2.62	ug/L		91
34) vinyl acetate	7.59	86	1275	2.07	ug/L	#	14
35) ethyl tert-butyl ether	8.05	59	47009	2.74	ug/L		95
36) ethyl acetate	8.25	45	1542	2.64	ug/L	#	18

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80110.D
Acq On : 15 Mar 2018 6:43 pm
Operator : HueanhT
Sample : IC3310-5
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 11:31:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:48:40 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.34	77	23596	2.96	ug/L		95
38) cis-1,2-dichloroethene	8.31	96	14705	2.75	ug/L		98
39) propionitrile	8.31	54	17529	27.36	ug/L		98
40) methyl acrylate	8.32	85	1208	2.31	ug/L	#	80
41) methacrylonitrile	8.49	67	4089	2.53	ug/L		96
42) bromochloromethane	8.58	128	6707	2.70	ug/L		96
43) tetrahydrofuran	8.59	42	3340	2.62	ug/L		96
44) chloroform	8.65	83	22546	2.70	ug/L		100
45) tert-Butyl Formate	8.69	59	9950	2.31	ug/L		94
47) 1,1,1-trichloroethane	8.90	97	23267	2.81	ug/L		97
48) cyclohexane	9.01	84	25416	3.12	ug/L		89
50) 1,1-dichloropropene	9.04	75	16927	2.83	ug/L		97
51) carbon tetrachloride	9.09	117	19433	2.95	ug/L		98
52) tert-amyl alcohol	9.15	73	3042	14.08	ug/L	#	84
53) isopropyl acetate	9.16	87	1788	2.50	ug/L	#	81
56) n-butyl alcohol	9.68	56	20347	183.37	ug/L		93
57) 2,2,4-Trimethylpentane	9.35	57	61247	2.87	ug/L		97
58) benzene	9.28	78	50855	2.80	ug/L		99
59) tert-amyl methyl ether	9.34	73	41630	2.88	ug/L		97
60) heptane	9.49	57	11317	2.89	ug/L		93
61) 1,2-dichloroethane	9.30	62	14972	2.85	ug/L		98
62) ethyl acrylate	9.92	55	11895	2.57	ug/L		98
63) trichloroethene	9.95	95	12393	2.81	ug/L		97
64) 2-chloroethyl vinyl ether	10.70	63	34245	14.10	ug/L		99
65) methyl methacrylate	10.17	100	2372	2.67	ug/L	#	88
66) methylcyclohexane	10.24	83	29853	3.00	ug/L		96
67) 1,2-dichloropropane	10.23	63	13399	2.83	ug/L		94
68) dibromomethane	10.34	93	6880	2.66	ug/L		98
69) bromodichloromethane	10.48	83	15018	2.60	ug/L		98
70) 2-nitropropane	10.67	41	3849	2.73	ug/L		91
71) epichlorohydrin	10.80	57	5101	13.06	ug/L		100
72) cis-1,3-dichloropropene	10.93	75	18547	2.67	ug/L		98
73) 4-methyl-2-pentanone	11.03	58	17615	11.80	ug/L		96
74) isoamyl alcohol	11.02	70	5323	56.38	ug/L	#	84
77) toluene	11.32	92	29536	2.71	ug/L		97
78) ethyl methacrylate	11.49	69	13339	2.62	ug/L		94
79) trans-1,3-dichloropropene	11.51	75	14891	2.57	ug/L		97
80) 1,1,2-trichloroethane	11.74	83	8820	2.79	ug/L		92
81) tetrachloroethene	11.90	164	10953	2.79	ug/L		95
82) 2-hexanone	11.90	58	17376	13.15	ug/L		89
83) 1,3-dichloropropane	11.93	76	15993	2.79	ug/L		94
84) butyl acetate	11.98	56	7144	2.98	ug/L	#	83
85) dibromochloromethane	12.19	129	9831	2.42	ug/L		98
86) 1,2-dibromoethane	12.36	107	10599	2.71	ug/L		93
87) n-butyl ether	12.82	57	58953	2.71	ug/L		97
88) chlorobenzene	12.87	112	32952	2.79	ug/L		93
89) 1,1,1,2-tetrachloroethane	12.94	131	13057	2.73	ug/L		97
90) ethylbenzene	12.93	91	58469	2.82	ug/L		97
91) m,p-xylene	13.06	106	45103	5.66	ug/L		96
92) o-xylene	13.50	91	50371	2.78	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80110.D
Acq On : 15 Mar 2018 6:43 pm
Operator : HueanhT
Sample : IC3310-5
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 11:31:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:48:40 2018
Response via : Initial Calibration

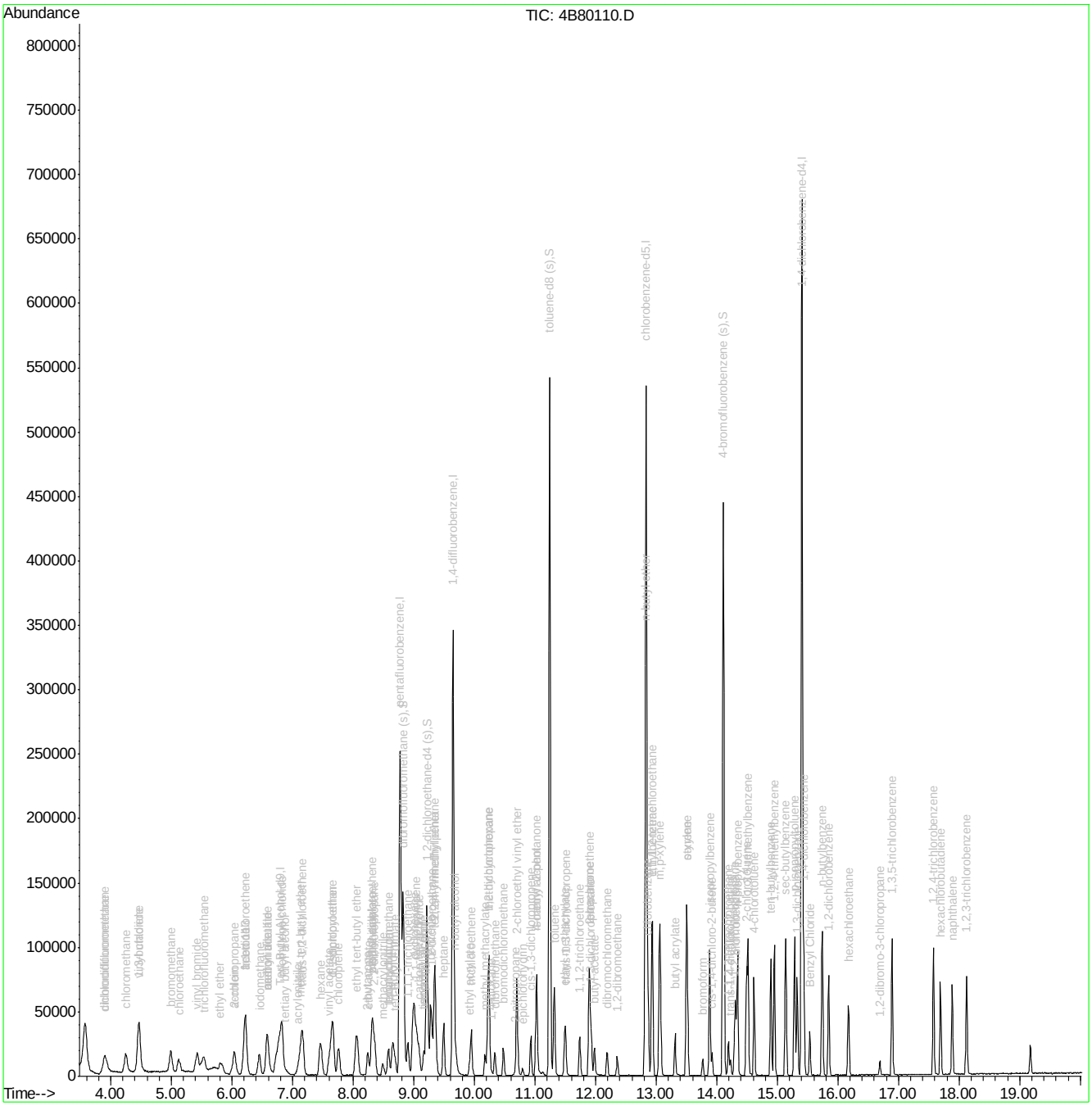
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) styrene	13.51	104	37956	2.81	ug/L	98
94) butyl acrylate	13.31	55	22531	2.61	ug/L	98
95) isopropylbenzene	13.88	105	65507	2.80	ug/L	99
96) bromoform	13.77	173	6249	2.35	ug/L	98
97) cis-1,4-dichloro-2-butene	13.92	88	3467	2.49	ug/L	90
100) 1,1,2,2-tetrachloroethane	14.19	83	14273	2.60	ug/L	96
101) trans-1,4-dichloro-2-buten	14.23	53	2632	2.57	ug/L	93
102) 1,2,3-trichloropropane	14.29	110	3697	2.97	ug/L	95
103) bromobenzene	14.31	156	16685	2.81	ug/L	96
104) n-propylbenzene	14.34	91	76180	2.86	ug/L	99
105) 2-chlorotoluene	14.49	126	15911	2.78	ug/L	97
106) 4-chlorotoluene	14.61	91	43894	2.83	ug/L	100
108) 1,3,5-trimethylbenzene	14.52	105	56551	2.81	ug/L	99
109) tert-butylbenzene	14.89	119	46539	2.71	ug/L	98
110) 1,2,4-trimethylbenzene	14.95	105	57439	2.80	ug/L	98
111) sec-butylbenzene	15.14	105	76695	2.79	ug/L	100
112) p-isopropyltoluene	15.28	119	65592	2.80	ug/L	99
113) 1,3-dichlorobenzene	15.33	146	33155	2.80	ug/L	96
114) 1,4-dichlorobenzene	15.44	146	32450	2.77	ug/L	97
115) 1,2-dichlorobenzene	15.84	146	35250	2.85	ug/L	95
116) Benzyl Chloride	15.54	91	25382	2.44	ug/L	98
118) n-butylbenzene	15.74	92	33987	2.73	ug/L	97
120) hexachloroethane	16.17	201	9023	2.30	ug/L	85
121) 1,2-dibromo-3-chloropropan	16.69	157	3264	2.43	ug/L	99
122) 1,3,5-trichlorobenzene	16.90	180	35596	2.74	ug/L	98
123) 1,2,4-trichlorobenzene	17.58	180	30615	2.72	ug/L	96
125) hexachlorobutadiene	17.69	225	16808	2.90	ug/L	98
126) naphthalene	17.88	128	56099	2.74	ug/L	99
127) 1,2,3-trichlorobenzene	18.12	180	27360	2.74	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80110.D
Acq On : 15 Mar 2018 6:43 pm
Operator : HueanhT
Sample : IC3310-5
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 11:31:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:48:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80111.D
Acq On : 15 Mar 2018 7:11 pm
Operator : HueanhT
Sample : IC3310-10
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 16 11:35:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	6.77	65	107123	500.00	ug/L	-0.01
5) pentafluorobenzene	8.78	168	231439	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	318387	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	299691	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	177286	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	102275	49.92	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.84%			
55) 1,2-dichloroethane-d4 (s)	9.22	65	105652	52.28	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.56%			
76) toluene-d8 (s)	11.24	98	367567	48.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.92%			
99) 4-bromofluorobenzene (s)	14.11	95	142295	50.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.64%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.89	59	14412	29.78	ug/L	96
4) 1,4-dioxane	10.26	88	6358	147.79	ug/L	89
6) chlorodifluoromethane	3.91	51	56566	5.71	ug/L	95
7) dichlorodifluoromethane	3.90	85	59265	6.62	ug/L	96
8) chloromethane	4.25	50	66653	5.78	ug/L	97
9) vinyl chloride	4.46	62	63874	6.06	ug/L	97
10) 1,3-butadiene	4.47	54	53801	10.31	ug/L	99
11) bromomethane	4.99	94	41723	6.31	ug/L	98
12) chloroethane	5.13	64	31474	6.14	ug/L	97
13) trichlorofluoromethane	5.54	101	57538	6.32	ug/L	98
14) vinyl bromide	5.43	106	38266	6.23	ug/L	97
15) ethyl ether	5.81	74	12979	5.79	ug/L	94
16) 2-chloropropane	6.03	43	55979	5.96	ug/L	97
17) acrolein	6.05	56	5038	5.15	ug/L	92
18) freon 113	6.23	151	28880	6.10	ug/L	94
19) 1,1-dichloroethene	6.22	61	51478	6.01	ug/L	98
20) acetone	6.20	58	13229	37.56	ug/L #	77
21) acetonitrile	6.59	41	40840	58.44	ug/L	96
22) iodomethane	6.45	142	60337	5.65	ug/L	98
23) carbon disulfide	6.58	76	108965	5.19	ug/L	99
24) methylene chloride	6.83	84	32593	5.55	ug/L	98
25) methyl acetate	6.59	43	17774	6.12	ug/L	97
26) methyl tert butyl ether	7.14	73	85496	5.77	ug/L	98
27) trans-1,2-dichloroethene	7.17	61	43045	5.93	ug/L	97
28) hexane	7.46	56	22190	5.81	ug/L	97
29) di-isopropyl ether	7.65	45	110704	5.73	ug/L	99
30) 2-butanone	8.24	72	10776	29.12	ug/L	92
31) 1,1-dichloroethane	7.67	63	52514	5.91	ug/L	97
32) chloroprene	7.76	53	41353	5.89	ug/L	99
33) acrylonitrile	7.07	53	9640	5.83	ug/L	92
34) vinyl acetate	7.60	86	2961	4.82	ug/L #	78
35) ethyl tert-butyl ether	8.06	59	98141	5.72	ug/L	98
36) ethyl acetate	8.25	45	3014	5.16	ug/L #	43

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80111.D
Acq On : 15 Mar 2018 7:11 pm
Operator : HueanhT
Sample : IC3310-10
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 16 11:35:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.35	77	47460	5.96	ug/L		96
38) cis-1,2-dichloroethene	8.31	96	30244	5.66	ug/L		96
39) propionitrile	8.31	54	36611	57.25	ug/L		99
40) methyl acrylate	8.32	85	3040	5.83	ug/L	#	82
41) methacrylonitrile	8.50	67	8836	5.49	ug/L		88
42) bromochloromethane	8.58	128	14221	5.74	ug/L		98
43) tetrahydrofuran	8.59	42	7115	5.59	ug/L		93
44) chloroform	8.65	83	46611	5.59	ug/L		98
45) tert-Butyl Formate	8.69	59	20390	4.74	ug/L		93
47) 1,1,1-trichloroethane	8.90	97	47630	5.77	ug/L		99
48) cyclohexane	9.01	84	52917	6.51	ug/L		98
50) 1,1-dichloropropene	9.05	75	34846	5.83	ug/L		98
51) carbon tetrachloride	9.09	117	39625	6.02	ug/L		98
52) tert-amyl alcohol	9.15	73	6559	30.42	ug/L		92
53) isopropyl acetate	9.17	87	4186	5.86	ug/L	#	86
56) n-butyl alcohol	9.68	56	37654	333.77	ug/L		97
57) 2,2,4-Trimethylpentane	9.35	57	133785	6.16	ug/L		98
58) benzene	9.28	78	105452	5.71	ug/L		99
59) tert-amyl methyl ether	9.34	73	86590	5.89	ug/L		98
60) heptane	9.49	57	24176	6.07	ug/L		97
61) 1,2-dichloroethane	9.30	62	31245	5.84	ug/L		99
62) ethyl acrylate	9.92	55	25315	5.37	ug/L		97
63) trichloroethene	9.95	95	26380	5.89	ug/L		97
64) 2-chloroethyl vinyl ether	10.70	63	70764	28.66	ug/L		99
65) methyl methacrylate	10.17	100	5304	5.86	ug/L		98
66) methylcyclohexane	10.24	83	62319	6.16	ug/L		94
67) 1,2-dichloropropane	10.23	63	28284	5.87	ug/L		98
68) dibromomethane	10.34	93	14845	5.65	ug/L		97
69) bromodichloromethane	10.48	83	32180	5.49	ug/L		97
70) 2-nitropropane	10.68	41	8101	5.64	ug/L		91
71) epichlorohydrin	10.80	57	10785	27.17	ug/L		98
72) cis-1,3-dichloropropene	10.93	75	39122	5.55	ug/L		100
73) 4-methyl-2-pentanone	11.03	58	36565	24.10	ug/L		98
74) isoamyl alcohol	11.02	70	11826	123.19	ug/L		93
77) toluene	11.32	92	62489	5.64	ug/L		98
78) ethyl methacrylate	11.49	69	28641	5.52	ug/L		99
79) trans-1,3-dichloropropene	11.51	75	33004	5.60	ug/L		96
80) 1,1,2-trichloroethane	11.74	83	17784	5.52	ug/L		99
81) tetrachloroethene	11.90	164	22983	5.75	ug/L		97
82) 2-hexanone	11.90	58	35962	26.76	ug/L		99
83) 1,3-dichloropropane	11.93	76	34044	5.85	ug/L		94
84) butyl acetate	11.98	56	14190	5.83	ug/L		96
85) dibromochloromethane	12.19	129	21685	5.25	ug/L		100
86) 1,2-dibromoethane	12.36	107	21715	5.47	ug/L		98
87) n-butyl ether	12.81	57	123572	5.59	ug/L		98
88) chlorobenzene	12.87	112	68137	5.68	ug/L		97
89) 1,1,1,2-tetrachloroethane	12.94	131	27014	5.55	ug/L		99
90) ethylbenzene	12.93	91	122675	5.81	ug/L		100
91) m,p-xylene	13.06	106	95215	11.75	ug/L		96
92) o-xylene	13.50	91	107319	5.82	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80111.D
Acq On : 15 Mar 2018 7:11 pm
Operator : HueanhT
Sample : IC3310-10
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 16 11:35:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration

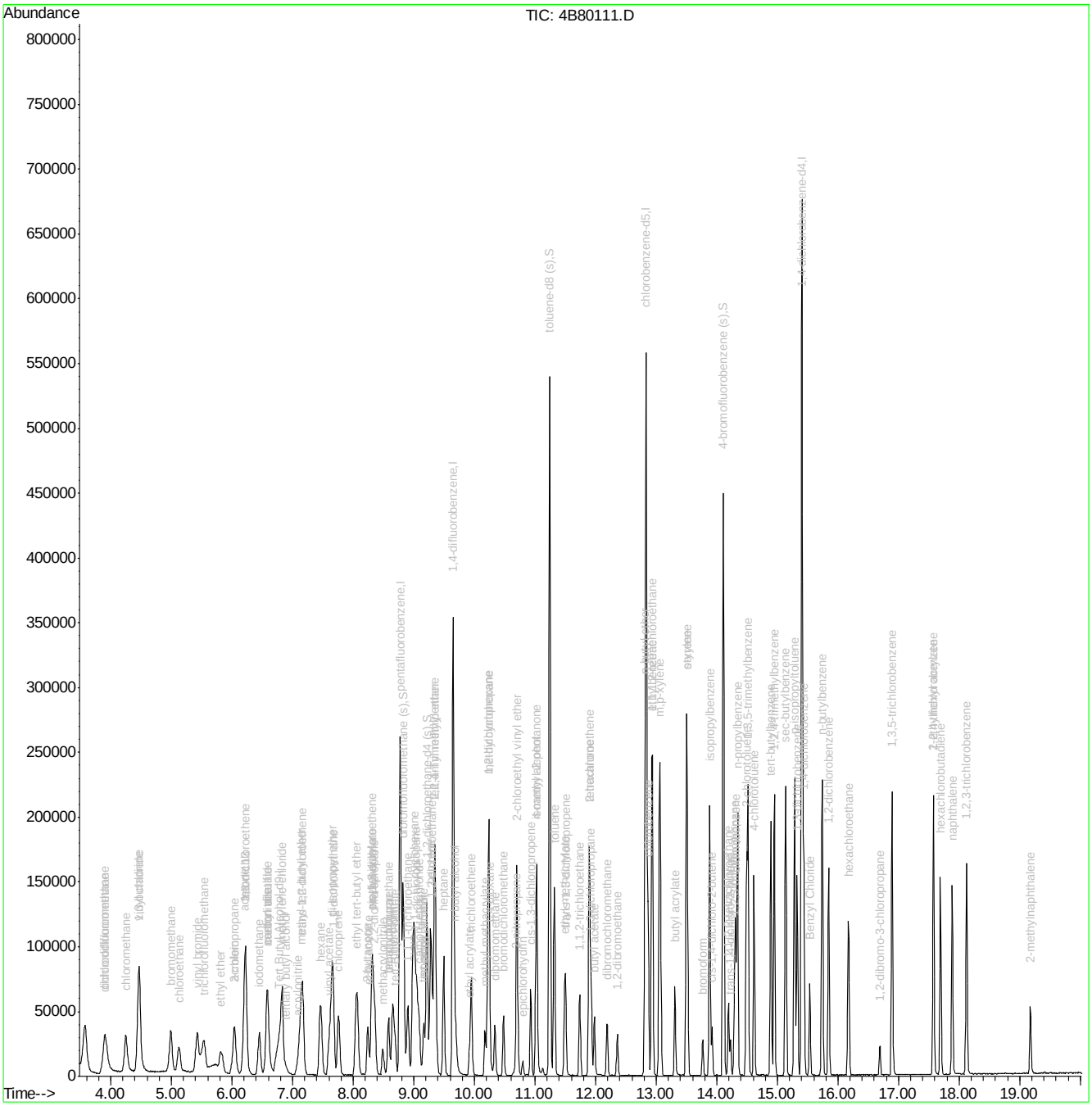
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) styrene	13.51	104	79027	5.75 ug/L	97
94) butyl acrylate	13.31	55	47081	5.37 ug/L	98
95) isopropylbenzene	13.88	105	138378	5.81 ug/L	99
96) bromoform	13.77	173	13411	4.96 ug/L	98
97) cis-1,4-dichloro-2-butene	13.92	88	7692	5.43 ug/L	92
100) 1,1,2,2-tetrachloroethane	14.20	83	29537	5.55 ug/L	98
101) trans-1,4-dichloro-2-buten	14.23	53	5689	5.73 ug/L	90
102) 1,2,3-trichloropropane	14.29	110	7339	6.09 ug/L	97
103) bromobenzene	14.31	156	33770	5.87 ug/L	96
104) n-propylbenzene	14.34	91	158452	6.14 ug/L	99
105) 2-chlorotoluene	14.49	126	32526	5.87 ug/L	96
106) 4-chlorotoluene	14.61	91	89562	5.96 ug/L	98
108) 1,3,5-trimethylbenzene	14.52	105	116601	5.97 ug/L	99
109) tert-butylbenzene	14.89	119	99429	5.97 ug/L	98
110) 1,2,4-trimethylbenzene	14.95	105	118457	5.95 ug/L	99
111) sec-butylbenzene	15.14	105	161932	6.08 ug/L	98
112) p-isopropyltoluene	15.28	119	138583	6.11 ug/L	99
113) 1,3-dichlorobenzene	15.33	146	67424	5.88 ug/L	99
114) 1,4-dichlorobenzene	15.44	146	65867	5.79 ug/L	99
115) 1,2-dichlorobenzene	15.85	146	70302	5.86 ug/L	98
116) Benzyl Chloride	15.54	91	51897	5.16 ug/L	94
118) n-butylbenzene	15.74	92	70983	5.88 ug/L	96
120) hexachloroethane	16.17	201	20615	5.41 ug/L	89
121) 1,2-dibromo-3-chloropropan	16.70	157	6981	5.37 ug/L	96
122) 1,3,5-trichlorobenzene	16.90	180	74746	5.94 ug/L	99
123) 1,2,4-trichlorobenzene	17.58	180	64269	5.90 ug/L	96
124) 2-ethylhexyl acrylate	17.58	70	6207	1.01 ug/L	98
125) hexachlorobutadiene	17.69	225	35457	6.31 ug/L	97
126) naphthalene	17.88	128	118351	5.97 ug/L	99
127) 1,2,3-trichlorobenzene	18.12	180	58654	6.06 ug/L	99
128) 2-methylnaphthalene	19.18	142	29303	2.71 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80111.D
Acq On : 15 Mar 2018 7:11 pm
Operator : HueanhT
Sample : IC3310-10
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 16 11:35:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80112.D
Acq On : 15 Mar 2018 7:40 pm
Operator : HueanhT
Sample : IC3310-20
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 16 11:34:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	6.78	65	102746	500.00	ug/L		0.00
5) pentafluorobenzene	8.78	168	226888	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	312643	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	291718	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	178287	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.83	113	99869	49.72	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.44%				
55) 1,2-dichloroethane-d4 (s)	9.22	65	101643	51.22	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.44%				
76) toluene-d8 (s)	11.24	98	362039	49.54	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.08%				
99) 4-bromofluorobenzene (s)	14.11	95	140218	49.80	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.60%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.88	59	27502	59.24	ug/L		97
4) 1,4-dioxane	10.27	88	11829	286.68	ug/L		97
6) chlorodifluoromethane	3.91	51	112630	11.60	ug/L		99
7) dichlorodifluoromethane	3.89	85	116520	13.28	ug/L		98
8) chloromethane	4.25	50	130592	11.55	ug/L		99
9) vinyl chloride	4.45	62	124814	12.07	ug/L		97
10) 1,3-butadiene	4.47	54	105133	20.56	ug/L		99
11) bromomethane	4.99	94	79183	12.21	ug/L		99
12) chloroethane	5.13	64	60979	12.13	ug/L		96
13) trichlorofluoromethane	5.53	101	112022	12.55	ug/L		97
14) vinyl bromide	5.42	106	74385	12.36	ug/L		98
15) ethyl ether	5.81	74	25622	11.67	ug/L		89
16) 2-chloropropane	6.03	43	109106	11.85	ug/L		98
17) acrolein	6.04	56	10281	10.72	ug/L		99
18) freon 113	6.22	151	54950	11.84	ug/L		99
19) 1,1-dichloroethene	6.22	61	99958	11.90	ug/L		98
20) acetone	6.20	58	25411	73.59	ug/L		98
21) acetonitrile	6.59	41	78396	114.43	ug/L		98
22) iodomethane	6.45	142	118260	11.30	ug/L		99
23) carbon disulfide	6.58	76	218645	10.63	ug/L		98
24) methylene chloride	6.83	84	64012	11.13	ug/L		97
25) methyl acetate	6.60	43	34810	12.23	ug/L		97
26) methyl tert butyl ether	7.13	73	165476	11.39	ug/L		99
27) trans-1,2-dichloroethene	7.17	61	82154	11.54	ug/L		99
28) hexane	7.46	56	41392	11.06	ug/L		99
29) di-isopropyl ether	7.65	45	211076	11.15	ug/L		98
30) 2-butanone	8.24	72	20756	57.20	ug/L		92
31) 1,1-dichloroethane	7.67	63	100090	11.49	ug/L		98
32) chloroprene	7.75	53	79715	11.58	ug/L		98
33) acrylonitrile	7.07	53	18970	11.71	ug/L		98
34) vinyl acetate	7.59	86	5557	9.23	ug/L	#	87
35) ethyl tert-butyl ether	8.06	59	188890	11.24	ug/L		99
36) ethyl acetate	8.24	45	6721	11.74	ug/L	#	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80112.D
Acq On : 15 Mar 2018 7:40 pm
Operator : HueanhT
Sample : IC3310-20
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 16 11:34:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	8.35	77	91703	11.76	ug/L	100
38) cis-1,2-dichloroethene	8.31	96	58800	11.22	ug/L	99
39) propionitrile	8.31	54	70802	112.93	ug/L	97
40) methyl acrylate	8.32	85	5742	11.24	ug/L	96
41) methacrylonitrile	8.49	67	17179	10.88	ug/L	97
42) bromochloromethane	8.58	128	26813	11.03	ug/L	96
43) tetrahydrofuran	8.59	42	13224	10.60	ug/L	93
44) chloroform	8.65	83	90167	11.04	ug/L	99
45) tert-Butyl Formate	8.68	59	39689	9.42	ug/L	98
47) 1,1,1-trichloroethane	8.90	97	93215	11.52	ug/L	100
48) cyclohexane	9.01	84	100245	12.58	ug/L	100
50) 1,1-dichloropropene	9.05	75	67481	11.52	ug/L	96
51) carbon tetrachloride	9.08	117	78602	12.18	ug/L	99
52) tert-amyl alcohol	9.15	73	12387	58.60	ug/L	94
53) isopropyl acetate	9.17	87	8001	11.42	ug/L	99
56) n-butyl alcohol	9.68	56	67233	606.90	ug/L	98
57) 2,2,4-Trimethylpentane	9.35	57	256668	12.03	ug/L	99
58) benzene	9.28	78	202930	11.18	ug/L	98
59) tert-amyl methyl ether	9.34	73	166216	11.51	ug/L	98
60) heptane	9.49	57	45170	11.56	ug/L	98
61) 1,2-dichloroethane	9.30	62	59403	11.31	ug/L	100
62) ethyl acrylate	9.92	55	48966	10.58	ug/L	98
63) trichloroethene	9.95	95	51648	11.74	ug/L	98
64) 2-chloroethyl vinyl ether	10.70	63	138948	57.31	ug/L	98
65) methyl methacrylate	10.17	100	10297	11.59	ug/L	96
66) methylcyclohexane	10.24	83	121059	12.19	ug/L	98
67) 1,2-dichloropropane	10.23	63	54306	11.47	ug/L	100
68) dibromomethane	10.34	93	28990	11.24	ug/L	97
69) bromodichloromethane	10.48	83	63879	11.10	ug/L	99
70) 2-nitropropane	10.68	41	15097	10.71	ug/L	94
71) epichlorohydrin	10.79	57	20761	53.26	ug/L	95
72) cis-1,3-dichloropropene	10.93	75	77250	11.16	ug/L	96
73) 4-methyl-2-pentanone	11.02	58	69200	46.44	ug/L	98
74) isoamyl alcohol	11.02	70	23120	245.27	ug/L	95
77) toluene	11.32	92	119988	11.13	ug/L	96
78) ethyl methacrylate	11.49	69	56109	11.11	ug/L	99
79) trans-1,3-dichloropropene	11.50	75	64184	11.20	ug/L	96
80) 1,1,2-trichloroethane	11.74	83	34582	11.04	ug/L	96
81) tetrachloroethene	11.90	164	45597	11.73	ug/L	98
82) 2-hexanone	11.90	58	69904	53.44	ug/L	99
83) 1,3-dichloropropane	11.93	76	64386	11.36	ug/L	88
84) butyl acetate	11.98	56	27086	11.43	ug/L	99
85) dibromochloromethane	12.19	129	43616	10.85	ug/L	98
86) 1,2-dibromoethane	12.36	107	43104	11.15	ug/L	100
87) n-butyl ether	12.81	57	241124	11.21	ug/L	99
88) chlorobenzene	12.87	112	130283	11.16	ug/L	99
89) 1,1,1,2-tetrachloroethane	12.94	131	54381	11.47	ug/L	98
90) ethylbenzene	12.93	91	235637	11.47	ug/L	100
91) m,p-xylene	13.06	106	180355	22.87	ug/L	99
92) o-xylene	13.50	91	204975	11.42	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80112.D
Acq On : 15 Mar 2018 7:40 pm
Operator : HueanhT
Sample : IC3310-20
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 16 11:34:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration

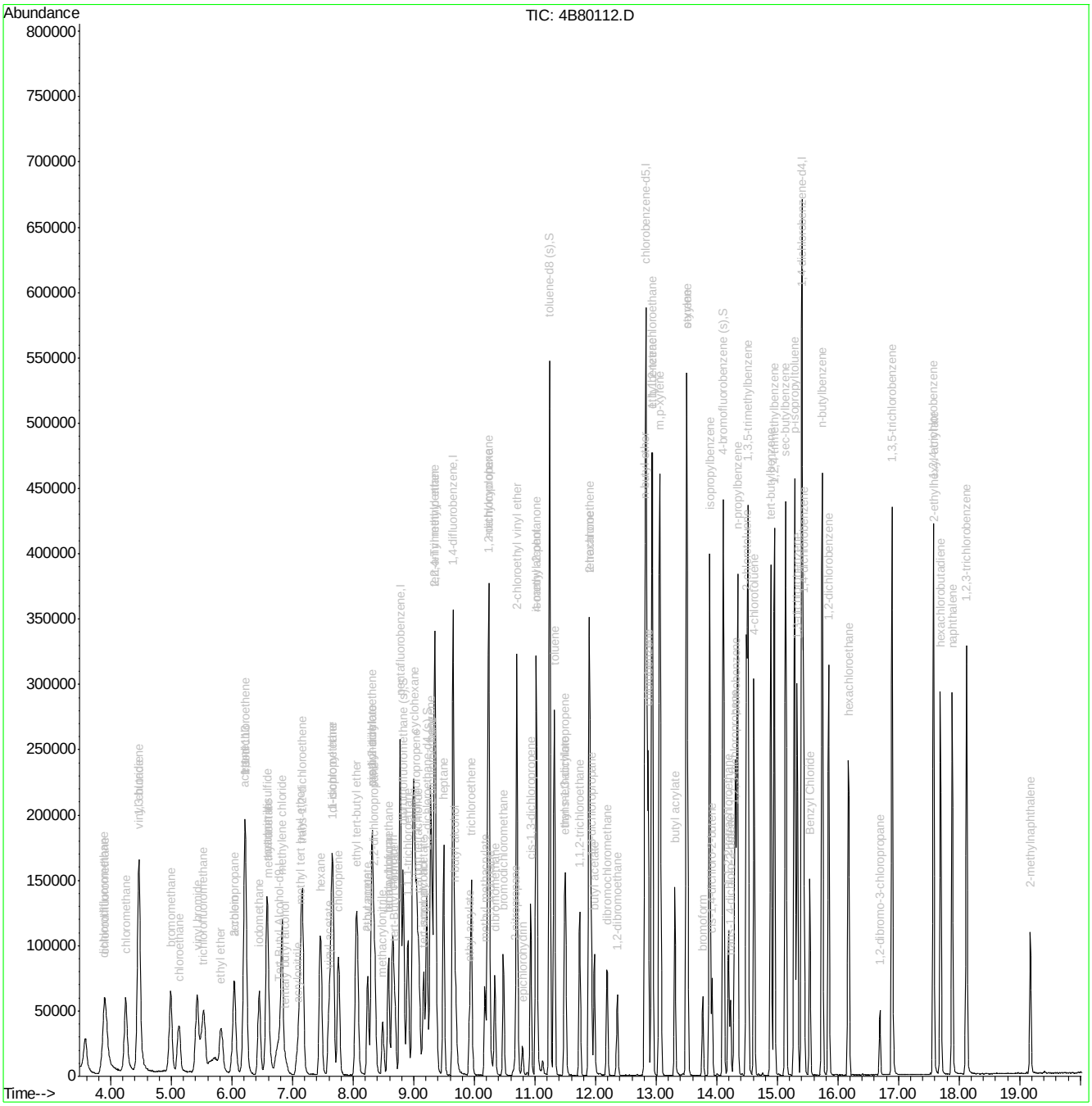
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) styrene	13.51	104	154498	11.56	ug/L	98
94) butyl acrylate	13.31	55	94031	11.01	ug/L	99
95) isopropylbenzene	13.88	105	270753	11.69	ug/L	98
96) bromoform	13.77	173	28773	10.93	ug/L	98
97) cis-1,4-dichloro-2-butene	13.92	88	15758	11.43	ug/L	98
100) 1,1,2,2-tetrachloroethane	14.19	83	57753	10.79	ug/L	97
101) trans-1,4-dichloro-2-buten	14.23	53	11650	11.67	ug/L	96
102) 1,2,3-trichloropropane	14.29	110	14366	11.85	ug/L	100
103) bromobenzene	14.31	156	65877	11.39	ug/L	99
104) n-propylbenzene	14.34	91	303551	11.69	ug/L	100
105) 2-chlorotoluene	14.49	126	63915	11.47	ug/L	96
106) 4-chlorotoluene	14.62	91	173270	11.46	ug/L	99
108) 1,3,5-trimethylbenzene	14.52	105	228116	11.62	ug/L	99
109) tert-butylbenzene	14.89	119	198507	11.85	ug/L	97
110) 1,2,4-trimethylbenzene	14.95	105	232334	11.60	ug/L	99
111) sec-butylbenzene	15.14	105	320338	11.96	ug/L	100
112) p-isopropyltoluene	15.28	119	270590	11.85	ug/L	99
113) 1,3-dichlorobenzene	15.33	146	131839	11.43	ug/L	98
114) 1,4-dichlorobenzene	15.44	146	130407	11.40	ug/L	99
115) 1,2-dichlorobenzene	15.85	146	138636	11.50	ug/L	98
116) Benzyl Chloride	15.54	91	107500	10.62	ug/L	99
118) n-butylbenzene	15.74	92	142695	11.76	ug/L	98
120) hexachloroethane	16.17	201	43798	11.44	ug/L	93
121) 1,2-dibromo-3-chloropropan	16.69	157	14514	11.10	ug/L	99
122) 1,3,5-trichlorobenzene	16.90	180	150288	11.87	ug/L	100
123) 1,2,4-trichlorobenzene	17.58	180	130070	11.87	ug/L	99
124) 2-ethylhexyl acrylate	17.59	70	13102	2.13	ug/L	98
125) hexachlorobutadiene	17.70	225	69983	12.38	ug/L	99
126) naphthalene	17.88	128	236686	11.86	ug/L	100
127) 1,2,3-trichlorobenzene	18.12	180	115605	11.88	ug/L	99
128) 2-methylnaphthalene	19.18	142	60831	5.59	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80112.D
Acq On : 15 Mar 2018 7:40 pm
Operator : HueanhT
Sample : IC3310-20
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 16 11:34:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80113.D
Acq On : 15 Mar 2018 8:08 pm
Operator : HueanhT
Sample : ICC3310-50
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 16 11:34:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:20:39 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	6.79	65	95783	500.00	ug/L	0.00
5) pentafluorobenzene	8.78	168	224850	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	309262	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	291504	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	178355	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	99710	50.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.18%			
55) 1,2-dichloroethane-d4 (s)	9.22	65	98281	50.06	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.12%			
76) toluene-d8 (s)	11.24	98	361692	49.53	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.06%			
99) 4-bromofluorobenzene (s)	14.11	95	142332	50.53	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.06%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.89	59	63696	147.18	ug/L	100
4) 1,4-dioxane	10.27	88	27752	721.48	ug/L	100
6) chlorodifluoromethane	3.91	51	274423	28.52	ug/L	100
7) dichlorodifluoromethane	3.89	85	291576	33.53	ug/L	100
8) chloromethane	4.25	50	318097	28.40	ug/L	100
9) vinyl chloride	4.46	62	301641	29.43	ug/L	100
10) 1,3-butadiene	4.47	54	253418	50.00	ug/L	100
11) bromomethane	4.99	94	190334	29.61	ug/L	100
12) chloroethane	5.13	64	149735	30.05	ug/L	100
13) trichlorofluoromethane	5.54	101	270227	30.54	ug/L	100
14) vinyl bromide	5.43	106	183732	30.80	ug/L	100
15) ethyl ether	5.82	74	62693	28.81	ug/L	100
16) 2-chloropropane	6.04	43	263323	28.85	ug/L	100
17) acrolein	6.04	56	24333	25.61	ug/L	100
18) freon 113	6.23	151	136862	29.76	ug/L	100
19) 1,1-dichloroethene	6.22	61	239153	28.72	ug/L	100
20) acetone	6.22	58	60974	178.19	ug/L	100
21) acetonitrile	6.59	41	180067	265.20	ug/L	100
22) iodomethane	6.45	142	292545	28.20	ug/L	100
23) carbon disulfide	6.58	76	544978	26.73	ug/L	100
24) methylene chloride	6.83	84	156289	27.42	ug/L	100
25) methyl acetate	6.59	43	84041	29.79	ug/L	100
26) methyl tert butyl ether	7.14	73	410895	28.54	ug/L	100
27) trans-1,2-dichloroethene	7.16	61	199998	28.36	ug/L	100
28) hexane	7.47	56	105280	28.40	ug/L	100
29) di-isopropyl ether	7.64	45	522732	27.86	ug/L	100
30) 2-butanone	8.23	72	51814	144.10	ug/L	100
31) 1,1-dichloroethane	7.67	63	243071	28.16	ug/L	100
32) chloroprene	7.76	53	194283	28.48	ug/L	100
33) acrylonitrile	7.07	53	45607	28.40	ug/L	100
34) vinyl acetate	7.59	86	15385	25.79	ug/L	100
35) ethyl tert-butyl ether	8.06	59	476574	28.61	ug/L	100
36) ethyl acetate	8.23	45	15885	28.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80113.D
Acq On : 15 Mar 2018 8:08 pm
Operator : HueanhT
Sample : ICC3310-50
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 16 11:34:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:20:39 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	8.35	77	222655	28.80	ug/L	100
38) cis-1,2-dichloroethene	8.31	96	144053	27.74	ug/L	100
39) propionitrile	8.31	54	166475	267.93	ug/L	100
40) methyl acrylate	8.32	85	14493	28.63	ug/L	100
41) methacrylonitrile	8.49	67	43268	27.65	ug/L	100
42) bromochloromethane	8.58	128	68105	28.27	ug/L	100
43) tetrahydrofuran	8.60	42	32480	26.26	ug/L	100
44) chloroform	8.65	83	222112	27.43	ug/L	100
45) tert-Butyl Formate	8.69	59	103454	24.78	ug/L	100
47) 1,1,1-trichloroethane	8.90	97	234151	29.20	ug/L	100
48) cyclohexane	9.01	84	239142	30.29	ug/L	100
50) 1,1-dichloropropene	9.04	75	163949	28.24	ug/L	100
51) carbon tetrachloride	9.09	117	192515	30.09	ug/L	100
52) tert-amyl alcohol	9.15	73	28573	136.40	ug/L	100
53) isopropyl acetate	9.17	87	20023	28.83	ug/L	100
56) n-butyl alcohol	9.68	56	147818	1348.92	ug/L	100
57) 2,2,4-Trimethylpentane	9.35	57	652012	30.90	ug/L	100
58) benzene	9.28	78	505146	28.15	ug/L	100
59) tert-amyl methyl ether	9.34	73	407841	28.54	ug/L	100
60) heptane	9.49	57	112834	29.19	ug/L	100
61) 1,2-dichloroethane	9.30	62	142843	27.50	ug/L	100
62) ethyl acrylate	9.92	55	125175	27.35	ug/L	100
63) trichloroethene	9.95	95	126655	29.10	ug/L	100
64) 2-chloroethyl vinyl ether	10.70	63	347384	144.85	ug/L	100
65) methyl methacrylate	10.17	100	26942	30.66	ug/L	100
66) methylcyclohexane	10.24	83	299852	30.53	ug/L	100
67) 1,2-dichloropropane	10.23	63	134195	28.65	ug/L	100
68) dibromomethane	10.34	93	71914	28.18	ug/L	100
69) bromodichloromethane	10.48	83	164300	28.85	ug/L	100
70) 2-nitropropane	10.67	41	38682	27.73	ug/L	100
71) epichlorohydrin	10.80	57	52492	136.13	ug/L	100
72) cis-1,3-dichloropropene	10.93	75	198216	28.94	ug/L	100
73) 4-methyl-2-pentanone	11.02	58	170663	115.79	ug/L	100
74) isoamyl alcohol	11.02	70	53899	578.05	ug/L	100
77) toluene	11.32	92	307597	28.54	ug/L	100
78) ethyl methacrylate	11.49	69	142878	28.32	ug/L	100
79) trans-1,3-dichloropropene	11.50	75	164194	28.66	ug/L	100
80) 1,1,2-trichloroethane	11.74	83	87640	27.99	ug/L	100
81) tetrachloroethene	11.89	164	113695	29.26	ug/L	100
82) 2-hexanone	11.90	58	168884	129.19	ug/L	100
83) 1,3-dichloropropane	11.93	76	158423	27.97	ug/L	100
84) butyl acetate	11.98	56	68042	28.73	ug/L	100
85) dibromochloromethane	12.19	129	118097	29.41	ug/L	100
86) 1,2-dibromoethane	12.36	107	111698	28.92	ug/L	100
87) n-butyl ether	12.81	57	617800	28.74	ug/L	100
88) chlorobenzene	12.87	112	332992	28.53	ug/L	100
89) 1,1,1,2-tetrachloroethane	12.94	131	136742	28.86	ug/L	100
90) ethylbenzene	12.93	91	587428	28.61	ug/L	100
91) m,p-xylene	13.06	106	454290	57.64	ug/L	100
92) o-xylene	13.50	91	518393	28.91	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80113.D
Acq On : 15 Mar 2018 8:08 pm
Operator : HueanhT
Sample : ICC3310-50
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 16 11:34:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:20:39 2018
Response via : Initial Calibration

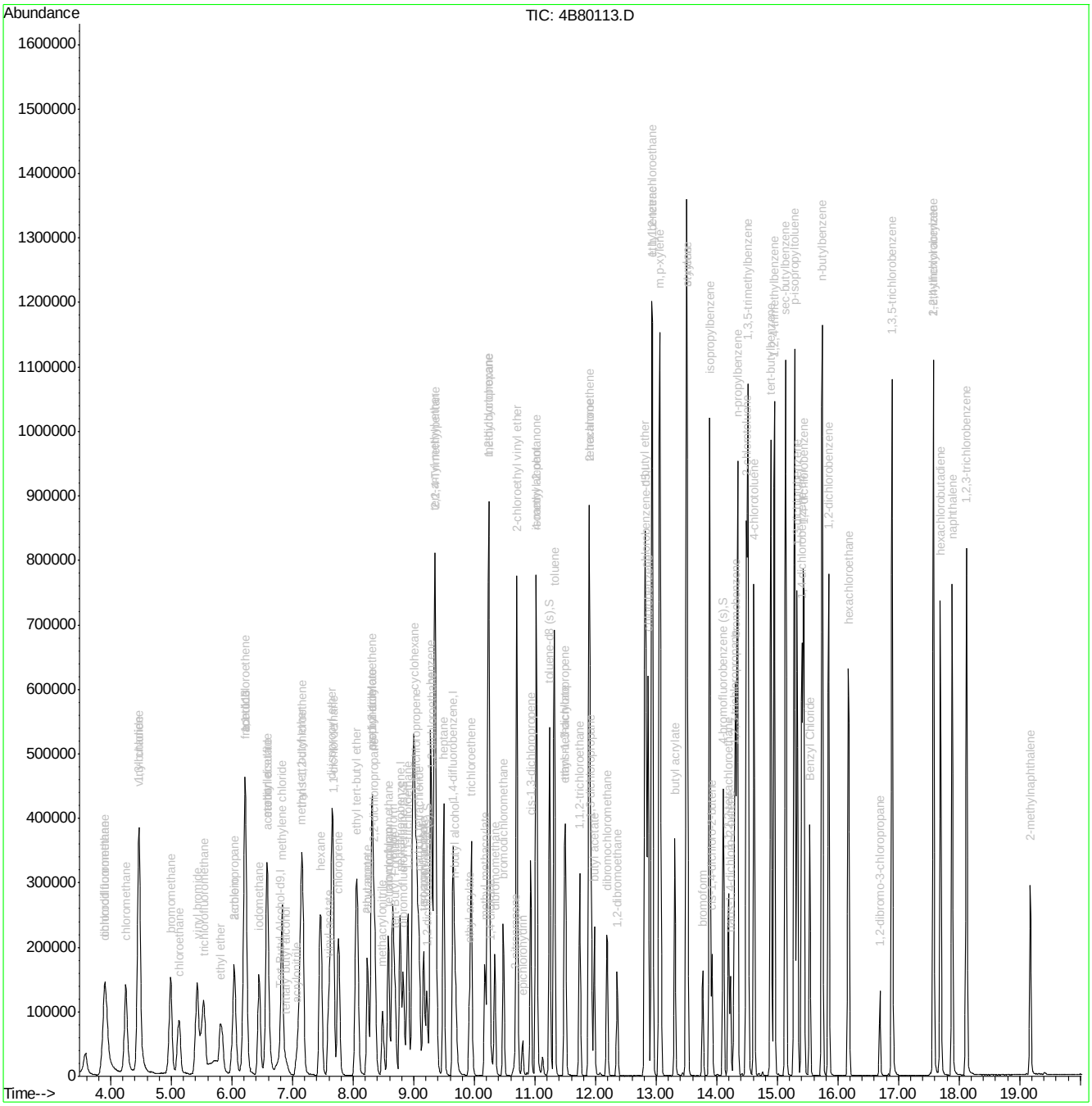
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) styrene	13.51	104	387150	28.98	ug/L	100
94) butyl acrylate	13.31	55	238057	27.90	ug/L	100
95) isopropylbenzene	13.88	105	684326	29.56	ug/L	100
96) bromoform	13.77	173	80586	30.64	ug/L	100
97) cis-1,4-dichloro-2-butene	13.92	88	41673	30.24	ug/L	100
100) 1,1,2,2-tetrachloroethane	14.19	83	149379	27.90	ug/L	100
101) trans-1,4-dichloro-2-buten	14.23	53	29428	29.46	ug/L	100
102) 1,2,3-trichloropropane	14.29	110	36584	30.16	ug/L	100
103) bromobenzene	14.31	156	167944	29.02	ug/L	100
104) n-propylbenzene	14.34	91	760381	29.27	ug/L	100
105) 2-chlorotoluene	14.49	126	162745	29.18	ug/L	100
106) 4-chlorotoluene	14.62	91	437589	28.94	ug/L	100
108) 1,3,5-trimethylbenzene	14.52	105	567946	28.93	ug/L	100
109) tert-butylbenzene	14.89	119	506982	30.25	ug/L	100
110) 1,2,4-trimethylbenzene	14.95	105	579767	28.92	ug/L	100
111) sec-butylbenzene	15.14	105	811937	30.31	ug/L	100
112) p-isopropyltoluene	15.28	119	686540	30.06	ug/L	100
113) 1,3-dichlorobenzene	15.33	146	329425	28.55	ug/L	100
114) 1,4-dichlorobenzene	15.44	146	326519	28.52	ug/L	100
115) 1,2-dichlorobenzene	15.85	146	346812	28.75	ug/L	100
116) Benzyl Chloride	15.54	91	281368	27.78	ug/L	100
118) n-butylbenzene	15.74	92	364379	30.02	ug/L	100
120) hexachloroethane	16.17	201	121963	31.83	ug/L	100
121) 1,2-dibromo-3-chloropropan	16.69	157	37692	28.81	ug/L	100
122) 1,3,5-trichlorobenzene	16.90	180	376571	29.73	ug/L	100
123) 1,2,4-trichlorobenzene	17.58	180	331700	30.26	ug/L	100
124) 2-ethylhexyl acrylate	17.58	70	36121	5.86	ug/L	100
125) hexachlorobutadiene	17.69	225	172872	30.58	ug/L	100
126) naphthalene	17.88	128	604414	30.29	ug/L	100
127) 1,2,3-trichlorobenzene	18.12	180	295444	30.36	ug/L	100
128) 2-methylnaphthalene	19.18	142	165351	15.19	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80113.D
Acq On : 15 Mar 2018 8:08 pm
Operator : HueanhT
Sample : ICC3310-50
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 16 11:34:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:20:39 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80114.D
Acq On : 15 Mar 2018 8:36 pm
Operator : HueanhT
Sample : IC3310-100
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 16 11:35:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:27:49 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	6.79	65	96054	500.00	ug/L	0.00
5) pentafluorobenzene	8.78	168	219592	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	310138	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	285080	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	175161	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	98089	50.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.92%			
55) 1,2-dichloroethane-d4 (s)	9.22	65	97392	49.47	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.94%			
76) toluene-d8 (s)	11.24	98	362851	50.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.62%			
99) 4-bromofluorobenzene (s)	14.11	95	141123	51.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.02%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.90	59	124627	287.16	ug/L	99
4) 1,4-dioxane	10.27	88	56031	1452.54	ug/L	95
6) chlorodifluoromethane	3.91	51	513040	54.60	ug/L	100
7) dichlorodifluoromethane	3.89	85	564503	66.48	ug/L	98
8) chloromethane	4.24	50	607388	55.53	ug/L	97
9) vinyl chloride	4.45	62	569681	56.92	ug/L	99
10) 1,3-butadiene	4.47	54	485219	98.03	ug/L	100
11) bromomethane	4.98	94	357346	56.92	ug/L	100
12) chloroethane	5.12	64	281772	57.91	ug/L	99
13) trichlorofluoromethane	5.54	101	516245	59.73	ug/L	100
14) vinyl bromide	5.42	106	352787	60.55	ug/L	99
15) ethyl ether	5.82	74	118577	55.79	ug/L	99
16) 2-chloropropane	6.03	43	492862	55.29	ug/L	99
17) acrolein	6.04	56	47179	50.85	ug/L	92
18) freon 113	6.22	151	253745	56.51	ug/L	96
19) 1,1-dichloroethene	6.21	61	438337	53.90	ug/L	99
20) acetone	6.21	58	111268	332.96	ug/L	97
21) acetonitrile	6.58	41	341838	515.52	ug/L	98
22) iodomethane	6.45	142	559050	55.18	ug/L	99
23) carbon disulfide	6.58	76	1028288	51.64	ug/L	99
24) methylene chloride	6.83	84	300516	53.98	ug/L	98
25) methyl acetate	6.59	43	148736	53.99	ug/L	99
26) methyl tert butyl ether	7.14	73	771154	54.85	ug/L	99
27) trans-1,2-dichloroethene	7.16	61	368172	53.45	ug/L	100
28) hexane	7.46	56	196848	54.37	ug/L	99
29) di-isopropyl ether	7.65	45	974291	53.18	ug/L	98
30) 2-butanone	8.23	72	97241	276.90	ug/L #	86
31) 1,1-dichloroethane	7.67	63	446737	52.99	ug/L	100
32) chloroprene	7.76	53	359871	54.01	ug/L	98
33) acrylonitrile	7.07	53	88529	56.44	ug/L	97
34) vinyl acetate	7.59	86	28861	49.54	ug/L	99
35) ethyl tert-butyl ether	8.06	59	914437	56.21	ug/L	99
36) ethyl acetate	8.24	45	31613	57.05	ug/L #	92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80114.D
Acq On : 15 Mar 2018 8:36 pm
Operator : HueanhT
Sample : IC3310-100
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 16 11:35:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:27:49 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.35	77	412064	54.58	ug/L		99
38) cis-1,2-dichloroethene	8.31	96	268592	52.95	ug/L		99
39) propionitrile	8.31	54	312372	514.78	ug/L		97
40) methyl acrylate	8.32	85	27826	56.28	ug/L		99
41) methacrylonitrile	8.49	67	81444	53.30	ug/L		95
42) bromochloromethane	8.58	128	127917	54.37	ug/L		98
43) tetrahydrofuran	8.59	42	61182	50.65	ug/L		95
44) chloroform	8.65	83	416159	52.63	ug/L		99
45) tert-Butyl Formate	8.69	59	203665	49.94	ug/L		98
47) 1,1,1-trichloroethane	8.90	97	443968	56.69	ug/L		99
48) cyclohexane	9.01	84	450089	58.38	ug/L		97
50) 1,1-dichloropropene	9.04	75	300346	52.97	ug/L		98
51) carbon tetrachloride	9.09	117	363254	58.14	ug/L		99
52) tert-amyl alcohol	9.15	73	52207	255.19	ug/L	#	88
53) isopropyl acetate	9.17	87	37833	55.78	ug/L		99
56) n-butyl alcohol	9.68	56	294801	2682.62	ug/L		98
57) 2,2,4-Trimethylpentane	9.36	57	1274102	60.22	ug/L		98
58) benzene	9.28	78	942305	52.35	ug/L		99
59) tert-amyl methyl ether	9.34	73	779607	54.41	ug/L		98
60) heptane	9.49	57	210354	54.26	ug/L		99
61) 1,2-dichloroethane	9.30	62	263181	50.53	ug/L		99
62) ethyl acrylate	9.92	55	241258	52.57	ug/L		100
63) trichloroethene	9.95	95	238636	54.67	ug/L		99
64) 2-chloroethyl vinyl ether	10.70	63	648747	269.75	ug/L		100
65) methyl methacrylate	10.17	100	51669	58.64	ug/L		92
66) methylcyclohexane	10.24	83	558296	56.69	ug/L		98
67) 1,2-dichloropropane	10.23	63	245946	52.36	ug/L		99
68) dibromomethane	10.34	93	137598	53.76	ug/L		98
69) bromodichloromethane	10.48	83	317858	55.66	ug/L		100
70) 2-nitropropane	10.67	41	73384	52.46	ug/L		94
71) epichlorohydrin	10.80	57	100760	260.56	ug/L		97
72) cis-1,3-dichloropropene	10.93	75	378972	55.18	ug/L		98
73) 4-methyl-2-pentanone	11.02	58	312747	211.60	ug/L		98
74) isoamyl alcohol	11.02	70	104700	1119.70	ug/L		91
77) toluene	11.32	92	573404	54.40	ug/L		99
78) ethyl methacrylate	11.49	69	268183	54.35	ug/L		100
79) trans-1,3-dichloropropene	11.50	75	309762	55.29	ug/L		99
80) 1,1,2-trichloroethane	11.74	83	167227	54.61	ug/L		98
81) tetrachloroethene	11.90	164	212332	55.87	ug/L		98
82) 2-hexanone	11.90	58	305065	238.62	ug/L		98
83) 1,3-dichloropropane	11.93	76	294264	53.12	ug/L		99
84) butyl acetate	11.98	56	123696	53.41	ug/L		97
85) dibromochloromethane	12.19	129	234594	59.73	ug/L		100
86) 1,2-dibromoethane	12.36	107	214102	56.69	ug/L		99
87) n-butyl ether	12.81	57	1140618	54.25	ug/L		99
88) chlorobenzene	12.87	112	620088	54.33	ug/L		99
89) 1,1,1,2-tetrachloroethane	12.94	131	258449	55.77	ug/L		100
90) ethylbenzene	12.93	91	1077028	53.63	ug/L		99
91) m,p-xylene	13.06	106	841158	109.14	ug/L		98
92) o-xylene	13.50	91	962016	54.86	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80114.D
Acq On : 15 Mar 2018 8:36 pm
Operator : HueanhT
Sample : IC3310-100
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 16 11:35:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:27:49 2018
Response via : Initial Calibration

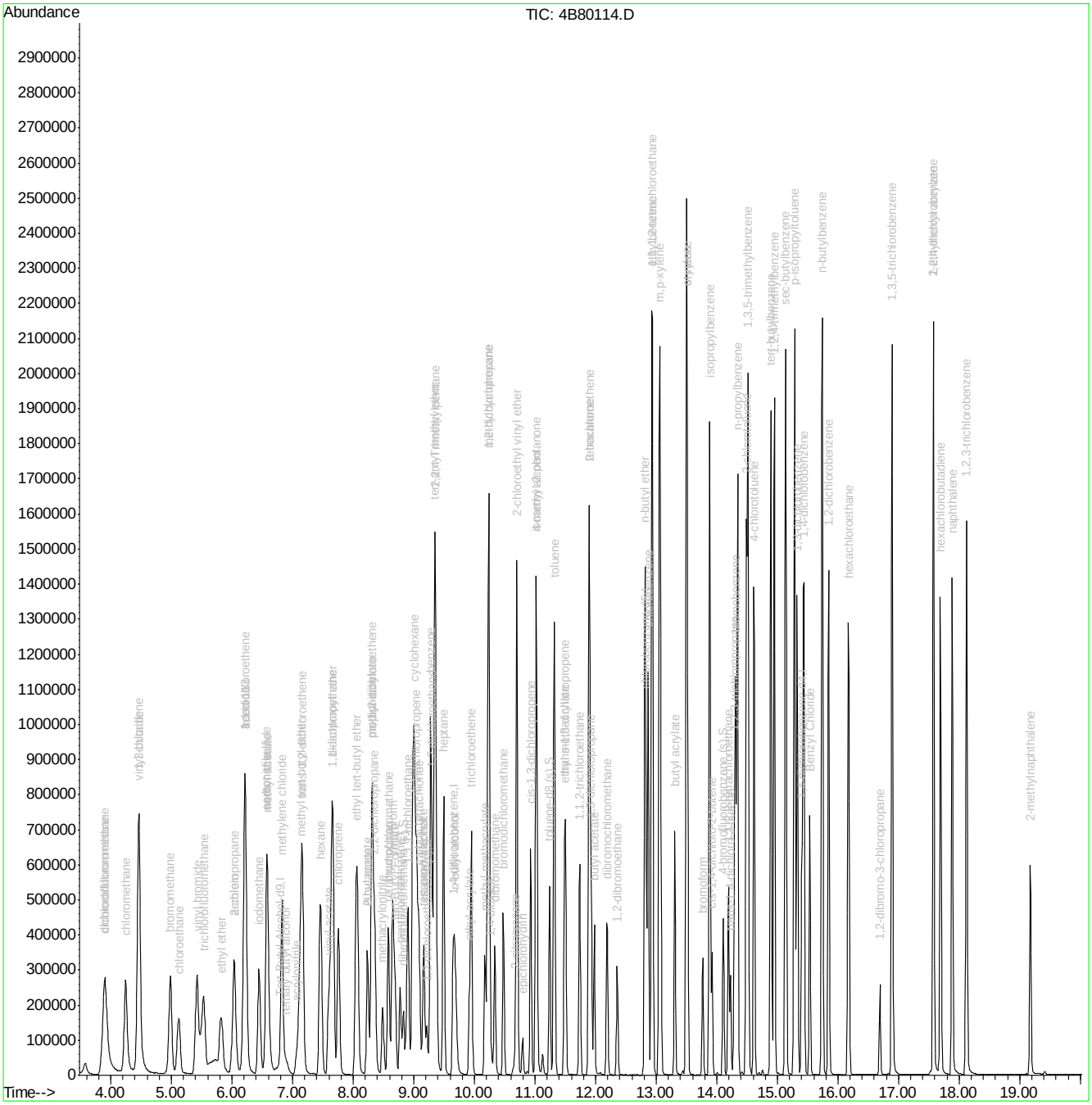
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) styrene	13.51	104	704767	53.95 ug/L	99
94) butyl acrylate	13.31	55	441026	52.86 ug/L	100
95) isopropylbenzene	13.88	105	1276082	56.36 ug/L	100
96) bromoform	13.77	173	159195	61.90 ug/L	99
97) cis-1,4-dichloro-2-butene	13.92	88	78861	58.52 ug/L	99
100) 1,1,2,2-tetrachloroethane	14.19	83	283436	53.91 ug/L	99
101) trans-1,4-dichloro-2-buten	14.23	53	55062	56.13 ug/L	94
102) 1,2,3-trichloropropane	14.29	110	68441	57.44 ug/L	98
103) bromobenzene	14.31	156	311874	54.86 ug/L	98
104) n-propylbenzene	14.34	91	1384896	54.27 ug/L	99
105) 2-chlorotoluene	14.49	126	307124	56.08 ug/L	98
106) 4-chlorotoluene	14.61	91	810260	54.57 ug/L	100
108) 1,3,5-trimethylbenzene	14.52	105	1052181	54.57 ug/L	98
109) tert-butylbenzene	14.89	119	972244	59.07 ug/L	100
110) 1,2,4-trimethylbenzene	14.95	105	1076860	54.70 ug/L	99
111) sec-butylbenzene	15.14	105	1536529	58.41 ug/L	100
112) p-isopropyltoluene	15.28	119	1286266	57.35 ug/L	100
113) 1,3-dichlorobenzene	15.33	146	604690	53.36 ug/L	100
114) 1,4-dichlorobenzene	15.44	146	609679	54.23 ug/L	100
115) 1,2-dichlorobenzene	15.85	146	644685	54.41 ug/L	99
116) Benzyl Chloride	15.54	91	532001	53.49 ug/L	99
118) n-butylbenzene	15.74	92	689624	57.86 ug/L	99
120) hexachloroethane	16.17	201	251744	66.90 ug/L	98
121) 1,2-dibromo-3-chloropropan	16.69	157	77255	60.14 ug/L	99
122) 1,3,5-trichlorobenzene	16.90	180	728040	58.53 ug/L	100
123) 1,2,4-trichlorobenzene	17.58	180	642608	59.70 ug/L	98
124) 2-ethylhexyl acrylate	17.58	70	78016	12.89 ug/L	97
125) hexachlorobutadiene	17.70	225	330430	59.51 ug/L	99
126) naphthalene	17.88	128	1162703	59.32 ug/L	99
127) 1,2,3-trichlorobenzene	18.12	180	565920	59.21 ug/L	98
128) 2-methylnaphthalene	19.18	142	340568	31.85 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80114.D
Acq On : 15 Mar 2018 8:36 pm
Operator : HueanhT
Sample : IC3310-100
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 16 11:35:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:27:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80115.D
Acq On : 15 Mar 2018 9:04 pm
Operator : HueanhT
Sample : IC3310-200
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 16 11:35:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	6.79	65	98215	500.00	ug/L		0.00
5) pentafluorobenzene	8.78	168	217027	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	310635	50.00	ug/L		0.00
75) chlorobenzene-d5	12.84	117	278076	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	182081	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.83	113	98098	51.06	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.12%				
55) 1,2-dichloroethane-d4 (s)	9.22	65	94920	48.14	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.28%				
76) toluene-d8 (s)	11.24	98	361695	51.92	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.84%				
99) 4-bromofluorobenzene (s)	14.11	95	145315	50.53	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.06%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.90	59	249296	561.77	ug/L		99
4) 1,4-dioxane	10.27	88	115985	2940.63	ug/L		92
6) chlorodifluoromethane	3.90	51	1002835	107.98	ug/L		99
7) dichlorodifluoromethane	3.89	85	1048138	124.89	ug/L		100
8) chloromethane	4.24	50	1171306	108.34	ug/L		98
9) vinyl chloride	4.45	62	1096845	110.89	ug/L		100
10) 1,3-butadiene	4.46	54	897052	183.37	ug/L		100
11) bromomethane	4.98	94	609762	98.28	ug/L		98
12) chloroethane	5.12	64	509958	106.04	ug/L		99
13) trichlorofluoromethane	5.53	101	974861	114.13	ug/L		99
14) vinyl bromide	5.42	106	676837	117.54	ug/L		99
15) ethyl ether	5.83	74	236059	112.39	ug/L		97
16) 2-chloropropane	6.03	43	962097	109.20	ug/L		99
17) acrolein	6.04	56	88617	96.63	ug/L		99
18) freon 113	6.22	151	482374	108.69	ug/L		98
19) 1,1-dichloroethene	6.21	61	828837	103.13	ug/L		98
20) acetone	6.21	58	208067	629.98	ug/L		96
21) acetonitrile	6.59	41	661124	1008.81	ug/L		98
22) iodomethane	6.45	142	1090932	108.95	ug/L		99
23) carbon disulfide	6.58	76	2002086	101.74	ug/L		99
24) methylene chloride	6.82	84	578647	105.16	ug/L		98
25) methyl acetate	6.59	43	294039	107.99	ug/L		98
26) methyl tert butyl ether	7.14	73	1478219	106.39	ug/L		99
27) trans-1,2-dichloroethene	7.16	61	706417	103.77	ug/L		98
28) hexane	7.46	56	374173	104.57	ug/L		98
29) di-isopropyl ether	7.65	45	1883036	103.99	ug/L		97
30) 2-butanone	8.23	72	189410	545.74	ug/L	#	89
31) 1,1-dichloroethane	7.67	63	866553	104.00	ug/L		99
32) chloroprene	7.76	53	711724	108.09	ug/L		97
33) acrylonitrile	7.07	53	174562	112.61	ug/L		96
34) vinyl acetate	7.59	86	57480	99.83	ug/L	#	91
35) ethyl tert-butyl ether	8.06	59	1792416	111.48	ug/L		98
36) ethyl acetate	8.24	45	61652	112.58	ug/L	#	86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80115.D
Acq On : 15 Mar 2018 9:04 pm
Operator : HueanhT
Sample : IC3310-200
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 16 11:35:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.35	77	797794	106.92	ug/L		98
38) cis-1,2-dichloroethene	8.31	96	523299	104.39	ug/L		98
39) propionitrile	8.31	54	598764	998.41	ug/L		86
40) methyl acrylate	8.32	85	52530	107.51	ug/L		98
41) methacrylonitrile	8.49	67	161891	107.19	ug/L		97
42) bromochloromethane	8.58	128	252142	108.44	ug/L		96
43) tetrahydrofuran	8.59	42	117173	98.15	ug/L		99
44) chloroform	8.65	83	819590	104.88	ug/L		98
45) tert-Butyl Formate	8.69	59	410896	101.95	ug/L		97
47) 1,1,1-trichloroethane	8.90	97	880178	113.72	ug/L		99
48) cyclohexane	9.01	84	875280	114.87	ug/L		91
50) 1,1-dichloropropene	9.04	75	586713	104.71	ug/L		99
51) carbon tetrachloride	9.09	117	716042	115.96	ug/L		98
52) tert-amyl alcohol	9.15	73	107706	532.69	ug/L		94
53) isopropyl acetate	9.16	87	76494	114.11	ug/L		98
56) n-butyl alcohol	9.68	56	600454	5455.25	ug/L		98
57) 2,2,4-Trimethylpentane	9.36	57	2384122	112.51	ug/L		98
58) benzene	9.28	78	1858604	103.10	ug/L		99
59) tert-amyl methyl ether	9.34	73	1531836	106.73	ug/L		97
60) heptane	9.49	57	399935	103.00	ug/L		99
61) 1,2-dichloroethane	9.30	62	502091	96.25	ug/L		100
62) ethyl acrylate	9.92	55	475396	103.42	ug/L		99
63) trichloroethene	9.95	95	467334	106.90	ug/L		98
64) 2-chloroethyl vinyl ether	10.70	63	1248392	518.26	ug/L		100
65) methyl methacrylate	10.17	100	104037	117.88	ug/L		95
66) methylcyclohexane	10.24	83	1075517	109.04	ug/L		97
67) 1,2-dichloropropane	10.23	63	476545	101.30	ug/L		98
68) dibromomethane	10.34	93	269525	105.13	ug/L		99
69) bromodichloromethane	10.48	83	639712	111.84	ug/L		100
70) 2-nitropropane	10.68	41	141267	100.83	ug/L		98
71) epichlorohydrin	10.80	57	201421	520.04	ug/L		99
72) cis-1,3-dichloropropene	10.93	75	752174	109.34	ug/L		97
73) 4-methyl-2-pentanone	11.03	58	600968	405.95	ug/L		90
74) isoamyl alcohol	11.02	70	210835	2251.13	ug/L	#	86
77) toluene	11.32	92	1141528	111.03	ug/L		97
78) ethyl methacrylate	11.49	69	525796	109.24	ug/L		99
79) trans-1,3-dichloropropene	11.50	75	602048	110.18	ug/L		98
80) 1,1,2-trichloroethane	11.74	83	330640	110.70	ug/L		98
81) tetrachloroethene	11.90	164	416918	112.47	ug/L		98
82) 2-hexanone	11.90	58	576853	462.58	ug/L		94
83) 1,3-dichloropropane	11.93	76	573071	106.07	ug/L		99
84) butyl acetate	11.98	56	240371	106.40	ug/L		99
85) dibromochloromethane	12.19	129	477538	124.65	ug/L		99
86) 1,2-dibromoethane	12.36	107	428605	116.33	ug/L		99
87) n-butyl ether	12.82	57	2225382	108.51	ug/L		99
88) chlorobenzene	12.87	112	1215475	109.18	ug/L		99
89) 1,1,1,2-tetrachloroethane	12.94	131	517698	114.53	ug/L		98
90) ethylbenzene	12.93	91	2081485	106.26	ug/L		98
91) m,p-xylene	13.06	106	1656674	220.36	ug/L		95
92) o-xylene	13.50	91	1865535	109.07	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80115.D
Acq On : 15 Mar 2018 9:04 pm
Operator : HueanhT
Sample : IC3310-200
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 16 11:35:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration

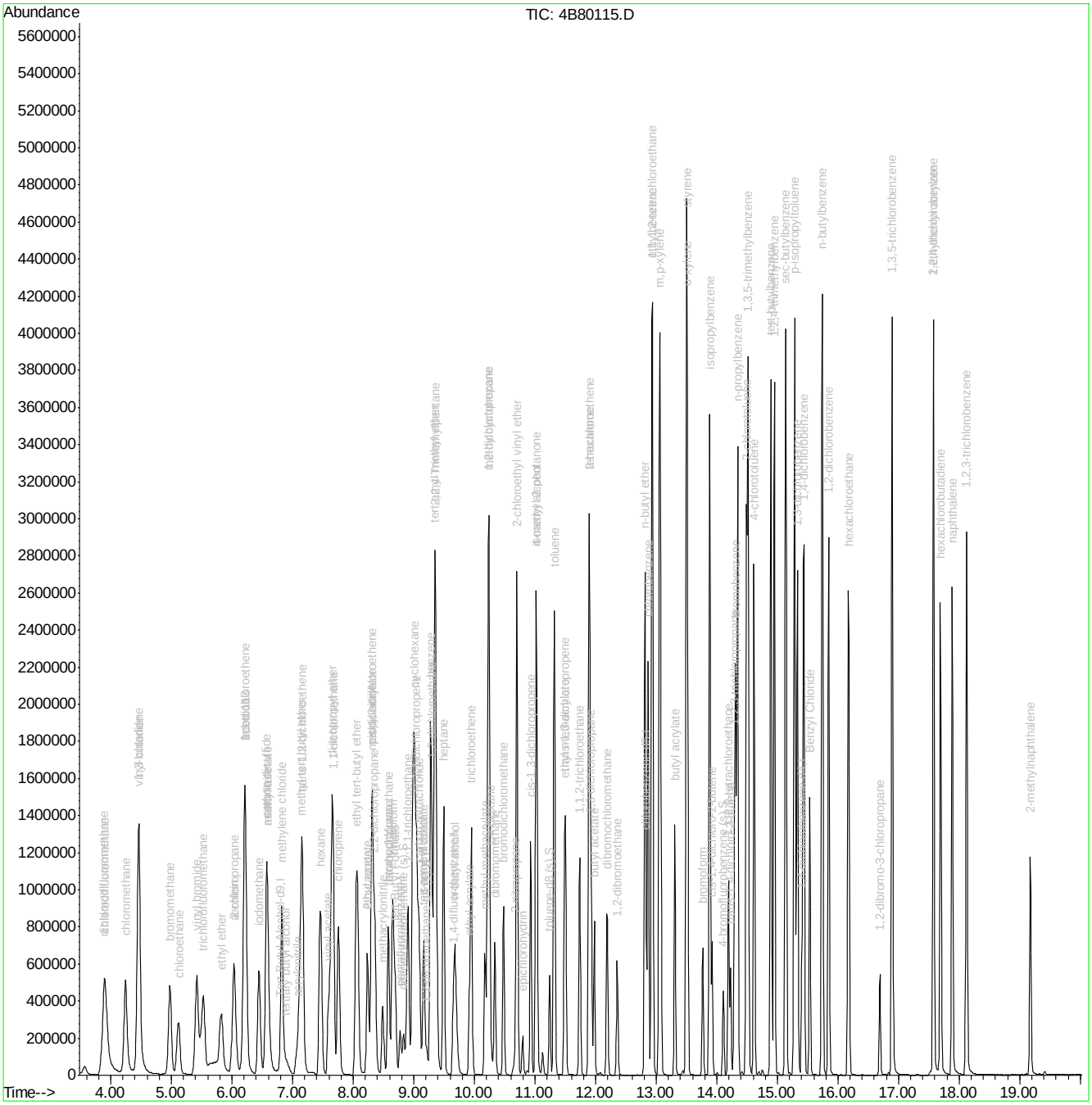
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) styrene	13.52	104	1386042	108.77 ug/L	94
94) butyl acrylate	13.31	55	874112	107.40 ug/L	98
95) isopropylbenzene	13.88	105	2500066	113.21 ug/L	99
96) bromoform	13.77	173	334821	133.46 ug/L	99
97) cis-1,4-dichloro-2-butene	13.92	88	160422	122.03 ug/L	99
100) 1,1,2,2-tetrachloroethane	14.19	83	566485	103.65 ug/L	98
101) trans-1,4-dichloro-2-buten	14.23	53	110820	108.68 ug/L	96
102) 1,2,3-trichloropropane	14.29	110	136287	110.04 ug/L	98
103) bromobenzene	14.31	156	620014	104.93 ug/L	99
104) n-propylbenzene	14.34	91	2719193	102.51 ug/L	98
105) 2-chlorotoluene	14.49	126	609027	106.98 ug/L	96
106) 4-chlorotoluene	14.61	91	1627751	105.46 ug/L	100
108) 1,3,5-trimethylbenzene	14.52	105	2088873	104.21 ug/L	98
109) tert-butylbenzene	14.89	119	1967726	115.02 ug/L	99
110) 1,2,4-trimethylbenzene	14.95	105	2132868	104.23 ug/L	99
111) sec-butylbenzene	15.14	105	3034778	110.97 ug/L	99
112) p-isopropyltoluene	15.28	119	2560045	109.81 ug/L	99
113) 1,3-dichlorobenzene	15.33	146	1221062	103.66 ug/L	98
114) 1,4-dichlorobenzene	15.44	146	1252459	107.17 ug/L	99
115) 1,2-dichlorobenzene	15.85	146	1298830	105.46 ug/L	98
116) Benzyl Chloride	15.54	91	1099120	106.31 ug/L	99
118) n-butylbenzene	15.74	92	1385668	111.83 ug/L	96
120) hexachloroethane	16.17	201	538537	137.68 ug/L	97
121) 1,2-dibromo-3-chloropropan	16.69	157	161634	121.03 ug/L	97
122) 1,3,5-trichlorobenzene	16.90	180	1410737	109.11 ug/L	98
123) 1,2,4-trichlorobenzene	17.58	180	1219450	108.98 ug/L	98
124) 2-ethylhexyl acrylate	17.58	70	160502	25.51 ug/L	96
125) hexachlorobutadiene	17.70	225	633911	109.83 ug/L	99
126) naphthalene	17.88	128	2205251	108.24 ug/L	99
127) 1,2,3-trichlorobenzene	18.12	180	1076270	108.33 ug/L	96
128) 2-methylnaphthalene	19.18	142	676697	60.88 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80115.D
Acq On : 15 Mar 2018 9:04 pm
Operator : HueanhT
Sample : IC3310-200
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 16 11:35:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 10:29:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80118.D
Acq On : 15 Mar 2018 10:28 pm
Operator : HueanhT
Sample : ICV3310-50
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 11:52:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:52:17 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	6.79	65	95620	500.00	ug/L	0.00
5) pentafluorobenzene	8.78	168	224485	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	309136	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	291095	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	180218	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	98963	50.08	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.16%			
55) 1,2-dichloroethane-d4 (s)	9.22	65	96747	48.08	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.16%			
76) toluene-d8 (s)	11.24	98	359821	49.87	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.74%			
99) 4-bromofluorobenzene (s)	14.11	95	142399	50.02	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.04%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.88	59	62316	251.55	ug/L	99
4) 1,4-dioxane	10.27	88	26502	1187.06	ug/L	90
6) chlorodifluoromethane	3.90	51	201302	37.70	ug/L	99
7) dichlorodifluoromethane	3.89	85	293588	53.75	ug/L	97
8) chloromethane	4.24	50	317357	49.56	ug/L	99
9) vinyl chloride	4.45	62	283560	48.20	ug/L	99
10) 1,3-butadiene	4.47	54	220791	44.54	ug/L	99
11) bromomethane	4.99	94	189222	48.47	ug/L	99
12) chloroethane	5.12	64	147113	49.52	ug/L	100
13) trichlorofluoromethane	5.53	101	259976	48.77	ug/L	99
14) vinyl bromide	5.43	106	179277	50.59	ug/L	98
15) ethyl ether	5.81	74	58937	48.48	ug/L	95
16) 2-chloropropane	6.03	43	263741	47.74	ug/L	99
17) acrolein	6.04	56	23432	48.22	ug/L	99
18) freon 113	6.22	151	140652	54.91	ug/L	99
19) 1,1-dichloroethene	6.21	61	209166	44.50	ug/L	98
20) acetone	6.20	58	42018	139.23	ug/L	99
21) acetonitrile	6.58	41	125339	327.94	ug/L	98
22) iodomethane	6.45	142	269067	47.00	ug/L	99
23) carbon disulfide	6.58	76	488894	47.35	ug/L	99
24) methylene chloride	6.83	84	147677	48.39	ug/L	100
25) methyl acetate	6.59	43	78673	47.01	ug/L	99
26) methyl tert butyl ether	7.14	73	794093	99.36	ug/L	96
27) trans-1,2-dichloroethene	7.16	61	183851	46.69	ug/L	99
28) hexane	7.46	56	89220	43.61	ug/L	98
29) di-isopropyl ether	7.65	45	514892	49.40	ug/L	98
30) 2-butanone	8.23	72	43163	173.72	ug/L #	76
31) 1,1-dichloroethane	7.67	63	232315	48.89	ug/L	99
32) chloroprene	7.76	53	197612	52.66	ug/L	98
33) acrylonitrile	7.07	53	48583	55.37	ug/L	97
34) vinyl acetate	7.59	86	14051	49.34	ug/L	96
35) ethyl tert-butyl ether	8.06	59	469142	50.72	ug/L	99
36) ethyl acetate	8.24	45	14900	47.49	ug/L #	66

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80118.D
Acq On : 15 Mar 2018 10:28 pm
Operator : HueanhT
Sample : ICV3310-50
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 11:52:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:52:17 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.35	77	210112	47.40	ug/L		96
38) cis-1,2-dichloroethene	8.31	96	141609	50.69	ug/L		99
39) propionitrile	8.31	54	161759	494.41	ug/L		97
40) methyl acrylate	8.32	85	13867	50.17	ug/L		100
41) methacrylonitrile	8.49	67	40004	48.12	ug/L		97
42) bromochloromethane	8.58	128	66675	51.61	ug/L		98
43) tetrahydrofuran	8.59	42	31193	48.11	ug/L		98
44) chloroform	8.65	83	218624	49.31	ug/L		99
45) tert-Butyl Formate	8.69	59	68495	34.97	ug/L		97
47) 1,1,1-trichloroethane	8.90	97	224339	49.86	ug/L		99
48) cyclohexane	9.01	84	225957	47.09	ug/L		91
50) 1,1-dichloropropene	9.04	75	159329	49.16	ug/L		99
51) carbon tetrachloride	9.09	117	186536	49.78	ug/L		99
52) tert-amyl alcohol	9.15	73	27985	237.76	ug/L		97
53) isopropyl acetate	9.17	87	19607	51.97	ug/L		97
56) n-butyl alcohol	9.68	56	139826	2110.20	ug/L		99
57) 2,2,4-Trimethylpentane	9.35	57	621664	50.63	ug/L		100
58) benzene	9.27	78	490897	49.51	ug/L		99
59) tert-amyl methyl ether	9.34	73	402228	49.79	ug/L		98
60) heptane	9.49	57	117870	54.23	ug/L		99
61) 1,2-dichloroethane	9.30	62	139407	47.95	ug/L		99
62) ethyl acrylate	9.92	55	124759	53.31	ug/L		99
63) trichloroethene	9.95	95	126092	51.02	ug/L		98
64) 2-chloroethyl vinyl ether	10.70	63	344679	262.75	ug/L		100
65) methyl methacrylate	10.17	100	25604	51.23	ug/L	#	57
66) methylcyclohexane	10.24	83	277614	48.22	ug/L		98
67) 1,2-dichloropropane	10.23	63	125325	48.09	ug/L		99
68) dibromomethane	10.34	93	71328	51.77	ug/L		98
69) bromodichloromethane	10.48	83	156912	52.17	ug/L		99
70) 2-nitropropane	10.68	41	36735	48.35	ug/L		96
71) epichlorohydrin	10.80	57	49773	248.51	ug/L		99
72) cis-1,3-dichloropropene	10.93	75	193288	51.84	ug/L		99
73) 4-methyl-2-pentanone	11.02	58	166239	202.33	ug/L		100
74) isoamyl alcohol	11.02	70	52539	1005.68	ug/L		99
77) toluene	11.32	92	301239	51.07	ug/L		99
78) ethyl methacrylate	11.48	69	131686	49.61	ug/L		98
79) trans-1,3-dichloropropene	11.50	75	153870	49.97	ug/L		98
80) 1,1,2-trichloroethane	11.74	83	85500	51.46	ug/L		98
81) tetrachloroethene	11.89	164	172757	78.66	ug/L		98
82) 2-hexanone	11.90	58	145827	175.59	ug/L		97
83) 1,3-dichloropropane	11.93	76	156501	49.43	ug/L		99
84) butyl acetate	11.98	56	67871	51.51	ug/L		96
85) dibromochloromethane	12.19	129	118312	54.85	ug/L		97
86) 1,2-dibromoethane	12.36	107	110300	52.82	ug/L		99
87) n-butyl ether	12.81	57	591965	50.17	ug/L		99
88) chlorobenzene	12.87	112	327321	50.88	ug/L		99
89) 1,1,1,2-tetrachloroethane	12.94	131	136676	52.72	ug/L		97
90) ethylbenzene	12.93	91	581395	50.35	ug/L		99
91) m,p-xylene	13.06	106	449245	102.38	ug/L		99
92) o-xylene	13.50	91	510657	51.06	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80118.D
Acq On : 15 Mar 2018 10:28 pm
Operator : HueanhT
Sample : ICV3310-50
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 11:52:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:52:17 2018
Response via : Initial Calibration

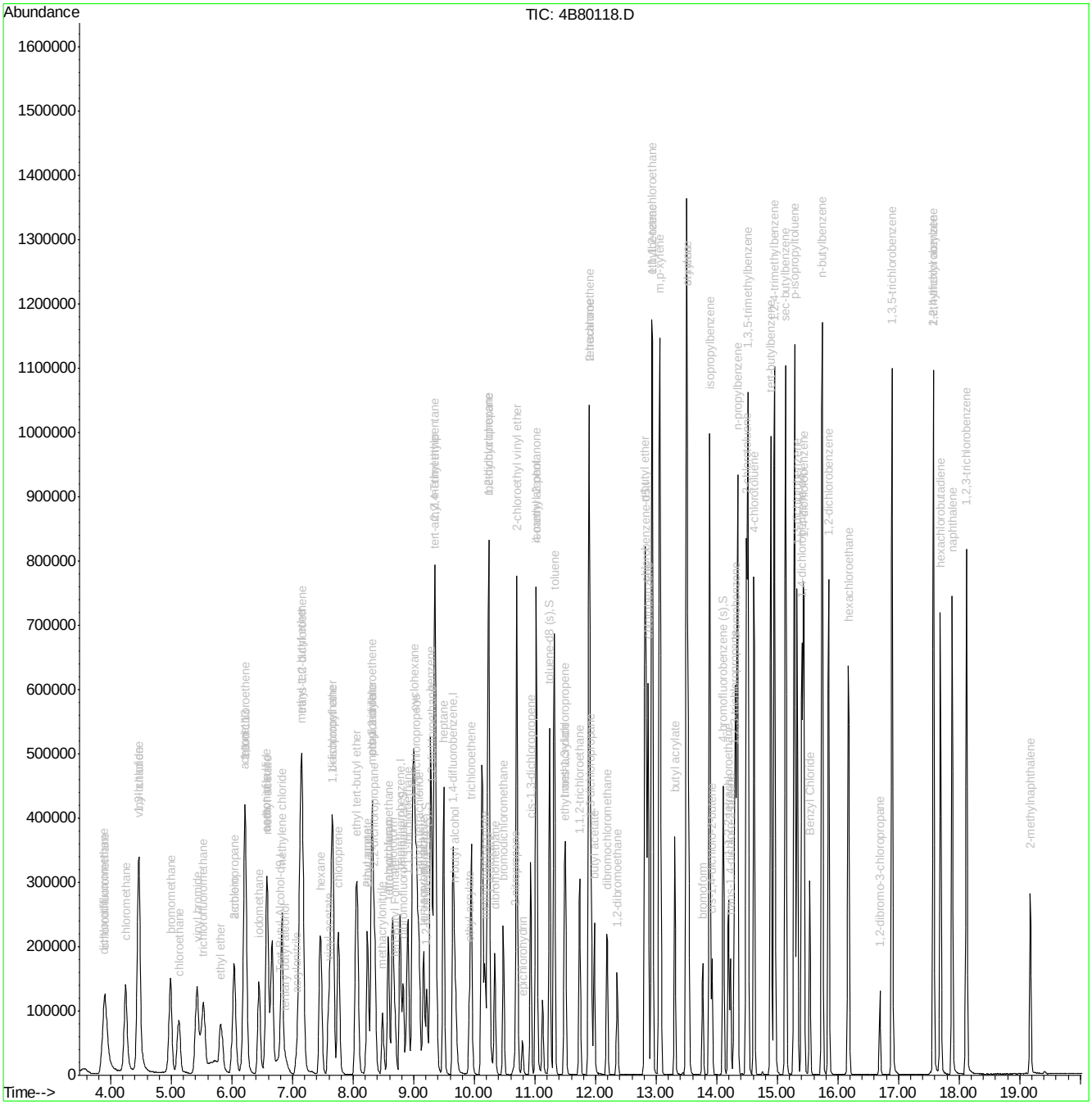
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) styrene	13.51	104	383750	52.03 ug/L	98
94) butyl acrylate	13.31	55	234324	53.37 ug/L	99
95) isopropylbenzene	13.88	105	676879	52.30 ug/L	99
96) bromoform	13.77	173	82875	58.42 ug/L	98
97) cis-1,4-dichloro-2-butene	13.92	88	39010	50.88 ug/L	97
100) 1,1,2,2-tetrachloroethane	14.19	83	142192	49.91 ug/L	99
101) trans-1,4-dichloro-2-buten	14.23	53	35182	62.17 ug/L	95
102) 1,2,3-trichloropropane	14.29	110	36457	51.76 ug/L	98
103) bromobenzene	14.31	156	167090	51.61 ug/L	98
104) n-propylbenzene	14.34	91	754251	50.73 ug/L	100
105) 2-chlorotoluene	14.49	126	157589	50.14 ug/L	100
106) 4-chlorotoluene	14.62	91	444260	51.36 ug/L	100
108) 1,3,5-trimethylbenzene	14.52	105	557319	50.65 ug/L	99
109) tert-butylbenzene	14.89	119	506902	52.94 ug/L	100
110) 1,2,4-trimethylbenzene	14.95	105	586383	52.14 ug/L	99
111) sec-butylbenzene	15.14	105	812595	52.88 ug/L	100
112) p-isopropyltoluene	15.28	119	689273	53.25 ug/L	100
113) 1,3-dichlorobenzene	15.33	146	327123	49.95 ug/L	99
114) 1,4-dichlorobenzene	15.44	146	325727	50.08 ug/L	99
115) 1,2-dichlorobenzene	15.85	146	342909	50.53 ug/L	99
116) Benzyl Chloride	15.54	91	216256	41.50 ug/L	98
118) n-butylbenzene	15.74	92	366386	53.04 ug/L	100
120) hexachloroethane	16.17	201	125149	55.92 ug/L	98
121) 1,2-dibromo-3-chloropropan	16.69	157	37685	53.44 ug/L	100
122) 1,3,5-trichlorobenzene	16.90	180	382248	52.29 ug/L	99
123) 1,2,4-trichlorobenzene	17.58	180	330248	51.50 ug/L	100
124) 2-ethylhexyl acrylate	17.58	70	38139	10.54 ug/L	99
125) hexachlorobutadiene	17.69	225	171220	50.87 ug/L	99
126) naphthalene	17.88	128	602876	53.12 ug/L	99
127) 1,2,3-trichlorobenzene	18.12	180	289905	51.75 ug/L	99
128) 2-methylnaphthalene	19.18	142	161963	24.92 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80118.D
Acq On : 15 Mar 2018 10:28 pm
Operator : HueanhT
Sample : ICV3310-50
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 11:52:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:52:17 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80119.D
Acq On : 15 Mar 2018 10:56 pm
Operator : HueanhT
Sample : ICV3310-50
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 11:45:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:45:10 2018
Response via : Initial Calibration

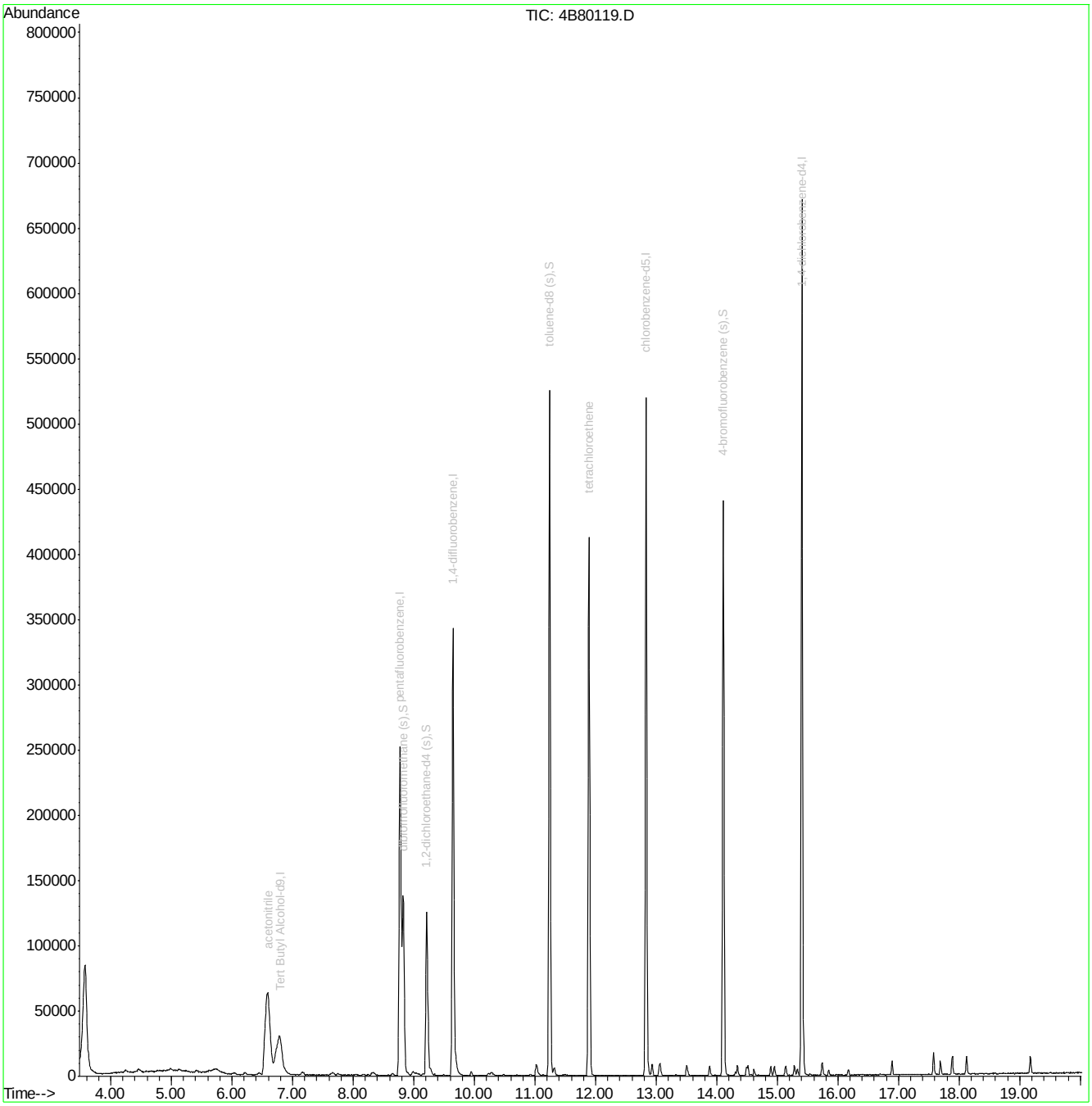
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	6.79	65	110907	500.00	ug/L	0.00
5) pentafluorobenzene	8.78	168	227773	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	308025	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	292047	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	180012	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	98374	49.07	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.14%			
55) 1,2-dichloroethane-d4 (s)	9.21	65	99820	49.78	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.56%			
76) toluene-d8 (s)	11.24	98	352195	48.66	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.32%			
99) 4-bromofluorobenzene (s)	14.11	95	140768	49.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.00%			
Target Compounds						Qvalue
21) acetonitrile	6.59	41	203851	525.67	ug/L	97
81) tetrachloroethene	11.89	164	103309	46.88	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3310\
Data File : 4B80119.D
Acq On : 15 Mar 2018 10:56 pm
Operator : HueanhT
Sample : ICV3310-50
Misc : MS24804,V4B3310,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 11:45:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:45:10 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3335\
Data File : 4B80668.D
Acq On : 30 Mar 2018 7:30 am
Operator : HueanhT
Sample : CC3310-20
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 30 16:49:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	6.79	65	131185	500.00	ug/L	0.00
5) pentafluorobenzene	8.77	168	231664	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	291202	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	302347	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	202178	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.82	113	97452	47.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.58%			
55) 1,2-dichloroethane-d4 (s)	9.21	65	90856	47.93	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.86%			
76) toluene-d8 (s)	11.24	98	342465	45.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.40%			
99) 4-bromofluorobenzene (s)	14.11	95	143705	44.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.98%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.86	59	34571	101.72	ug/L	97
4) 1,4-dioxane	10.26	88	15182	495.66	ug/L	94
6) chlorodifluoromethane	3.91	51	99973	18.14	ug/L	99
7) dichlorodifluoromethane	3.90	85	98828	17.53	ug/L	99
8) chloromethane	4.24	50	127491	19.29	ug/L	97
9) vinyl chloride	4.45	62	115160	18.97	ug/L	99
11) bromomethane	4.99	94	83757	20.79	ug/L	99
12) chloroethane	5.12	64	60270	19.66	ug/L	99
13) trichlorofluoromethane	5.54	101	100424	18.26	ug/L	99
14) vinyl bromide	5.42	106	66902	18.29	ug/L	98
16) 2-chloropropane	6.03	43	96583	16.94	ug/L	98
17) acrolein	6.04	56	11500	22.93	ug/L	97
18) freon 113	6.22	151	51278	19.40	ug/L	90
19) 1,1-dichloroethene	6.20	61	86119	17.75	ug/L	97
20) acetone	6.20	58	29080	93.37	ug/L	88
21) acetonitrile	6.58	41	91855	232.89	ug/L	97
23) carbon disulfide	6.57	76	136976	12.86	ug/L	98
24) methylene chloride	6.82	84	67185	21.33	ug/L	96
25) methyl acetate	6.58	43	38765	22.44	ug/L	96
26) methyl tert butyl ether	7.13	73	125732	15.24	ug/L	99
27) trans-1,2-dichloroethene	7.16	61	77899	19.17	ug/L	96
28) hexane	7.45	56	33696	15.96	ug/L	97
29) di-isopropyl ether	7.65	45	215685	20.05	ug/L	97
30) 2-butanone	8.23	72	21926	85.51	ug/L	98
31) 1,1-dichloroethane	7.67	63	97082	19.80	ug/L	99
32) chloroprene	7.75	53	66019	17.05	ug/L	96
33) acrylonitrile	7.07	53	15272	16.86	ug/L	94
34) vinyl acetate	7.59	86	7294	24.82	ug/L #	68
35) ethyl tert-butyl ether	8.05	59	199109	20.86	ug/L	99
36) ethyl acetate	8.23	45	6231	19.24	ug/L #	71
37) 2,2-dichloropropane	8.34	77	91720	20.05	ug/L	99
38) cis-1,2-dichloroethene	8.31	96	58508	20.30	ug/L	95
42) bromochloromethane	8.58	128	29308	21.98	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3335\
Data File : 4B80668.D
Acq On : 30 Mar 2018 7:30 am
Operator : HueanhT
Sample : CC3310-20
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 30 16:49:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
44) chloroform	8.65	83	88357	19.31 ug/L	97
45) tert-Butyl Formate	8.68	59	50940	25.20 ug/L	96
47) 1,1,1-trichloroethane	8.90	97	89900	19.36 ug/L	99
48) cyclohexane	9.00	84	80387	16.24 ug/L	90
50) 1,1-dichloropropene	9.04	75	53277	15.93 ug/L	98
51) carbon tetrachloride	9.08	117	75803	19.60 ug/L	98
52) tert-amyl alcohol	9.15	73	16031	131.98 ug/L	89
53) isopropyl acetate	9.17	87	8445	21.69 ug/L #	75
56) n-butyl alcohol	9.68	56	79336	1271.05 ug/L	95
57) 2,2,4-Trimethylpentane	9.35	57	203734	17.61 ug/L	99
58) benzene	9.27	78	176536	18.90 ug/L	97
59) tert-amyl methyl ether	9.34	73	177346	23.31 ug/L	100
60) heptane	9.49	57	34945	17.07 ug/L	97
61) 1,2-dichloroethane	9.30	62	54117	19.76 ug/L	99
62) ethyl acrylate	9.91	55	51760	23.48 ug/L	97
63) trichloroethene	9.94	95	40860	17.55 ug/L	98
64) 2-chloroethyl vinyl ether	10.70	63	145131	117.45 ug/L	99
66) methylcyclohexane	10.24	83	102512	18.90 ug/L	99
67) 1,2-dichloropropane	10.23	63	49717	20.25 ug/L	99
68) dibromomethane	10.33	93	28239	21.76 ug/L	98
69) bromodichloromethane	10.48	83	60621	21.40 ug/L	98
71) epichlorohydrin	10.79	57	22937	121.57 ug/L	98
72) cis-1,3-dichloropropene	10.93	75	74526	21.22 ug/L	94
73) 4-methyl-2-pentanone	11.02	58	79924	103.27 ug/L	90
74) isoamyl alcohol	11.02	70	32368	657.73 ug/L #	80
77) toluene	11.31	92	108493	17.71 ug/L	100
79) trans-1,3-dichloropropene	11.50	75	65237	20.40 ug/L	96
80) 1,1,2-trichloroethane	11.74	83	36556	21.18 ug/L	98
81) tetrachloroethene	11.89	164	39135	17.16 ug/L	98
82) 2-hexanone	11.90	58	78028	90.46 ug/L	99
83) 1,3-dichloropropane	11.93	76	67510	20.53 ug/L	90
84) butyl acetate	11.98	56	30554	22.33 ug/L	99
85) dibromochloromethane	12.19	129	49033	21.89 ug/L	97
86) 1,2-dibromoethane	12.36	107	48048	22.15 ug/L	97
87) n-butyl ether	12.81	57	235036	19.18 ug/L	99
88) chlorobenzene	12.87	112	130003	19.45 ug/L	97
89) 1,1,1,2-tetrachloroethane	12.94	131	55692	20.68 ug/L	97
90) ethylbenzene	12.93	91	222662	18.56 ug/L	99
91) m,p-xylene	13.06	106	175609	38.53 ug/L	96
92) o-xylene	13.50	91	199298	19.19 ug/L	100
93) styrene	13.51	104	155358	20.28 ug/L	97
94) butyl acrylate	13.31	55	102741	22.53 ug/L	98
95) isopropylbenzene	13.88	105	253776	18.88 ug/L	99
96) bromoform	13.77	173	36990	25.10 ug/L	94
97) cis-1,4-dichloro-2-butene	13.92	88	15576	19.56 ug/L	96
100) 1,1,2,2-tetrachloroethane	14.19	83	70662	22.11 ug/L	97
102) 1,2,3-trichloropropane	14.29	110	17879	22.63 ug/L	91
103) bromobenzene	14.31	156	72685	20.01 ug/L	96
104) n-propylbenzene	14.34	91	296463	17.77 ug/L	99
105) 2-chlorotoluene	14.49	126	65676	18.63 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3335\
Data File : 4B80668.D
Acq On : 30 Mar 2018 7:30 am
Operator : HueanhT
Sample : CC3310-20
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 30 16:49:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration

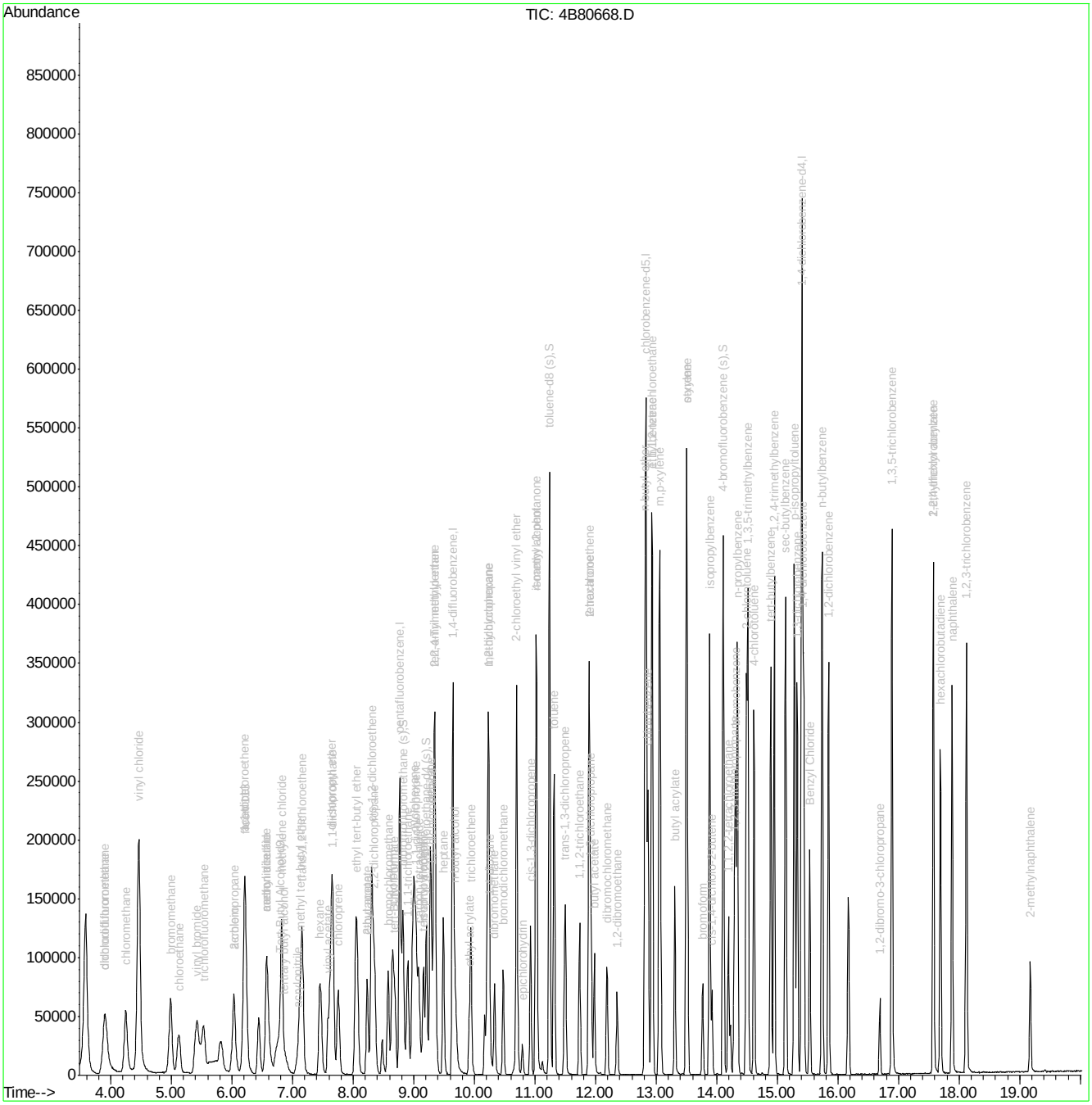
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
106) 4-chlorotoluene	14.61	91	177350	18.28	ug/L		99
108) 1,3,5-trimethylbenzene	14.52	105	222385	18.02	ug/L		99
109) tert-butylbenzene	14.89	119	179003	16.66	ug/L		99
110) 1,2,4-trimethylbenzene	14.95	105	233361	18.49	ug/L		99
111) sec-butylbenzene	15.14	105	301937	17.51	ug/L		99
112) p-isopropyltoluene	15.28	119	266791	18.37	ug/L		99
113) 1,3-dichlorobenzene	15.33	146	146392	19.93	ug/L		99
114) 1,4-dichlorobenzene	15.43	146	143582	19.68	ug/L		99
115) 1,2-dichlorobenzene	15.85	146	156591	20.57	ug/L		97
116) Benzyl Chloride	15.54	91	140149	23.98	ug/L		100
118) n-butylbenzene	15.74	92	141429	18.25	ug/L		97
121) 1,2-dibromo-3-chloropropan	16.69	157	19644	24.83	ug/L		94
122) 1,3,5-trichlorobenzene	16.89	180	163761	19.97	ug/L		99
123) 1,2,4-trichlorobenzene	17.58	180	142389	19.79	ug/L		99
124) 2-ethylhexyl acrylate	17.58	70	9185	2.26	ug/L	#	90
125) hexachlorobutadiene	17.69	225	65625	17.38	ug/L		98
126) naphthalene	17.88	128	270108	21.22	ug/L		98
127) 1,2,3-trichlorobenzene	18.12	180	129874	20.67	ug/L		98
128) 2-methylnaphthalene	19.17	142	54013	7.41	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3335\
Data File : 4B80668.D
Acq On : 30 Mar 2018 7:30 am
Operator : HueanhT
Sample : CC3310-20
Misc : MS25149,V4B3335,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 30 16:49:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3310.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 16 11:53:44 2018
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi624(60mx0.25mmx1.4 um)
Standard	ABK V018-2615-68.36	C V018-2615-90.4	E V018-2615-71.43		Method	V8260C
Standard Concentration	100ppm	100ppm	100ppm		Init Calib Date	3/16/2018
Internal Surrogate	V017-2615-57					
Internal Surrogate Concentration	250/2500ppm					
External Standards	Ext ABK V018-2615-74.7	EXT C V018-2615-83.10	Ext E V018-2615-75.7	EXT PA V018-2615-8 5.2	Analysis Date	3/16/2018
External Standard Concentration	100ppm	100ppm	100ppm	100ppm	Sequence loaded by	Austin Park
					Data processed by	dong,mei.
					Batch ID	V2D7334
					Matrix	AQ
Initial Calibration Method	M2D7334				Approved By:	MEI
pH paper	216315				Approved Date:	3/28/2018 8:43:11 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	174255	BFB		NA			5			1	ok	
2D	174256	IC7334-0.2		NA		8260 initial cal.	5			2	ok	0.2uLABK,C,E/100mL.
2D	174257	IC7334-0.5		NA		8260 initial cal.	5			3	ok	0.5uLABK,C,E/100mL.
2D	174258	IC7334-1		NA		8260 initial cal.	5			4	ok	1uLABK,C,E/100mL.
2D	174259	IC7334-2		NA		8260 initial cal.	5			5	ok	2uLABK,C,E/100mL.
2D	174260	IC7334-5		NA		8260 initial cal.	5			6	ok	5uLABK,C,E/100mL.
2D	174261	IC7334-10		NA		8260 initial cal.	5			7	ok	10uLABK,C,E/100mL.
2D	174262	IC7334-20		NA		8260 initial cal.	5			8	ok	20uLABK,C,E/100mL.
2D	174263	ICC7334-50		NA		8260 initial cal.	5			9	ok	50uLABK,C,E/100mL.
2D	174264	IC7334-100		NA		8260 initial cal.	5			10	ok	100uLABK,C,E/100mL.
2D	174265	IC7334-200		NA		8260 initial cal.	5			11	ok	200uLABK,C,E/100mL.
2D	174266	IB		NA			5			12	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	174267	IB		NA			5			13	ok	
2D	174268	ICV7334-100		NA		8260 initial cal.	5			14	ok	50uLExtABK,C,E/50mL. Approval by owen
2D	174269	ICV7334-100		NA		8260 initial cal.	5			15	ok	50uLExtPA/50mL. Approval by owen.
2D	174270	IB		NA			5			16	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60m x 0.25 mm x 1.4um)
Standard	ABK V018-2615-89.17	C V018-2615-95.2	EK V018-2615-92.6	ABK V018-2615-68.30	Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm	100-10,000ppm	Init Calib Date	2/28/2018
	E V018-2615-71.10					
	100ppm					
Internal Surrogate	V018-2615-97				Analysis Date	3/27/2018
Internal Surrogate Concentration	50/500ppm				Sequence loaded by	Oyinade Ifaturoti
					Data processed by	michellc
					Batch ID	V2D7344
Rough reviewed by Eddie Huang	3/28/18				Matrix	AQ
Init Calib METHOD	M2D7334				Approved By:	MEI
pH Paper Lot#	216315				Approved Date:	4/3/2018 10:20:32 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2d	174426	CC7334-20		NA			5			1	NG	20 uL abk,c,e / 100mL. Failed low.
2d	174427	BFB/CC7334-20		NA			5			2	ok/ok	20 uL abk,c,e / 100mL 7:47am 22,32 low. 7,127,128 high.
2d	174428	CC7334-2		NA			5			3	ok	2uL abk,c,e / 100mL For #22, 32.
2d	174429	BS		NA			5			4	ok	50 uL abk,c,e / 100mL
2d	174430	IB		NA			5			5	ok	
2d	174431	MB		NA			5			6	ok	
2d	174432	JC62879-9MS	27	NA	MS25167	V8260TCL20	5		1	7	ok	20 uL abk,c,e / 40mL
2d	174433	JC62879-9MSD	32	NA	MS25167	V8260TCL20	5		1	8	ok	20 uL abk,c,e / 40mL
2d	174434	IB		NA			5			9	ok	
2d	174435	JC62879-9	28	NA	MS25167	V8260TCL20	5		1	10	ok	
2d	174436	JC62879-1	9	NA	MS25167	V8260TCL20	5		1	11	ok	
2d	174437	JC62879-2	10	NA	MS25167	V8260TCL20	5		1	12	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2d	174438	JC62879-3	9	NA	MS25167	V8260TCL20	5		1	13	ok	
2d	174439	JC62879-4	9	NA	MS25167	V8260TCL20	5		1	14	ok	
2d	174440	JC62879-5	9	NA	MS25167	V8260TCL20	5		1	15	ok	
2d	174441	JC62879-6	10	NA	MS25167	V8260TCL20	5		1	16	ok	
2d	174442	JC62879-7	10	NA	MS25167	V8260TCL20	5		1	17	ok	
2d	174443	JC62879-8	9	NA	MS25167	V8260TCL20	5		1	18	ok	
2d	174444	JC62879-10	9	NA	MS25167	V8260TCL20	5		1	19	ok	
2d	174445	JC62879-11	28	NA	MS25160	V8260TCL20	5		1	20	ok	
2d	174446	JC58439-21		NA	MS23680	V8260SL	5			21	okRR	5uLABK,C,E/100mL. 5ppb MDLI. ABK-68 + E-71.
2d	174447	JC58439-21		NA	MS23680	V8260SL	5			22	okRR	5uLABK,C,E/100mL. 5ppb MDLI. ABK-68 + E-71.
2d	174448	JC58439-21		NA	MS23680	V8260SL	5			23	okRR	5uLABK,C,E/100mL. 5ppb MDLI. ABK-68 + E-71.

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	ZB624(60mx0.25mmx1.4um)
Standard	ABK V018-2615-68.36	C V018-2615-104.5	E V018-2615-71.41	8260 SL V018-2615-101.5	Method	V8260C
Standard Concentration	100-10000ppm	100ppm	100 ppm	100 ppm	Init Calib Date	3/23/2018
Internal Surrogate	V018-2615-87					
Internal Surrogate Concentration	250/2500ppm					
					Analysis Date	3/23/2018
Standard	Ext ABK V018-2615-74.5	Ext C V018-2615-96.7	E V018-2615-75.5	Ext PA V018-2615-85.2	Sequence loaded by	Robert Szot
Standard Concentration	100-10000ppm	100ppm	100ppm	100/1000 ppm	Data processed by	Roberts
Standard	Ext 1,3-butadiene V018-2615-01.2	Ext F142B V018-2615-10.2.1			Batch ID	V2E6202
Concentration	100 ppm	100 ppm			Matrix	AQ
Initial Calibration Method	M2E6202				Approved By:	JESSICA
					Approved Date:	4/2/2018 4:53:34 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2E	141861	BFB		NA			5			1	ok	
2E	141862	IC6202-0.2		NA		8260 initial cal	5			2	ok	1 uL ABK, C, E, SL / 500 mL DI H2O
2E	141863	IC6202-0.5		NA		8260 initial cal	5			3	ok	2.5 uL ABK, C, E, SL / 500 mL DI H2O
2E	141864	IC6202-1		NA		8260 initial cal	5			4	ok	5 uL ABK, C, E, SL / 500 mL DI H2O
2E	141865	IC6202-2		NA		8260 initial cal	5			5	ok	4 uL ABK, C, E, SL / 200 mL DI H2O
2E	141866	IC6202-5		NA		8260 initial cal	5			6	ok	10 uL ABK, C, E, SL / 200 mL DI H2O
2E	141867	IC6202-10		NA		8260 initial cal	5			7	ok	20 uL ABK, C, E, SL / 200 mL DI H2O
2E	141868	IC6202-20		NA		8260 initial cal	5			8	ok	40 uL ABK, C, E, SL / 200 mL DI H2O
2E	141869	ICC6202-50		NA		8260 initial cal	5			9	ok	100 uL ABK, C, E, SL / 200 mL DI H2O
2E	141870	IC6202-100		NA		8260 initial cal	5			10	ok	200 uL ABK, C, E, SL / 200 mL DI H2O
2E	141871	IC6202-200		NA		8260 initial cal	5			11	ok	400 uL ABK, C, E, SL / 200 mL DI H2O
2E	141872	IB		NA			5			12	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2E	141873	IB		NA			5			13	ok	
2E	141874	ICV6202-50		NA		8260 initial cal	5			14	ok	100 uL Ext ABK, Ext C, Ext E / 200 mL DI H2O
2E	141875	ICV6202-50		NA		8260 initial cal	5			15	ok	100 uL Ext PA, Ext F142B, Ext 1,3-butadiene / 200 mL DI H2O

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	ZB624(60mx0.25mmx1.4um)
Standard	ABK V018-2615-69.31	C V018-2615-106.8	EK V018-2615-92.38	8260 SL V018-2615-101.3	Method	V8260
Standard Concentration	100ppm	100ppm	100ppm	100 ppm	Init Calib Date	1/3/2018
Internal Surrogate	V018-2615-57					
Internal Surrogate Concentration	250/2500ppm				Rough review	Hueanh Tran(3/30/18)
					Analysis Date	3/29/2018
					Sequence loaded by	Sydney Scelfo
					Data processed by	michellc
					Batch ID	V2E6206
					Matrix	AQ
Initial Calibration Method	M2E6202				Approved By:	MEI
pH Paper Lot#216315	exp 06/15/18				Approved Date:	4/3/2018 10:34:47 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2E	141949	BFB/CC6202-20		NA			5			1	ok/ok	7:13am. 20uL ABK,C,EK/100mL DI H2O.#22 low (20%)
2E	141950	CC6202-2		NA			5			2	ok	2uL ABK,C,EK/100mL DI H2O
2E	141951	BS		NA			5			3	ok	50uL ABK,C,EK/100mL DI H2O
2E	141952	IB		NA			5			4	ok	
2E	141953	MB		NA			5			5	ok	
2E	141954	JC62879-11	29	NA	MS25160	V8260TCL20	5		1	6	ok	
2E	141955	JC62879-17	9	NA	MS25160	V8260TCL20	5		1	2	ok	
2E	141956	JC62879-18	9	NA	MS25160	V8260TCL20	5		1	3	ok	
2E	141957	JC62879-19	2	NA	MS25160	V8260TCL20	5		1	4	ok	
2E	141958	JC62879-20	9	NA	MS25160	V8260TCL20	5		1	5	ok	
2E	141959	JC62879-11MS	31	NA	MS25160	V8260TCL20	5		1	6	ok	20uL ABK,C,EK/40mL sample
2E	141960	JC62879-11MSD	30	NA	MS25160	V8260TCL20	5		1	7	ok	20uL ABK,C,EK/40mL sample

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2E	141961	IB		NA			5			8	ok	
2E	141962	JC62873-1	15	NA	MS25158	V8260SL	5		1	9	ok	
2E	141963	JC62873-2	14	NA	MS25158	V8260SL	5		1	10	ok	
2E	141964	JC62873-3	11	NA	MS25158	V8260SL	5		1	11	ok	
2E	141965	JC62873-6	2	NA	MS25158	V8260SL	5		1	12	ok	
2E	141966	JC62914-6	1	200x	MS25160	V8260NHF	0.25/50		1	13	okRR	RR20X
2E	141967	JC62914-7	1	NA	MS25160	V8260NHF	5		1	14	ok	
2E	141968	JC58439-22		NA	MS23680	V8260SL	5			15	ok	5uL ABK,C,E/100mL DI H2O ABK lot#V078-2615-6830
2E	141969	JC58439-22		NA	MS23680	V8260SL	5			16	ok	5uL ABK,C,E/100mL DI H2O ABK lot#V078-2615-6830
2E	141970	JC58439-22		NA	MS23680	V8260SL	5			17	ok	6:25PM. 5uL ABK,C,E/100mL DI H2O ABK lot#V078-2615-6830

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi624(60mx0.25mmx1.4 um)
Standard	ABK V018-2615-54.29	C V018-2615-61.3.	E V018-2615-36.49	1,3-Butadiene v018-2615-44.8	Method	V8260C
Standard Concentration	100-10000ppm	100ppm	100ppm	100ppm	Init Calib Date	2/27/2018
Internal Surrogate	V017-2615-19					
Internal Surrogate Concentration	250/2500ppm					
Standards	Ext ABK v018-2615-30.4	EXT C v018-2615-62.3	Ext E v018-2615-25.5	Ext PA v018-2615-37.3	Analysis Date	2/27/2018
Standard Concentration	100-10000ppm	100ppm	100ppm	100ppm	Sequence loaded by	AUSTIN PARK
					Data processed by	Bridget Kelly
					Batch ID	V3B6383
					Matrix	AQ
Initial Calibration Method	M3B6383				Approved By:	JESSICA
					Approved Date:	3/6/2018 11:51:30 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3B	144366	BFB		NA		ICC8260	5			1	ok	
3B	144367	IC6383-0.2		NA		ICC8260	5			2	ok	0.2uL ABK,C,E, 1,3-But /500mL DI H2O
3B	144368	IC6383-0.5		NA		ICC8260	5			3	ok	0.5uL ABK,C,E, 1,3-But/200mL DI H2O
3B	144369	IC6383-1		NA		ICC8260	5			4	ok	1uL ABK,C,E, 1,3-But/100mL DI H2O
3B	144370	IC6383-2		NA		ICC8260	5			5	ok	2uL ABK,C,E, 1,3-But/100mL DI H2O
3B	144371	IC6383-5		NA		ICC8260	5			6	ok	5uL ABK,C,E, 1,3-But/100mL DI H2O
3B	144372	IC6383-10		NA		ICC8260	5			7	ok	10uL ABK,C,E, 1,3-But/100mL DI H2O
3B	144373	IC6383-20		NA		ICC8260	5			8	ok	20uL ABK,C,E, 1,3-But/100mL DI H2O
3B	144374	ICC6383-50		NA		ICC8260	5			9	ok	50uL ABK,C,E, 1,3-But/100mL DI H2O
3B	144375	IC6383-100		NA		ICC8260	5			10	ok	100uL ABK,C,E, 1,3-But/100mL DI H2O
3B	144376	IC6383-200		NA		ICC8260	5			11	ok	200uL ABK,C,E, 1,3-But/100mL DI H2O
3B	144377	IB		NA			5			12	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3B	144378	IB		NA			5			13	ok	
3B	144379	ICV6383-50		NA		ICV8260	5			14	ok	50uL EXT(ABK,C,E)/100mL DI H2O
3B	144380	ICV6383-50		NA		ICV8260	5			15	ok	50uL EXT P.A./100mL DI H2O
3B	144381	IB		NA			5			16	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	RXI624 60m x .25mm x 1.4um
Calib Std	ABK v018-2615-68.12	C v018-2615-80.10	E v018-2615-71.13	1,3 BTD v018-2615-8 4.8	Method	V8260C
STD concentration	100-10000ppm	100ppm	100ppm	100ppm	Init Calib Date	01/18/2018
Internal/surr	v017-2615-57	250/2500ppm				
Ext Standard	Ext 1,3 BTD V018-2615-66. 4				Rough Review Completed	Jessica Potts 3/14/18.
Ext Standard Concentration	100 ppm				Analysis Date	3/13/2018
					Sequence loaded by	Jessica Potts
					Data processed by	Eunice
					Batch ID	V3B6401
					Matrix	AQ
intial cal. Method	M3B6383				Approved By:	JESSICA
pH Paper Lot#	216315				Approved Date:	3/19/2018 4:05:29 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3B	144749	BFB		NA			5			1	ok	(12: 52 pm) 3/13/18.
3B	144750	ICV6383-50		NA			5			2	ok	50uL ext 1,3 BTD/ 100mL (failed high; ok per Owen)
3B	144751	CC6383-20		NA			5			3	ok	20uL ABK, C, E, 1,3 BTD/ 100mL (1: 49 pm) # 10 high
3B	144752	BS		NA			5			4	ok	50uL ABK, C, E, 1,3 BTD/ 100mL
3B	144753	BSD		NA			5			5	ok	50uL ABK, C, E, 1,3 BTD/ 100mL
3B	144754	IB		NA			5			6	ok	
3B	144755	MB		NA			5			7	ok	
3B	144756	JC61542-4	1	NA	MS24758	V8260SL	5		1	8	ok	Combine with L core (Report 1,3 BTD, Hexane, 2 hexanone from this run)
3B	144757	ECC6383-20		NA			5			9	ok	20uL ABK, C, E, 1,3 BTD/ 100mL end check DOD

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	RXI624(60m x 0.25mm x 1.4um)
Standards	ABK V018-2615-89.9	C V018-2615-104.10	EK V018-2615-92.23		Method	V8260C
Standard Concentration	100-10,000PPM	100PPM	100PPM		Init Calib Date	03/15/2018
Internal Standargate	V018-2615-87					
Internal Surrogate Concentration	50/500PPM					
					Analysis Date	3/28/2018
					Sequence loaded by	Austin Park
					Data processed by	Harrah A
					Batch ID	V3B6426
Rough reviewed by Eddie Huang	3/29/18				Matrix	AQ
Initial Cal. Method	M3B6383				Approved By:	OWENM
pH Paper Lot#	215316				Approved Date:	4/3/2018 11:20:20 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3B	145266	BFB/CC6383-50		NA			5			1	OK	25ul ABK,C,EK/50ml. 5:45pm, 3/28/18. #11 high.
3B	145267	CC6383-5		NA			5			2	not need	5ul ABK,C,EK/50ml DI H2O
3B	145268	BS		NA			5			3	OK	25ul ABK,C,EK/50ml DI H2O
3B	145269	IB		NA			5			4	OK	
3B	145270	MB		NA			5			5	OK	
3B	145271	JC62691-10	9	NA	MS25049	V8260TCL20+	5		1	6	OK	
3B	145272	JC62691-11	1	NA	MS25049	V8260TCL20+	5		1	7	OK	
3B	145273	JC62870-6	11	NA	MS25138	V8260TCL20+	5		1	8	OK	
3B	145274	JC62870-7	2	NA	MS25138	V8260TCL20+	5		1	9	OK	
3B	145275	JC62727-12	2	NA	MS25096	V8260TCL42	5		1	10	OK	
3B	145276	JC62727-14	2	NA	MS25096	V8260TCL42	5		1	11	OK	
3B	145277	JC62727-15	2	NA	MS25096	V8260TCL42	5		1	12	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3B	145278	JC62853-5	4	50	MS25161	V8260TCL20+	1/50		1	13	OK/RR	O/D RR 1X.
3B	145279	JC62879-12	9	NA	MS25167	V8260TCL20	5		1	14	OK	
3B	145280	JC62879-13	10	NA	MS25167	V8260TCL20	5		1	15	OK	
3B	145281	JC62879-14	10	NA	MS25167	V8260TCL20	5		1	16	OK	
3B	145282	JC62879-15	10	NA	MS25167	V8260TCL20	5		1	17	OK	
3B	145283	JC62879-16	9	NA	MS25167	V8260TCL20	5		1	18	OK	
3B	145284	JC62856-1	1	NA	MS25138	V8260TCL20+,TBA	5		1	19	OK	
3B	145285	JC62902-31	2	NA	MS25138	V8260TCL42	5		1	20	OK	
3B	145286	JC62902-32	2	NA	MS25138	V8260TCL42	5		1	21	OK	
3B	145287	JC62902-33	2	NA	MS25138	V8260TCL42	5		1	22	OK	
3B	145288	JC62902-34	1	NA	MS25138	V8260TCL42	5		1	23	OK	4:28am, 3/29/18.

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	RXI624(60m x 0.25mm x 1.4um)
Standards	ABK V018-2615-89.9	C V018-2615-90.2	EK V018-2615-92.2		Method	V8260C
Standard Concentration	100-10,000PPM	100PPM	100PPM		Init Calib Date	03/15/2018
Internal Standard	V018-2615-87					
Internal Surrogate Concentration	50/500PPM					
					Analysis Date	3/29/2018
					Sequence loaded by	Oyinade Ifaturoti
					Data processed by	janellec
					Batch ID	V3B6427
Rough reviewed by Eddie Huang	3/30/18				Matrix	AQ
Initial Cal. Method	M3B6383				Approved By:	OWENM
pH Paper Lot#	215316				Approved Date:	4/3/2018 5:29:08 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3B	145289	IB		NA			5			1	ok	
3B	145290	CC6383-20		NA			5			2	NG	20uL A/B/K,C,EK/100mL
3B	145291	CC6383-20		NA			5			3	ok	7:38am 3/29/18; 20uL A/B/K,C,EK/100mL 7,8,9,11,12,17,73 high.
3B	145292	BS		NA			5			4	NG	50uL A/B/K,C,EK/100mL
3B	145293	IB		NA			5			5	NotUsed	
3B	145294	BS		NA			5			6	ok	50uL A/B/K,C,EK/100mL #73 high.
3B	145295	IB		NA			5			7	ok	
3B	145297	MB		NA			5			8	ok	
3B	145298	JC62879-11	32	NA	MS25160	V8260TCL20	5		1	9	ok	
3B	145299	JC62879-11MS	26	NA	MS25160	V8260TCL20	5		1	10	ok	50uL A/B/K,C,EK/100mL
3B	145300	JC62879-11MSD	25	NA	MS25160	V8260TCL20	5		1	11	ok	50uL A/B/K,C,EK/100mL
3B	145301	IB	2	NA			5			12	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3B	145302	JC62830-1	1	NA	MS25145	V8260MASTD	5		1	13	ok/RR	RR1X CCHIT.
3B	145303	JC62830-2	1	NA	MS25145	V8260MASTD	5		1	14	ok/RR	RR1X CCHIT.
3B	145304	JC62830-3	2	NA	MS25145	V8260MASTD	5		1	15	ok/RR	RR1X/10X CCHIT.
3B	145305	JC62830-4	1	NA	MS25145	V8260MASTD	5		1	16	ok/RR	RR1X CCHIT.
3B	145306	JC62830-5	1	NA	MS25145	V8260MASTD	5		1	17	ok/RR	RR1X CCHIT.
3B	145307	JC62879-12MS	10	NA	MS25167	V8260TCL20	5		1	18	ok	20uLABK,C,EK/40mL. V3B6426.
3B	145308	IB		NA			5			19	ok	V3B6426.
3B	145309	JC62879-13DUP	9	NA	MS25167	V8260TCL20	5		1	20	ok	V3B6426.
3B	145310	JC62830-9	2	NA	MS25145	V8260MASTD	5		1	21	ok/RR	RR1X CCHIT.
3B	145311	JC62830-10	1	NA	MS25145	V8260MASTD	5		1	22	ok/RR	RR1X CCHIT. 7:33pm, 3/29/18.
3B	145312	JC62830-12	1	NA	MS25145	V8260MASTD	5		1	23	ok/RR	RR1X out of bfb time.
3B	145313	JC62883-6	2	NA	MS25147	V8260PAUGTMB	5		1	24	ok/RR	RR1X out of bfb time.

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	DB624 (60m x 0.25mm x 1.4um)
Standards	ABK V018-2615-68.37	C V018-2615-86.8	E V018-2615-71.36	13BTD V018-2615-84	Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm	100ppm	Init Calib Date	03/15/2018
Internal Standard/Surrogate	V018-2615-57					
Internal Surrogate Concentration	250/2500ppm				Analysis Date	3/15/2018
					Sequence loaded by	Hueanh Tran
External Standards	ABK V018-2615-74.2	C V018-2615-83.7	E V018-2615-75.3	13BTD V018-2615-91	Data processed by	dong,mei
External Standard Concentration	100-10,000ppm	100ppm	100ppm	100ppm	Batch ID	V4B3310
	PA V018-2615-85.2	100ppm			Matrix	AQ
Initial Cal. Method	M4B3310				Approved By:	ROBERTS
pH Paper Lot#	215316				Approved Date:	3/19/2018 10:31:10 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4b	80104	IB		NA			5			1	ok	
4b	80105	BFB		NA			5			2	ok	4:20PM
4b	80106	IC3310-0.2		NA		V8260 INITIAL CAL	5			3	ok	1uL abk,c,e, 13btd/500mL
4b	80107	IC3310-0.5		NA		V8260 INITIAL CAL	5			4	ok	2.5uL abk,c,e, 13btd/200mL
4b	80108	IC3310-1		NA		V8260 INITIAL CAL	5			5	ok	1uL abk,c,e, 13btd/100mL
4b	80109	IC3310-2		NA		V8260 INITIAL CAL	5			6	ok	2uL abk,c,e, 13btd/100mL
4b	80110	IC3310-5		NA		V8260 INITIAL CAL	5			7	ok	5uL abk,c,e, 13btd/100mL
4b	80111	IC3310-10		NA		V8260 INITIAL CAL	5			8	ok	10uL abk,c,e, 13btd/100mL
4b	80112	IC3310-20		NA		V8260 INITIAL CAL	5			9	ok	20uL abk,c,e, 13btd/100mL
4b	80113	ICC3310-50		NA		V8260 INITIAL CAL	5			10	ok	50uL abk,c,e, 13btd/100mL
4b	80114	IC3310-100		NA		V8260 INITIAL CAL	5			11	ok	100uL abk,c,e, 13btd/100mL
4b	80115	IC3310-200		NA		V8260 INITIAL CAL	5			12	ok	200uL abk,c,e, 13btd/100mL

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4b	80116	IB		NA			5			13	ok	
4b	80117	IB		NA			5			14	ok	
4b	80118	ICV3310-50		NA		V8260 INITIAL CAL	5			15	ok	25uL EXT abk,c,e, 13btd/50mL
4b	80119	IC3310-50		NA		V8260 INITIAL CAL	5			16	ok	25uL EXT PA/50mL
4b	80120	IB		NA			5			17	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(30m x 0.25 mm x 1.4um)
Standard	ABK V018-2615-89.16	C V018-2615-95.10	EK V018-2615-92.15		Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm.		Init Calib Date	3/15/2018
Internal Surrogate	V018-2615-87					
Internal Surrogate Concentration	250/2500PPM					
					Analysis Date	3/30/2018
					Sequence loaded by	Hueanh Tran
					Data processed by	janellec
					Batch ID	V4B3335
					Matrix	AQ
Init Calib METHOD	M4B3310				Approved By:	OWENM
pH Paper Lot#	216315				Approved Date:	4/3/2018 5:27:33 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4b	80666	IB		NA			5			1	ok	
4b	80667	IB		NA			5			2	ok	
4b	80668	BFB/CC3310-20		NA			5			3	ok	7:30AM. #50 LOW, 73,96,121 HIGH. 10uL abk,c,ek/50mL
4b	80669	BS		NA			5			4	ok	25uL abk,c,ek/50mL
4b	80670	IB		NA			5			5	ok	
4b	80671	MB		NA			5			6	ok	
R	80672	JC62604-2	1	NA	MS25070	V8260BENZ	5		1	1	OK	foaming
4b	80673	IB		NA			5			2	ok	
R	80674	JC62606-1	3	NA	MS25070	V8260BENZ	5		1	3	OK	
4b	80675	JC63151-3	8	NA	MS25260	V8260TCL	5		1	4	ok	
4b	80676	JC62880-23	1	NA	MS25149	V8260PAUG	5		1	5	OK	
4b	80677	JC62880-24	2	NA	MS25149	V8260PAUG	5		1	6	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4b	80678	JC62880-25	1	NA	MS25149	V8260PAUG	5		1	7	OK	
4b	80679	JC62880-18	2	5	MS25149	V8260PAUG	10/50		1	8	OK/RR	RR 1X
4b	80680	JC62880-23MS	2	NA	MS25149	V8260PAUG	5		1	9	OK	20uL abk,c,ek/40mL sample
4b	80681	IB	1	NA	MS25149	V8260PAUG	5			10	OK	
4b	80682	JC62880-24DUP	1	NA	MS25149	V8260PAUG	5		1	11	OK	
R	80683	JC62880-21	1	NA	MS25149	V8260PAUG	5		1	12	OK	
R	80684	JC62879-20	10	NA	MS25160	V8260TCL20	5		1	13	OK	
DL	80685	JC62880-17	2	10	MS25149	V8260PAUG	5/50		1	14	OK	
R	80686	JC62837-6	1	NA	MS25128	V8260BTX	5		1	15	OK	
R	80687	JC62837-2	1	NA	MS25128	V8260BTX	5		1	16	OK	
R	80688	JC62837-4	1	NA	MS25128	V8260BTX	5		1	17	OK	
R	80689	JC62768-19	2	NA	MS25128	V8260BTXMT	5		1	18	OK	
R	80690	JC62768-16	2	5	MS25128	V8260BTXMT	10/50		1	19	OK	6:51PM
R	80691	IB		NA			5			20	ok	

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10877-MB1	F175213.D	1	03/27/18	CS	03/26/18	OP10877	EF7460

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10877-MB1	F175213.D	1	03/27/18	CS	03/26/18	OP10877	EF7460

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	52%	10-110%

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10877-MB1	F175213.D	1	03/27/18	CS	03/26/18	OP10877	EF7460

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7

CAS No.	Surrogate Recoveries		Limits
4165-62-2	Phenol-d5	35%	10-110%
118-79-6	2,4,6-Tribromophenol	86%	36-151%
4165-60-0	Nitrobenzene-d5	68%	34-128%
321-60-8	2-Fluorobiphenyl	70%	38-119%
1718-51-0	Terphenyl-d14	81%	26-129%

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-MB1	2P78131.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-MB1	2P78131.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	38%	10-110%

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-MB1	2P78131.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Surrogate Recoveries		Limits
4165-62-2	Phenol-d5	26%	10-110%
118-79-6	2,4,6-Tribromophenol	88%	36-151%
4165-60-0	Nitrobenzene-d5	75%	34-128%
321-60-8	2-Fluorobiphenyl	76%	38-119%
1718-51-0	Terphenyl-d14	74%	26-129%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-BS1	2P78132.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-57-8	2-Chlorophenol	50	30.7	61	39-106
59-50-7	4-Chloro-3-methyl phenol	50	35.8	72	45-118
120-83-2	2,4-Dichlorophenol	50	34.2	68	43-115
105-67-9	2,4-Dimethylphenol	50	35.1	70	38-125
51-28-5	2,4-Dinitrophenol	100	73.7	74	35-137
534-52-1	4,6-Dinitro-o-cresol	50	43.4	87	45-134
95-48-7	2-Methylphenol	50	26.5	53	34-106
	3&4-Methylphenol	50	24.7	49	31-110
88-75-5	2-Nitrophenol	50	34.8	70	41-118
100-02-7	4-Nitrophenol	50	15.7	31	10-113
87-86-5	Pentachlorophenol	50	33.1	66	21-134
108-95-2	Phenol	50	12.6	25	10-110
58-90-2	2,3,4,6-Tetrachlorophenol	50	35.6	71	41-129
95-95-4	2,4,5-Trichlorophenol	50	35.3	71	45-117
88-06-2	2,4,6-Trichlorophenol	50	33.7	67	47-125
83-32-9	Acenaphthene	50	33.9	68	40-114
208-96-8	Acenaphthylene	50	33.7	67	40-109
98-86-2	Acetophenone	50	31.4	63	43-112
120-12-7	Anthracene	50	39.2	78	50-113
1912-24-9	Atrazine	50	45.1	90	46-141
100-52-7	Benzaldehyde	50	32.3	65	27-116
56-55-3	Benzo(a)anthracene	50	38.2	76	55-110
50-32-8	Benzo(a)pyrene	50	39.0	78	52-112
205-99-2	Benzo(b)fluoranthene	50	37.3	75	53-114
191-24-2	Benzo(g,h,i)perylene	50	39.6	79	46-115
207-08-9	Benzo(k)fluoranthene	50	36.5	73	55-115
101-55-3	4-Bromophenyl phenyl ether	50	38.3	77	47-122
85-68-7	Butyl benzyl phthalate	50	41.1	82	50-124
92-52-4	1,1'-Biphenyl	50	32.2	64	42-114
91-58-7	2-Chloronaphthalene	50	29.9	60	33-112
106-47-8	4-Chloroaniline	50	20.8	42	17-87
86-74-8	Carbazole	50	42.1	84	54-118
105-60-2	Caprolactam	50	10.0	20	10-110
218-01-9	Chrysene	50	39.4	79	52-107
111-91-1	bis(2-Chloroethoxy)methane	50	36.3	73	38-116
111-44-4	bis(2-Chloroethyl)ether	50	35.3	71	38-118

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-BS1	2P78132.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-60-1	2,2'-Oxybis(1-chloropropane)	50	32.2	64	29-108
7005-72-3	4-Chlorophenyl phenyl ether	50	32.6	65	40-122
121-14-2	2,4-Dinitrotoluene	50	37.4	75	54-129
606-20-2	2,6-Dinitrotoluene	50	38.2	76	53-131
91-94-1	3,3'-Dichlorobenzidine	100	36.3	36	28-91
53-70-3	Dibenzo(a,h)anthracene	50	37.2	74	51-117
132-64-9	Dibenzofuran	50	34.7	69	46-118
84-74-2	Di-n-butyl phthalate	50	40.1	80	54-124
117-84-0	Di-n-octyl phthalate	50	43.9	88	41-137
84-66-2	Diethyl phthalate	50	34.6	69	49-122
131-11-3	Dimethyl phthalate	50	34.6	69	51-118
117-81-7	bis(2-Ethylhexyl)phthalate	50	41.1	82	47-128
206-44-0	Fluoranthene	50	40.4	81	54-118
86-73-7	Fluorene	50	34.7	69	45-116
118-74-1	Hexachlorobenzene	50	38.9	78	45-124
87-68-3	Hexachlorobutadiene	50	20.8	42	10-120
77-47-4	Hexachlorocyclopentadiene	100	48.3	48	10-110
67-72-1	Hexachloroethane	50	21.3	43	11-110
193-39-5	Indeno(1,2,3-cd)pyrene	50	37.6	75	45-123
78-59-1	Isophorone	50	33.0	66	43-115
91-57-6	2-Methylnaphthalene	50	31.9	64	37-111
88-74-4	2-Nitroaniline	50	35.5	71	40-144
99-09-2	3-Nitroaniline	50	27.2	54	31-104
100-01-6	4-Nitroaniline	50	34.5	69	48-119
91-20-3	Naphthalene	50	29.2	58	29-110
98-95-3	Nitrobenzene	50	29.1	58	35-118
621-64-7	N-Nitroso-di-n-propylamine	50	30.7	61	38-116
86-30-6	N-Nitrosodiphenylamine	50	37.2	74	49-114
85-01-8	Phenanthrene	50	39.0	78	49-116
129-00-0	Pyrene	50	40.5	81	51-116
95-94-3	1,2,4,5-Tetrachlorobenzene	50	31.5	63	21-124

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	42%	10-110%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-BS1	2P78132.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Surrogate Recoveries	BSP	Limits
4165-62-2	Phenol-d5	25%	10-110%
118-79-6	2,4,6-Tribromophenol	88%	36-151%
4165-60-0	Nitrobenzene-d5	61%	34-128%
321-60-8	2-Fluorobiphenyl	60%	38-119%
1718-51-0	Terphenyl-d14	84%	26-129%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10877-BS1	F175214.D	1	03/27/18	CS	03/26/18	OP10877	EF7460
OP10877-BSD	F175215.D	1	03/27/18	CS	03/26/18	OP10877	EF7460

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	50	42.4	85	43.8	88	3	39-106/27
59-50-7	4-Chloro-3-methyl phenol	50	43.2	86	45.7	91	6	45-118/23
120-83-2	2,4-Dichlorophenol	50	44.6	89	47.4	95	6	43-115/26
105-67-9	2,4-Dimethylphenol	50	44.3	89	47.4	95	7	38-125/23
51-28-5	2,4-Dinitrophenol	100	91.6	92	93.6	94	2	35-137/22
534-52-1	4,6-Dinitro-o-cresol	50	44.7	89	44.4	89	1	45-134/23
95-48-7	2-Methylphenol	50	36.8	74	38.0	76	3	34-106/24
	3&4-Methylphenol	50	36.4	73	37.1	74	2	31-110/25
88-75-5	2-Nitrophenol	50	47.9	96	50.7	101	6	41-118/28
100-02-7	4-Nitrophenol	50	28.1	56	27.6	55	2	10-113/31
87-86-5	Pentachlorophenol	50	55.7	111	55.7	111	0	21-134/25
108-95-2	Phenol	50	22.1	44	22.5	45	2	10-110/27
58-90-2	2,3,4,6-Tetrachlorophenol	50	47.7	95	50.0	100	5	41-129/41
95-95-4	2,4,5-Trichlorophenol	50	45.2	90	47.1	94	4	45-117/26
88-06-2	2,4,6-Trichlorophenol	50	44.5	89	46.5	93	4	47-125/35
83-32-9	Acenaphthene	50	41.2	82	43.3	87	5	40-114/22
208-96-8	Acenaphthylene	50	41.3	83	43.2	86	4	40-109/22
98-86-2	Acetophenone	50	41.3	83	41.3	83	0	43-112/21
120-12-7	Anthracene	50	41.8	84	44.0	88	5	50-113/20
1912-24-9	Atrazine	50	48.4	97	48.7	97	1	46-141/23
100-52-7	Benzaldehyde	50	36.1	72	35.8	72	1	27-116/29
56-55-3	Benzo(a)anthracene	50	41.7	83	44.7	89	7	55-110/22
50-32-8	Benzo(a)pyrene	50	44.1	88	46.7	93	6	52-112/24
205-99-2	Benzo(b)fluoranthene	50	42.8	86	44.9	90	5	53-114/22
191-24-2	Benzo(g,h,i)perylene	50	50.5	101	55.0	110	9	46-115/28
207-08-9	Benzo(k)fluoranthene	50	40.5	81	43.9	88	8	55-115/23
101-55-3	4-Bromophenyl phenyl ether	50	42.4	85	44.5	89	5	47-122/25
85-68-7	Butyl benzyl phthalate	50	42.1	84	44.1	88	5	50-124/22
92-52-4	1,1'-Biphenyl	50	43.0	86	45.0	90	5	42-114/22
91-58-7	2-Chloronaphthalene	50	38.1	76	40.6	81	6	33-112/26
106-47-8	4-Chloroaniline	50	15.8	32	15.8	32	0	17-87/39
86-74-8	Carbazole	50	42.8	86	43.9	88	3	54-118/21
105-60-2	Caprolactam	50	12.4	25	12.8	26	3	10-110/23
218-01-9	Chrysene	50	40.6	81	42.8	86	5	52-107/21
111-91-1	bis(2-Chloroethoxy)methane	50	43.8	88	46.1	92	5	38-116/24
111-44-4	bis(2-Chloroethyl)ether	50	41.6	83	42.5	85	2	38-118/23

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10877-BS1	F175214.D	1	03/27/18	CS	03/26/18	OP10877	EF7460
OP10877-BSD	F175215.D	1	03/27/18	CS	03/26/18	OP10877	EF7460

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	50	44.2	88	45.3	91	2	29-108/23
7005-72-3	4-Chlorophenyl phenyl ether	50	41.0	82	43.5	87	6	40-122/21
121-14-2	2,4-Dinitrotoluene	50	45.3	91	47.4	95	5	54-129/21
606-20-2	2,6-Dinitrotoluene	50	46.2	92	48.5	97	5	53-131/21
91-94-1	3,3'-Dichlorobenzidine	100	41.2	41	37.9	38	8	28-91/44
53-70-3	Dibenzo(a,h)anthracene	50	48.0	96	52.1	104	8	51-117/25
132-64-9	Dibenzofuran	50	40.3	81	42.1	84	4	46-118/16
84-74-2	Di-n-butyl phthalate	50	42.7	85	44.9	90	5	54-124/23
117-84-0	Di-n-octyl phthalate	50	37.5	75	39.5	79	5	41-137/22
84-66-2	Diethyl phthalate	50	42.6	85	44.6	89	5	49-122/20
131-11-3	Dimethyl phthalate	50	43.1	86	44.9	90	4	51-118/20
117-81-7	bis(2-Ethylhexyl)phthalate	50	38.4	77	39.8	80	4	47-128/36
206-44-0	Fluoranthene	50	43.8	88	45.5	91	4	54-118/23
86-73-7	Fluorene	50	40.4	81	42.8	86	6	45-116/20
118-74-1	Hexachlorobenzene	50	40.3	81	43.7	87	8	45-124/23
87-68-3	Hexachlorobutadiene	50	36.6	73	39.8	80	8	10-120/35
77-47-4	Hexachlorocyclopentadiene	100	76.3	76	81.7	82	7	10-110/43
67-72-1	Hexachloroethane	50	33.7	67	37.1	74	10	11-110/38
193-39-5	Indeno(1,2,3-cd)pyrene	50	43.0	86	46.6	93	8	45-123/30
78-59-1	Isophorone	50	40.7	81	43.0	86	5	43-115/20
91-57-6	2-Methylnaphthalene	50	38.6	77	41.1	82	6	37-111/21
88-74-4	2-Nitroaniline	50	41.9	84	43.2	86	3	40-144/18
99-09-2	3-Nitroaniline	50	23.5	47	22.7	45	3	31-104/42
100-01-6	4-Nitroaniline	50	43.4	87	45.4	91	5	48-119/20
91-20-3	Naphthalene	50	38.9	78	41.4	83	6	29-110/23
98-95-3	Nitrobenzene	50	38.7	77	40.8	82	5	35-118/21
621-64-7	N-Nitroso-di-n-propylamine	50	34.4	69	34.9	70	1	38-116/22
86-30-6	N-Nitrosodiphenylamine	50	43.6	87	44.3	89	2	49-114/22
85-01-8	Phenanthrene	50	40.6	81	42.4	85	4	49-116/21
129-00-0	Pyrene	50	42.6	85	44.3	89	4	51-116/21
95-94-3	1,2,4,5-Tetrachlorobenzene	50	36.3	73	38.1	76	5	21-124/32

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	69%	68%	10-110%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10877-BS1	F175214.D	1	03/27/18	CS	03/26/18	OP10877	EF7460
OP10877-BSD	F175215.D	1	03/27/18	CS	03/26/18	OP10877	EF7460

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-62-2	Phenol-d5	46%	45%	10-110%
118-79-6	2,4,6-Tribromophenol	100%	101%	36-151%
4165-60-0	Nitrobenzene-d5	78%	82%	34-128%
321-60-8	2-Fluorobiphenyl	78%	83%	38-119%
1718-51-0	Terphenyl-d14	87%	90%	26-129%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-MS	2P78133.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
OP10883-MSD	2P78134.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
JC62879-9	2P78144.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-8, JC62879-9, JC62879-10, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	JC62879-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		51	42.7	84	55.6	46.8	84	9	36-113/33
59-50-7	4-Chloro-3-methyl phenol	ND		51	42.9	84	55.6	48.8	88	13	40-126/29
120-83-2	2,4-Dichlorophenol	ND		51	43.6	85	55.6	48.7	88	11	40-119/30
105-67-9	2,4-Dimethylphenol	ND		51	45.5	89	55.6	50.5	91	10	34-134/30
51-28-5	2,4-Dinitrophenol	ND		102	85.0	83	111	100	90	16	22-157/34
534-52-1	4,6-Dinitro-o-cresol	ND		51	49.6	97	55.6	56.8	102	14	26-151/37
95-48-7	2-Methylphenol	ND		51	37.9	74	55.6	42.2	76	11	31-119/32
	3&4-Methylphenol	ND		51	35.9	70	55.6	40.3	73	12	29-118/31
88-75-5	2-Nitrophenol	ND		51	46.2	91	55.6	50.6	91	9	38-123/34
100-02-7	4-Nitrophenol	ND		51	21.1	41	55.6	25.1	45	17	10-161/36
87-86-5	Pentachlorophenol	ND		51	35.4	69	55.6	46.8	84	28	22-149/36
108-95-2	Phenol	ND		51	23.4	46	55.6	24.0	43	3	10-110/35
58-90-2	2,3,4,6-Tetrachlorophenol	ND		51	38.6	76	55.6	45.3	82	16	43-131/36
95-95-4	2,4,5-Trichlorophenol	ND		51	38.5	75	55.6	44.8	81	15	45-118/30
88-06-2	2,4,6-Trichlorophenol	ND		51	38.2	75	55.6	44.0	79	14	48-126/31
83-32-9	Acenaphthene	3.9		51	44.5	80	55.6	50.6	84	13	44-119/28
208-96-8	Acenaphthylene	ND		51	39.6	78	55.6	45.6	82	14	40-115/28
98-86-2	Acetophenone	ND		51	39.7	78	55.6	43.6	78	9	34-127/32
120-12-7	Anthracene	ND		51	44.1	86	55.6	50.6	91	14	44-120/30
1912-24-9	Atrazine	ND		51	45.8	90	55.6	53.5	96	16	31-149/30
100-52-7	Benzaldehyde	ND		51	29.0	57	55.6	35.4	64	20	11-132/37
56-55-3	Benzo(a)anthracene	ND		51	41.5	81	55.6	47.8	86	14	48-116/30
50-32-8	Benzo(a)pyrene	ND		51	41.5	81	55.6	49.0	88	17	43-120/31
205-99-2	Benzo(b)fluoranthene	ND		51	39.4	77	55.6	46.4	84	16	42-123/31
191-24-2	Benzo(g,h,i)perylene	ND		51	43.0	84	55.6	50.6	91	16	39-121/32
207-08-9	Benzo(k)fluoranthene	ND		51	39.9	78	55.6	44.3	80	10	44-123/31
101-55-3	4-Bromophenyl phenyl ether	ND		51	44.1	86	55.6	50.4	91	13	47-127/31
85-68-7	Butyl benzyl phthalate	ND		51	44.8	88	55.6	52.3	94	15	41-135/32
92-52-4	1,1'-Biphenyl	ND		51	38.8	76	55.6	43.9	79	12	39-124/29
91-58-7	2-Chloronaphthalene	ND		51	36.7	72	55.6	42.0	76	13	37-120/30
106-47-8	4-Chloroaniline	ND		51	8.6	17	55.6	16.0	29	60* [a]	10-110/49
86-74-8	Carbazole	ND		51	46.0	90	55.6	52.7	95	14	46-127/29
105-60-2	Caprolactam	ND		51	14.1	28	55.6	16.0	29	13	10-110/37
218-01-9	Chrysene	ND		51	43.4	85	55.6	50.1	90	14	45-113/30
111-91-1	bis(2-Chloroethoxy)methane	ND		51	46.4	91	55.6	52.8	95	13	33-122/29
111-44-4	bis(2-Chloroethyl)ether	ND		51	51.4	101	55.6	51.6	93	0	29-132/36

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-MS	2P78133.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
OP10883-MSD	2P78134.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
JC62879-9	2P78144.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-8, JC62879-9, JC62879-10, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	JC62879-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	ND		51	43.8	86	55.6	48.5	87	10	27-115/34
7005-72-3	4-Chlorophenyl phenyl ether	ND		51	37.5	73	55.6	43.4	78	15	43-125/30
121-14-2	2,4-Dinitrotoluene	ND		51	40.9	80	55.6	47.9	86	16	49-135/31
606-20-2	2,6-Dinitrotoluene	ND		51	41.4	81	55.6	48.0	86	15	50-135/32
91-94-1	3,3'-Dichlorobenzidine	ND		102	28.9	28	111	38.6	35	29	2-115/43
53-70-3	Dibenzo(a,h)anthracene	ND		51	40.3	79	55.6	47.8	86	17	44-121/32
132-64-9	Dibenzofuran	ND		51	39.4	77	55.6	45.3	82	14	43-123/29
84-74-2	Di-n-butyl phthalate	ND		51	43.9	86	55.6	51.2	92	15	46-133/30
117-84-0	Di-n-octyl phthalate	ND		51	46.5	91	55.6	54.6	98	16	31-147/32
84-66-2	Diethyl phthalate	1.0	J	51	38.7	74	55.6	45.4	80	16	46-126/30
131-11-3	Dimethyl phthalate	ND		51	37.7	74	55.6	43.8	79	15	49-120/29
117-81-7	bis(2-Ethylhexyl)phthalate	ND		51	45.3	89	55.6	53.4	96	16	35-140/35
206-44-0	Fluoranthene	ND		51	43.0	84	55.6	49.7	89	14	48-122/30
86-73-7	Fluorene	ND		51	39.1	77	55.6	45.0	81	14	45-121/30
118-74-1	Hexachlorobenzene	ND		51	43.9	86	55.6	51.0	92	15	42-129/32
87-68-3	Hexachlorobutadiene	ND		51	31.2	61	55.6	34.5	62	10	10-129/36
77-47-4	Hexachlorocyclopentadiene	ND		102	67.5	66	111	76.5	69	13	10-111/40
67-72-1	Hexachloroethane	ND		51	28.9	57	55.6	32.1	58	10	12-116/37
193-39-5	Indeno(1,2,3-cd)pyrene	ND		51	41.6	82	55.6	49.8	90	18	39-129/33
78-59-1	Isophorone	ND		51	41.0	80	55.6	46.0	83	11	37-122/29
91-57-6	2-Methylnaphthalene	ND		51	39.7	78	55.6	44.2	80	11	33-118/31
88-74-4	2-Nitroaniline	ND		51	38.1	75	55.6	44.7	80	16	32-156/31
99-09-2	3-Nitroaniline	ND		51	19.0	37	55.6	22.5	41	17	11-114/41
100-01-6	4-Nitroaniline	ND		51	32.8	64	55.6	39.1	70	18	31-125/30
91-20-3	Naphthalene	ND		51	40.7	80	55.6	44.7	80	9	24-119/33
98-95-3	Nitrobenzene	ND		51	38.1	75	55.6	42.5	77	11	28-130/32
621-64-7	N-Nitroso-di-n-propylamine	ND		51	39.4	77	55.6	44.0	79	11	29-128/31
86-30-6	N-Nitrosodiphenylamine	ND		51	42.0	82	55.6	49.0	88	15	40-128/31
85-01-8	Phenanthrene	ND		51	44.5	87	55.6	51.5	93	15	41-128/30
129-00-0	Pyrene	ND		51	45.5	89	55.6	52.7	95	15	47-122/30
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		51	40.2	79	55.6	46.4	84	14	23-134/31

CAS No.	Surrogate Recoveries	MS	MSD	JC62879-9	Limits
367-12-4	2-Fluorophenol	64%	66%	37%	10-110%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-MS	2P78133.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
OP10883-MSD	2P78134.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
JC62879-9	2P78144.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-8, JC62879-9, JC62879-10, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Surrogate Recoveries	MS	MSD	JC62879-9	Limits
4165-62-2	Phenol-d5	44%	43%	27%	10-110%
118-79-6	2,4,6-Tribromophenol	96%	105%	95%	36-151%
4165-60-0	Nitrobenzene-d5	77%	78%	65%	34-128%
321-60-8	2-Fluorobiphenyl	70%	73%	72%	38-119%
1718-51-0	Terphenyl-d14	86%	92%	71%	26-129%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-MS2	2P78135.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
OP10883-MSD2	2P78136.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
JC62879-11	2P78146.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-11

CAS No.	Compound	JC62879-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		55.6	37.1	67	50	40.5	81	9	36-113/33
59-50-7	4-Chloro-3-methyl phenol	ND		55.6	42.2	76	50	42.4	85	0	40-126/29
120-83-2	2,4-Dichlorophenol	ND		55.6	40.6	73	50	42.5	85	5	40-119/30
105-67-9	2,4-Dimethylphenol	ND		55.6	40.2	72	50	40.6	81	1	34-134/30
51-28-5	2,4-Dinitrophenol	ND		111	86.7	78	100	86.3	86	0	22-157/34
534-52-1	4,6-Dinitro-o-cresol	ND		55.6	49.2	89	50	49.4	99	0	26-151/37
95-48-7	2-Methylphenol	ND		55.6	34.4	62	50	35.9	72	4	31-119/32
	3&4-Methylphenol	ND		55.6	33.7	61	50	34.7	69	3	29-118/31
88-75-5	2-Nitrophenol	ND		55.6	42.2	76	50	44.7	89	6	38-123/34
100-02-7	4-Nitrophenol	ND		55.6	21.5	39	50	20.6	41	4	10-161/36
87-86-5	Pentachlorophenol	ND		55.6	38.3	69	50	40.7	81	6	22-149/36
108-95-2	Phenol	ND		55.6	19.4	35	50	19.5	39	1	10-110/35
58-90-2	2,3,4,6-Tetrachlorophenol	ND		55.6	39.7	71	50	40.3	81	1	43-131/36
95-95-4	2,4,5-Trichlorophenol	ND		55.6	39.7	71	50	39.6	79	0	45-118/30
88-06-2	2,4,6-Trichlorophenol	ND		55.6	38.5	69	50	38.9	78	1	48-126/31
83-32-9	Acenaphthene	ND		55.6	40.8	73	50	39.9	80	2	44-119/28
208-96-8	Acenaphthylene	ND		55.6	39.9	72	50	39.4	79	1	40-115/28
98-86-2	Acetophenone	ND		55.6	36.6	66	50	40.2	80	9	34-127/32
120-12-7	Anthracene	ND		55.6	42.2	76	50	41.9	84	1	44-120/30
1912-24-9	Atrazine	ND		55.6	49.7	89	50	49.7	99	0	31-149/30
100-52-7	Benzaldehyde	ND		55.6	36.8	66	50	43.1	86	16	11-132/37
56-55-3	Benzo(a)anthracene	ND		55.6	39.7	71	50	40.3	81	1	48-116/30
50-32-8	Benzo(a)pyrene	ND		55.6	39.2	71	50	40.9	82	4	43-120/31
205-99-2	Benzo(b)fluoranthene	ND		55.6	38.4	69	50	38.8	78	1	42-123/31
191-24-2	Benzo(g,h,i)perylene	ND		55.6	41.0	74	50	43.1	86	5	39-121/32
207-08-9	Benzo(k)fluoranthene	ND		55.6	37.8	68	50	39.6	79	5	44-123/31
101-55-3	4-Bromophenyl phenyl ether	ND		55.6	43.5	78	50	43.7	87	0	47-127/31
85-68-7	Butyl benzyl phthalate	ND		55.6	44.0	79	50	44.8	90	2	41-135/32
92-52-4	1,1'-Biphenyl	ND		55.6	38.5	69	50	38.6	77	0	39-124/29
91-58-7	2-Chloronaphthalene	ND		55.6	36.0	65	50	35.2	70	2	37-120/30
106-47-8	4-Chloroaniline	ND		55.6	24.1	43	50	19.1	38	23	10-110/49
86-74-8	Carbazole	ND		55.6	45.4	82	50	45.7	91	1	46-127/29
105-60-2	Caprolactam	ND		55.6	15.0	27	50	14.0	28	7	10-110/37
218-01-9	Chrysene	ND		55.6	40.1	72	50	41.4	83	3	45-113/30
111-91-1	bis(2-Chloroethoxy)methane	ND		55.6	43.5	78	50	46.1	92	6	33-122/29
111-44-4	bis(2-Chloroethyl)ether	ND		55.6	40.6	73	50	45.8	92	12	29-132/36

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-MS2	2P78135.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
OP10883-MSD2	2P78136.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
JC62879-11	2P78146.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-11

CAS No.	Compound	JC62879-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	ND		55.6	38.4	69	50	42.3	85	10	27-115/34
7005-72-3	4-Chlorophenyl phenyl ether	ND		55.6	38.9	70	50	37.9	76	3	43-125/30
121-14-2	2,4-Dinitrotoluene	ND		55.6	42.7	77	50	41.9	84	2	49-135/31
606-20-2	2,6-Dinitrotoluene	ND		55.6	43.3	78	50	42.1	84	3	50-135/32
91-94-1	3,3'-Dichlorobenzidine	ND		111	19.3	17	100	22.4	22	15	2-115/43
53-70-3	Dibenzo(a,h)anthracene	ND		55.6	40.2	72	50	41.2	82	2	44-121/32
132-64-9	Dibenzofuran	ND		55.6	40.4	73	50	39.2	78	3	43-123/29
84-74-2	Di-n-butyl phthalate	ND		55.6	44.6	80	50	44.1	88	1	46-133/30
117-84-0	Di-n-octyl phthalate	ND		55.6	47.4	85	50	47.7	95	1	31-147/32
84-66-2	Diethyl phthalate	ND		55.6	40.4	73	50	39.0	78	4	46-126/30
131-11-3	Dimethyl phthalate	ND		55.6	39.3	71	50	38.4	77	2	49-120/29
117-81-7	bis(2-Ethylhexyl)phthalate	ND		55.6	44.7	80	50	45.9	92	3	35-140/35
206-44-0	Fluoranthene	ND		55.6	43.5	78	50	43.2	86	1	48-122/30
86-73-7	Fluorene	ND		55.6	39.5	71	50	38.8	78	2	45-121/30
118-74-1	Hexachlorobenzene	ND		55.6	43.6	78	50	43.7	87	0	42-129/32
87-68-3	Hexachlorobutadiene	ND		55.6	26.1	47	50	28.2	56	8	10-129/36
77-47-4	Hexachlorocyclopentadiene	ND		111	64.8	58	100	59.5	60	9	10-111/40
67-72-1	Hexachloroethane	ND		55.6	24.4	44	50	28.3	57	15	12-116/37
193-39-5	Indeno(1,2,3-cd)pyrene	ND		55.6	39.4	71	50	42.4	85	7	39-129/33
78-59-1	Isophorone	ND		55.6	39.5	71	50	40.7	81	3	37-122/29
91-57-6	2-Methylnaphthalene	ND		55.6	38.8	70	50	38.7	77	0	33-118/31
88-74-4	2-Nitroaniline	ND		55.6	36.1	65	50	36.6	73	1	32-156/31
99-09-2	3-Nitroaniline	ND		55.6	31.9	57	50	27.9	56	13	11-114/41
100-01-6	4-Nitroaniline	ND		55.6	29.5	53	50	30.7	61	4	31-125/30
91-20-3	Naphthalene	ND		55.6	36.4	66	50	37.4	75	3	24-119/33
98-95-3	Nitrobenzene	ND		55.6	37.4	67	50	40.3	81	7	28-130/32
621-64-7	N-Nitroso-di-n-propylamine	ND		55.6	37.5	68	50	39.7	79	6	29-128/31
86-30-6	N-Nitrosodiphenylamine	ND		55.6	34.1	61	50	35.7	71	5	40-128/31
85-01-8	Phenanthrene	ND		55.6	44.6	80	50	44.1	88	1	41-128/30
129-00-0	Pyrene	ND		55.6	45.2	81	50	44.6	89	1	47-122/30
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		55.6	40.3	73	50	39.7	79	1	23-134/31

CAS No.	Surrogate Recoveries	MS	MSD	JC62879-11	Limits
367-12-4	2-Fluorophenol	50%	62%	42%	10-110%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10883-MS2	2P78135.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
OP10883-MSD2	2P78136.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440
JC62879-11	2P78146.D	1	03/28/18	JB	03/28/18	OP10883	E2P3440

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC62879-11

CAS No.	Surrogate Recoveries	MS	MSD	JC62879-11	Limits
4165-62-2	Phenol-d5	36%	40%	31%	10-110%
118-79-6	2,4,6-Tribromophenol	88%	98%	91%	36-151%
4165-60-0	Nitrobenzene-d5	65%	77%	71%	34-128%
321-60-8	2-Fluorobiphenyl	64%	70%	73%	38-119%
1718-51-0	Terphenyl-d14	62%	77%	60%	26-129%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3416-DFTPP
Lab File ID: 2P77607.D
Instrument ID: GCMS2P
Injection Date: 02/23/18
Injection Time: 10:41

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	151807	33.2		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	201379	44.1		Pass
70	Less than 2.0% of mass 69	651	0.14	(0.32) [a]	Pass
127	40.0 - 60.0% of mass 198	224283	49.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	456917	100.0		Pass
199	5.0 - 9.0% of mass 198	31719	6.94		Pass
275	10.0 - 30.0% of mass 198	122675	26.8		Pass
365	1.0 - 100.0% of mass 198	15532	3.40		Pass
441	Present, but less than mass 443	59899	13.1	(86.3) [b]	Pass
442	40.0 - 100.0% of mass 198	363221	79.5		Pass
443	17.0 - 23.0% of mass 442	69408	15.2	(19.1) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3416-IC3416	2P77608.D	02/23/18	10:54	00:13	Initial cal 100
E2P3416-IC3416	2P77609.D	02/23/18	11:19	00:38	Initial cal 5
E2P3416-IC3416	2P77610.D	02/23/18	11:44	01:03	Initial cal 80
E2P3416-IC3416	2P77611.D	02/23/18	12:05	01:24	Initial cal 1
E2P3416-ICC3416	2P77612.D	02/23/18	12:27	01:46	Initial cal 50
E2P3416-IC3416	2P77613.D	02/23/18	12:48	02:07	Initial cal 2
E2P3416-IC3416	2P77614.D	02/23/18	13:09	02:28	Initial cal 25
E2P3416-IC3416	2P77615.D	02/23/18	13:31	02:50	Initial cal 10
E2P3416-ICV3416	2P77616.D	02/23/18	16:15	05:34	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	E2P3417-DFTPP	**Injection Date:**	02/23/18
Lab File ID:	2P77617.D	**Injection Time:**	17:06
Instrument ID:	GCMS2P		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	158301	37.3		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	201157	47.4		Pass
70	Less than 2.0% of mass 69	940	0.22	(0.47) [a]	Pass
127	40.0 - 60.0% of mass 198	217851	51.3		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	424384	100.0		Pass
199	5.0 - 9.0% of mass 198	27689	6.52		Pass
275	10.0 - 30.0% of mass 198	110525	26.0		Pass
365	1.0 - 100.0% of mass 198	13851	3.26		Pass
441	Present, but less than mass 443	49123	11.6	(86.0) [b]	Pass
442	40.0 - 100.0% of mass 198	305749	72.0		Pass
443	17.0 - 23.0% of mass 442	57101	13.5	(18.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3417-ICV3416	2P77626.D	02/23/18	20:07	03:01	Initial cal verification 50
E2P3417-ICV3416	2P77627.D	02/23/18	20:29	03:23	Initial cal verification 50
E2P3417-ICV3416	2P77628.D	02/23/18	20:50	03:44	Initial cal verification 50
E2P3417-ICV3416	2P77629.D	02/23/18	21:11	04:05	Initial cal verification 50
E2P3417-ICV3416	2P77630A.D	02/23/18	21:33	04:27	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3418-DFTPP
Lab File ID: 2P77633.D
Instrument ID: GCMS2P
Injection Date: 02/26/18
Injection Time: 10:36

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	83025	44.7		Pass
68	Less than 2.0% of mass 69	272	0.15	(0.25) [a]	Pass
69	Mass 69 relative abundance	107474	57.9		Pass
70	Less than 2.0% of mass 69	1013	0.55	(0.94) [a]	Pass
127	40.0 - 60.0% of mass 198	100307	54.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	185728	100.0		Pass
199	5.0 - 9.0% of mass 198	12305	6.63		Pass
275	10.0 - 30.0% of mass 198	45152	24.3		Pass
365	1.0 - 100.0% of mass 198	5692	3.06		Pass
441	Present, but less than mass 443	18940	10.2	(82.8) [b]	Pass
442	40.0 - 100.0% of mass 198	121163	65.2		Pass
443	17.0 - 23.0% of mass 442	22886	12.3	(18.9) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3418-ICV3416	2P77635.D	02/26/18	11:30	00:54	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3422-DFTPP
Lab File ID: 2P77710.D
Instrument ID: GCMS2P
Injection Date: 03/09/18
Injection Time: 09:05

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	118227	44.7		Pass
68	Less than 2.0% of mass 69	1714	0.65	(1.16) [a]	Pass
69	Mass 69 relative abundance	147923	55.9		Pass
70	Less than 2.0% of mass 69	617	0.23	(0.42) [a]	Pass
127	40.0 - 60.0% of mass 198	137259	51.9		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	264597	100.0		Pass
199	5.0 - 9.0% of mass 198	19626	7.42		Pass
275	10.0 - 30.0% of mass 198	71245	26.9		Pass
365	1.0 - 100.0% of mass 198	8699	3.29		Pass
441	Present, but less than mass 443	32295	12.2	(86.7) [b]	Pass
442	40.0 - 100.0% of mass 198	189931	71.8		Pass
443	17.0 - 23.0% of mass 442	37235	14.1	(19.6) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3422-IC3422	2P77711.D	03/09/18	09:30	00:25	Initial cal 100
E2P3422-IC3422	2P77712.D	03/09/18	09:52	00:47	Initial cal 80
E2P3422-ICC3422	2P77713.D	03/09/18	10:13	01:08	Initial cal 50
E2P3422-IC3422	2P77714.D	03/09/18	10:34	01:29	Initial cal 25
E2P3422-IC3422	2P77715.D	03/09/18	10:56	01:51	Initial cal 10
E2P3422-IC3422	2P77716.D	03/09/18	11:17	02:12	Initial cal 5
E2P3422-IC3422	2P77717.D	03/09/18	11:39	02:34	Initial cal 2
E2P3422-IC3422	2P77718.D	03/09/18	12:00	02:55	Initial cal 1
E2P3422-ICV3422	2P77719.D	03/09/18	12:21	03:16	Initial cal verification 50
E2P3422-ICV3422	2P77720.D	03/09/18	12:43	03:38	Initial cal verification 50
E2P3422-ICV3422	2P77722.D	03/09/18	13:26	04:21	Initial cal verification 50
E2P3422-ICV3422	2P77723.D	03/09/18	13:47	04:42	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3440-DFTPP
Lab File ID: 2P78127.D
Instrument ID: GCMS2P
Injection Date: 03/28/18
Injection Time: 14:58

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	167140	35.9		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	217081	46.6		Pass
70	Less than 2.0% of mass 69	726	0.16	(0.33) [a]	Pass
127	40.0 - 60.0% of mass 198	213552	45.8		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	466091	100.0		Pass
199	5.0 - 9.0% of mass 198	32027	6.87		Pass
275	10.0 - 30.0% of mass 198	121005	26.0		Pass
365	1.0 - 100.0% of mass 198	14112	3.03		Pass
441	Present, but less than mass 443	56571	12.1	(86.3) [b]	Pass
442	40.0 - 100.0% of mass 198	329387	70.7		Pass
443	17.0 - 23.0% of mass 442	65549	14.1	(19.9) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3440-CC3416	2P78128.D	03/28/18	15:12	00:14	Continuing cal 50
E2P3440-CC3422	2P78129.D	03/28/18	15:33	00:35	Continuing cal 50
OP10713-MB1	2P78130.D	03/28/18	15:55	00:57	Method Blank
OP10883-MB1	2P78131.D	03/28/18	16:16	01:18	Method Blank
OP10883-BS1	2P78132.D	03/28/18	16:38	01:40	Blank Spike
OP10883-MS	2P78133.D	03/28/18	16:59	02:01	Matrix Spike
OP10883-MSD	2P78134.D	03/28/18	17:21	02:23	Matrix Spike Duplicate
OP10883-MS2	2P78135.D	03/28/18	17:42	02:44	Matrix Spike
ZZZZZZ	2P78155.D	03/28/18	18:04	03:06	(unrelated sample)
ZZZZZZ	2P78156.D	03/28/18	18:25	03:27	(unrelated sample)
OP10883-MSD2	2P78136.D	03/28/18	18:47	03:49	Matrix Spike Duplicate
ZZZZZZ	2P78137.D	03/28/18	19:08	04:10	(unrelated sample)
ZZZZZZ	2P78138.D	03/28/18	19:30	04:32	(unrelated sample)
ZZZZZZ	2P78139.D	03/28/18	19:51	04:53	(unrelated sample)
ZZZZZZ	2P78140.D	03/28/18	20:12	05:14	(unrelated sample)
ZZZZZZ	2P78141.D	03/28/18	20:34	05:36	(unrelated sample)
ZZZZZZ	2P78142.D	03/28/18	20:55	05:57	(unrelated sample)
JC62879-8	2P78143.D	03/28/18	21:17	06:19	PCMW-8S
JC62879-9	2P78144.D	03/28/18	21:38	06:40	PCMW-8D

Instrument Performance Check (DFTPP)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	E2P3440-DFTPP	**Injection Date:**	03/28/18
Lab File ID:	2P78127.D	**Injection Time:**	14:58
Instrument ID:	GCMS2P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC62879-10	2P78145.D	03/28/18	22:00	07:02	PCMW-17S
JC62879-11	2P78146.D	03/28/18	22:21	07:23	PCMW-17D
JC62879-12	2P78147.D	03/28/18	22:43	07:45	PCMW-20S
JC62879-13	2P78148.D	03/28/18	23:04	08:06	PCMW-20D
JC62879-14	2P78149.D	03/28/18	23:26	08:28	PCMW-19S
JC62879-15	2P78150.D	03/28/18	23:47	08:49	PCMW-19D
JC62879-16	2P78151.D	03/29/18	00:09	09:11	DUP-03222018
JC62879-17	2P78152.D	03/29/18	00:30	09:32	PCMW-10S
JC62879-18	2P78153.D	03/29/18	00:51	09:53	PCMW-10D
JC62879-20	2P78154.D	03/29/18	01:13	10:15	MW-6

Instrument Performance Check (DFTPP)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	EF7441-DFTPP	**Injection Date:**	03/13/18
Lab File ID:	F174930.D	**Injection Time:**	22:56
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	46578	35.7		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	63877	48.9		Pass
70	Less than 2.0% of mass 69	399	0.31	(0.62) [a]	Pass
127	40.0 - 60.0% of mass 198	74437	57.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	130632	100.0		Pass
199	5.0 - 9.0% of mass 198	8931	6.84		Pass
275	10.0 - 30.0% of mass 198	31460	24.1		Pass
365	1.0 - 100.0% of mass 198	4134	3.16		Pass
441	Present, but less than mass 443	12471	9.55	(69.3) [b]	Pass
442	40.0 - 100.0% of mass 198	90370	69.2		Pass
443	17.0 - 23.0% of mass 442	17990	13.8	(19.9) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF7441-IC7441	F174931.D	03/13/18	23:11	00:15	Initial cal 100
EF7441-IC7441	F174932.D	03/13/18	23:39	00:43	Initial cal 80
EF7441-ICC7441	F174933.D	03/14/18	00:07	01:11	Initial cal 50
EF7441-IC7441	F174934.D	03/14/18	00:36	01:40	Initial cal 25
EF7441-IC7441	F174935.D	03/14/18	01:04	02:08	Initial cal 10
EF7441-IC7441	F174936.D	03/14/18	01:32	02:36	Initial cal 5
EF7441-IC7441	F174937.D	03/14/18	02:01	03:05	Initial cal 2
EF7441-IC7441	F174938.D	03/14/18	02:29	03:33	Initial cal 1
EF7441-ICV7441	F174939.D	03/14/18	02:58	04:02	Initial cal verification 50
EF7441-ICV7441	F174940.D	03/14/18	03:26	04:30	Initial cal verification 50
EF7441-ICV7441	F174941A.D	03/14/18	03:55	04:59	Initial cal verification 50
EF7441-ICV7440	F174941.D	03/14/18	03:55	04:59	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7442-DFTPP
Lab File ID: F174946.D
Instrument ID: GCMSF
Injection Date: 03/14/18
Injection Time: 13:41

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	42111	31.5		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	62900	47.1		Pass
70	Less than 2.0% of mass 69	189	0.14	(0.30) [a]	Pass
127	40.0 - 60.0% of mass 198	73591	55.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	133509	100.0		Pass
199	5.0 - 9.0% of mass 198	9041	6.77		Pass
275	10.0 - 30.0% of mass 198	33257	24.9		Pass
365	1.0 - 100.0% of mass 198	4180	3.13		Pass
441	Present, but less than mass 443	13473	10.1	(72.4) [b]	Pass
442	40.0 - 100.0% of mass 198	93989	70.4		Pass
443	17.0 - 23.0% of mass 442	18618	13.9	(19.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF7442-ICV7441	F174951.D	03/14/18	16:16	02:35	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7445-DFTPP
Lab File ID: F174981.D
Instrument ID: GCMSF
Injection Date: 03/16/18
Injection Time: 10:20

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	39208	33.5		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	54431	46.5		Pass
70	Less than 2.0% of mass 69	473	0.40	(0.87) [a]	Pass
127	40.0 - 60.0% of mass 198	66637	56.9		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	117173	100.0		Pass
199	5.0 - 9.0% of mass 198	7908	6.75		Pass
275	10.0 - 30.0% of mass 198	28317	24.2		Pass
365	1.0 - 100.0% of mass 198	4223	3.60		Pass
441	Present, but less than mass 443	13581	11.6	(76.3) [b]	Pass
442	40.0 - 100.0% of mass 198	94672	80.8		Pass
443	17.0 - 23.0% of mass 442	17792	15.2	(18.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF7445-IC7445	F174983.D	03/16/18	12:13	01:53	Initial cal 100
EF7445-IC7445	F174984.D	03/16/18	12:41	02:21	Initial cal 80
EF7445-ICC7445	F174985.D	03/16/18	13:10	02:50	Initial cal 50
EF7445-IC7445	F174986.D	03/16/18	13:47	03:27	Initial cal 25
EF7445-IC7445	F174987.D	03/16/18	14:15	03:55	Initial cal 10
EF7445-IC7445	F174988.D	03/16/18	14:43	04:23	Initial cal 5
EF7445-IC7445	F174989.D	03/16/18	15:47	05:27	Initial cal 2
EF7445-IC7445	F174990.D	03/16/18	16:15	05:55	Initial cal 1
EF7445-ICV7445	F174991.D	03/16/18	16:44	06:24	Initial cal verification 50
EF7445-ICV7445	F174992.D	03/16/18	17:12	06:52	Initial cal verification 50
EF7445-ICV7445	F174995.D	03/16/18	18:37	08:17	Initial cal verification 50
EF7445-ICV7445	F174996.D	03/16/18	19:05	08:45	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7446-DFTPP
Lab File ID: F174998.D
Instrument ID: GCMSF
Injection Date: 03/19/18
Injection Time: 09:36

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	37509	33.7		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	52955	47.6		Pass
70	Less than 2.0% of mass 69	212	0.19	(0.40) [a]	Pass
127	40.0 - 60.0% of mass 198	64634	58.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	111181	100.0		Pass
199	5.0 - 9.0% of mass 198	7619	6.85		Pass
275	10.0 - 30.0% of mass 198	27162	24.4		Pass
365	1.0 - 100.0% of mass 198	3949	3.55		Pass
441	Present, but less than mass 443	12483	11.2	(73.9) [b]	Pass
442	40.0 - 100.0% of mass 198	88493	79.6		Pass
443	17.0 - 23.0% of mass 442	16881	15.2	(19.1) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF7446-ICV7445	F174999.D	03/19/18	09:48	00:12	Initial cal verification 50
EF7446-ICV7445	F175000.D	03/19/18	10:16	00:40	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7460-DFTPP
Lab File ID: F175206.D
Instrument ID: GCMSF
Injection Date: 03/27/18
Injection Time: 09:10

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	65412	32.1		Pass
68	Less than 2.0% of mass 69	440	0.22	(0.50) [a]	Pass
69	Mass 69 relative abundance	87454	42.9		Pass
70	Less than 2.0% of mass 69	289	0.14	(0.33) [a]	Pass
127	40.0 - 60.0% of mass 198	111312	54.6		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	203904	100.0		Pass
199	5.0 - 9.0% of mass 198	14116	6.92		Pass
275	10.0 - 30.0% of mass 198	49770	24.4		Pass
365	1.0 - 100.0% of mass 198	6249	3.06		Pass
441	Present, but less than mass 443	19592	9.61	(76.2) [b]	Pass
442	40.0 - 100.0% of mass 198	136109	66.8		Pass
443	17.0 - 23.0% of mass 442	25728	12.6	(18.9) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF7460-CC7445	F175207.D	03/27/18	09:22	00:12	Continuing cal 25
EF7460-CC7441	F175208.D	03/27/18	09:59	00:49	Continuing cal 25
OP10862-MB1	F175209.D	03/27/18	11:29	02:19	Method Blank
ZZZZZZ	F175210.D	03/27/18	11:57	02:47	(unrelated sample)
ZZZZZZ	F175211.D	03/27/18	12:24	03:14	(unrelated sample)
ZZZZZZ	F175212.D	03/27/18	12:52	03:42	(unrelated sample)
OP10877-MB1	F175213.D	03/27/18	13:20	04:10	Method Blank
OP10877-BS1	F175214.D	03/27/18	14:42	05:32	Blank Spike
OP10877-BSD	F175215.D	03/27/18	15:09	05:59	Blank Spike Duplicate
JC62879-1	F175216.D	03/27/18	15:37	06:27	PCMW-01
JC62879-2	F175217.D	03/27/18	16:05	06:55	PCMW-04
JC62879-3	F175218.D	03/27/18	16:33	07:23	PCMW-9S
JC62879-4	F175219.D	03/27/18	17:01	07:51	PCMW-16D
JC62879-5	F175220.D	03/27/18	17:29	08:19	MW-5
JC62879-6	F175221.D	03/27/18	17:57	08:47	PCMW-15S
JC62879-7	F175222.D	03/27/18	18:25	09:15	PCMW-15D

Internal Standard Area Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	E2P3440-CC3416	**Injection Date:**	03/28/18
Lab File ID:	2P78128.D	**Injection Time:**	15:12
Instrument ID:	GCMS2P	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	654625	4.95	2300380	6.00	1167307	7.45	2365889	8.81	2270648	12.22	2465129	14.25
Upper Limit [a]	1309250	5.45	4600760	6.50	2334614	7.95	4731778	9.31	4541296	12.72	4930258	14.75
Lower Limit [b]	327313	4.45	1150190	5.50	583654	6.95	1182945	8.31	1135324	11.72	1232565	13.75

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP10713-MB1	864370	4.95	3288204	6.00	1594561	7.45	3165017	8.81	3096209	12.20	2573962	14.24
OP10883-MB1	920239	4.95	3323722	6.00	1739098	7.45	3084709	8.80	3085982	12.20	2802746	14.23
OP10883-BS1	668756	4.95	2322859	6.00	1203787	7.45	2194183	8.81	2116441	12.21	2183298	14.24
OP10883-MS	589434	4.95	2055022	6.00	1103525	7.45	1964781	8.81	1930986	12.21	2009811	14.24
OP10883-MSD	598623	4.95	2074305	6.00	1089998	7.45	1959225	8.81	1904600	12.21	1978373	14.24
OP10883-MS2	616384	4.95	2149900	6.00	1117626	7.45	2040012	8.81	2036893	12.21	2011337	14.24
ZZZZZZ	895046	4.95	3087499	6.00	1578219	7.45	2444633	8.81	2757589	12.21	2865899	14.24
ZZZZZZ	549904	4.95	1894528	6.01	912606	7.45	1442606	8.81	1769654	12.22	2112808	14.24
OP10883-MSD2	599802	4.95	2144769	6.00	1128569	7.45	2046070	8.81	2009617	12.21	2025615	14.24
ZZZZZZ	769592	4.95	2892650	6.00	1507231	7.45	2673345	8.80	2734525	12.20	2477218	14.23
ZZZZZZ	912783	4.95	3296488	6.00	1732687	7.45	3018078	8.81	3052452	12.20	2794592	14.24
ZZZZZZ	867065	4.95	3212445	6.00	1738062	7.45	3033476	8.81	3096985	12.20	2853005	14.23
ZZZZZZ	848556	4.95	3098179	6.00	1651813	7.45	2875159	8.80	2966144	12.20	2736367	14.23
ZZZZZZ	826076	4.95	3065645	6.00	1602130	7.45	2853940	8.80	2896870	12.20	2706966	14.23
ZZZZZZ	783597	4.95	2888776	6.00	1554985	7.45	2775829	8.80	2886455	12.20	2705204	14.23
JC62879-8	820057	4.95	3043688	6.00	1586367	7.45	2796659	8.80	2653097	12.20	2509389	14.23
JC62879-9	769727	4.95	2885905	6.00	1501547	7.45	2603889	8.80	2600933	12.20	2428641	14.24
JC62879-10	826852	4.95	3053958	6.00	1598687	7.45	2741267	8.80	2564368	12.20	2432302	14.24
JC62879-11	877950	4.95	3191428	6.00	1643404	7.45	2840271	8.81	2811436	12.20	2562895	14.23
JC62879-12	815091	4.95	3083934	6.00	1596058	7.45	2793736	8.80	2758090	12.20	2502104	14.23
JC62879-13	791819	4.95	2919087	6.00	1531494	7.45	2659138	8.80	2663446	12.20	2520405	14.23
JC62879-14	813642	4.95	3001648	6.00	1580117	7.45	2792464	8.80	2716747	12.20	2535116	14.23
JC62879-15	832056	4.95	3075818	6.00	1559725	7.45	2714589	8.80	2685853	12.20	2545700	14.23
JC62879-16	806959	4.95	2995152	6.00	1564994	7.45	2665736	8.80	2623000	12.20	2486947	14.23
JC62879-17	841159	4.95	3111114	6.00	1617099	7.45	2836679	8.80	2644341	12.20	2462447	14.24
JC62879-18	826055	4.95	3018711	6.00	1556409	7.45	2692710	8.80	2609204	12.20	2419286	14.24
JC62879-20	833716	4.95	3028232	6.00	1585108	7.45	2750055	8.80	2717547	12.20	2481265	14.23

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

Internal Standard Area Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	E2P3440-CC3416	**Injection Date:**	03/28/18
Lab File ID:	2P78128.D	**Injection Time:**	15:12
Instrument ID:	GCMS2P	**Method:**	SW846 8270D

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	EF7460-CC7445	**Injection Date:**	03/27/18
Lab File ID:	F175207.D	**Injection Time:**	09:22
Instrument ID:	GCMSF	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	155268	4.38	585396	5.30	292811	6.62	545393	8.35	503411	13.44	525048	16.45
Upper Limit [a]	310536	4.88	1170792	5.80	585622	7.12	1090786	8.85	1006822	13.94	1050096	16.95
Lower Limit [b]	77634	3.88	292698	4.80	146406	6.12	272697	7.85	251706	12.94	262524	15.95

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP10862-MB1	126391	4.38	472774	5.30	258458	6.63	442545	8.35	392338	13.44	435576	16.45
ZZZZZZ	129859	4.38	481329	5.30	258847	6.62	437537	8.35	385895	13.43	412393	16.45
ZZZZZZ	118686	4.38	445782	5.30	234864	6.62	408035	8.35	348061	13.43	378690	16.45
ZZZZZZ	120088	4.38	448292	5.30	237043	6.62	409621	8.35	356702	13.43	387926	16.44
OP10877-MB1	130109	4.38	490657	5.30	260446	6.62	447603	8.35	397409	13.43	418928	16.45
OP10877-BS1	132051	4.38	482767	5.30	250805	6.63	418653	8.36	359004	13.45	385953	16.46
OP10877-BSD	126254	4.38	448419	5.30	234964	6.62	401709	8.35	343883	13.44	366104	16.45
JC62879-1	123098	4.38	457555	5.30	243768	6.62	412180	8.35	368746	13.43	403689	16.45
JC62879-2	105863	4.38	397210	5.30	209962	6.62	360669	8.35	328426	13.43	358614	16.45
JC62879-3	121029	4.38	449332	5.30	238989	6.62	410103	8.35	370091	13.43	409363	16.45
JC62879-4	125801	4.38	466929	5.30	253934	6.62	433579	8.35	385254	13.43	422791	16.45
JC62879-5	125424	4.38	471418	5.30	250046	6.62	429315	8.35	386658	13.43	422888	16.45
JC62879-6	130740	4.38	485373	5.30	261191	6.62	449710	8.35	401670	13.44	441984	16.45
JC62879-7	128399	4.38	475431	5.30	252463	6.62	437563	8.35	397087	13.43	431552	16.45

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC62879-1	F175216.D	58	38	103	74	76	89
JC62879-2	F175217.D	50	35	83	53	60	76
JC62879-3	F175218.D	52	36	94	67	72	71
JC62879-4	F175219.D	58	37	96	77	75	80
JC62879-5	F175220.D	47	30	91	62	66	79
JC62879-6	F175221.D	51	33	95	68	69	79
JC62879-7	F175222.D	49	32	85	65	68	72
JC62879-8	2P78143.D	34	24	86	59	67	72
JC62879-9	2P78144.D	37	27	95	65	72	71
JC62879-10	2P78145.D	35	25	89	59	67	72
JC62879-11	2P78146.D	42	31	91	71	73	60
JC62879-12	2P78147.D	35	25	85	65	69	68
JC62879-13	2P78148.D	32	23	78	70	65	54
JC62879-14	2P78149.D	34	24	81	63	70	66
JC62879-15	2P78150.D	34	25	83	66	72	63
JC62879-16	2P78151.D	34	24	89	62	68	63
JC62879-17	2P78152.D	30	21	82	53	62	52
JC62879-18	2P78153.D	36	27	85	59	65	55
JC62879-20	2P78154.D	34	23	84	61	63	68
OP10877-BS1	F175214.D	69	46	100	78	78	87
OP10877-BSD	F175215.D	68	45	101	82	83	90
OP10877-MB1	F175213.D	52	35	86	68	70	81
OP10883-BS1	2P78132.D	42	25	88	61	60	84
OP10883-MB1	2P78131.D	38	26	88	75	76	74
OP10883-MS	2P78133.D	64	44	96	77	70	86
OP10883-MS2	2P78135.D	50	36	88	65	64	62
OP10883-MSD	2P78134.D	66	43	105	78	73	92
OP10883-MSD2	2P78136.D	62	40	98	77	70	77

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-110%
S2 = Phenol-d5	10-110%
S3 = 2,4,6-Tribromophenol	36-151%
S4 = Nitrobenzene-d5	34-128%
S5 = 2-Fluorobiphenyl	38-119%
S6 = Terphenyl-d14	26-129%

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3416-ICC3416
Lab FileID: 2P77612.D

Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 26 10:42:36 2018
Response via : Initial Calibration

Calibration Files
2 =2p77613.D 5 =2p77609.D 25 =2p77614.D 80 =2p77610.D
100 =2p77608.D 50 =2p77612.D 1 =2p77611.D 10 =2p77615.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.288	0.398	0.511	0.607	0.609	0.588	0.217	0.448	0.458	32.53
----- Quadratic regression ----- Coefficient = 0.9995										
Response Ratio = -0.02119 + 0.56954 *A + 0.02073 *A^2										
3) Pyridine	1.184	1.337	1.505	1.679	1.665	1.615	1.278	1.399	1.458	12.82
4) N-Nitrosodim	0.657	0.688	0.825	0.948	0.938	0.901	0.670	0.743	0.796	15.36
5) 2-Fluorophen	1.510	1.522	1.800	2.026	2.018	1.927	1.497	1.642	1.743	13.12
6) Indene	2.359	2.230	2.171	2.056	1.973	2.090	2.372	2.229	2.185	6.47
7) Cumene	3.858	4.056	4.431	4.531	4.393	4.552	3.869	4.237	4.241	6.66
8) Phenol-d5	1.927	1.928	2.203	2.239	2.207	2.214	1.895	2.107	2.090	7.14
9) Phenol	2.225	2.279	2.343	2.292	2.188	2.301	2.270	2.294	2.274	2.11
10) Aniline	2.460	2.347	2.313	2.108	2.000	2.074	2.368	2.327	2.250	7.35
11) bis(2-Chloro	1.419	1.379	1.399	1.327	1.277	1.360	1.495	1.414	1.384	4.72
12) 2-Chlorophen	1.711	1.698	1.653	1.505	1.451	1.557	1.749	1.676	1.625	6.61
13) Decane	1.588	1.509	1.442	1.282	1.222	1.336	1.587	1.508	1.434	9.71
14) 1,3-Dichloro	1.831	1.727	1.704	1.667	1.614	1.652	1.867	1.731	1.724	5.04
15) 1,4-Dichloro	1.721	1.638	1.598	1.586	1.559	1.581	1.670	1.595	1.618	3.34
16) Benzyl alcoh	0.868	0.881	0.919	0.936	0.906	0.925	0.824	0.910	0.896	4.09
17) 1,2-Dichloro	1.579	1.504	1.455	1.382	1.327	1.421	1.595	1.491	1.469	6.29
18) Acetophenone	2.084	1.961	1.912	1.801	1.715	1.808	2.212	1.997	1.936	8.43
19) 2-Methylphen	1.280	1.254	1.242	1.183	1.115	1.203	1.327	1.257	1.233	5.27
20) 2,2'-oxybis(	0.409	0.398	0.361	0.344	0.333	0.349	0.429	0.379	0.375	9.08
21) 3&4-Methylph	1.453	1.328	1.327	1.261	1.222	1.296	1.402	1.343	1.329	5.54
22) n-Nitroso-di	1.050	0.987	0.931	0.815	0.794	0.857	1.087	0.972	0.937	11.47
23) Hexachloroet	0.704	0.669	0.654	0.664	0.650	0.654	0.708	0.662	0.671	3.36
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.470	0.454	0.438	0.413	0.406	0.425	0.472	0.452	0.441	5.64
26) Nitrobenzene	0.447	0.448	0.406	0.374	0.364	0.388	0.453	0.417	0.412	8.51
27) Quinoline	0.743	0.724	0.756	0.776	0.769	0.768	0.762	0.746	0.755	2.27
28) Isophorone	0.760	0.747	0.749	0.752	0.745	0.755	0.783	0.753	0.755	1.59
29) 2-Nitropheno	0.207	0.217	0.232	0.237	0.230	0.233	0.201	0.225	0.222	5.86
30) 2,4-Dimethyl	0.385	0.396	0.379	0.362	0.354	0.365	0.407	0.390	0.380	4.84
31) Benzoic acid		0.226	0.278	0.324	0.319	0.307		0.235	0.281	15.08
32) bis(2-Chloro	0.408	0.402	0.390	0.381	0.371	0.382	0.419	0.406	0.395	4.12
33) 2,4-Dichloro	0.351	0.348	0.346	0.344	0.340	0.347	0.360	0.352	0.349	1.73
34) 2,6-Dichloro	0.316	0.302	0.303	0.304	0.301	0.306	0.311	0.306	0.306	1.61
35) 1,3,5-Trichl	0.454	0.429	0.417	0.411	0.403	0.421	0.453	0.429	0.427	4.36
36) 1,2,4-Trichl	0.427	0.417	0.402	0.391	0.387	0.406	0.431	0.413	0.409	3.91
37) 1,2,3-Trichl	0.371	0.365	0.349	0.342	0.333	0.347	0.388	0.360	0.357	4.99
38) Naphthalene	1.052	1.041	1.028	1.002	0.981	1.031	1.066	1.035	1.029	2.64
39) 4-Chloroanil	0.464	0.461	0.461	0.451	0.434	0.449	0.485	0.464	0.459	3.25
40) 2,3-Dichloro	0.432	0.423	0.415	0.398	0.395	0.403	0.460	0.419	0.418	5.03
41) Caprolactam	0.110	0.119	0.122	0.141	0.140	0.125	0.115	0.116	0.124	9.29
42) Hexachlorobu	0.230	0.229	0.225	0.226	0.218	0.229	0.229	0.226	0.226	1.66

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3416-ICC3416
Lab FileID: 2P77612.D

43)	4-Chloro-3-m	0.351	0.359	0.377	0.361	0.358	0.376	0.346	0.368	0.362	3.08
44)	2-Methylnaph	0.678	0.656	0.686	0.669	0.654	0.678	0.679	0.679	0.672	1.72
45)	1-Methylnaph	0.709	0.691	0.684	0.660	0.641	0.673	0.732	0.696	0.686	4.11
46)	Dimethylnaph	0.721	0.691	0.668	0.650	0.633	0.661	0.755	0.693	0.684	5.81
47)	I Acenaphthene-d10	----------ISTD----------									
48)	Hexachlorocy	0.325	0.404	0.452	0.457	0.444	0.459	0.318	0.431	0.411	14.18
49)	2,4,6-Trichl	0.483	0.498	0.490	0.481	0.467	0.496	0.467	0.496	0.485	2.60
50)	2,4,5-Trichl	0.510	0.519	0.500	0.485	0.484	0.491	0.479	0.504	0.496	2.85
51)	2-Fluorobiph	1.714	1.644	1.534	1.435	1.375	1.480	1.738	1.625	1.568	8.45
52)	2-Chloronaph	1.477	1.411	1.291	1.182	1.153	1.240	1.518	1.374	1.331	10.18
53)	Biphenyl	1.891	1.889	1.738	1.673	1.638	1.729	1.997	1.821	1.797	6.87
54)	2-Nitroanili	0.450	0.456	0.427	0.407	0.397	0.414	0.466	0.443	0.432	5.74
55)	Dimethylphth	1.665	1.609	1.554	1.546	1.509	1.554	1.790	1.611	1.605	5.57
56)	Acenaphthyle	2.131	2.096	2.048	1.996	1.920	2.003	2.297	2.078	2.071	5.44
57)	2,6-Dinitrot	0.327	0.350	0.361	0.364	0.359	0.357	0.344	0.359	0.353	3.37
58)	3-Nitroanili	0.415	0.421	0.404	0.398	0.400	0.409	0.418	0.408	0.409	2.04
59)	Acenaphthene	1.348	1.368	1.349	1.332	1.290	1.368	1.437	1.343	1.354	3.06
60)	2,4-Dinitrop	0.048	0.099	0.156	0.202	0.206	0.185	0.043	0.114	0.132	49.88
	----- Quadratic regression -----									Coefficient =	0.9993
	Response Ratio = -0.01747 + 0.16907 *A + 0.00846 *A^2										
61)	4-Nitropheno	0.200	0.239	0.233	0.240	0.236	0.242	0.226	0.232	0.231	5.92
62)	Dibenzofuran	1.894	1.813	1.775	1.708	1.652	1.751	1.990	1.834	1.802	5.92
63)	2,4-Dinitrot	0.422	0.457	0.467	0.483	0.472	0.481	0.405	0.451	0.455	6.17
64)	2,3,4,6-Tetr	0.370	0.424	0.439	0.502	0.498	0.474	0.391	0.406	0.438	11.28
65)	Diethylphtha	1.568	1.527	1.515	1.478	1.427	1.506	1.618	1.532	1.522	3.74
66)	Fluorene	1.577	1.576	1.534	1.430	1.379	1.495	1.605	1.565	1.520	5.24
67)	4-Chlorophen	0.848	0.861	0.864	0.861	0.822	0.867	0.888	0.859	0.859	2.17
68)	4-Nitroanili	0.416	0.411	0.381	0.366	0.358	0.367	0.418	0.403	0.390	6.33
69)	I Phenanthrene-d10	----------ISTD----------									
70)	4,6-Dinitro-	0.057	0.091	0.129	0.149	0.148	0.140	0.050	0.110	0.109	36.34
	----- Quadratic regression -----									Coefficient =	0.9995
	Response Ratio = -0.00528 + 0.13901 *A + 0.00482 *A^2										
71)	n-Nitrosodip	0.586	0.585	0.547	0.523	0.512	0.536	0.614	0.556	0.557	6.31
72)	1,2-Diphenyl	0.859	0.818	0.725	0.625	0.595	0.670	0.860	0.791	0.743	14.08
73)	2,4,6-Tribro	0.102	0.118	0.119	0.141	0.140	0.129	0.108	0.113	0.121	11.79
74)	4-Bromopheny	0.265	0.267	0.271	0.288	0.284	0.284	0.290	0.271	0.278	3.62
75)	Hexachlorobe	0.296	0.295	0.292	0.301	0.297	0.295	0.318	0.289	0.298	3.00
76)	Pentachlorop	0.125	0.190	0.201	0.225	0.223	0.217	0.141	0.179	0.188	19.99
77)	Phenanthrene	1.119	1.130	1.103	1.084	1.067	1.107	1.191	1.098	1.112	3.34
78)	Anthracene	1.149	1.158	1.116	1.064	1.035	1.089	1.207	1.126	1.118	4.90
79)	Carbazole	1.090	1.119	1.082	1.073	1.041	1.087	1.131	1.091	1.089	2.54
80)	Di-n-butylph	1.295	1.415	1.488	1.476	1.431	1.493	1.390	1.447	1.429	4.56
81)	Fluoranthene	1.524	1.628	1.705	1.710	1.648	1.722	1.612	1.652	1.650	3.94
82)	Octadecane	0.345	0.363	0.335	0.269	0.257	0.299	0.364	0.361	0.324	13.34
83)	I Chrysene-d12	----------ISTD----------									
84)	Pyrene	1.515	1.499	1.518	1.548	1.539	1.548	1.614	1.502	1.535	2.41
85)	Terphenyl-d1	1.009	1.015	1.053	1.117	1.119	1.096	1.042	1.010	1.058	4.43
86)	Butylbenzylp	0.624	0.656	0.679	0.738	0.733	0.713	0.659	0.627	0.679	6.63
87)	Benzo[a]anth	1.454	1.508	1.430	1.497	1.479	1.472	1.704	1.417	1.495	6.01
88)	3,3'-Dichlor	0.531	0.576	0.606	0.686	0.659	0.677	0.558	0.565	0.607	9.77
89)	Chrysene	1.144	1.178	1.135	1.187	1.182	1.177	1.261	1.110	1.172	3.85
90)	bis(2-Ethylh	0.593	0.694	0.692	0.716	0.709	0.710	0.672	0.664	0.681	5.86
91)	I Perylene-d12	----------ISTD----------									
92)	Di-n-octylph	1.083	1.389	1.446	1.556	1.522	1.526	1.227	1.327	1.385	11.94

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3416-ICC3416
Lab FileID: 2P77612.D

93)	Benzo[b]fluo	1.313	1.461	1.481	1.464	1.405	1.500	1.532	1.457	1.452	4.63
94)	Benzo[k]fluo	1.451	1.398	1.168	0.999	0.983	1.073	1.577	1.250	1.237	17.84
95)	Benzo[a]pyre	1.195	1.289	1.240	1.264	1.263	1.249	1.342	1.210	1.256	3.66
96)	Indeno[1,2,3	0.999	0.997	1.210	1.311	1.323	1.309	1.428	1.107	1.211	13.29
97)	Dibenz(a,h)a	0.867	1.006	1.159	1.274	1.239	1.243	0.921	1.043	1.094	14.32
98)	Dibenz[a,h]a	1.102	1.083	1.140	1.119	1.097	1.128	1.186	1.123	1.122	2.80
99)	7,12-Dimethy	0.532	0.618	0.651	0.682	0.668	0.667	0.604	0.590	0.626	8.10
100)	Benzo[g,h,i]	1.073	1.052	1.129	1.167	1.144	1.162	1.160	1.097	1.123	3.92

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2P3416.M Wed Feb 28 18:56:42 2018 RPT1

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3416-ICV3416
Lab FileID: 2P77616.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3416\2p77616.D Vial: 10
Acq On : 23 Feb 2018 4:15 pm Operator: kristis
Sample : icv3416-50 Inst : MS2P
Misc : op8196,e2p3416,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 26 10:42:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	114	0.00	5.04
5	S	2-Fluorophenol	1.743	1.548	11.2	92	0.00	3.95
8	S	Phenol-d5	2.090	1.756	16.0	90	0.00	4.73
24	I	Naphthalene-d8	1.000	1.000	0.0	114	0.00	6.09
25	S	Nitrobenzene-d5	0.441	0.429	2.7	115	0.00	5.49
47	I	Acenaphthene-d10	1.000	1.000	0.0	110	0.00	7.54
51	S	2-Fluorobiphenyl	1.568	1.422	9.3	106	0.00	6.98
69	I	Phenanthrene-d10	1.000	1.000	0.0	93	0.00	8.91
73	S	2,4,6-Tribromophenol	0.121	0.108	10.7	77	0.00	8.23
83	I	Chrysene-d12	1.000	1.000	0.0	98	0.00	12.33
85	S	Terphenyl-d14	1.058	0.882	16.6	79	0.00	10.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77620.D M2P3416.M Wed Feb 28 18:56:31 2018 RPT1

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3417-ICV3416
Lab FileID: 2P77626.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3417\2p77626.D Vial: 10
Acq On : 23 Feb 2018 8:07 pm Operator: robertl1
Sample : ICV3416-50 Inst : MS2P
Misc : op8196,e2p3417,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 26 10:42:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	120	0.00	5.04
4	t	N-Nitrosodimethylamine	0.796	0.586	26.4	78	0.00	2.72
11	t	bis(2-Chloroethyl)ether	1.384	1.455	-5.1	129	0.00	4.82
14	t	1,3-Dichlorobenzene	1.724	1.679	2.6	122	0.00	4.99
15	t	1,4-Dichlorobenzene	1.618	1.413	12.7	108	0.00	5.05
17	t	1,2-Dichlorobenzene	1.469	1.334	9.2	113	0.00	5.18
20	t	2,2'-oxybis(1-Chloropropa	0.375	0.358	4.5	123	0.00	5.26
22	t	n-Nitroso-di-n-propylamin	0.937	0.814	13.1	114	-0.01	5.37
23	t	Hexachloroethane	0.671	0.566	15.6	104	0.00	5.46
24	I	Naphthalene-d8	1.000	1.000	0.0	107	0.00	6.09
26	t	Nitrobenzene	0.412	0.366	11.2	101	0.00	5.51
28	t	Isophorone	0.755	0.675	10.6	96	0.00	5.71
32	t	bis(2-Chloroethoxy)methan	0.395	0.410	-3.8	115	0.00	5.88
36	t	1,2,4-Trichlorobenzene	0.409	0.398	2.7	105	0.00	6.04
38	t	Naphthalene	1.029	0.961	6.6	100	0.00	6.11
42	t	Hexachlorobutadiene	0.226	0.214	5.3	100	0.00	6.21
47	I	Acenaphthene-d10	1.000	1.000	0.0	102	0.00	7.54
48	t	Hexachlorocyclopentadiene	0.411	0.445	-8.3	86	0.00	6.82
52	t	2-Chloronaphthalene	1.331	1.421	-6.8	116	0.00	7.08
55	t	Dimethylphthalate	1.605	1.573	2.0	103	0.00	7.31
56	t	Acenaphthylene	2.071	1.878	9.3	95	0.00	7.42
57	t	2,6-Dinitrotoluene	0.353	0.316	10.5	90	0.00	7.36
59	t	Acenaphthene	1.354	1.260	6.9	94	0.00	7.57
63	t	2,4-Dinitrotoluene	0.455	0.395	13.2	83	0.00	7.69
65	t	Diethylphthalate	1.522	1.458	4.2	98	0.00	7.90
66	t	Fluorene	1.520	1.368	10.0	93	0.00	8.01
67	t	4-Chlorophenyl-phenylethe	0.859	0.773	10.0	91	0.00	8.01
69	I	Phenanthrene-d10	1.000	1.000	0.0	106	0.00	8.91
71	t	n-Nitrosodiphenylamine	0.557	0.434	22.1	86	0.00	8.11
72	t	1,2-Diphenylhydrazine	0.743	0.602	19.0	95	0.00	8.14
74	t	4-Bromophenyl-phenylether	0.278	0.228	18.0	85	0.00	8.45
75	t	Hexachlorobenzene	0.298	0.244	18.1	88	0.00	8.53
77	t	Phenanthrene	1.112	1.006	9.5	96	0.00	8.94
78	t	Anthracene	1.118	0.946	15.4	92	0.00	8.99
80	t	Di-n-butylphthalate	1.429	1.247	12.7	89	0.00	9.56
81	t	Fluoranthene	1.650	1.399	15.2	86	0.00	10.33
83	I	Chrysene-d12	1.000	1.000	0.0	90	0.00	12.34
84	t	Pyrene	1.535	1.417	7.7	82	0.00	10.63

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3417-ICV3416
Lab FileID: 2P77626.D

86	t	Butylbenzylphthalate	0.679	0.683	-0.6	86	0.00	11.56
87	t	Benzo[a]anthracene	1.495	1.366	8.6	83	0.00	12.32
88	t	3,3'-Dichlorobenzidine	0.607	0.708	-16.6	94	0.00	12.31
89	t	Chrysene	1.172	1.094	6.7	83	0.00	12.38
90	t	bis(2-Ethylhexyl)phthalat	0.681	0.661	2.9	83	0.00	12.44
91	I	Perylene-d12	1.000	1.000	0.0	89	0.00	14.36
92	t	Di-n-octylphthalate	1.385	1.341	3.2	79	0.00	13.39
93	t	Benzo[b]fluoranthene	1.452	1.305	10.1	78	0.00	13.86
94	t	Benzo[k]fluoranthene	1.237	1.164	5.9	97	0.00	13.89
95	t	Benzo[a]pyrene	1.256	1.180	6.1	84	0.00	14.29
96	t	Indeno[1,2,3-cd]pyrene	1.211	1.287	-6.3	88	0.00	16.00
98	t	Dibenz[a,h]anthracene	1.122	1.114	0.7	88	0.00	16.04
100	t	Benzo[g,h,i]perylene	1.123	1.166	-3.8	90	0.00	16.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77620.D M2P3416.M Mon Mar 05 14:30:15 2018 RPT1

8.8.3

8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3417-ICV3416
Lab FileID: 2P77627.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3417\2p77627.D Vial: 11
Acq On : 23 Feb 2018 8:29 pm Operator: robertl1
Sample : ICV3416-50 Inst : MS2P
Misc : op8196,e2p3417,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 26 10:42:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	131	0.00	5.04
			True	Calc.	% Drift			
2	t	1,4-Dioxane	50.000	46.467	7.1	119	0.02	2.44
6	t	Indene	2.185	2.380	-8.9	149	0.00	5.26
7	t	Cumene	4.241	3.880	8.5	111	0.00	4.38
13	t	Decane	1.434	1.314	8.4	129	0.00	4.91
18	t	Acetophenone	1.936	1.771	8.5	128	0.00	5.37
24	I	Naphthalene-d8	1.000	1.000	0.0	150	0.00	6.09
27	t	Quinoline	0.755	0.616	18.4	121	-0.02	6.38
40	t	2,3-Dichloroaniline	0.418	0.273	34.7#	102	0.00	6.91
41	t	Caprolactam	0.124	0.087	29.8	104	-0.04	6.43
45	t	1-Methylnaphthalene	0.686	0.481	29.9	108	0.00	6.76
46	t	Dimethylnaphthalene	0.684	0.502	26.6	114	0.00	7.19
47	I	Acenaphthene-d10	1.000	1.000	0.0	143	0.00	7.54
53	t	Biphenyl	1.797	1.384	23.0	115	0.00	7.06
82	t	Octadecane	0.324	0.318	1.9	121	0.00	8.79
91	I	Perylene-d12	1.000	1.000	0.0	106	0.00	14.36
99	t	7,12-Dimethylbenz(a)anthr	0.626	0.430	31.3#	69	-0.01	13.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77620.D M2P3416.M Mon Mar 05 14:34:34 2018 RPT1

8.8.4

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3417-ICV3416
Lab FileID: 2P77628.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3417\2p77628.D Vial: 12
Acq On : 23 Feb 2018 8:50 pm Operator: robertl1
Sample : ICV3416-50 Inst : MS2P
Misc : op8196,e2p3417,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 26 10:42:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	126	0.00	5.04
9	t	Phenol	2.274	1.832	19.4	100	0.00	4.75
12	t	2-Chlorophenol	1.625	1.450	10.8	117	0.00	4.87
19	t	2-Methylphenol	1.233	1.120	9.2	117	0.00	5.25
21	t	3&4-Methylphenol	1.329	1.171	11.9	114	0.00	5.37
24	I	Naphthalene-d8	1.000	1.000	0.0	113	0.00	6.09
29	t	2-Nitrophenol	0.222	0.216	2.7	105	0.00	5.77
30	t	2,4-Dimethylphenol	0.380	0.369	2.9	114	0.00	5.81
31	t	Benzoic acid	0.281	0.239	14.9	88	-0.01	5.92
33	t	2,4-Dichlorophenol	0.349	0.298	14.6	97	0.00	5.97
34	t	2,6-Dichlorophenol	0.306	0.289	5.6	106	0.00	6.16
43	t	4-Chloro-3-methylphenol	0.362	0.332	8.3	100	0.00	6.55
47	I	Acenaphthene-d10	1.000	1.000	0.0	129	0.00	7.54
49	t	2,4,6-Trichlorophenol	0.485	0.412	15.1	107	0.00	6.91
50	t	2,4,5-Trichlorophenol	0.496	0.398	19.8	104	-0.01	6.94
		---------- True	Calc.	% Drift	----------			
60	t	2,4-Dinitrophenol	50.000	36.166	27.7	40	-0.01	7.58
		---------- AvgRF	CCRF	% Dev	----------			
61	t	4-Nitrophenol	0.231	0.198	14.3	105	0.00	7.63
64		2,3,4,6-Tetrachlorophenol	0.438	0.351	19.9	95	0.00	7.81
69	I	Phenanthrene-d10	1.000	1.000	0.0	115	0.00	8.91
		---------- True	Calc.	% Drift	----------			
70	t	4,6-Dinitro-2-methylpheno	50.000	44.224	11.6	101	-0.01	8.04
		---------- AvgRF	CCRF	% Dev	----------			
76	t	Pentachlorophenol	0.188	0.198	-5.3	53	0.00	8.72
83	I	Chrysene-d12	1.000	1.000	0.0	133	0.00	12.33
91	I	Perylene-d12	1.000	1.000	0.0	124	0.00	14.36

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77620.D M2P3416.M Wed Feb 28 14:50:25 2018 RPT1

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3417-ICV3416
Lab FileID: 2P77629.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3417\2p77629.D Vial: 13
Acq On : 23 Feb 2018 9:11 pm Operator: robertl1
Sample : ICV3416-50 Inst : MS2P
Misc : op8196,e2p3417,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 26 10:42:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	127	0.01	5.05
3	t	Pyridine	1.458	1.136	22.1	89	0.14	2.88
10		Aniline	2.250	1.689	24.9	103	0.01	4.77
16	t	Benzyl alcohol	0.896	0.816	8.9	112	0.00	5.16
24	I	Naphthalene-d8	1.000	1.000	0.0	134	0.00	6.09
44	t	2-Methylnaphthalene	0.672	0.532	20.8	105	0.00	6.68
47	I	Acenaphthene-d10	1.000	1.000	0.0	117	0.00	7.54
54	t	2-Nitroaniline	0.432	0.405	6.2	114	0.00	7.16
58	t	3-Nitroaniline	0.409	0.363	11.2	104	0.00	7.50
62	t	Dibenzofuran	1.802	1.713	4.9	114	0.00	7.71
68	t	4-Nitroaniline	0.390	0.364	6.7	116	-0.01	8.02
69	I	Phenanthrene-d10	1.000	1.000	0.0	117	0.00	8.91
79	t	Carbazole	1.089	0.976	10.4	105	0.00	9.16
83	I	Chrysene-d12	1.000	1.000	0.0	131	-0.01	12.33
91	I	Perylene-d12	1.000	1.000	0.0	118	0.00	14.36

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77620.D M2P3416.M Wed Feb 28 14:50:27 2018 RPT1

8.8.6

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3417-ICV3416
Lab FileID: 2P77630A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3417\2p77630a.D Vial: 14
Acq On : 23 Feb 2018 9:33 pm Operator: robertl1
Sample : ICV3416-50 Inst : MS2P
Misc : op8196,e2p3417,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 26 10:42:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	144	0.00	12.33
88 t	3,3'-Dichlorobenzidine	0.607	0.513	15.5	109	0.00	12.31

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77620.D M2P3416.M Wed Feb 28 14:50:29 2018 RPT1

8.8.7

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3418-ICV3416
Lab FileID: 2P77635.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3418\2p77635.D Vial: 3
Acq On : 26 Feb 2018 11:30 am Operator: robertl1
Sample : ICV3416-50 Inst : MS2P
Misc : op8196,e2p3418,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 26 10:42:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
24 I	Naphthalene-d8	1.000	1.000	0.0	112	0.00	6.10
39 t	4-Chloroaniline	0.459	0.402	12.4	100	0.00	6.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77620.D M2P3416.M Wed Feb 28 14:57:03 2018 RPT1

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3422-ICC3422
Lab FileID: 2P77713.D

Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3422.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 09 15:18:32 2018
Response via : Initial Calibration

Calibration Files
2 =2p77717.D 5 =2p77716.D 25 =2p77714.D 80 =2p77712.D
100 =2p77711.D 50 =2p77713.D 1 =2p77718.D 10 =2p77715.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
101) I 1,4-Dichlorobenzene-d	ISTD									
102) Benzaldehyde	1.304	1.230	1.157	1.181	1.193	1.165	1.245	1.159	1.204	4.30
103) I Naphthalene-d8a	ISTD									
104) Hydroquinone	0.237	0.298	0.311	0.317	0.317	0.312	0.163	0.286	0.280	19.35
105) I Acenaphthene-d10a	ISTD									
106) Atrazine	0.210	0.228	0.229	0.219	0.217	0.229	0.180	0.228	0.218	7.59
107) 1,2,4,5-Tetr	0.861	0.831	0.708	0.674	0.627	0.685	0.803	0.740	0.741	11.19
108) I Chrysene-d12a	ISTD									
109) Benzidine	0.504	0.691	0.831	0.863	0.778	0.851		0.723	0.749	16.81
110) I Phenanthrene-d10a	ISTD									
111) 1-Chloroocta	0.285	0.306	0.316	0.316	0.319	0.308	0.236	0.292	0.297	9.28
112) o-terphenyl	0.707	0.707	0.649	0.609	0.587	0.613	0.678	0.608	0.645	7.36
113) Pentachloron	0.031	0.035	0.039	0.041	0.041	0.040	0.025	0.036	0.036#	16.18

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2P3416.M Fri Mar 09 15:35:22 2018 RPT1

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3422-ICV3422
Lab FileID: 2P77719.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3422\2p77719.D Vial: 10
Acq On : 9 Mar 2018 12:21 pm Operator: seanb1
Sample : icv3422-50 Inst : MS2P
Misc : op8196,e2p3422,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 09 15:18:32 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	100	0.00	5.00
102	Benzaldehyde	1.204	1.056	12.3	91	0.00	4.64
105 I	Acenaphthene-d10a	1.000	1.000	0.0	97	0.00	7.50
106	Atrazine	0.218	0.254	-16.5	108	0.00	8.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77713a.D M2P3416.M Fri Mar 09 15:34:32 2018 RPT1

8.8.10

8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3422-ICV3422
Lab FileID: 2P77720.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3422\2p77720.D Vial: 11
Acq On : 9 Mar 2018 12:43 pm Operator: seanb1
Sample : icv3422-50 Inst : MS2P
Misc : op8196,e2p3422,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 09 15:18:32 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105 I	Acenaphthene-d10a	1.000	1.000	0.0	100	0.00	7.50
107	1,2,4,5-Tetrachlorobenzen	0.741	0.838	-13.1	123	0.00	6.78

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77713a.D M2P3416.M Fri Mar 09 15:34:34 2018 RPT1

8.8.11

8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3422-ICV3422
Lab FileID: 2P77722.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3422\2p77722.D Vial: 13
Acq On : 9 Mar 2018 1:26 pm Operator: seanb1
Sample : icv3422-50 Inst : MS2P
Misc : op8196,e2p3422,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 09 15:18:32 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
108 I	Chrysene-d12a	1.000	1.000	0.0	152	0.01	12.27
109	Benzidine	0.749	0.871	-16.3	156	0.00	10.45

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77713a.D M2P3416.M Fri Mar 09 15:35:02 2018 RPT1

8.8.12

8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3422-ICV3422
Lab FileID: 2P77723.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3422\2p77723.D Vial: 14
Acq On : 9 Mar 2018 1:47 pm Operator: seanb1
Sample : icv3422-50 Inst : MS2P
Misc : op8196,e2p3422,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 09 15:18:32 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
110 I	Phenanthrene-d10a	1.000	1.000	0.0	138	0.00	8.86
113	Pentachloronitrobenzene	0.036	0.046#	-27.8	159	0.00	8.68

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77713a.D M2P3416.M Fri Mar 09 15:34:38 2018 RPT1

8.8.13

8

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3440-CC3416
Lab FileID: 2P78128.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3440\2p78128.D Vial: 2
Acq On : 28 Mar 2018 3:12 pm Operator: johnb1
Sample : cc3416-50 Inst : MS2P
Misc : op8196,e2p3440,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 16 13:39:58 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	146	-0.02	4.95
		----------	True	Calc.	% Drift	----------		
2	t	1,4-Dioxane	50.000	58.716	-17.4	171	-0.09	2.29
		----------	AvgRF	CCRF	% Dev	----------		
3	t	Pyridine	1.458	1.858	-27.4#	169	-0.07	2.63
4	t	N-Nitrosodimethylamine	0.796	1.063	-33.5#	173	-0.07	2.61
5	S	2-Fluorophenol	1.743	1.946	-11.6	148	0.00	3.90
6	t	Indene	2.185	2.092	4.3	147	-0.02	5.16
7	t	Cumene	4.241	4.320	-1.9	139	-0.04	4.28
8	S	Phenol-d5	2.090	1.950	6.7	129	0.02	4.70
9	t	Phenol	2.274	1.963	13.7	125	0.02	4.71
10		Aniline	2.250	2.112	6.1	149	-0.02	4.68
11	t	bis(2-Chloroethyl)ether	1.384	1.318	4.8	142	-0.02	4.73
12	t	2-Chlorophenol	1.625	1.440	11.4	136	0.00	4.80
13	t	Decane	1.434	1.305	9.0	143	-0.03	4.82
14	t	1,3-Dichlorobenzene	1.724	1.607	6.8	142	-0.03	4.90
15	t	1,4-Dichlorobenzene	1.618	1.508	6.8	140	-0.03	4.96
16	t	Benzyl alcohol	0.896	0.770	14.1	122	0.00	5.08
17	t	1,2-Dichlorobenzene	1.469	1.321	10.1	136	-0.02	5.09
18	t	Acetophenone	1.936	1.709	11.7	138	-0.02	5.29
19	t	2-Methylphenol	1.233	1.113	9.7	135	0.02	5.20
20	t	2,2'-oxybis(1-Chloropropa	0.375	0.337	10.1	141	-0.02	5.18
21	t	3&4-Methylphenol	1.329	1.193	10.2	135	0.01	5.32
22	t	n-Nitroso-di-n-propylamin	0.937	0.830	11.4	142	-0.02	5.29
23	t	Hexachloroethane	0.671	0.571	14.9	128	-0.02	5.37
24	I	Naphthalene-d8	1.000	1.000	0.0	144	-0.02	6.00
25	S	Nitrobenzene-d5	0.441	0.409	7.3	138	-0.02	5.41
26	t	Nitrobenzene	0.412	0.362	12.1	134	-0.02	5.43
27	t	Quinoline	0.755	0.747	1.1	140	0.00	6.32
28	t	Isophorone	0.755	0.679	10.1	130	-0.02	5.62
29	t	2-Nitrophenol	0.222	0.219	1.4	136	-0.01	5.69
30	t	2,4-Dimethylphenol	0.380	0.317	16.6	125	-0.03	5.75
31	t	Benzoic acid	0.281	0.282	-0.4	132	0.04	5.90
32	t	bis(2-Chloroethoxy)methan	0.395	0.374	5.3	141	-0.01	5.80
33	t	2,4-Dichlorophenol	0.349	0.326	6.6	135	0.00	5.91
34	t	2,6-Dichlorophenol	0.306	0.280	8.5	131	0.00	6.08
35		1,3,5-Trichlorobenzene	0.427	0.380	11.0	130	-0.02	5.70
36	t	1,2,4-Trichlorobenzene	0.409	0.360	12.0	128	-0.02	5.96
37		1,2,3-Trichlorobenzene	0.357	0.312	12.6	129	-0.01	6.14

Continuing Calibration Summary

Job Number: JC62879 **Sample:** E2P3440-CC3416
Account: BBLNYS Arcadis **Lab FileID:** 2P78128.D
Project: National Grid, Philly Coke, Philadelphia PA

38	t	Naphthalene	1.029	0.959	6.8	134	-0.02	6.02
39	t	4-Chloroaniline	0.459	0.408	11.1	131	0.00	6.07
40	t	2,3-Dichloroaniline	0.418	0.381	8.9	136	0.00	6.83
41	t	Caprolactam	0.124	0.127	-2.4	146	0.00	6.39
42	t	Hexachlorobutadiene	0.226	0.187	17.3	118	-0.02	6.12
43	t	4-Chloro-3-methylphenol	0.362	0.327	9.7	125	0.03	6.50
44	t	2-Methylnaphthalene	0.672	0.609	9.4	129	-0.01	6.59
45	t	1-Methylnaphthalene	0.686	0.605	11.8	129	0.00	6.67
46	t	Dimethylnaphthalene	0.684	0.592	13.5	129	0.00	7.11
47	I	Acenaphthene-d10	1.000	1.000	0.0	137	-0.02	7.45
48	t	Hexachlorocyclopentadiene	0.411	0.366	10.9	109	-0.03	6.72
49	t	2,4,6-Trichlorophenol	0.485	0.435	10.3	120	-0.01	6.84
50	t	2,4,5-Trichlorophenol	0.496	0.456	8.1	127	-0.02	6.89
51	S	2-Fluorobiphenyl	1.568	1.391	11.3	129	-0.02	6.89
52	t	2-Chloronaphthalene	1.331	1.156	13.1	128	-0.02	6.99
53	t	Biphenyl	1.797	1.626	9.5	129	-0.02	6.98
54	t	2-Nitroaniline	0.432	0.410	5.1	135	0.00	7.09
55	t	Dimethylphthalate	1.605	1.368	14.8	121	-0.02	7.22
56	t	Acenaphthylene	2.071	1.930	6.8	132	-0.02	7.34
57	t	2,6-Dinitrotoluene	0.353	0.356	-0.8	137	0.00	7.28
58	t	3-Nitroaniline	0.409	0.406	0.7	136	0.00	7.43
59	t	Acenaphthene	1.354	1.270	6.2	127	-0.02	7.48
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	100.000	101.725	-1.7	139	0.00	7.51
			AvgRF	CCRF	% Dev			
61	t	4-Nitrophenol	0.231	0.185	19.9	105	-0.05	7.61
62	t	Dibenzofuran	1.802	1.650	8.4	129	-0.01	7.63
63	t	2,4-Dinitrotoluene	0.455	0.450	1.1	128	0.00	7.61
64		2,3,4,6-Tetrachlorophenol	0.438	0.439	-0.2	127	0.00	7.74
65	t	Diethylphthalate	1.522	1.353	11.1	123	-0.01	7.81
66	t	Fluorene	1.520	1.363	10.3	125	-0.02	7.92
67	t	4-Chlorophenyl-phenylethe	0.859	0.754	12.2	119	-0.02	7.91
68	t	4-Nitroaniline	0.390	0.355	9.0	133	0.00	7.96
69	I	Phenanthrene-d10	1.000	1.000	0.0	135	-0.02	8.81
			True	Calc.	% Drift			
70	t	4,6-Dinitro-2-methylpheno	50.000	52.112	-4.2	142	0.00	7.97
			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.557	0.476	14.5	120	-0.01	8.02
72	t	1,2-Diphenylhydrazine	0.743	0.627	15.6	127	-0.02	8.05
73	S	2,4,6-Tribromophenol	0.121	0.124	-2.5	130	-0.01	8.14
74	t	4-Bromophenyl-phenylether	0.278	0.265	4.7	126	-0.02	8.36
75	t	Hexachlorobenzene	0.298	0.276	7.4	127	-0.02	8.43
76	t	Pentachlorophenol	0.188	0.166	11.7	103	0.00	8.64
77	t	Phenanthrene	1.112	1.021	8.2	125	-0.02	8.84
78	t	Anthracene	1.118	1.016	9.1	126	-0.02	8.89
79	t	Carbazole	1.089	1.039	4.6	129	0.00	9.07
80	t	Di-n-butylphthalate	1.429	1.350	5.5	122	-0.02	9.45
81	t	Fluoranthene	1.650	1.561	5.4	123	-0.02	10.22
82	t	Octadecane	0.324	0.279	13.9	126	-0.02	8.68
83	I	Chrysene-d12	1.000	1.000	0.0	125	-0.02	12.22
84	t	Pyrene	1.535	1.555	-1.3	125	-0.03	10.51
85	S	Terphenyl-d14	1.058	1.094	-3.4	125	-0.03	10.73
86	t	Butylbenzylphthalate	0.679	0.688	-1.3	120	-0.02	11.43

Continuing Calibration Summary

Job Number: JC62879 **Sample:** E2P3440-CC3416
Account: BBLNYS Arcadis **Lab FileID:** 2P78128.D
Project: National Grid, Philly Coke, Philadelphia PA

87	t	Benzo[a]anthracene	1.495	1.353	9.5	115	-0.01	12.20
88	t	3,3'-Dichlorobenzidine	0.607	0.578	4.8	107	-0.01	12.19
89	t	Chrysene	1.172	1.126	3.9	119	-0.01	12.26
90	t	bis(2-Ethylhexyl)phthalat	0.681	0.678	0.4	119	-0.03	12.31
91	I	Perylene-d12	1.000	1.000	0.0	123	-0.01	14.25
92	t	Di-n-octylphthalate	1.385	1.421	-2.6	115	-0.03	13.26
93	t	Benzo[b]fluoranthene	1.452	1.279	11.9	105	0.00	13.74
94	t	Benzo[k]fluoranthene	1.237	1.042	15.8	120	-0.02	13.78
95	t	Benzo[a]pyrene	1.256	1.179	6.1	117	-0.01	14.17
96	t	Indeno[1,2,3-cd]pyrene	1.211	1.179	2.6	111	-0.04	15.84
97	t	Dibenz(a,h)acridine	1.094	1.041	4.8	103	-0.04	15.46
98	t	Dibenz[a,h]anthracene	1.122	1.015	9.5	111	-0.05	15.87
99	t	7,12-Dimethylbenz(a)anthr	0.626	0.589	5.9	109	-0.02	13.74
100	t	Benzo[g,h,i]perylene	1.123	1.050	6.5	112	-0.06	16.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77713a.D M2P3416.M Thu Mar 29 11:57:50 2018 RPT1

8.8.14

8

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2P3440-CC3422
Lab FileID: 2P78129.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3440\2p78129.D Vial: 3
Acq On : 28 Mar 2018 3:33 pm Operator: johnb1
Sample : cc3422-50 Inst : MS2P
Misc : op8196,e2p3440,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 16 13:39:58 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	135	-0.03	4.95
102		Benzaldehyde	1.204	1.108	8.0	129	-0.02	4.59
103	I	Naphthalene-d8a	1.000	1.000	0.0	134	-0.02	6.00
104		Hydroquinone	0.280	0.326	-16.4	140	0.00	6.38
105	I	Acenaphthene-d10a	1.000	1.000	0.0	129	-0.02	7.45
106		Atrazine	0.218	0.237	-8.7	134	-0.01	8.52
107		1,2,4,5-Tetrachlorobenzen	0.741	0.702	5.3	133	-0.02	6.73
108	I	Chrysene-d12a	1.000	1.000	0.0	129	-0.03	12.21
109		Benzidine	0.749	0.551	26.4#	84	-0.04	10.40
110	I	Phenanthrene-d10a	1.000	1.000	0.0	126	-0.02	8.81
111	s	1-Chlorooctadecane	0.297	0.321	-8.1	132	-0.03	10.08
112	s	o-terphenyl	0.645	0.625	3.1	129	-0.03	9.21
113		Pentachloronitrobenzene	0.036	0.046#	-27.8#	147	-0.02	8.63

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p77713a.D M2P3416.M Thu Mar 29 11:59:16 2018 RPT1

Initial Calibration Summary

Job Number: JC62879 **Sample:** EF7441-ICC7441
Account: BBLNYS Arcadis **Lab FileID:** F174933.D
Project: National Grid, Philly Coke, Philadelphia PA

Response Factor Report GCMSF

Method : C:\MSDCHEM\1\METHODS\MF7441.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 14 09:37:47 2018
Response via : Initial Calibration

Calibration Files
2 =F174937.D 5 =F174936.D 25 =F174934.D 80 =F174932.D
100 =F174931.D 50 =F174933.D 10 =F174935.D 1 =F174938.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
101) I 1,4-Dichlorobenzene-d	ISTD									
102) Benzaldehyde	1.173	1.244	1.140	1.138	1.073	1.136	1.139	1.111	1.144	4.32
103) I Phenanthrene-d10b	ISTD									
104) Atrazine	0.121	0.154	0.183	0.191	0.192	0.188	0.165	0.092	0.161	22.84

----- Quadratic regression ----- Coefficient = 1.0000
Response Ratio = -0.00392 + 0.18842 *A + 0.00202 *A^2

105) I Chrysene-d12b	ISTD									
106) Benzidine	0.254	0.399	0.734	0.832	0.819	0.496	0.589			40.91

----- Quadratic regression ----- Coefficient = 0.9991
Response Ratio = -0.05345 + 0.82212 *A + 0.01976 *A^2

107) I Naphthalene-d8b	ISTD									
108) Hydroquinone	0.253	0.338	0.361	0.371	0.354	0.294	0.329			13.89
109) I Acenaphthene-d10b	ISTD									
110) 1,2,4,5-Tetr	0.725	0.710	0.625	0.564	0.549	0.579	0.629	0.708	0.636	11.10

(#) = Out of Range ### Number of calibration levels exceeded format ###

MF7440.M Wed Mar 14 13:58:05 2018

8.8.16

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7441-ICV7441
Lab FileID: F174939.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7441\F174939.D Vial: 10
Acq On : 14 Mar 2018 2:58 am Operator: chriss2
Sample : icv7441-50 Inst : GCMSF
Misc : op9377,ef7441,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7440.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 14 09:37:47 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
109 I	Acenaphthene-d10b	1.000	1.000	0.0	145	0.00	6.79
110	1,2,4,5-Tetrachlorobenzen	0.636	0.619	2.7	155	0.00	6.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174933A.D MF7440.M Wed Mar 14 13:56:32 2018

8.8.17

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7441-ICV7441
Lab FileID: F174940.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7441\F174940.D Vial: 11
Acq On : 14 Mar 2018 3:26 am Operator: chriss2
Sample : icv7441-50 Inst : GCMSF
Misc : op9377,ef7441,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7440.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 14 09:37:47 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	149	0.00	4.51
102	Benzaldehyde	1.144	1.003	12.3	132	0.00	4.19
103 I	Phenanthrene-d10b	1.000	1.000	0.0	140	0.00	8.59
		True	Calc.	% Drift			
104	Atrazine	50.000	52.363	-4.7	147	0.02	8.21

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174933A.D MF7440.M Wed Mar 14 13:56:34 2018

8.8.18

8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7441-ICV7441
Lab FileID: F174941A.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7441\F174941a.D Vial: 12
Acq On : 14 Mar 2018 3:55 am Operator: chriss2
Sample : icv7441-50 Inst : GCMSF
Misc : op9377,ef7441,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7440.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 14 09:37:47 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
		AvgRF	CCRF	% Dev			
105 I	Chrysene-d12b	1.000	1.000	0.0	158	0.00	13.75
		True	Calc.	% Drift			
106	Benzidine	50.000	45.020	10.0	139	-0.04	11.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174933A.D MF7440.M Wed Mar 14 13:56:38 2018

8.8.19

8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7442-ICV7441
Lab FileID: F174951.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7442\F174951.D Vial: 6
Acq On : 14 Mar 2018 4:16 pm Operator: seanb1
Sample : icv7441-50 Inst : GCMSF
Misc : op9377,ef7442,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7440.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 14 09:37:47 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
		AvgRF	CCRF	% Dev			
107 I	Naphthalene-d8b	1.000	1.000	0.0	106	-0.02	5.41
108	Hydroquinone	0.329	0.386	-17.3	115	0.03	5.72

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174933A.D MF7440.M Thu Mar 15 11:26:14 2018

8.8.20

8

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7445-ICC7445
Lab FileID: F174985.D

Response Factor Report GCMSF

Method : C:\MSDCHEM\1\METHODS\MF7445.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration

Calibration Files
2 =F174989.D 5 =F174988.D 25 =F174986.D 80 =F174984.D
100 =F174983.D 50 =F174985.D 10 =F174987.D 1 =F174990.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.719	0.707	0.641	0.632	0.636	0.617	0.641	0.906	0.687	13.95
3) Pyridine	1.654	1.538	1.659	1.542	1.609	1.613	1.536	1.558	1.589	3.25
4) N-Nitrosodim	0.550	0.486	0.477	0.481	0.499	0.467	0.475	0.487	0.490	5.32
5) 2-Fluorophen	1.309	1.340	1.289	1.322	1.342	1.295	1.239	1.207	1.293	3.69
6) Indene	2.632	2.553	2.288	2.120	2.086	2.227	2.388	2.721	2.377	10.00
7) Cumene	3.771	3.680	3.320	3.067	2.991	3.184	3.335	3.830	3.397	9.54
8) Phenol-d5	1.859	1.789	1.696	1.533	1.505	1.598	1.695	1.833	1.688	7.96
9) Phenol	2.176	2.079	1.913	1.813	1.792	1.876	1.992	2.057	1.962	6.95
10) Aniline	2.261	2.206	2.044	1.834	1.804	1.926	2.059	2.138	2.034	8.25
11) bis(2-Chloro	1.488	1.404	1.281	1.222	1.237	1.248	1.291	1.490	1.333	8.37
12) 2-Chlorophen	1.615	1.506	1.447	1.359	1.359	1.408	1.463	1.420	1.447	5.84
13) Decane	1.197	1.128	0.992	0.882	0.859	0.916	1.032	1.277	1.035	14.79
14) 1,3-Dichloro	1.858	1.771	1.572	1.450	1.429	1.501	1.563	1.879	1.628	11.17
15) 1,4-Dichloro	1.875	1.823	1.588	1.487	1.440	1.546	1.664	1.998	1.678	11.94
16) Benzyl alcoh	0.946	0.942	0.894	0.808	0.793	0.874	0.902	0.846	0.876	6.49
17) 1,2-Dichloro	1.756	1.689	1.497	1.349	1.301	1.426	1.547	1.791	1.545	11.99
18) Acetophenone	2.118	2.042	1.856	1.727	1.725	1.781	1.891	2.085	1.903	8.40
19) 2-Methylphen	1.499	1.485	1.288	1.190	1.178	1.267	1.350	1.345	1.325	9.08
20) 2,2'-oxybis(	0.423	0.411	0.370	0.352	0.351	0.366	0.386	0.405	0.383	7.19
21) 3&4-Methylph	1.516	1.553	1.412	1.363	1.289	1.369	1.415	1.438	1.419	5.98
22) n-Nitroso-di	1.230	1.141	1.016	0.907		0.967	1.039	1.373	1.096	14.84
23) Hexachloroet	0.510	0.494	0.454	0.431	0.424	0.450	0.455	0.555	0.472	9.41
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.444	0.446	0.423	0.403	0.400	0.411	0.423	0.451	0.425	4.71
26) Nitrobenzene	0.467	0.433	0.418	0.375	0.368	0.387	0.403	0.457	0.414	8.86
27) Quinoline	0.797	0.779	0.732	0.689	0.696	0.709	0.732	0.792	0.741	5.82
28) Isophorone	0.739	0.724	0.692	0.630	0.631	0.650	0.694	0.688	0.681	5.98
29) 2-Nitropheno	0.185	0.196	0.200	0.188	0.182	0.191	0.194	0.172	0.188	4.59
30) 2,4-Dimethyl	0.349	0.371	0.348	0.335	0.334	0.339	0.353	0.341	0.346	3.51
31) Benzoic acid		0.231	0.300	0.316	0.320	0.306	0.256		0.288	12.61
32) bis(2-Chloro	0.423	0.407	0.387	0.356	0.355	0.365	0.393	0.417	0.388	6.96
33) 2,4-Dichloro	0.286	0.302	0.302	0.278	0.271	0.283	0.296	0.273	0.286	4.31
34) 2,6-Dichloro	0.307	0.316	0.293	0.263	0.251	0.275	0.300	0.291	0.287	7.71
35) 1,3,5-Trichl	0.363	0.354	0.313	0.274	0.265	0.287	0.324	0.385	0.321	13.70
36) 1,2,4-Trichl	0.347	0.338	0.306	0.278	0.270	0.288	0.317	0.352	0.312	10.25
37) 1,2,3-Trichl	0.340	0.331	0.296	0.268	0.257	0.274	0.306	0.343	0.302	11.20
38) Naphthalene	1.276	1.227	1.093	0.963	0.922	1.002	1.096	1.393	1.121	14.65
39) 4-Chloroanil	0.495	0.489	0.459	0.413	0.391	0.428	0.476	0.472	0.453	8.37
40) 2,3-Dichloro	0.377	0.382	0.354	0.313	0.301	0.329	0.361	0.377	0.349	8.97
41) Caprolactam	0.133	0.133	0.127	0.123	0.122	0.122	0.123	0.139	0.128	5.12
42) Hexachlorobu	0.175	0.171	0.156	0.141	0.135	0.147	0.158	0.187	0.159	11.21
43) 4-Chloro-3-m	0.319	0.315	0.318	0.303	0.297	0.305	0.318	0.276	0.306	4.84
44) 2-Methylnaph	0.680	0.642	0.594	0.526	0.506	0.542	0.607	0.670	0.596	11.12
45) 1-Methylnaph	0.809	0.817	0.721	0.633	0.607	0.657	0.744	0.860	0.731	12.77

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7445-ICC7445
Lab FileID: F174985.D

```
46) Dimethylnaph 0.708 0.671 0.623 0.552 0.527 0.583 0.640 0.667 0.621  10.13

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy 0.279 0.294 0.298 0.280 0.269 0.290 0.287 0.240 0.279   6.60
49) 2,4,6-Trichl 0.360 0.397 0.365 0.330 0.319 0.341 0.357 0.355 0.353   6.79
50) 2,4,5-Trichl 0.402 0.416 0.411 0.385 0.374 0.394 0.400 0.342 0.391   6.11
51) 2-Fluorobiph 1.779 1.732 1.517 1.319 1.244 1.398 1.547 1.732 1.534  13.22
52) 2-Chloronaph 1.403 1.381 1.221 1.088 1.053 1.139 1.245 1.433 1.245  11.84
53) Biphenyl     1.827 1.761 1.579 1.378 1.317 1.459 1.624 1.847 1.599  12.69
54) 2-Nitroanili 0.367 0.373 0.379 0.362 0.362 0.376 0.374 0.317 0.364   5.45
55) Dimethylphth 1.454 1.442 1.314 1.226 1.204 1.266 1.322 1.456 1.335   7.74
56) Acenaphthyle 2.164 2.238 1.995 1.813 1.759 1.905 2.029 2.086 1.999   8.32
57) 2,6-Dinitrot 0.261 0.284 0.307 0.295 0.293 0.298 0.284 0.231 0.282   8.72
58) 3-Nitroanili 0.310 0.368 0.363 0.364 0.360 0.360 0.354 0.267 0.343  10.47
59) Acenaphthene 1.465 1.392 1.265 1.111 1.060 1.169 1.295 1.487 1.280  12.52
60) 2,4-Dinitrop 0.072 0.098 0.166 0.183 0.187 0.179 0.129       0.145  31.78
         ----- Quadratic regression -----               Coefficient =  0.9998
              Response Ratio = -0.01775 + 0.17736 *A + 0.00268 *A^2

61) 4-Nitropheno 0.143 0.158 0.189 0.198 0.200 0.192 0.166       0.178  12.64
62) Dibenzofuran 2.037 1.946 1.734 1.546 1.491 1.631 1.792 1.991 1.771  11.69
63) 2,4-Dinitrot 0.349 0.421 0.424 0.399 0.394 0.409 0.400 0.269 0.383  13.44
64) 2,3,4,6-Tetr 0.281 0.303 0.308 0.296 0.290 0.300 0.299 0.236 0.289   7.92
65) Diethylphtha 1.449 1.456 1.383 1.291 1.259 1.334 1.370 1.451 1.374   5.51
66) Fluorene     1.537 1.499 1.359 1.147 1.094 1.243 1.386 1.499 1.345  12.53
67) 4-Chlorophen 0.657 0.643 0.558 0.485 0.462 0.525 0.573 0.671 0.572  13.88
68) 4-Nitroanili 0.282 0.351 0.373 0.366 0.363 0.362 0.349       0.349   8.85

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro- 0.068 0.098 0.136 0.148 0.150 0.143 0.114 0.042 0.112  35.90
         ----- Quadratic regression -----               Coefficient =  0.9999
              Response Ratio = -0.00435 + 0.13984 *A + 0.00498 *A^2

71) n-Nitrosodip 0.575 0.604 0.578 0.528 0.527 0.548 0.563 0.550 0.559   4.70
72) 1,2-Diphenyl 0.946 0.945 0.915 0.830 0.831 0.860 0.905 0.901 0.892   5.20
73) 2,4,6-Tribro 0.108 0.120 0.127 0.125 0.124 0.125 0.118 0.094 0.118   9.60
74) 4-Bromopheny 0.214 0.210 0.202 0.192 0.188 0.195 0.203 0.214 0.202   4.88
75) Hexachlorobe 0.279 0.283 0.252 0.229 0.226 0.236 0.246 0.270 0.253   8.89
76) Pentachlorop 0.101 0.123 0.144 0.145 0.146 0.147 0.132       0.134  12.91
77) Phenanthrene 1.332 1.276 1.140 1.035 1.022 1.070 1.158 1.337 1.171  11.01
78) Anthracene   1.183 1.267 1.152 1.072 1.033 1.096 1.116 1.150 1.134   6.37
79) Carbazole    1.107 1.178 1.134 1.070 1.060 1.097 1.108 1.047 1.100   3.87
80) Di-n-butylph 1.179 1.321 1.394 1.325 1.324 1.359 1.295 0.985 1.272  10.36
81) Fluoranthene 1.069 1.138 1.099 1.061 1.043 1.074 1.086 0.964 1.067   4.72
82) Octadecane   0.430 0.456 0.448 0.398 0.394 0.421 0.433 0.414 0.424   5.17

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.410 1.432 1.345 1.288 1.268 1.299 1.356 1.290 1.336   4.54
85) Terphenyl-d1 0.902 0.923 0.895 0.875 0.866 0.870 0.893 0.871 0.887   2.23
86) Butylbenzylp 0.452 0.563 0.677 0.700 0.699 0.686 0.613       0.627  14.74
87) Benzo[a]anth 1.117 1.128 1.116 1.121 1.120 1.106 1.089 1.122 1.115   1.12
88) 3,3'-Dichlor 0.301 0.378 0.442 0.455 0.455 0.448 0.404       0.412  13.82
89) Chrysene     1.344 1.340 1.190 1.109 1.112 1.142 1.168 1.313 1.215   8.34
90) bis(2-Ethylh 0.496 0.693 0.912 0.957 0.970 0.931 0.793 0.368 0.765  29.80
         ----- Quadratic regression -----               Coefficient =  1.0000
              Response Ratio = -0.02294 + 0.92245 *A + 0.02276 *A^2


91) I   Perylene-d12          ----------------ISTD---------------------
92) Di-n-octylph 0.635 0.899 1.406 1.502 1.486 1.471 1.107 0.501 1.126  36.04
```

8.8.21

8

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7445-ICC7445
Lab FileID: F174985.D

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          ----- Quadratic regression -----                Coefficient =  0.9997
               Response Ratio = -0.06094 + 1.51620 *A + 0.00081 *A^2

 93) Benzo[b]fluo 1.003 1.127 1.156 1.131 1.134 1.137 1.092 0.926 1.088   7.47
 94) Benzo[k]fluo 1.226 1.252 1.235 1.136 1.076 1.189 1.202 1.034 1.169   6.77
 95) Benzo[a]pyre 0.845 0.957 1.050 1.039 1.020 1.039 0.963 0.652 0.946  14.45
 96) Indeno[1,2,3 0.643 0.795 0.954 0.954 0.954 0.951 0.822 0.540 0.827  19.45
          ----- Quadratic regression -----                Coefficient =  0.9999
               Response Ratio = -0.01951 + 0.97196 *A + -0.00399 *A^2

 97) Dibenz(a,h)a 0.580 0.722 0.910 0.913 0.896 0.917 0.795       0.819  15.73
 98) Dibenz[a,h]a 0.793 0.927 1.036 1.025 0.979 1.023 0.948 0.676 0.926  13.84
 99) 7,12-Dimethy 0.434 0.506 0.537 0.516 0.506 0.523 0.496 0.324 0.480  14.59
100) Benzo[g,h,i] 0.829 0.977 1.016 0.989 0.959 0.991 0.947 0.752 0.932   9.89
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MF7445.M          Tue Mar 20 19:21:29 2018
```

8.8.21

8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7445-ICV7445
Lab FileID: F174991.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7445\F174991.D Vial: 11
Acq On : 16 Mar 2018 4:44 pm Operator: seanb1
Sample : icv7445-50 Inst : GCMSF
Misc : op9377,ef7445,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7445.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 20 19:01:51 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	147	0.00	4.43
4	t	N-Nitrosodimethylamine	0.490	0.460	6.1	144	-0.12	2.23
11	t	bis(2-Chloroethyl)ether	1.333	1.303	2.3	153	0.00	4.23
14	t	1,3-Dichlorobenzene	1.628	1.510	7.2	147	0.00	4.39
15	t	1,4-Dichlorobenzene	1.678	1.544	8.0	146	0.00	4.44
17	t	1,2-Dichlorobenzene	1.545	1.479	4.3	152	0.01	4.55
20	t	2,2'-oxybis(1-Chloropropa	0.383	0.413	-7.8	165	0.01	4.63
22		n-Nitroso-di-n-propylamin	1.096	0.988	9.9	150	0.03	4.73
23	t	Hexachloroethane	0.472	0.445	5.7	145	0.02	4.79
24	I	Naphthalene-d8	1.000	1.000	0.0	138	0.00	5.35
26	t	Nitrobenzene	0.414	0.398	3.9	142	-0.02	4.84
28	t	Isophorone	0.681	0.669	1.8	142	-0.01	5.01
32	t	bis(2-Chloroethoxy)methan	0.388	0.410	-5.7	155	0.00	5.17
36	t	1,2,4-Trichlorobenzene	0.312	0.301	3.5	145	0.00	5.31
38	t	Naphthalene	1.121	1.040	7.2	143	0.00	5.36
42	t	Hexachlorobutadiene	0.159	0.155	2.5	146	0.00	5.45
47	I	Acenaphthene-d10	1.000	1.000	0.0	124	0.00	6.69
48	t	Hexachlorocyclopentadiene	0.279	0.280	-0.4	114	0.02	5.97
52	t	2-Chloronaphthalene	1.245	1.250	-0.4	136	0.01	6.22
55	t	Dimethylphthalate	1.335	1.361	-1.9	133	0.00	6.45
56	t	Acenaphthylene	1.999	2.069	-3.5	134	0.00	6.56
57	t	2,6-Dinitrotoluene	0.282	0.315	-11.7	131	0.02	6.50
59	t	Acenaphthene	1.280	1.281	-0.1	136	0.00	6.72
63	t	2,4-Dinitrotoluene	0.383	0.397	-3.7	120	0.00	6.87
65	t	Diethylphthalate	1.374	1.407	-2.4	130	0.00	7.12
66	t	Fluorene	1.345	1.311	2.5	131	-0.01	7.24
67	t	4-Chlorophenyl-phenylethe	0.572	0.547	4.4	129	0.00	7.24
69	I	Phenanthrene-d10	1.000	1.000	0.0	124	0.00	8.44
71	t	n-Nitrosodiphenylamine	0.559	0.587	-5.0	133	0.02	7.38
72	t	1,2-Diphenylhydrazine	0.892	0.939	-5.3	136	0.01	7.42
74	t	4-Bromophenyl-phenylether	0.202	0.205	-1.5	130	0.00	7.83
75	t	Hexachlorobenzene	0.253	0.247	2.4	130	0.00	7.91
77	t	Phenanthrene	1.171	1.141	2.6	132	0.00	8.48
78	t	Anthracene	1.134	1.128	0.5	128	0.00	8.55
80	t	Di-n-butylphthalate	1.272	1.399	-10.0	128	0.02	9.50
81	t	Fluoranthene	1.067	1.093	-2.4	126	0.01	10.53
83	I	Chrysene-d12	1.000	1.000	0.0	110	0.00	13.56
84	t	Pyrene	1.336	1.449	-8.5	123	-0.01	10.95

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7445-ICV7445
Lab FileID: F174991.D

86	t	Butylbenzylphthalate	0.627	0.752	-19.9	121	0.00	12.55
87	t	Benzo[a]anthracene	1.115	1.191	-6.8	119	0.00	13.53
89	t	Chrysene	1.215	1.222	-0.6	118	0.00	13.61
			True	Calc.	% Drift			
90	t	bis(2-Ethylhexyl)phthalat	50.000	54.686	-9.4	121	0.04	13.96
			AvgRF	CCRF	% Dev			
91	I	Perylene-d12	1.000	1.000	0.0	108	-0.01	16.56
			True	Calc.	% Drift			
92	t	Di-n-octylphthalate	50.000	55.220	-10.4	119	0.00	15.39
			AvgRF	CCRF	% Dev			
93	t	Benzo[b]fluoranthene	1.088	1.173	-7.8	111	-0.02	15.82
94	t	Benzo[k]fluoranthene	1.169	1.255	-7.4	114	-0.03	15.88
95	t	Benzo[a]pyrene	0.946	1.104	-16.7	114	-0.01	16.45
			True	Calc.	% Drift			
96	t	Indeno[1,2,3-cd]pyrene	50.000	50.714	-1.4	109	0.04	18.49
			AvgRF	CCRF	% Dev			
98	t	Dibenz[a,h]anthracene	0.926	1.037	-12.0	109	0.05	18.56
100	t	Benzo[g,h,i]perylene	0.932	1.098	-17.8	119	-0.02	18.91

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174985A.D MF7445.M Tue Mar 20 19:18:04 2018

8.8.22

8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7445-ICV7445
Lab FileID: F174992.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7445\F174992.D Vial: 12
Acq On : 16 Mar 2018 5:12 pm Operator: seanb1
Sample : icv7445-50 Inst : GCMSF
Misc : op9377,ef7445,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7445.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 20 19:01:51 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	120	0.00	4.43
2	t	1,4-Dioxane	0.687	0.654	4.8	127	-0.15	1.92
6	t	Indene	2.377	2.454	-3.2	132	0.00	4.61
7	t	Cumene	3.397	3.225	5.1	121	-0.03	3.83
13	t	Decane	1.035	0.961	7.1	126	0.00	4.32
18	t	Acetophenone	1.903	1.879	1.3	126	0.02	4.72
24	I	Naphthalene-d8	1.000	1.000	0.0	113	0.00	5.34
27	t	Quinoline	0.741	0.716	3.4	114	-0.02	5.60
40	t	2,3-Dichloroaniline	0.349	0.316	9.5	109	0.01	6.06
41	t	Caprolactam	0.128	0.118	7.8	109	0.00	5.64
45	t	1-Methylnaphthalene	0.731	0.642	12.2	111	0.00	5.92
46	t	Dimethylnaphthalene	0.621	0.585	5.8	114	0.00	6.32
47	I	Acenaphthene-d10	1.000	1.000	0.0	101	0.00	6.69
53	t	Biphenyl	1.599	1.673	-4.6	116	0.01	6.19
69	I	Phenanthrene-d10	1.000	1.000	0.0	104	0.00	8.44
82	t	Octadecane	0.424	0.457	-7.8	113	0.01	8.36
91	I	Perylene-d12	1.000	1.000	0.0	77	-0.01	16.56
99	t	7,12-Dimethylbenz(a)anthr	0.480	0.416	13.3	61	-0.04	15.83

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174985A.D MF7445.M Tue Mar 20 19:18:06 2018

8.8.23

8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7445-ICV7445
Lab FileID: F174995.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7445\F174995.D Vial: 15
Acq On : 16 Mar 2018 6:37 pm Operator: seanb1
Sample : icv7445-50 Inst : GCMSF
Misc : op9377,ef7445,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7445.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Mar 19 09:06:11 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	125	0.00	4.43
5	S	2-Fluorophenol	1.293	1.316	-1.8	128	-0.03	3.46
8	S	Phenol-d5	1.688	1.683	0.3	132	0.00	4.19
24	I	Naphthalene-d8	1.000	1.000	0.0	118	0.00	5.35
25	S	Nitrobenzene-d5	0.425	0.407	4.2	117	-0.03	4.83
47	I	Acenaphthene-d10	1.000	1.000	0.0	121	0.00	6.68
51	S	2-Fluorobiphenyl	1.534	1.314	14.3	114	0.02	6.12
69	I	Phenanthrene-d10	1.000	1.000	0.0	109	0.00	8.44
73	S	2,4,6-Tribromophenol	0.118	0.115	2.5	101	0.00	7.51
83	I	Chrysene-d12	1.000	1.000	0.0	101	-0.02	13.55
85	S	Terphenyl-d14	0.887	0.931	-5.0	108	0.00	11.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174985A.D MF7445.M Mon Mar 19 09:31:35 2018

8.8.24
8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7445-ICV7445
Lab FileID: F174996.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7445\F174996.D Vial: 16
Acq On : 16 Mar 2018 7:05 pm Operator: seanb1
Sample : icv7445-50 Inst : GCMSF
Misc : op9377,ef7445,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7445.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Mar 19 09:06:11 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	124	-0.02	13.55
88 t	3,3'-Dichlorobenzidine	0.412	0.382	7.3	106	0.00	13.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174985A.D MF7445.M Mon Mar 19 09:31:37 2018

8.8.25

8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7446-ICV7445
Lab FileID: F174999.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7446\F174999.D Vial: 2
Acq On : 19 Mar 2018 9:48 am Operator: seanb1
Sample : icv7445-50 Inst : GCMSF
Misc : op9377,ef7446,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7445.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 20 19:01:51 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	140	0.00	4.43
3	t	Pyridine	1.589	1.706	-7.4	148	-0.03	2.36
10	t	Aniline	2.034	2.359	-16.0	171	0.00	4.20
16	t	Benzyl alcohol	0.876	1.004	-14.6	161	0.02	4.54
24	I	Naphthalene-d8	1.000	1.000	0.0	146	0.00	5.34
39	t	4-Chloroaniline	0.453	0.415	8.4	142	0.00	5.40
44	t	2-Methylnaphthalene	0.596	0.581	2.5	157	0.00	5.85
47	I	Acenaphthene-d10	1.000	1.000	0.0	150	0.00	6.69
54	t	2-Nitroaniline	0.364	0.324	11.0	130	0.02	6.30
58	t	3-Nitroaniline	0.343	0.310	9.6	129	0.00	6.65
62	t	Dibenzofuran	1.771	1.561	11.9	144	0.00	6.88
68	t	4-Nitroaniline	0.349	0.286	18.1	119	0.00	7.26
69	I	Phenanthrene-d10	1.000	1.000	0.0	135	0.00	8.44
79	t	Carbazole	1.100	1.076	2.2	132	0.00	8.82

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174985A.D MF7445.M Tue Mar 20 19:07:36 2018

8.8.26

8

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7446-ICV7445
Lab FileID: F175000.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7446\F175000.D Vial: 3
Acq On : 19 Mar 2018 10:16 am Operator: seanb1
Sample : icv7445-50 Inst : GCMSF
Misc : op9377,ef7446,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7445.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 20 19:01:51 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	128	0.00	4.43
9	t	Phenol	1.962	1.736	11.5	118	0.00	4.20
12	t	2-Chlorophenol	1.447	1.411	2.5	128	0.00	4.28
19	t	2-Methylphenol	1.325	1.248	5.8	126	0.02	4.63
21	t	3&4-Methylphenol	1.419	1.321	6.9	123	0.03	4.74
24	I	Naphthalene-d8	1.000	1.000	0.0	120	0.00	5.35
29	t	2-Nitrophenol	0.188	0.200	-6.4	125	-0.02	5.07
30	t	2,4-Dimethylphenol	0.346	0.356	-2.9	126	0.00	5.12
31	t	Benzoic acid	0.288	0.277	3.8	108	0.02	5.21
33	t	2,4-Dichlorophenol	0.286	0.287	-0.3	121	0.00	5.25
34		2,6-Dichlorophenol	0.287	0.294	-2.4	128	0.00	5.41
43	t	4-Chloro-3-methylphenol	0.306	0.307	-0.3	121	0.02	5.76
47	I	Acenaphthene-d10	1.000	1.000	0.0	105	0.00	6.69
49	t	2,4,6-Trichlorophenol	0.353	0.390	-10.5	120	-0.01	6.06
50	t	2,4,5-Trichlorophenol	0.391	0.418	-6.9	112	-0.01	6.10
		----------	True	Calc.	% Drift		----------	
60	t	2,4-Dinitrophenol	50.000	46.027	7.9	94	0.00	6.74
		----------	AvgRF	CCRF	% Dev		----------	
61	t	4-Nitrophenol	0.178	0.186	-4.5	102	0.03	6.83
64		2,3,4,6-Tetrachlorophenol	0.289	0.308	-6.6	108	0.00	7.01
69	I	Phenanthrene-d10	1.000	1.000	0.0	105	0.00	8.44
		----------	True	Calc.	% Drift		----------	
70	t	4,6-Dinitro-2-methylpheno	50.000	46.322	7.4	97	0.02	7.30
		----------	AvgRF	CCRF	% Dev		----------	
76	t	Pentachlorophenol	0.134	0.162	-20.9	117	0.00	8.18

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174985A.D MF7445.M Tue Mar 20 19:07:38 2018

8.8.27

8

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7460-CC7445
Lab FileID: F175207.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EF7460\F175207.D Vial: 2
Acq On : 27 Mar 2018 9:22 am Operator: johnb1
Sample : cc7445-25 Inst : GCMSF
Misc : op9377,ef7460,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7445.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 28 17:00:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	120	0.00	4.38
2	t	1,4-Dioxane	0.687	0.671	2.3	126	-0.22	1.83
3	t	Pyridine	1.589	1.584	0.3	115	-0.18	2.18
4	t	N-Nitrosodimethylamine	0.490	0.471	3.9	119	-0.19	2.14
5	S	2-Fluorophenol	1.293	1.412	-9.2	132	-0.06	3.41
6	t	Indene	2.377	2.443	-2.8	129	0.01	4.57
7	t	Cumene	3.397	3.440	-1.3	125	0.00	3.78
8	S	Phenol-d5	1.688	1.723	-2.1	122	0.00	4.14
9	t	Phenol	1.962	1.936	1.3	122	0.00	4.15
10	t	Aniline	2.034	1.757	13.6	103	-0.01	4.14
11	t	bis(2-Chloroethyl)ether	1.333	1.309	1.8	123	0.00	4.19
12	t	2-Chlorophenol	1.447	1.512	-4.5	126	0.00	4.23
13	t	Decane	1.035	0.949	8.3	115	0.00	4.27
14	t	1,3-Dichlorobenzene	1.628	1.640	-0.7	126	0.00	4.34
15	t	1,4-Dichlorobenzene	1.678	1.654	1.4	125	0.00	4.39
16	t	Benzyl alcohol	0.876	0.941	-7.4	127	0.02	4.49
17	t	1,2-Dichlorobenzene	1.545	1.572	-1.7	126	0.00	4.50
18	t	Acetophenone	1.903	1.927	-1.3	125	0.02	4.67
19	t	2-Methylphenol	1.325	1.327	-0.2	124	0.02	4.58
20	t	2,2'-oxybis(1-Chloropropa	0.383	0.406	-6.0	132	0.02	4.59
21	t	3&4-Methylphenol	1.419	1.465	-3.2	125	0.03	4.69
22		n-Nitroso-di-n-propylamin	1.096	0.978	10.8	116	0.03	4.68
23	t	Hexachloroethane	0.472	0.508	-7.6	134	0.02	4.75
24	I	Naphthalene-d8	1.000	1.000	0.0	123	0.00	5.30
25	S	Nitrobenzene-d5	0.425	0.418	1.6	121	-0.02	4.78
26	t	Nitrobenzene	0.414	0.394	4.8	116	-0.02	4.79
27	t	Quinoline	0.741	0.761	-2.7	127	0.00	5.55
28	t	Isophorone	0.681	0.667	2.1	118	-0.01	4.97
29	t	2-Nitrophenol	0.188	0.213	-13.3	131	-0.01	5.02
30	t	2,4-Dimethylphenol	0.346	0.321	7.2	113	0.00	5.07
31	t	Benzoic acid	0.288	0.302	-4.9	123	0.00	5.15
32	t	bis(2-Chloroethoxy)methan	0.388	0.384	1.0	122	0.00	5.13
33	t	2,4-Dichlorophenol	0.286	0.314	-9.8	128	0.00	5.21
34		2,6-Dichlorophenol	0.287	0.303	-5.6	127	0.00	5.36
35		1,3,5-Trichlorobenzene	0.321	0.343	-6.9	135	0.00	5.04
36	t	1,2,4-Trichlorobenzene	0.312	0.338	-8.3	135	0.00	5.26
37		1,2,3-Trichlorobenzene	0.302	0.321	-6.3	133	0.01	5.42
38	t	Naphthalene	1.121	1.118	0.3	125	0.00	5.31
39	t	4-Chloroaniline	0.453	0.460	-1.5	123	0.00	5.36
40	t	2,3-Dichloroaniline	0.349	0.368	-5.4	127	0.02	6.01
41	t	Caprolactam	0.128	0.123	3.9	118	0.00	5.60

Continuing Calibration Summary

Job Number: JC62879 **Sample:** EF7460-CC7445
Account: BBLNYS Arcadis **Lab FileID:** F175207.D
Project: National Grid, Philly Coke, Philadelphia PA

42	t	Hexachlorobutadiene	0.159	0.170	-6.9	133	0.01	5.41
43	t	4-Chloro-3-methylphenol	0.306	0.334	-9.2	129	0.04	5.71
44	t	2-Methylnaphthalene	0.596	0.603	-1.2	124	0.02	5.80
45	t	1-Methylnaphthalene	0.731	0.733	-0.3	125	0.02	5.87
46	t	Dimethylnaphthalene	0.621	0.671	-8.1	132	0.01	6.27
47	I	Acenaphthene-d10	1.000	1.000	0.0	114	0.00	6.62
48	t	Hexachlorocyclopentadiene	0.279	0.347	-24.4#	133	0.03	5.92
49	t	2,4,6-Trichlorophenol	0.353	0.415	-17.6	130	0.00	6.01
50	t	2,4,5-Trichlorophenol	0.391	0.464	-18.7	129	0.00	6.05
51	S	2-Fluorobiphenyl	1.534	1.686	-9.9	127	0.03	6.07
52	t	2-Chloronaphthalene	1.245	1.353	-8.7	127	0.02	6.16
53	t	Biphenyl	1.599	1.825	-14.1	132	0.02	6.15
54	t	2-Nitroaniline	0.364	0.401	-10.2	121	0.02	6.24
55	t	Dimethylphthalate	1.335	1.489	-11.5	130	0.00	6.39
56	t	Acenaphthylene	1.999	2.262	-13.2	130	0.00	6.49
57	t	2,6-Dinitrotoluene	0.282	0.350	-24.1#	130	0.02	6.44
58	t	3-Nitroaniline	0.343	0.411	-19.8	129	0.00	6.58
59	t	Acenaphthene	1.280	1.435	-12.1	130	0.00	6.65
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	58.050	-16.1	135	0.02	6.68
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.178	0.200	-12.4	121	0.00	6.77
62	t	Dibenzofuran	1.771	1.930	-9.0	127	0.00	6.81
63	t	2,4-Dinitrotoluene	0.383	0.492	-28.5#	133	0.00	6.80
64		2,3,4,6-Tetrachlorophenol	0.289	0.383	-32.5#	142	0.00	6.94
65	t	Diethylphthalate	1.374	1.530	-11.4	126	0.00	7.05
66	t	Fluorene	1.345	1.502	-11.7	126	-0.02	7.16
67	t	4-Chlorophenyl-phenylethe	0.572	0.658	-15.0	135	0.00	7.17
68	t	4-Nitroaniline	0.349	0.404	-15.8	124	0.00	7.19
69	I	Phenanthrene-d10	1.000	1.000	0.0	131	0.00	8.35
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	25.000	27.331	-9.3	143	0.03	7.23
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.559	0.570	-2.0	129	0.02	7.30
72	t	1,2-Diphenylhydrazine	0.892	0.822	7.8	117	0.02	7.34
73	S	2,4,6-Tribromophenol	0.118	0.131	-11.0	135	0.01	7.44
74	t	4-Bromophenyl-phenylether	0.202	0.214	-5.9	138	0.01	7.75
75	t	Hexachlorobenzene	0.253	0.252	0.4	131	0.00	7.83
76	t	Pentachlorophenol	0.134	0.162	-20.9#	146	0.00	8.10
77	t	Phenanthrene	1.171	1.173	-0.2	134	0.00	8.38
78	t	Anthracene	1.134	1.207	-6.4	137	0.00	8.46
79	t	Carbazole	1.100	1.147	-4.3	132	0.00	8.73
80	t	Di-n-butylphthalate	1.272	1.389	-9.2	130	0.03	9.41
81	t	Fluoranthene	1.067	1.197	-12.2	142	0.02	10.42
82	t	Octadecane	0.424	0.398	6.1	116	0.02	8.28
83	I	Chrysene-d12	1.000	1.000	0.0	136	0.00	13.44
84	t	Pyrene	1.336	1.379	-3.2	139	-0.03	10.84
85	S	Terphenyl-d14	0.887	0.943	-6.3	143	0.00	11.28
86	t	Butylbenzylphthalate	0.627	0.660	-5.3	132	0.00	12.44
87	t	Benzo[a]anthracene	1.115	1.176	-5.5	143	0.00	13.42
88	t	3,3'-Dichlorobenzidine	0.412	0.449	-9.0	138	0.01	13.48
89	t	Chrysene	1.215	1.222	-0.6	139	0.00	13.49

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7460-CC7445
Lab FileID: F175207.D

			True	Calc.	% Drift			
90	t	bis(2-Ethylhexyl)phthalat	25.000	24.725	1.1	132	0.05	13.85

			AvgRF	CCRF	% Dev			
91	I	Perylene-d12	1.000	1.000	0.0	135	0.00	16.45

			True	Calc.	% Drift			
92	t	Di-n-octylphthalate	25.000	25.271	-1.1	138	0.02	15.29

			AvgRF	CCRF	% Dev			
93	t	Benzo[b]fluoranthene	1.088	1.147	-5.4	134	-0.02	15.70
94	t	Benzo[k]fluoranthene	1.169	1.228	-5.0	135	-0.03	15.76
95	t	Benzo[a]pyrene	0.946	1.041	-10.0	134	0.00	16.33

			True	Calc.	% Drift			
96	t	Indeno[1,2,3-cd]pyrene	25.000	27.174	-8.7	145	0.06	18.37

			AvgRF	CCRF	% Dev			
97	t	Dibenz(a,h)acridine	0.819	0.978	-19.4	146	0.06	18.02
98	t	Dibenz[a,h]anthracene	0.926	1.122	-21.2#	147	0.07	18.44
99	t	7,12-Dimethylbenz(a)anthr	0.480	0.470	2.1	119	-0.02	15.73
100	t	Benzo[g,h,i]perylene	0.932	1.086	-16.5	145	0.00	18.80

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174986A.D MF7445.M Wed Mar 28 17:07:45 2018

8.8.28

8

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EF7460-CC7441
Lab FileID: F175208.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EF7460\F175208.D Vial: 3
Acq On : 27 Mar 2018 9:59 am Operator: johnb1
Sample : cc7441-25 Inst : GCMSF
Misc : op9377,ef7460,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7445.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 28 17:00:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	117	-0.05	4.38
102	Benzaldehyde	1.144	1.134	0.9	116	-0.06	4.05
103 I	Phenanthrene-d10a	1.000	1.000	0.0	124	-0.09	8.35
		True	Calc.	% Drift			
104	Atrazine	25.000	27.917	-11.7	139	-0.09	8.00
		AvgRF	CCRF	% Dev			
105 I	Chrysene-d12a	1.000	1.000	0.0	140	-0.12	13.44
		True	Calc.	% Drift			
106	Benzidine	25.000	21.582	13.7	121	-0.13	10.77
		AvgRF	CCRF	% Dev			
107 I	Naphthalene-d8a	1.000	1.000	0.0	116	-0.05	5.30
108	Hydroquinone	0.329	0.393	-19.5	134	-0.06	5.61
109 I	Acenaphthene-d10a	1.000	1.000	0.0	122	-0.06	6.62
110	1,2,4,5-Tetrachlorobenzen	0.636	0.612	3.8	119	-0.04	5.93

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F174986A.D MF7445.M Wed Mar 28 17:07:47 2018

8.8.29

8

MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175216.D
Acq On : 27 Mar 2018 3:37 pm
Operator : johnb1
Sample : jc62879-1
Misc : op10877,ef7460,950,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 01 17:02:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration

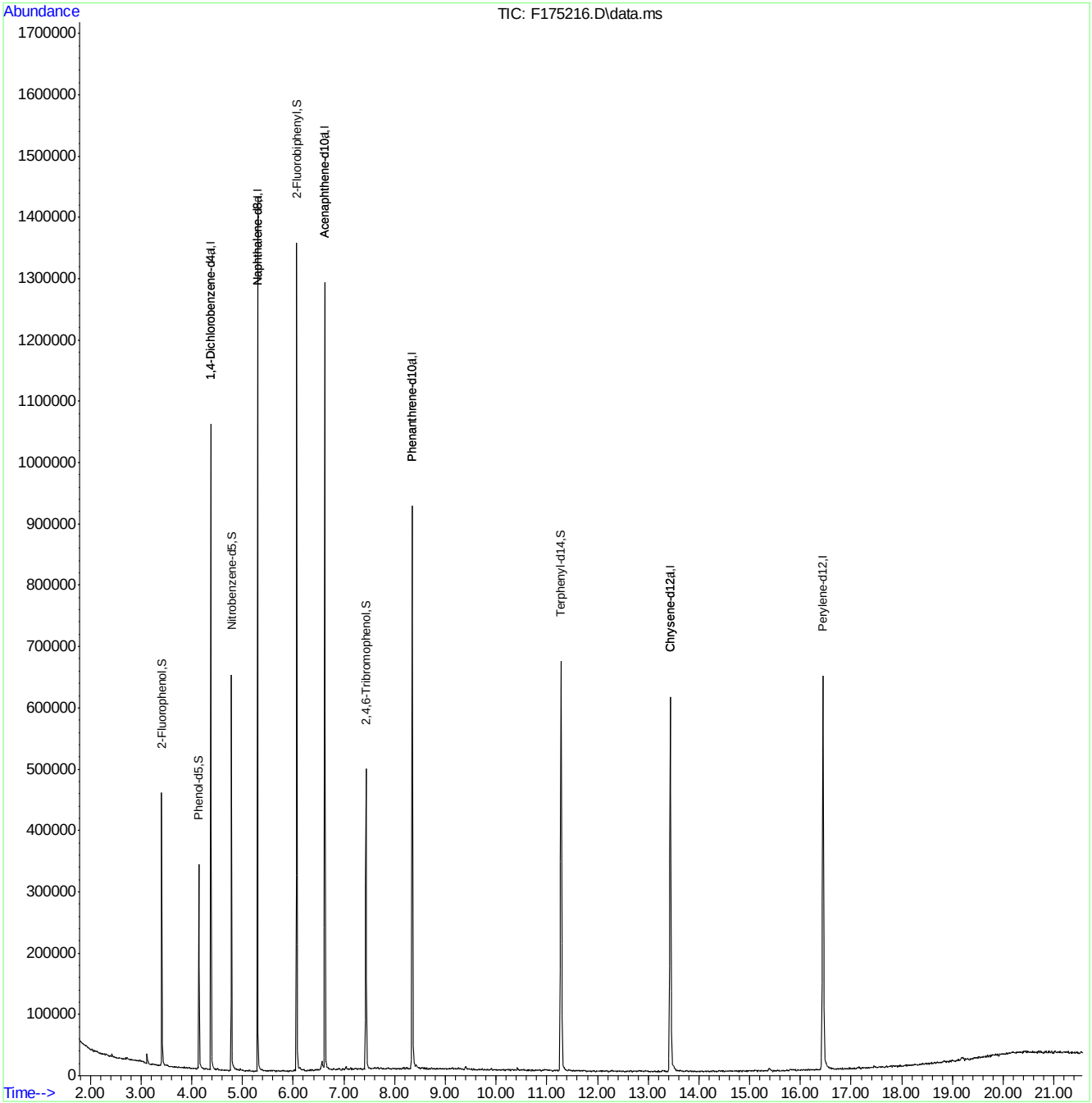
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.378	152	123098	40.00	ppm	0.00
24) Naphthalene-d8	5.297	136	457555	40.00	ppm	0.00
47) Acenaphthene-d10	6.622	164	243768	40.00	ppm	0.00
69) Phenanthrene-d10	8.348	188	412180	40.00	ppm	0.00
83) Chrysene-d12	13.433	240	368746	40.00	ppm	-0.01
91) Perylene-d12	16.446	264	403689	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.378	152	123098	40.00	ppm	-0.05
103) Phenanthrene-d10a	8.348	188	412180	40.00	ppm	-0.10
105) Chrysene-d12a	13.433	240	368746	40.00	ppm	-0.13
107) Naphthalene-d8a	5.297	136	457555	40.00	ppm	-0.05
109) Acenaphthene-d10a	6.622	164	243768	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.406	112	114782	28.85	ppm	-0.06
Spiked Amount 50.000			Recovery = 57.70%			
8) Phenol-d5	4.138	99	99921	19.23	ppm	0.00
Spiked Amount 50.000			Recovery = 38.46%			
25) Nitrobenzene-d5	4.779	82	178835	36.78	ppm	-0.02
Spiked Amount 50.000			Recovery = 73.56%			
51) 2-Fluorobiphenyl	6.066	172	356479	38.14	ppm	0.02
Spiked Amount 50.000			Recovery = 76.28%			
73) 2,4,6-Tribromophenol	7.434	330	62316	51.43	ppm	0.00
Spiked Amount 50.000			Recovery = 102.86%			
85) Terphenyl-d14	11.280	244	365472	44.70	ppm	0.00
Spiked Amount 50.000			Recovery = 89.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175216.D
Acq On : 27 Mar 2018 3:37 pm
Operator : johnb1
Sample : jc62879-1
Misc : op10877,ef7460,950,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 01 17:02:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175217.D
Acq On : 27 Mar 2018 4:05 pm
Operator : johnb1
Sample : jc62879-2
Misc : op10877,ef7460,940,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 01 17:03:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration

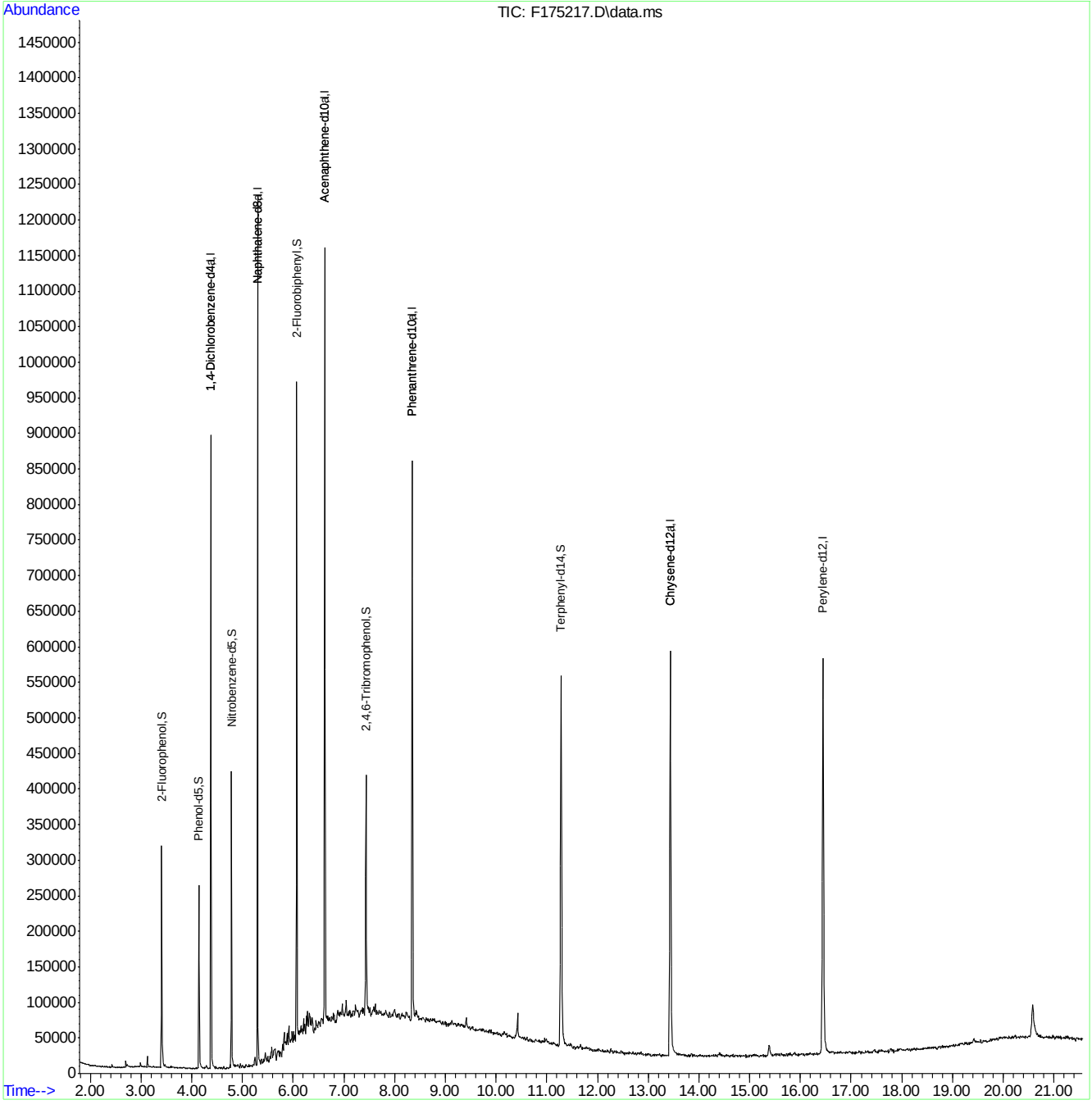
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.378	152	105863	40.00	ppm	0.00
24) Naphthalene-d8	5.297	136	397210	40.00	ppm	0.00
47) Acenaphthene-d10	6.622	164	209962	40.00	ppm	0.00
69) Phenanthrene-d10	8.348	188	360669	40.00	ppm	0.00
83) Chrysene-d12	13.433	240	328426	40.00	ppm	-0.01
91) Perylene-d12	16.446	264	358614	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.378	152	105863	40.00	ppm	-0.05
103) Phenanthrene-d10a	8.348	188	360669	40.00	ppm	-0.10
105) Chrysene-d12a	13.433	240	328426	40.00	ppm	-0.13
107) Naphthalene-d8a	5.297	136	397210	40.00	ppm	-0.05
109) Acenaphthene-d10a	6.622	164	209962	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.406	112	85581	25.01	ppm	-0.06
Spiked Amount 50.000			Recovery = 50.02%			
8) Phenol-d5	4.138	99	78602	17.59	ppm	0.00
Spiked Amount 50.000			Recovery = 35.18%			
25) Nitrobenzene-d5	4.779	82	112539	26.66	ppm	-0.02
Spiked Amount 50.000			Recovery = 53.32%			
51) 2-Fluorobiphenyl	6.066	172	240692	29.90	ppm	0.02
Spiked Amount 50.000			Recovery = 59.80%			
73) 2,4,6-Tribromophenol	7.434	330	43735	41.25	ppm	0.00
Spiked Amount 50.000			Recovery = 82.50%			
85) Terphenyl-d14	11.280	244	277803	38.15	ppm	0.00
Spiked Amount 50.000			Recovery = 76.30%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175217.D
Acq On : 27 Mar 2018 4:05 pm
Operator : johnb1
Sample : jc62879-2
Misc : op10877,ef7460,940,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 01 17:03:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175218.D
Acq On : 27 Mar 2018 4:33 pm
Operator : johnb1
Sample : jc62879-3
Misc : op10877,ef7460,950,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 01 17:04:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration

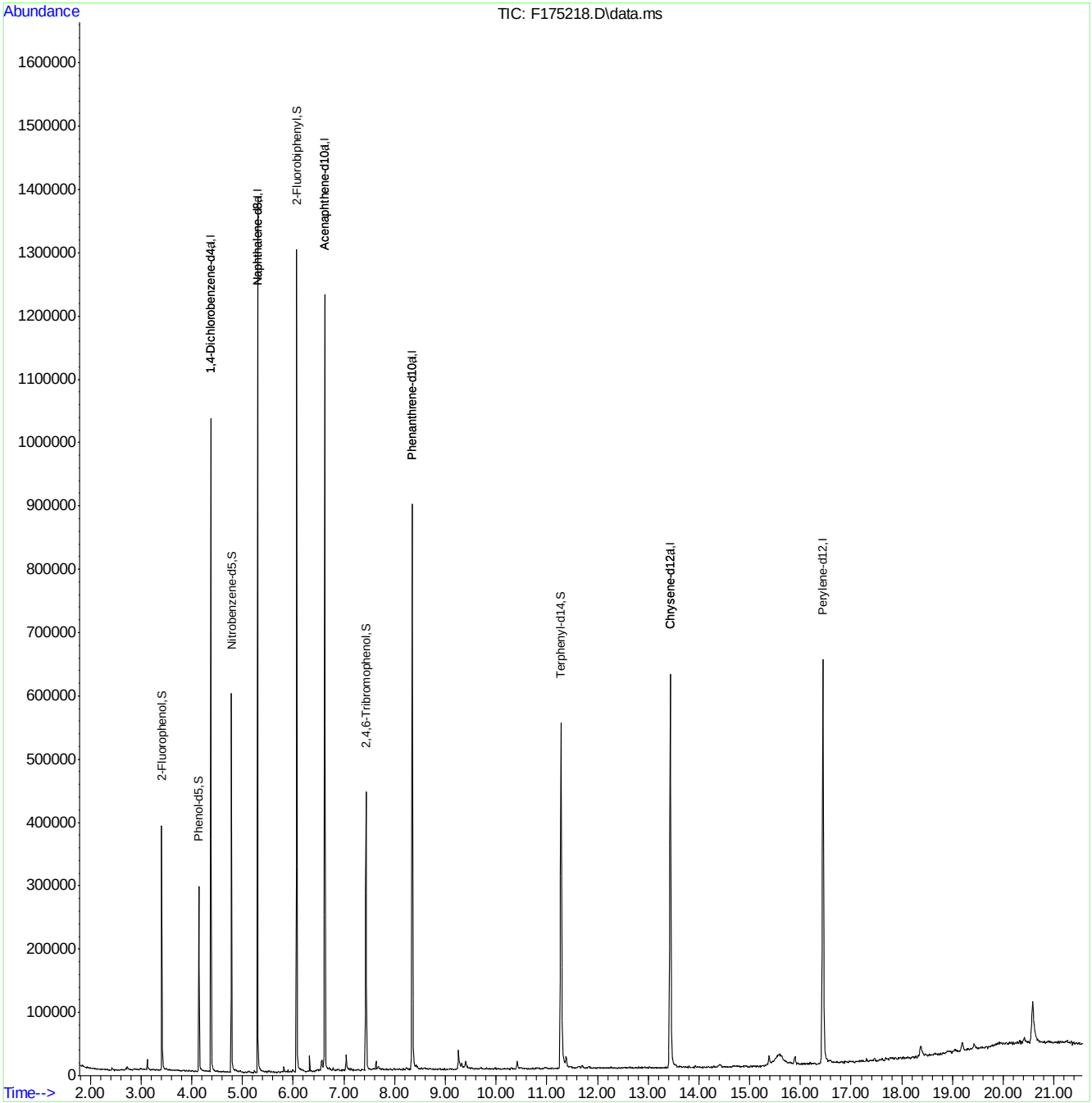
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.378	152	121029	40.00	ppm	0.00
24) Naphthalene-d8	5.297	136	449332	40.00	ppm	0.00
47) Acenaphthene-d10	6.622	164	238989	40.00	ppm	0.00
69) Phenanthrene-d10	8.348	188	410103	40.00	ppm	0.00
83) Chrysene-d12	13.433	240	370091	40.00	ppm	-0.01
91) Perylene-d12	16.447	264	409363	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.378	152	121029	40.00	ppm	-0.05
103) Phenanthrene-d10a	8.348	188	410103	40.00	ppm	-0.10
105) Chrysene-d12a	13.433	240	370091	40.00	ppm	-0.13
107) Naphthalene-d8a	5.297	136	449332	40.00	ppm	-0.05
109) Acenaphthene-d10a	6.622	164	238989	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.406	112	101759	26.01	ppm	-0.06
Spiked Amount 50.000			Recovery = 52.02%			
8) Phenol-d5	4.138	99	90814	17.78	ppm	0.00
Spiked Amount 50.000			Recovery = 35.56%			
25) Nitrobenzene-d5	4.779	82	159237	33.35	ppm	-0.02
Spiked Amount 50.000			Recovery = 66.70%			
51) 2-Fluorobiphenyl	6.067	172	329184	35.93	ppm	0.02
Spiked Amount 50.000			Recovery = 71.86%			
73) 2,4,6-Tribromophenol	7.434	330	56729	47.06	ppm	0.00
Spiked Amount 50.000			Recovery = 94.12%			
85) Terphenyl-d14	11.281	244	292767	35.68	ppm	0.00
Spiked Amount 50.000			Recovery = 71.36%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175218.D
Acq On : 27 Mar 2018 4:33 pm
Operator : johnb1
Sample : jc62879-3
Misc : op10877,ef7460,950,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 01 17:04:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175219.D
Acq On : 27 Mar 2018 5:01 pm
Operator : johnb1
Sample : jc62879-4
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 01 17:14:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration

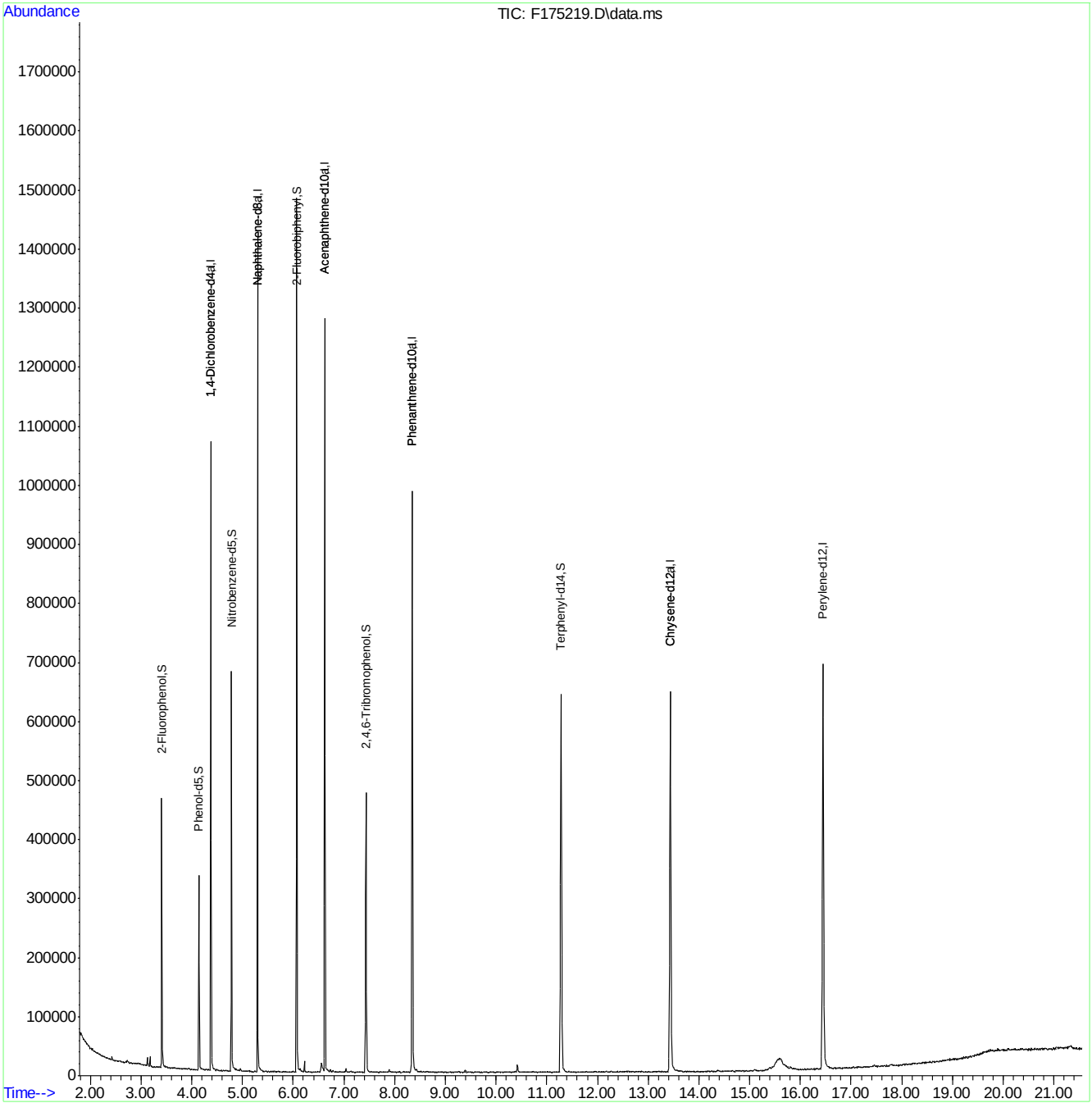
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.378	152	125801	40.00	ppm	0.00
24) Naphthalene-d8	5.297	136	466929	40.00	ppm	0.00
47) Acenaphthene-d10	6.622	164	253934	40.00	ppm	0.00
69) Phenanthrene-d10	8.348	188	433579	40.00	ppm	0.00
83) Chrysene-d12	13.433	240	385254	40.00	ppm	-0.01
91) Perylene-d12	16.446	264	422791	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.378	152	125801	40.00	ppm	-0.05
103) Phenanthrene-d10a	8.348	188	433579	40.00	ppm	-0.10
105) Chrysene-d12a	13.433	240	385254	40.00	ppm	-0.13
107) Naphthalene-d8a	5.297	136	466929	40.00	ppm	-0.05
109) Acenaphthene-d10a	6.622	164	253934	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.406	112	117443	28.88	ppm	-0.06
Spiked Amount 50.000			Recovery = 57.76%			
8) Phenol-d5	4.138	99	98940	18.63	ppm	0.00
Spiked Amount 50.000			Recovery = 37.26%			
25) Nitrobenzene-d5	4.779	82	190683	38.43	ppm	-0.02
Spiked Amount 50.000			Recovery = 76.86%			
51) 2-Fluorobiphenyl	6.066	172	367218	37.72	ppm	0.02
Spiked Amount 50.000			Recovery = 75.44%			
73) 2,4,6-Tribromophenol	7.434	330	61340	48.13	ppm	0.00
Spiked Amount 50.000			Recovery = 96.26%			
85) Terphenyl-d14	11.280	244	343124	40.17	ppm	0.00
Spiked Amount 50.000			Recovery = 80.34%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175219.D
Acq On : 27 Mar 2018 5:01 pm
Operator : johnb1
Sample : jc62879-4
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 01 17:14:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175220.D
Acq On : 27 Mar 2018 5:29 pm
Operator : johnb1
Sample : jc62879-5
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 01 17:15:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration

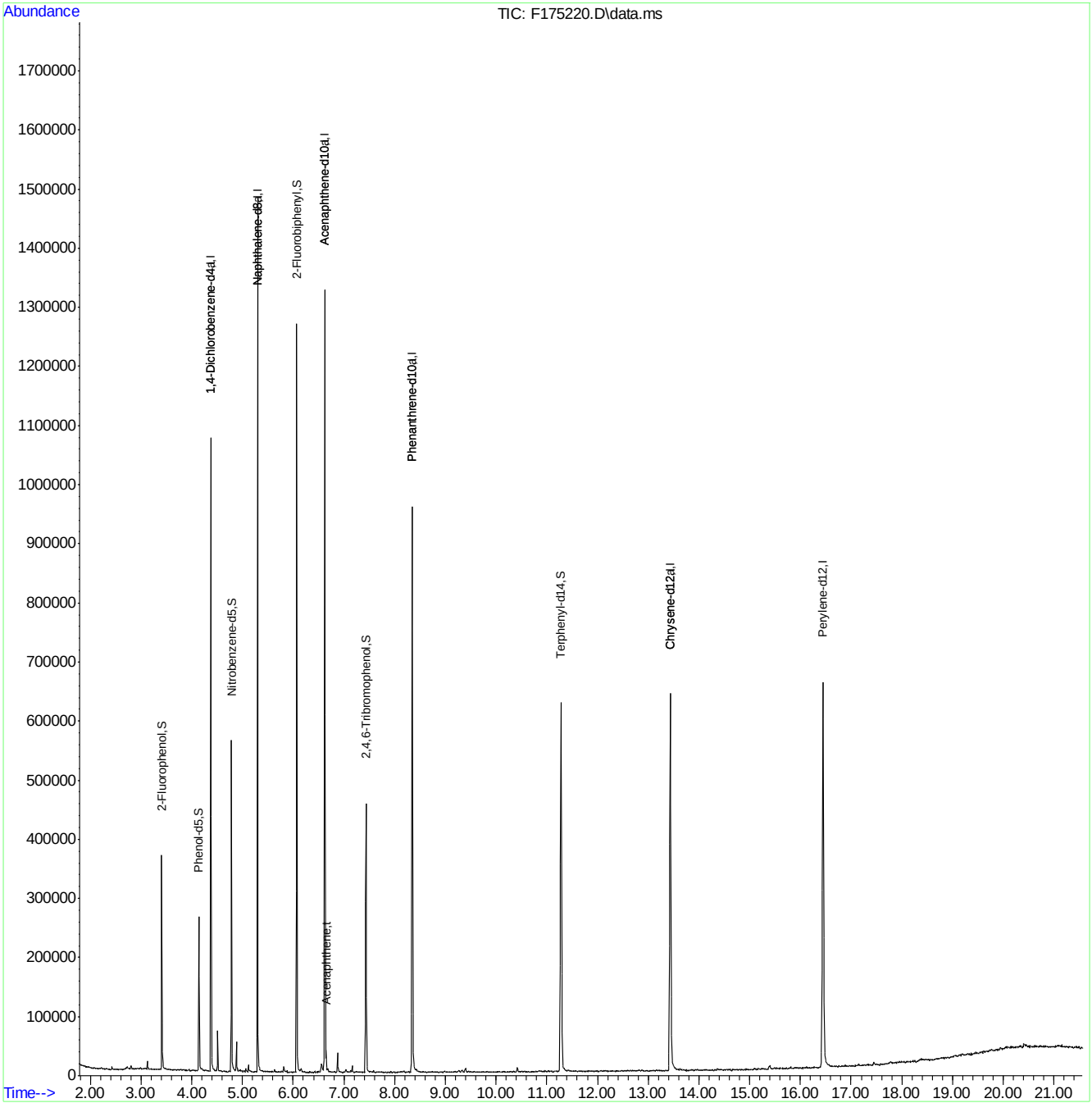
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.378	152	125424	40.00	ppm	0.00
24) Naphthalene-d8	5.297	136	471418	40.00	ppm	0.00
47) Acenaphthene-d10	6.622	164	250046	40.00	ppm	0.00
69) Phenanthrene-d10	8.348	188	429315	40.00	ppm	0.00
83) Chrysene-d12	13.433	240	386658	40.00	ppm	-0.01
91) Perylene-d12	16.446	264	422888	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.378	152	125424	40.00	ppm	-0.05
103) Phenanthrene-d10a	8.348	188	429315	40.00	ppm	-0.10
105) Chrysene-d12a	13.433	240	386658	40.00	ppm	-0.13
107) Naphthalene-d8a	5.297	136	471418	40.00	ppm	-0.05
109) Acenaphthene-d10a	6.622	164	250046	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.406	112	95517	23.56	ppm	-0.06
Spiked Amount 50.000			Recovery = 47.12%			
8) Phenol-d5	4.138	99	79632	15.04	ppm	0.00
Spiked Amount 50.000			Recovery = 30.08%			
25) Nitrobenzene-d5	4.779	82	155394	31.02	ppm	-0.02
Spiked Amount 50.000			Recovery = 62.04%			
51) 2-Fluorobiphenyl	6.066	172	314003	32.75	ppm	0.02
Spiked Amount 50.000			Recovery = 65.50%			
73) 2,4,6-Tribromophenol	7.434	330	57656	45.69	ppm	0.00
Spiked Amount 50.000			Recovery = 91.38%			
85) Terphenyl-d14	11.280	244	339043	39.55	ppm	0.00
Spiked Amount 50.000			Recovery = 79.10%			
Target Compounds						Qvalue
59) Acenaphthene	6.649	153	6211	0.78	ppm	89

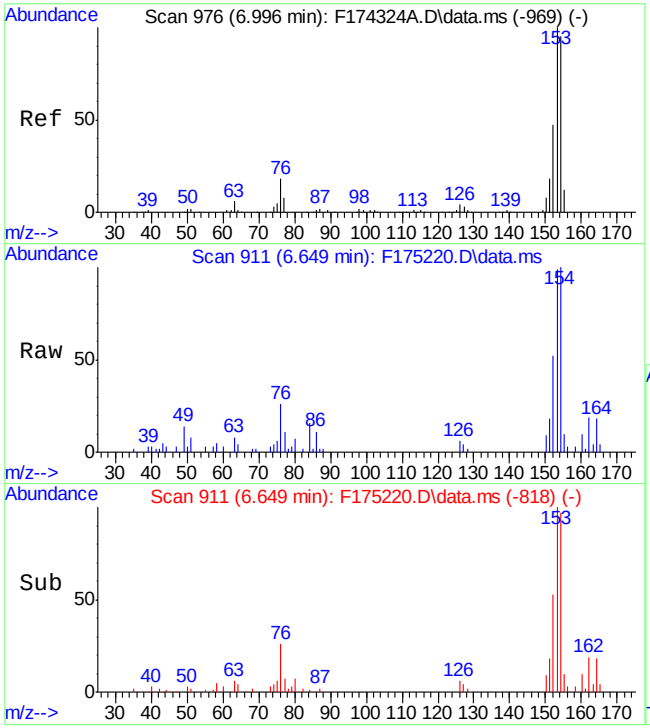
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175220.D
Acq On : 27 Mar 2018 5:29 pm
Operator : johnb1
Sample : jc62879-5
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 01 17:15:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration

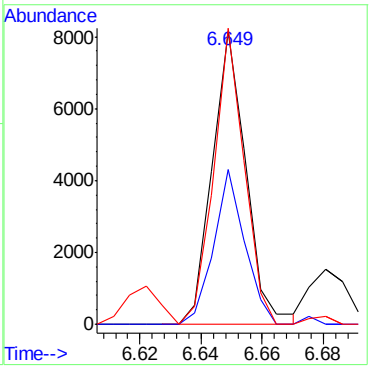




#59
Acenaphthene
Concen: 0.78 ppm
RT: 6.649 min Scan# 911
Delta R.T. -0.004 min
Lab File: F175220.D
Acq: 27 Mar 2018 5:29 pm

Tgt Ion:153 Resp: 6211

Ion	Ratio	Lower	Upper
153	100		
152	53.7	16.5	76.5
154	99.5	59.4	119.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175221.D
Acq On : 27 Mar 2018 5:57 pm
Operator : johnb1
Sample : jc62879-6
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 01 17:08:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration

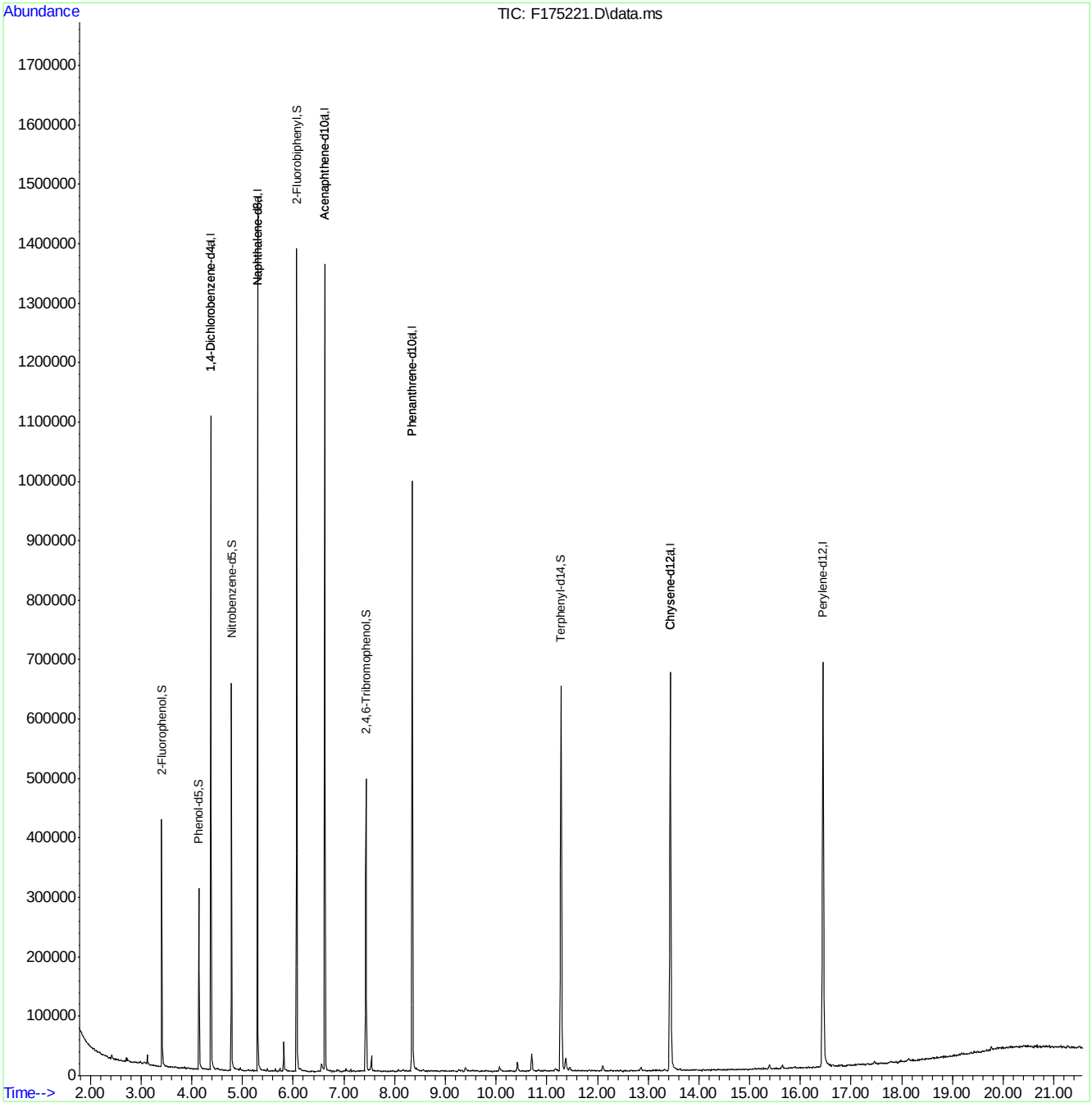
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.378	152	130740	40.00	ppm	0.00
24) Naphthalene-d8	5.297	136	485373	40.00	ppm	0.00
47) Acenaphthene-d10	6.622	164	261191	40.00	ppm	0.00
69) Phenanthrene-d10	8.348	188	449710	40.00	ppm	0.00
83) Chrysene-d12	13.439	240	401670	40.00	ppm	0.00
91) Perylene-d12	16.446	264	441984	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.378	152	130740	40.00	ppm	-0.05
103) Phenanthrene-d10a	8.348	188	449710	40.00	ppm	-0.10
105) Chrysene-d12a	13.439	240	401670	40.00	ppm	-0.12
107) Naphthalene-d8a	5.297	136	485373	40.00	ppm	-0.05
109) Acenaphthene-d10a	6.622	164	261191	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.406	112	108266	25.62	ppm	-0.06
Spiked Amount 50.000			Recovery = 51.24%			
8) Phenol-d5	4.138	99	91001	16.49	ppm	0.00
Spiked Amount 50.000			Recovery = 32.98%			
25) Nitrobenzene-d5	4.779	82	176347	34.19	ppm	-0.02
Spiked Amount 50.000			Recovery = 68.38%			
51) 2-Fluorobiphenyl	6.066	172	345994	34.55	ppm	0.02
Spiked Amount 50.000			Recovery = 69.10%			
73) 2,4,6-Tribromophenol	7.434	330	62493	47.27	ppm	0.00
Spiked Amount 50.000			Recovery = 94.54%			
85) Terphenyl-d14	11.280	244	351082	39.42	ppm	0.00
Spiked Amount 50.000			Recovery = 78.84%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175221.D
Acq On : 27 Mar 2018 5:57 pm
Operator : johnb1
Sample : jc62879-6
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 01 17:08:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175222.D
Acq On : 27 Mar 2018 6:25 pm
Operator : johnb1
Sample : jc62879-7
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 01 17:09:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration

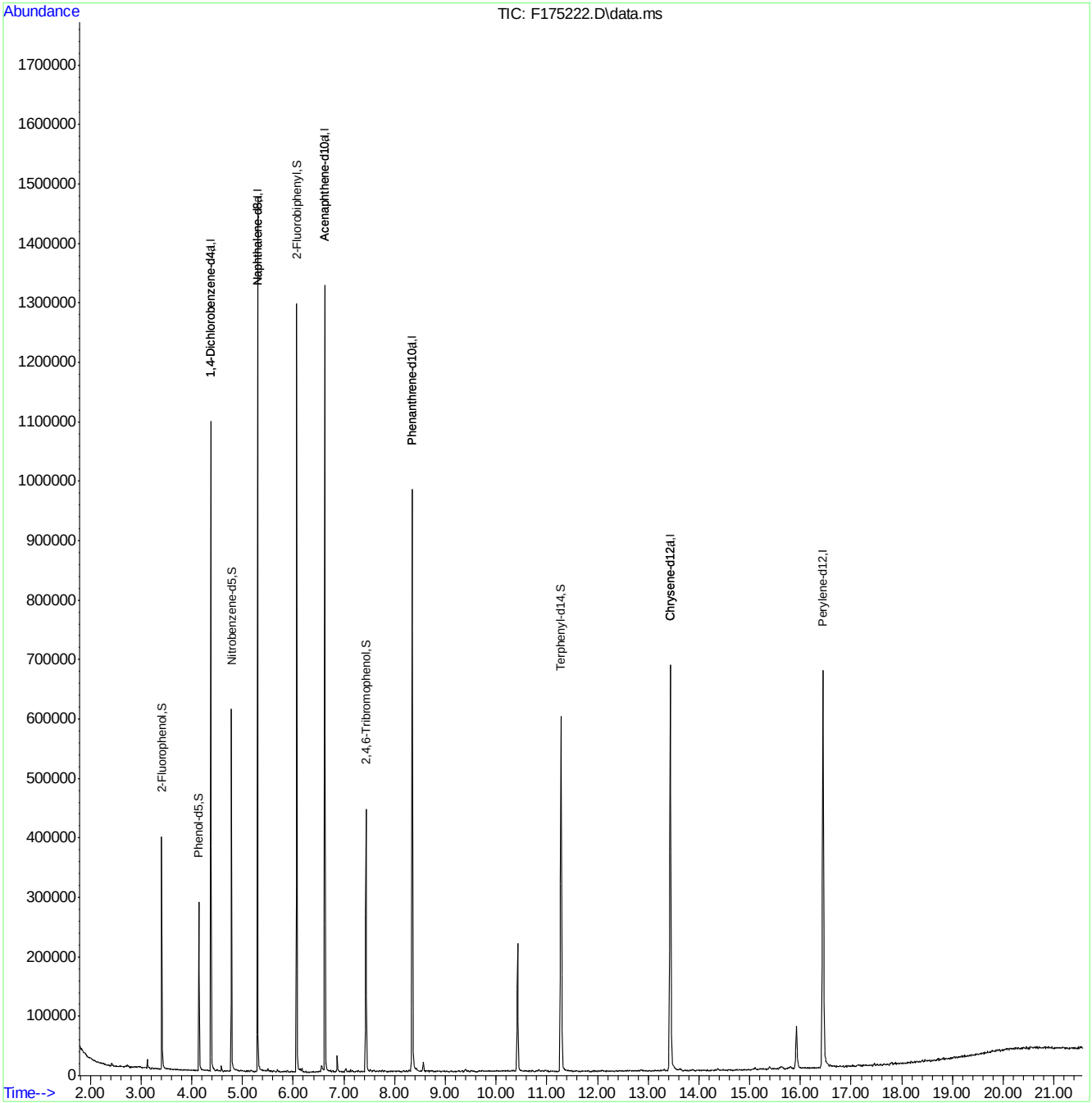
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.378	152	128399	40.00	ppm	0.00
24) Naphthalene-d8	5.297	136	475431	40.00	ppm	0.00
47) Acenaphthene-d10	6.622	164	252463	40.00	ppm	0.00
69) Phenanthrene-d10	8.348	188	437563	40.00	ppm	0.00
83) Chrysene-d12	13.433	240	397087	40.00	ppm	-0.01
91) Perylene-d12	16.446	264	431552	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.378	152	128399	40.00	ppm	-0.05
103) Phenanthrene-d10a	8.348	188	437563	40.00	ppm	-0.10
105) Chrysene-d12a	13.433	240	397087	40.00	ppm	-0.13
107) Naphthalene-d8a	5.297	136	475431	40.00	ppm	-0.05
109) Acenaphthene-d10a	6.622	164	252463	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.406	112	102570	24.71	ppm	-0.06
Spiked Amount 50.000			Recovery = 49.42%			
8) Phenol-d5	4.138	99	86258	15.92	ppm	0.00
Spiked Amount 50.000			Recovery = 31.84%			
25) Nitrobenzene-d5	4.779	82	163664	32.39	ppm	-0.02
Spiked Amount 50.000			Recovery = 64.78%			
51) 2-Fluorobiphenyl	6.066	172	328973	33.99	ppm	0.02
Spiked Amount 50.000			Recovery = 67.98%			
73) 2,4,6-Tribromophenol	7.434	330	54688	42.52	ppm	0.00
Spiked Amount 50.000			Recovery = 85.04%			
85) Terphenyl-d14	11.280	244	317146	36.02	ppm	0.00
Spiked Amount 50.000			Recovery = 72.04%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175222.D
Acq On : 27 Mar 2018 6:25 pm
Operator : johnb1
Sample : jc62879-7
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 01 17:09:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration



MF7445.M Sun Apr 01 17:10:14 2018 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78143.D
Acq On : 28 Mar 2018 9:17 pm
Operator : johnb1
Sample : jc62879-8
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 29 13:14:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	820057	40.00	ppm	-0.03
24) Naphthalene-d8	5.999	136	3043688	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1586367	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	2796659	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	2653097	40.00	ppm	-0.03
91) Perylene-d12	14.231	264	2509389	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.946	152	820057	40.00	ppm	-0.03
103) Naphthalene-d8a	5.999	136	3043688	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1586367	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2653097	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	2796659	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	2653097	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	604294	16.91	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 33.82%			
8) Phenol-d5	4.700	99	520114	12.14	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 24.28%			
25) Nitrobenzene-d5	5.406	82	986445	29.38	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 58.76%			
51) 2-Fluorobiphenyl	6.887	172	2068533	33.26	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 66.52%#			
73) 2,4,6-Tribromophenol	8.133	330	364278	42.99	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 85.98%#			
85) Terphenyl-d14	10.722	244	2522086	35.95	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 71.90%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			

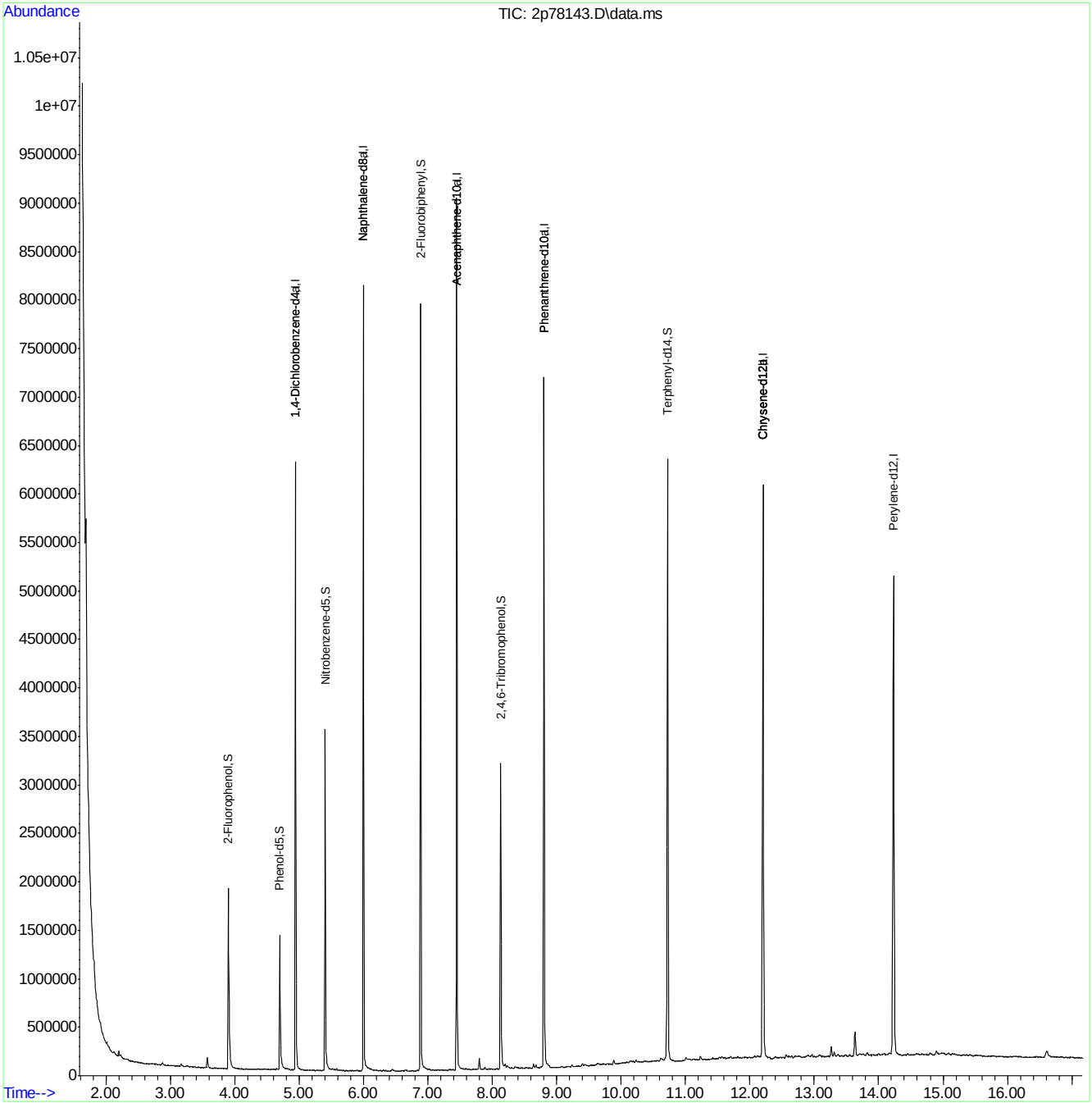
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78143.D
Acq On : 28 Mar 2018 9:17 pm
Operator : johnb1
Sample : jc62879-8
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 29 13:14:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78144.D
Acq On : 28 Mar 2018 9:38 pm
Operator : johnb1
Sample : jc62879-9
Misc : op10883,e2p3440,980,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 29 12:44:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

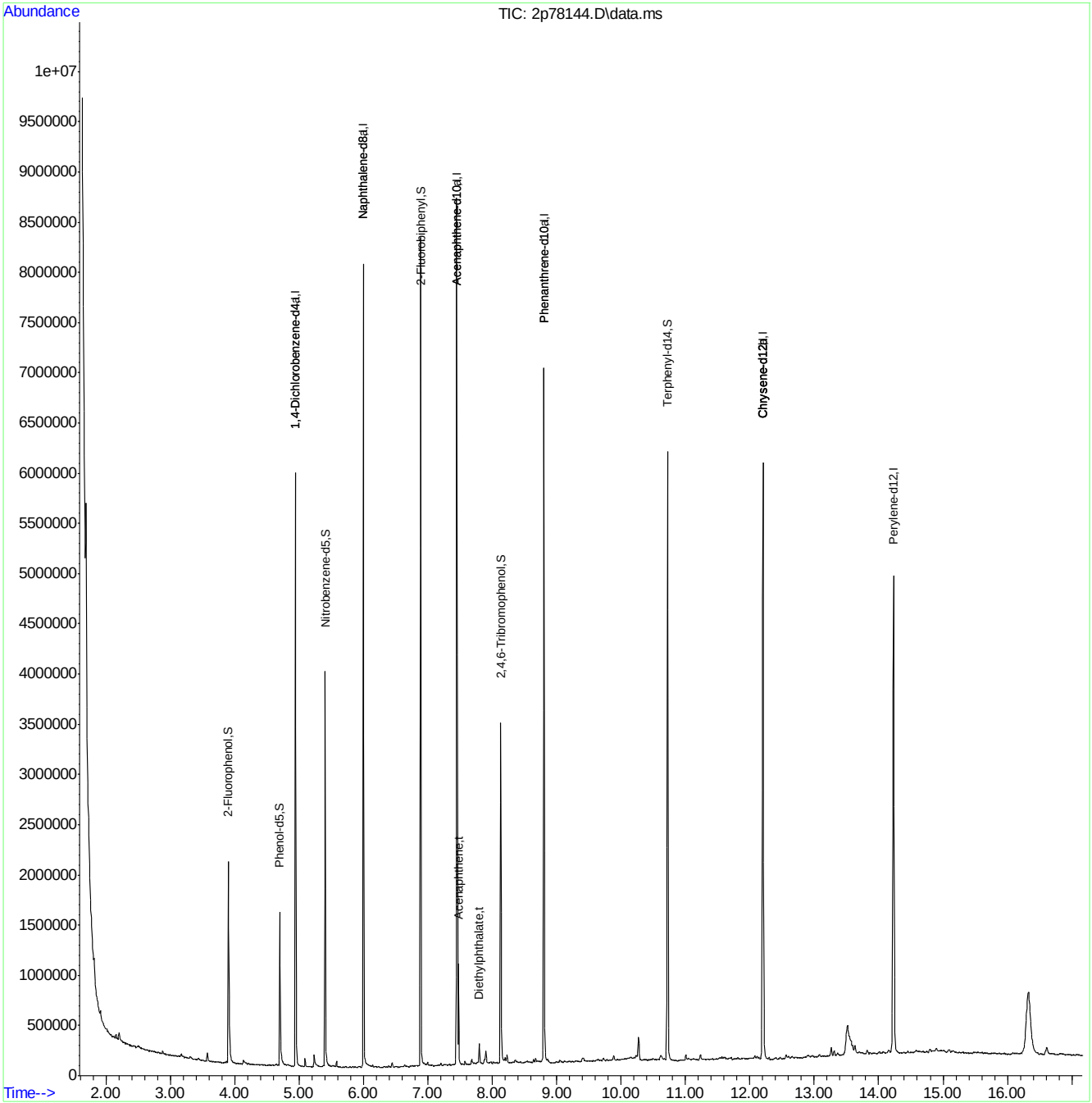
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	769727	40.00	ppm	-0.03
24) Naphthalene-d8	5.999	136	2885905	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1501547	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	2603889	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	2600933	40.00	ppm	-0.03
91) Perylene-d12	14.236	264	2428641	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.946	152	769727	40.00	ppm	-0.03
103) Naphthalene-d8a	5.999	136	2885905	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1501547	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2600933	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	2603889	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	2600933	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	617486	18.41	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 36.82%			
8) Phenol-d5	4.700	99	542634	13.49	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 26.98%			
25) Nitrobenzene-d5	5.406	82	1039171	32.64	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 65.28%#			
51) 2-Fluorobiphenyl	6.887	172	2121630	36.04	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 72.08%#			
73) 2,4,6-Tribromophenol	8.133	330	376515	47.72	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 95.44%#			
85) Terphenyl-d14	10.722	244	2425266	35.27	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 70.54%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
59) Acenaphthene	7.476	153	196244	3.86	ppm	95
65) Diethylphthalate	7.797	149	57227	1.00	ppm	98

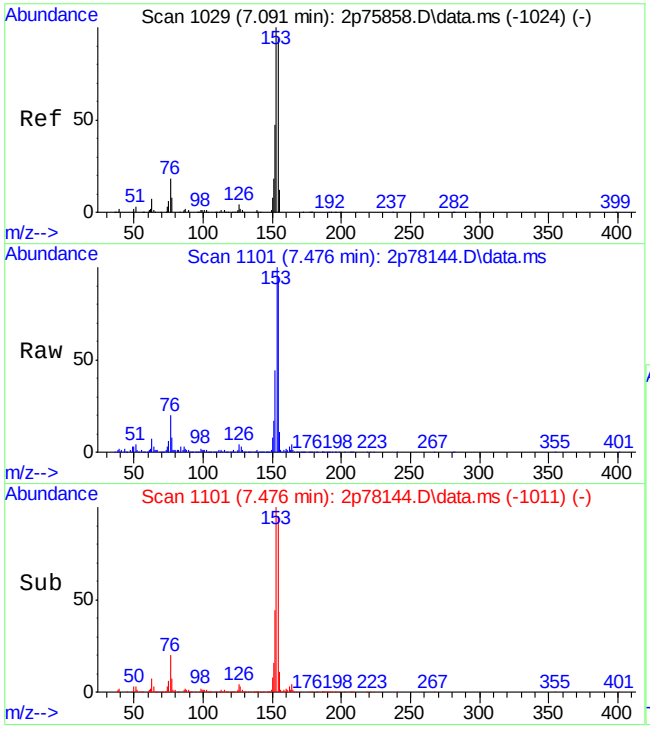
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78144.D
Acq On : 28 Mar 2018 9:38 pm
Operator : johnb1
Sample : jc62879-9
Misc : op10883,e2p3440,980,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 29 12:44:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

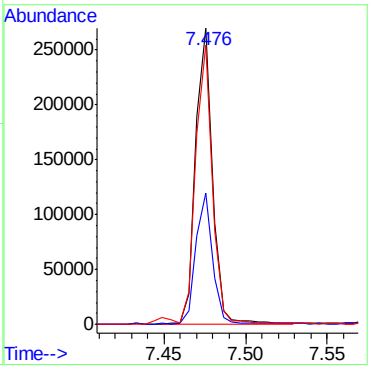


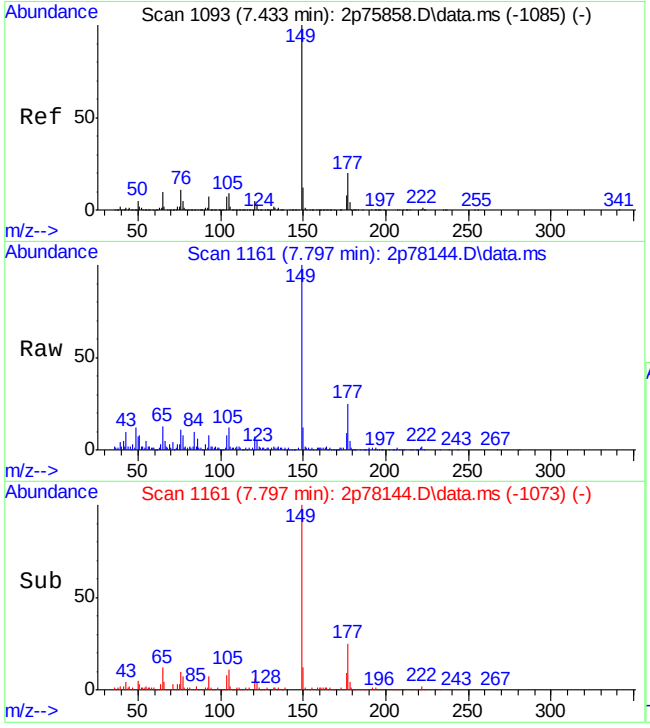


#59
Acenaphthene
Concen: 3.86 ppm
RT: 7.476 min Scan# 1101
Delta R.T. -0.021 min
Lab File: 2p78144.D
Acq: 28 Mar 2018 9:38 pm

Tgt Ion:153 Resp: 196244

Ion	Ratio	Lower	Upper
153	100		
152	43.9	13.5	73.5
154	93.2	57.1	117.1

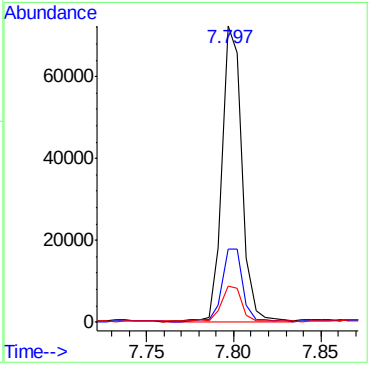




#65
Diethylphthalate
Concen: 1.00 ppm
RT: 7.797 min Scan# 1161
Delta R.T. -0.029 min
Lab File: 2p78144.D
Acq: 28 Mar 2018 9:38 pm

Tgt Ion:149 Resp: 57227

Ion	Ratio	Lower	Upper
149	100		
177	24.6	0.0	53.4
150	11.9	0.0	42.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78145.D
Acq On : 28 Mar 2018 10:00 pm
Operator : johnb1
Sample : jc62879-10
Misc : op10883,e2p3440,980,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 29 13:16:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

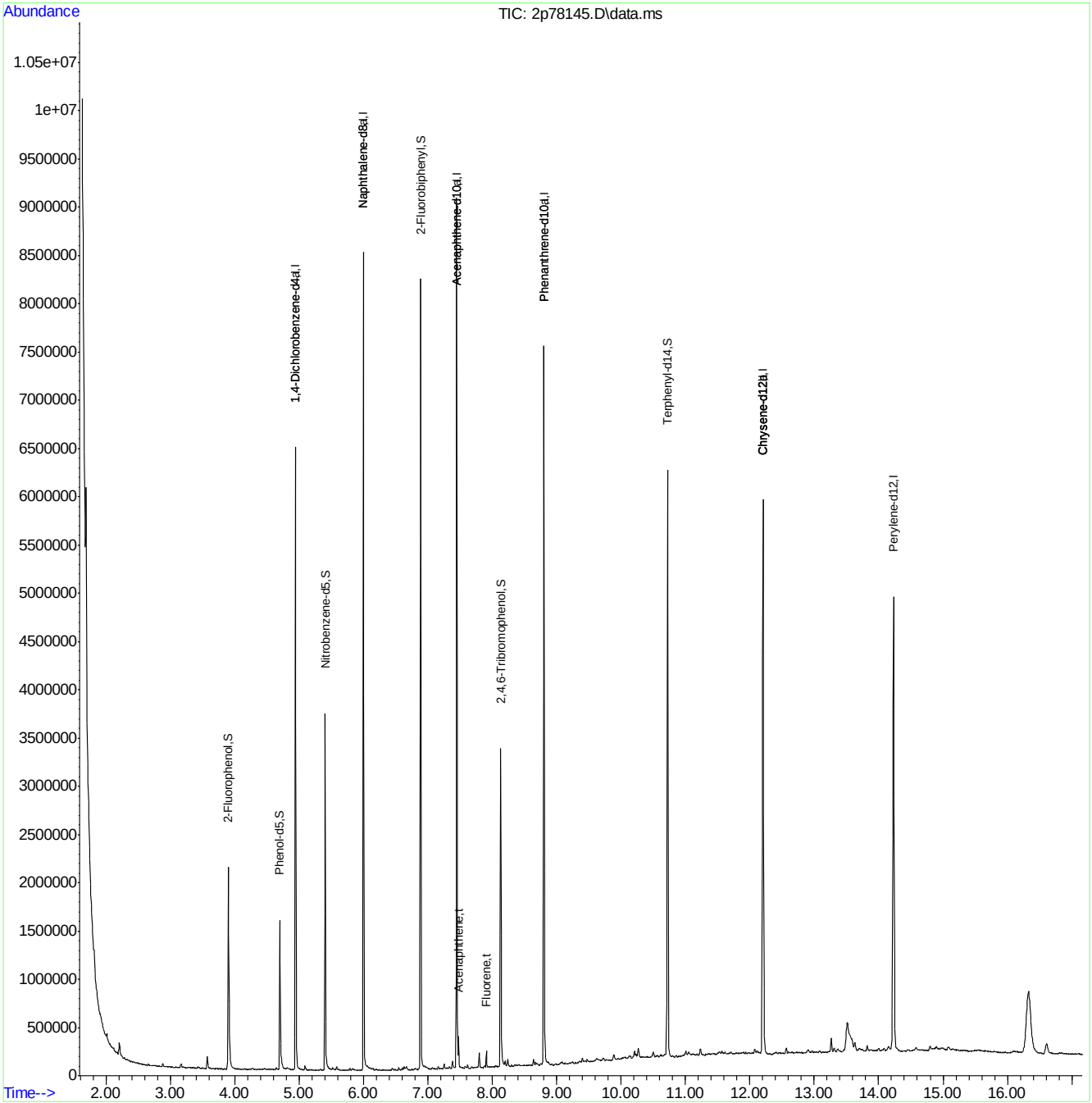
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	826852	40.00	ppm	-0.03
24) Naphthalene-d8	6.000	136	3053958	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1598687	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	2741267	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	2564368	40.00	ppm	-0.03
91) Perylene-d12	14.236	264	2432302	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.946	152	826852	40.00	ppm	-0.03
103) Naphthalene-d8a	6.000	136	3053958	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1598687	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2564368	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	2741267	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	2564368	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	623839	17.32	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 34.64%			
8) Phenol-d5	4.700	99	542563	12.56	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 25.12%			
25) Nitrobenzene-d5	5.406	82	1000473	29.70	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 59.40%			
51) 2-Fluorobiphenyl	6.887	172	2085823	33.28	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 66.56%#			
73) 2,4,6-Tribromophenol	8.134	330	370703	44.63	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 89.26%#			
85) Terphenyl-d14	10.722	244	2434398	35.90	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 71.80%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
59) Acenaphthene	7.476	153	63948	1.18	ppm	93
66) Fluorene	7.909	166	45156	0.74	ppm	99

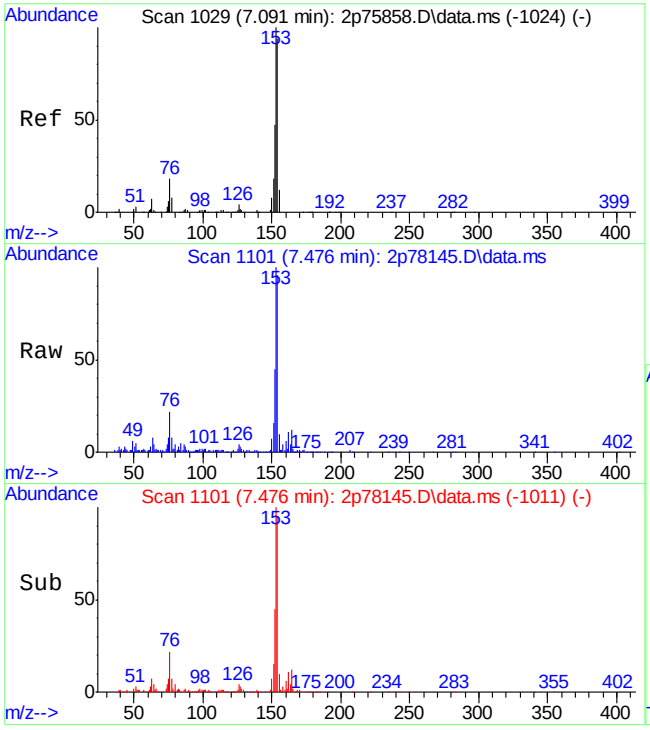
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78145.D
Acq On : 28 Mar 2018 10:00 pm
Operator : johnb1
Sample : jc62879-10
Misc : op10883,e2p3440,980,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 29 13:16:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

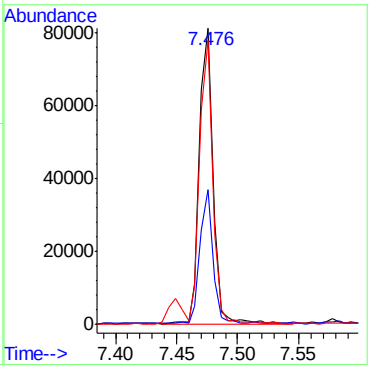


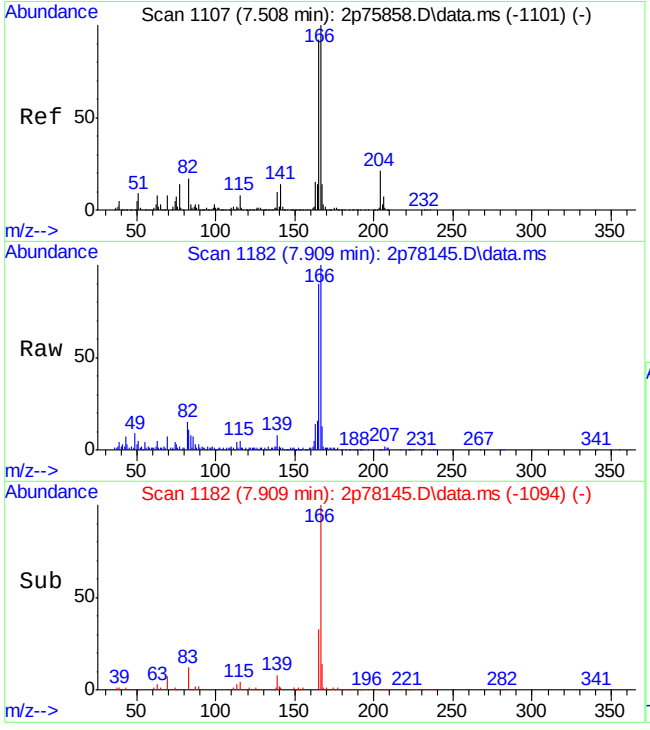


#59
Acenaphthene
Concen: 1.18 ppm
RT: 7.476 min Scan# 1101
Delta R.T. -0.020 min
Lab File: 2p78145.D
Acq: 28 Mar 2018 10:00 pm

Tgt Ion:153 Resp: 63948

Ion	Ratio	Lower	Upper
153	100		
152	44.9	13.5	73.5
154	95.2	57.1	117.1

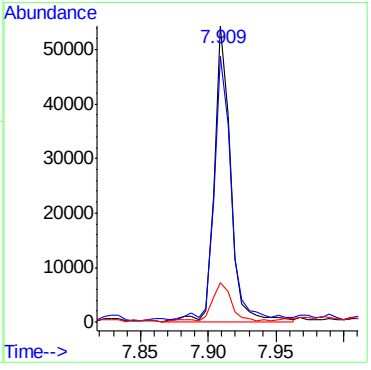




#66
Fluorene
Concen: 0.74 ppm
RT: 7.909 min Scan# 1182
Delta R.T. -0.027 min
Lab File: 2p78145.D
Acq: 28 Mar 2018 10:00 pm

Tgt Ion:166 Resp: 45156

Ion	Ratio	Lower	Upper
166	100		
165	88.8	60.4	120.4
167	12.7	0.0	42.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78146.D
Acq On : 28 Mar 2018 10:21 pm
Operator : johnb1
Sample : jc62879-11
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 29 12:46:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	877950	40.00	ppm	-0.03
24) Naphthalene-d8	6.000	136	3191428	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1643404	40.00	ppm	-0.02
69) Phenanthrene-d10	8.808	188	2840271	40.00	ppm	-0.02
83) Chrysene-d12	12.204	240	2811436	40.00	ppm	-0.03
91) Perylene-d12	14.231	264	2562895	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.946	152	877950	40.00	ppm	-0.03
103) Naphthalene-d8a	6.000	136	3191428	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1643404	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2811436	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.808	188	2840271	40.00	ppm	-0.02
114) Chrysene-d12b	12.204	240	2811436	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	808538	21.14	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 42.28%			
8) Phenol-d5	4.700	99	703822	15.34	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 30.68%			
25) Nitrobenzene-d5	5.406	82	1246237	35.40	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 70.80%#			
51) 2-Fluorobiphenyl	6.887	172	2365692	36.72	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 73.44%#			
73) 2,4,6-Tribromophenol	8.134	330	389969	45.32	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 90.64%#			
85) Terphenyl-d14	10.722	244	2224777	29.93	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 59.86%			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			

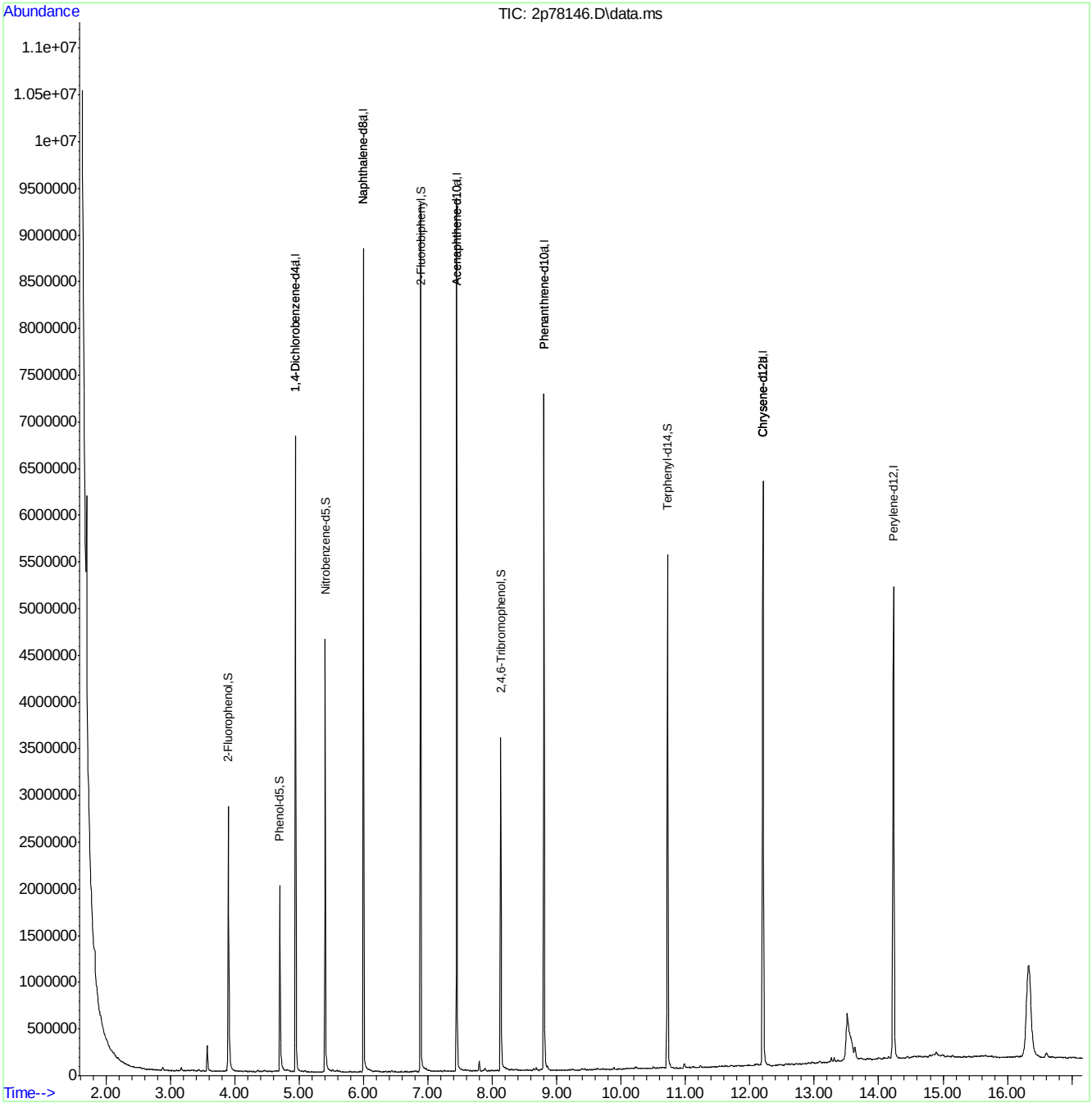
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78146.D
Acq On : 28 Mar 2018 10:21 pm
Operator : johnb1
Sample : jc62879-11
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 29 12:46:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78147.D
Acq On : 28 Mar 2018 10:43 pm
Operator : johnb1
Sample : jc62879-12
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 29 13:18:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	815091	40.00	ppm	-0.03
24) Naphthalene-d8	6.000	136	3083934	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1596058	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	2793736	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	2758090	40.00	ppm	-0.03
91) Perylene-d12	14.231	264	2502104	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.946	152	815091	40.00	ppm	-0.03
103) Naphthalene-d8a	6.000	136	3083934	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1596058	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2758090	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	2793736	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	2758090	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	627088	17.66	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 35.32%			
8) Phenol-d5	4.700	99	529615	12.44	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 24.88%			
25) Nitrobenzene-d5	5.406	82	1108990	32.60	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 65.20%#			
51) 2-Fluorobiphenyl	6.887	172	2162715	34.56	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 69.12%#			
73) 2,4,6-Tribromophenol	8.134	330	358127	42.31	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 84.62%#			
85) Terphenyl-d14	10.722	244	2478639	33.99	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 67.98%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			

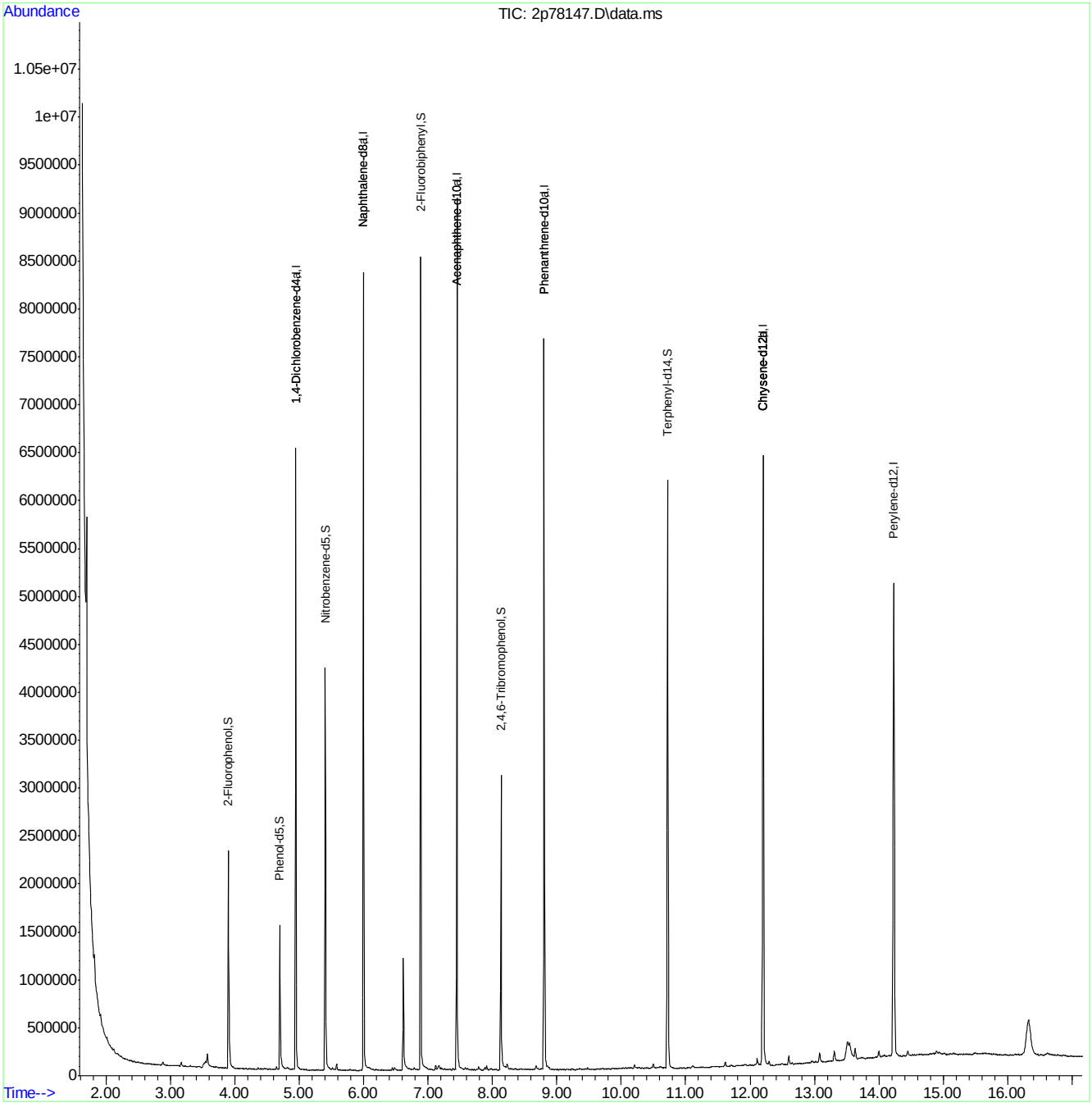
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78147.D
Acq On : 28 Mar 2018 10:43 pm
Operator : johnb1
Sample : jc62879-12
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 29 13:18:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78148.D
Acq On : 28 Mar 2018 11:04 pm
Operator : johnb1
Sample : jc62879-13
Misc : op10883,e2p3440,1020,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 29 13:19:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	791819	40.00	ppm	-0.03
24) Naphthalene-d8	6.000	136	2919087	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1531494	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	2659138	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	2663446	40.00	ppm	-0.03
91) Perylene-d12	14.231	264	2520405	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.946	152	791819	40.00	ppm	-0.03
103) Naphthalene-d8a	6.000	136	2919087	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1531494	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2663446	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	2659138	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	2663446	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	550766	15.97	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 31.94%			
8) Phenol-d5	4.700	99	474355	11.47	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 22.94%			
25) Nitrobenzene-d5	5.406	82	1122026	34.85	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 69.70%#			
51) 2-Fluorobiphenyl	6.887	172	1936860	32.26	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 64.52%#			
73) 2,4,6-Tribromophenol	8.134	330	313019	38.85	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 77.70%#			
85) Terphenyl-d14	10.722	244	1917611	27.23	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 54.46%			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			

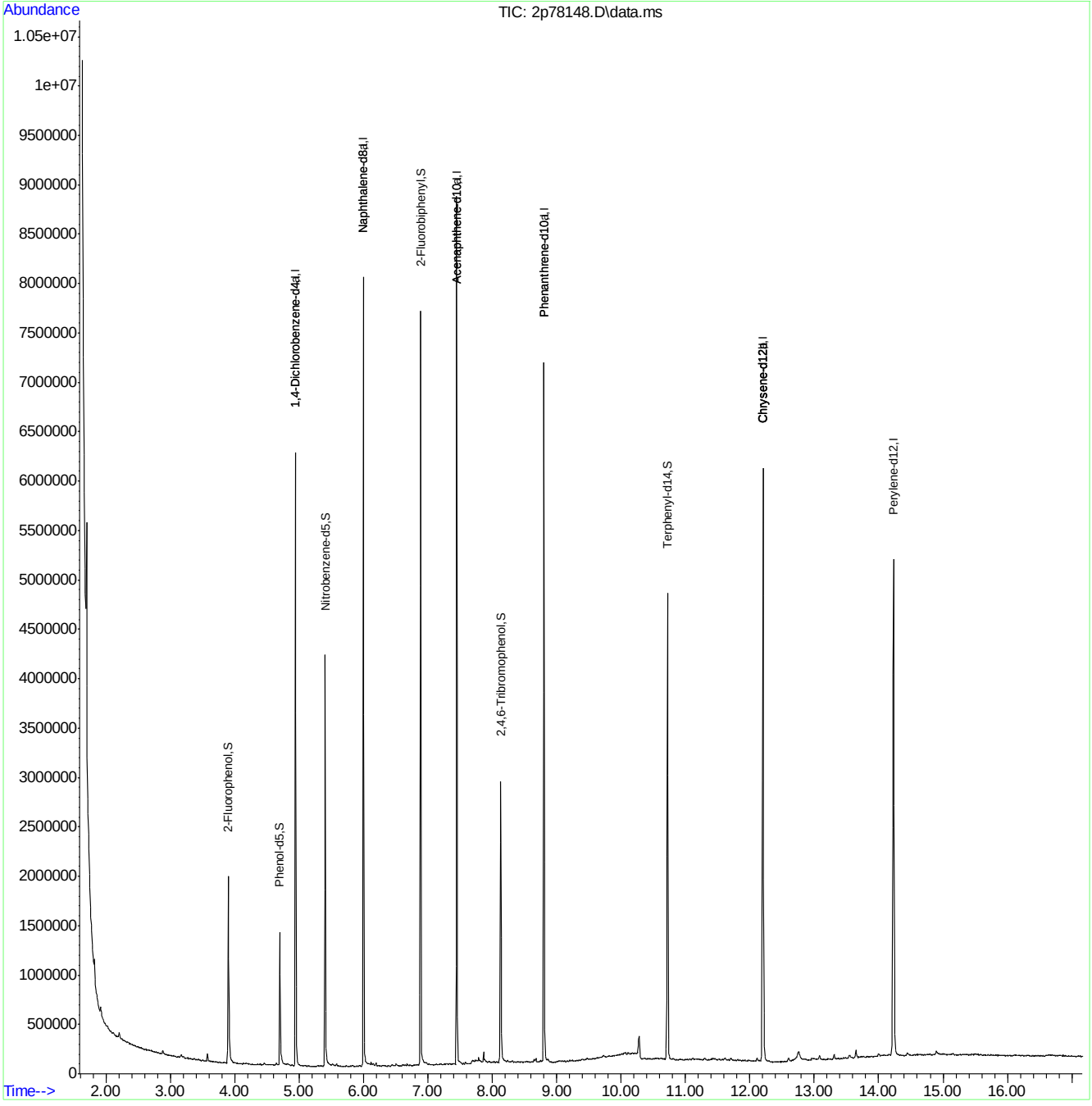
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78148.D
Acq On : 28 Mar 2018 11:04 pm
Operator : johnb1
Sample : jc62879-13
Misc : op10883,e2p3440,1020,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 29 13:19:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78149.D
Acq On : 28 Mar 2018 11:26 pm
Operator : johnb1
Sample : jc62879-14
Misc : op10883,e2p3440,1050,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 29 13:20:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	813642	40.00	ppm	-0.03
24) Naphthalene-d8	5.999	136	3001648	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1580117	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	2792464	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	2716747	40.00	ppm	-0.03
91) Perylene-d12	14.231	264	2535116	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.946	152	813642	40.00	ppm	-0.03
103) Naphthalene-d8a	5.999	136	3001648	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1580117	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2716747	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	2792464	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	2716747	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	603924	17.04	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 34.08%			
8) Phenol-d5	4.700	99	504220	11.86	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 23.72%			
25) Nitrobenzene-d5	5.406	82	1048307	31.66	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 63.32%#			
51) 2-Fluorobiphenyl	6.887	172	2162811	34.91	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 69.82%#			
73) 2,4,6-Tribromophenol	8.133	330	343044	40.55	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 81.10%#			
85) Terphenyl-d14	10.722	244	2373428	33.04	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 66.08%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			

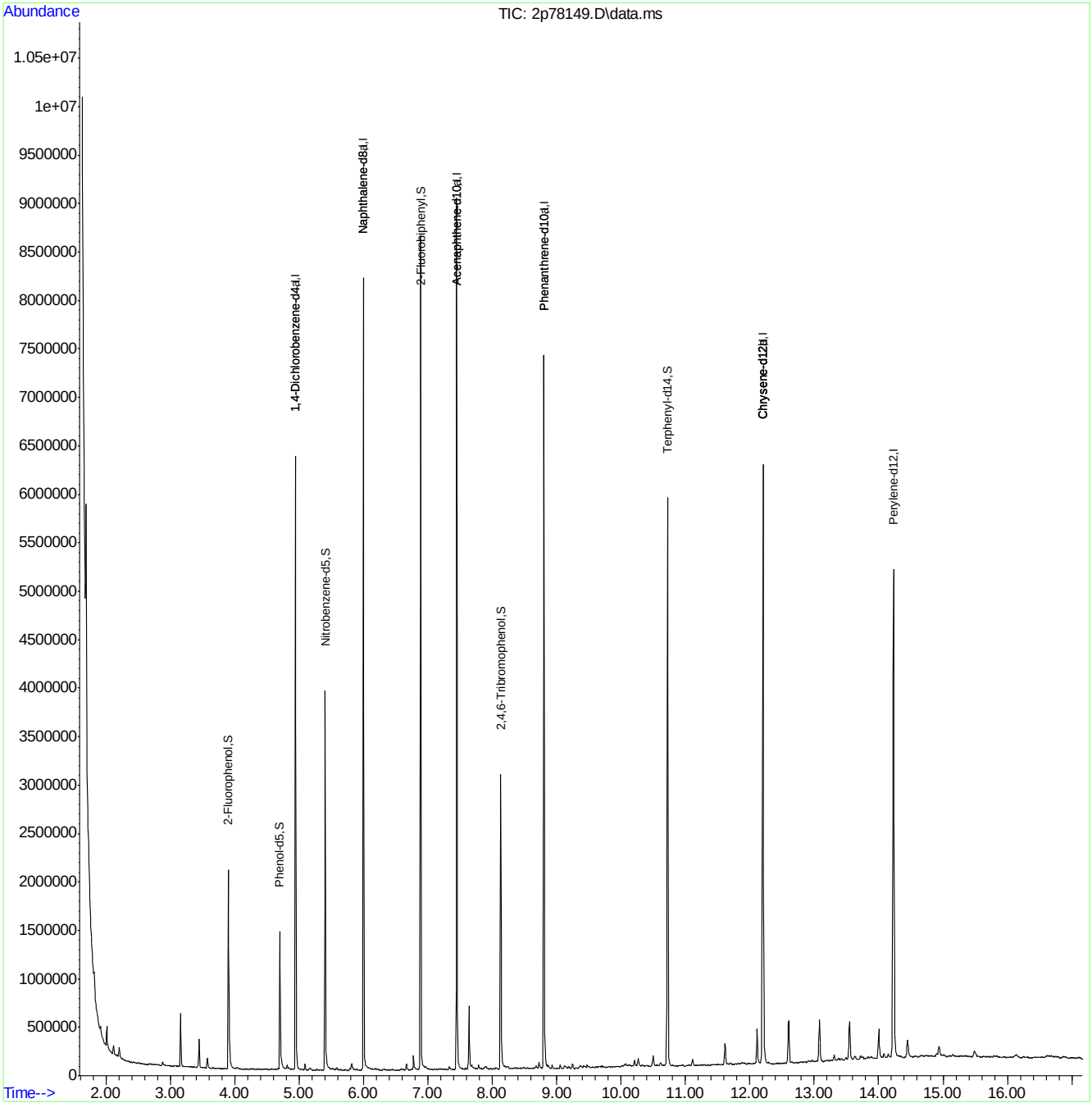
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78149.D
Acq On : 28 Mar 2018 11:26 pm
Operator : johnb1
Sample : jc62879-14
Misc : op10883,e2p3440,1050,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 29 13:20:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78150.D
Acq On : 28 Mar 2018 11:47 pm
Operator : johnb1
Sample : jc62879-15
Misc : op10883,e2p3440,1020,,,1,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 29 13:21:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	832056	40.00	ppm	-0.03
24) Naphthalene-d8	6.000	136	3075818	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1559725	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	2714589	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	2685853	40.00	ppm	-0.03
91) Perylene-d12	14.231	264	2545700	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.946	152	832056	40.00	ppm	-0.03
103) Naphthalene-d8a	6.000	136	3075818	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1559725	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2685853	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	2714589	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	2685853	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	623675	17.21	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 34.42%			
8) Phenol-d5	4.700	99	537827	12.37	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 24.74%			
25) Nitrobenzene-d5	5.406	82	1121588	33.06	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 66.12%#			
51) 2-Fluorobiphenyl	6.887	172	2208677	36.12	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 72.24%#			
73) 2,4,6-Tribromophenol	8.134	330	341337	41.50	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 83.00%#			
85) Terphenyl-d14	10.722	244	2231350	31.42	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 62.84%			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			

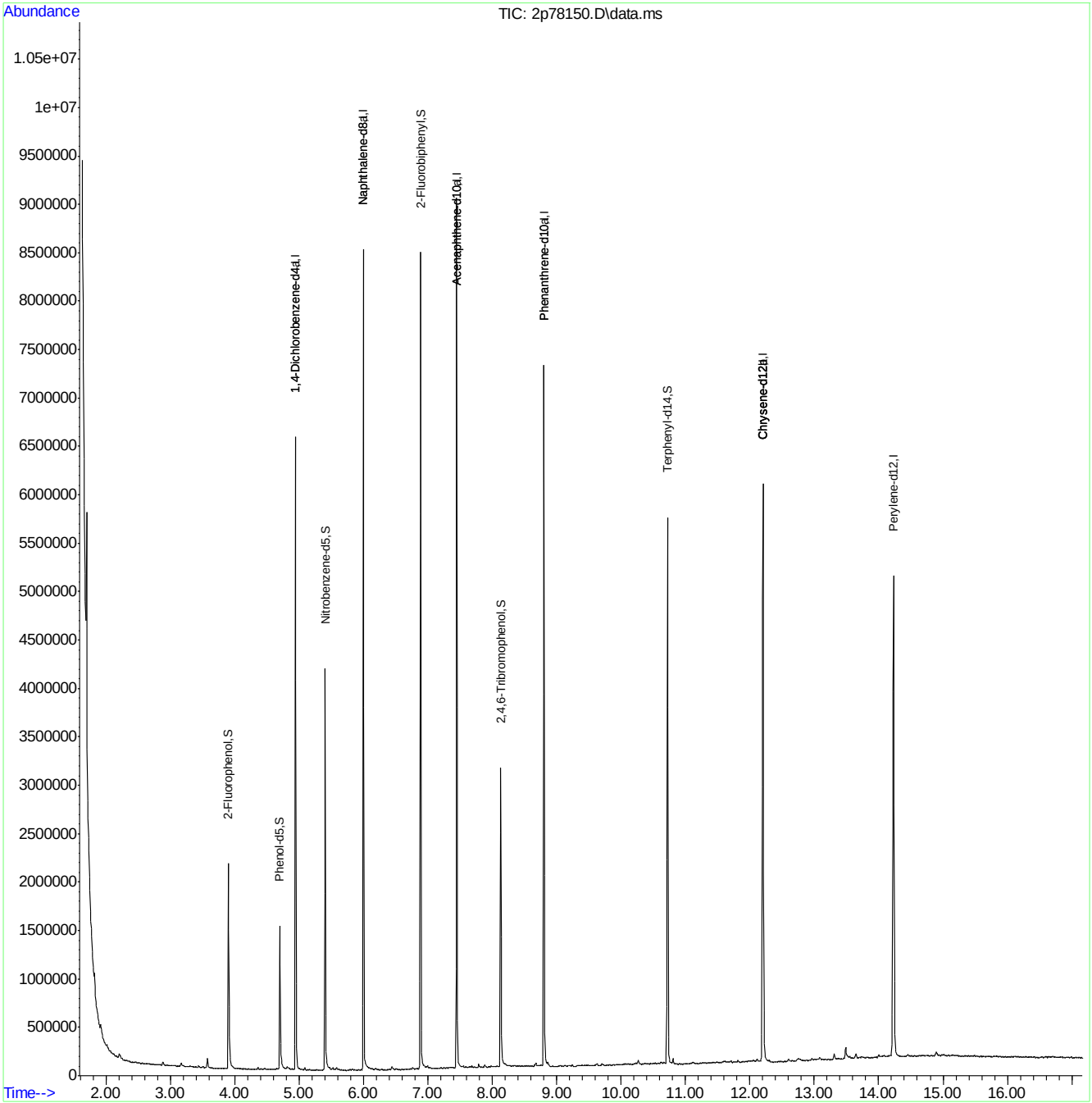
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78150.D
Acq On : 28 Mar 2018 11:47 pm
Operator : johnb1
Sample : jc62879-15
Misc : op10883,e2p3440,1020,,,1,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 29 13:21:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78151.D
Acq On : 29 Mar 2018 12:09 am
Operator : johnb1
Sample : jc62879-16
Misc : op10883,e2p3440,1050,,,1,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 29 13:22:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	806959	40.00	ppm	-0.03
24) Naphthalene-d8	5.999	136	2995152	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1564994	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	2665736	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	2623000	40.00	ppm	-0.03
91) Perylene-d12	14.231	264	2486947	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.946	152	806959	40.00	ppm	-0.03
103) Naphthalene-d8a	5.999	136	2995152	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1564994	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2623000	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	2665736	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	2623000	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	589948	16.78	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 33.56%			
8) Phenol-d5	4.700	99	500628	11.87	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 23.74%			
25) Nitrobenzene-d5	5.406	82	1025580	31.04	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 62.08%#			
51) 2-Fluorobiphenyl	6.887	172	2089774	34.06	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 68.12%#			
73) 2,4,6-Tribromophenol	8.134	330	361084	44.71	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 89.42%#			
85) Terphenyl-d14	10.722	244	2168948	31.27	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 62.54%			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			

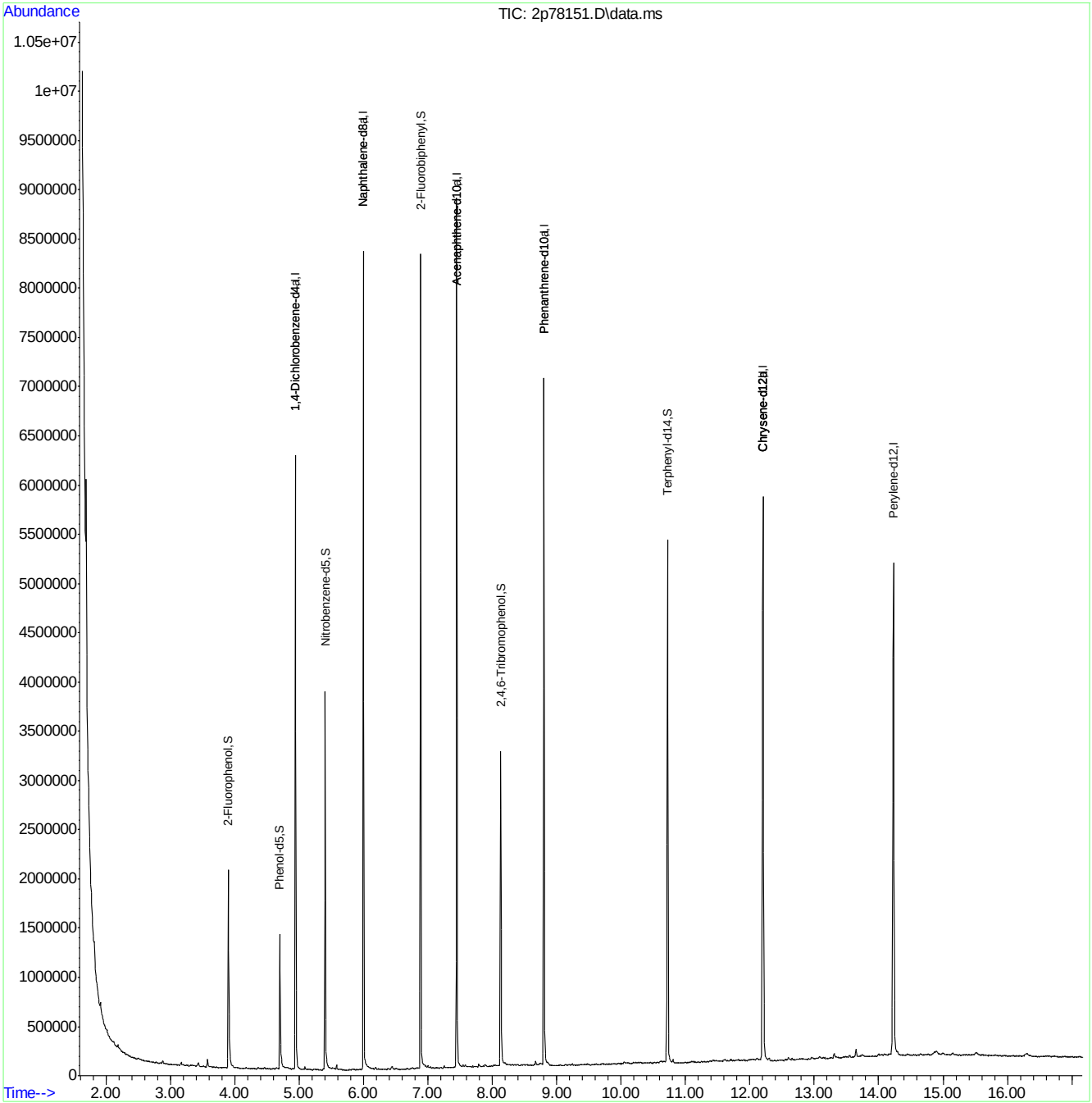
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78151.D
Acq On : 29 Mar 2018 12:09 am
Operator : johnb1
Sample : jc62879-16
Misc : op10883,e2p3440,1050,,,1,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 29 13:22:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78152.D
Acq On : 29 Mar 2018 12:30 am
Operator : johnb1
Sample : jc62879-17
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 29 13:23:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	841159	40.00	ppm	-0.03
24) Naphthalene-d8	5.999	136	3111114	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1617099	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	2836679	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	2644341	40.00	ppm	-0.03
91) Perylene-d12	14.236	264	2462447	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.946	152	841159	40.00	ppm	-0.03
103) Naphthalene-d8a	5.999	136	3111114	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1617099	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2644341	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	2836679	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	2644341	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	542399	14.80	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 29.60%			
8) Phenol-d5	4.700	99	459181	10.45	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 20.90%			
25) Nitrobenzene-d5	5.406	82	908853	26.48	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 52.96%			
51) 2-Fluorobiphenyl	6.887	172	1964803	30.99	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 61.98%#			
73) 2,4,6-Tribromophenol	8.133	330	351213	40.86	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 81.72%#			
85) Terphenyl-d14	10.722	244	1810166	25.89	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 51.78%			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			

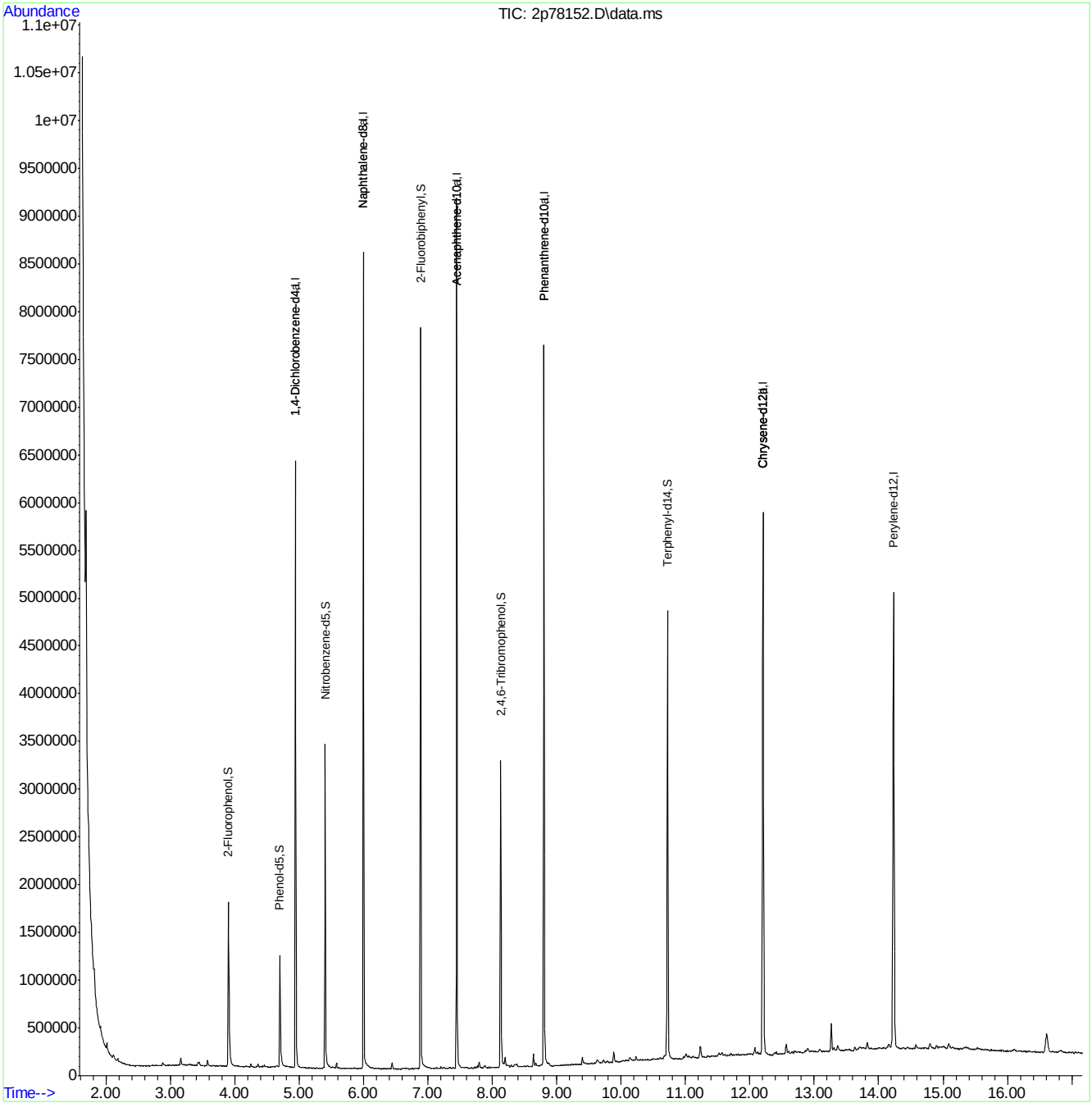
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78152.D
Acq On : 29 Mar 2018 12:30 am
Operator : johnb1
Sample : jc62879-17
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 29 13:23:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78153.D
Acq On : 29 Mar 2018 12:51 am
Operator : johnb1
Sample : jc62879-18
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 29 13:24:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	826055	40.00	ppm	-0.03
24) Naphthalene-d8	5.999	136	3018711	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1556409	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	2692710	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	2609204	40.00	ppm	-0.03
91) Perylene-d12	14.236	264	2419286	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.946	152	826055	40.00	ppm	-0.03
103) Naphthalene-d8a	5.999	136	3018711	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1556409	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2609204	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	2692710	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	2609204	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	649199	18.04	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 36.08%			
8) Phenol-d5	4.700	99	578053	13.39	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 26.78%			
25) Nitrobenzene-d5	5.406	82	982614	29.51	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 59.02%			
51) 2-Fluorobiphenyl	6.887	172	1988666	32.59	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 65.18%#			
73) 2,4,6-Tribromophenol	8.134	330	348211	42.68	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 85.36%#			
85) Terphenyl-d14	10.722	244	1886985	27.35	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 54.70%			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			

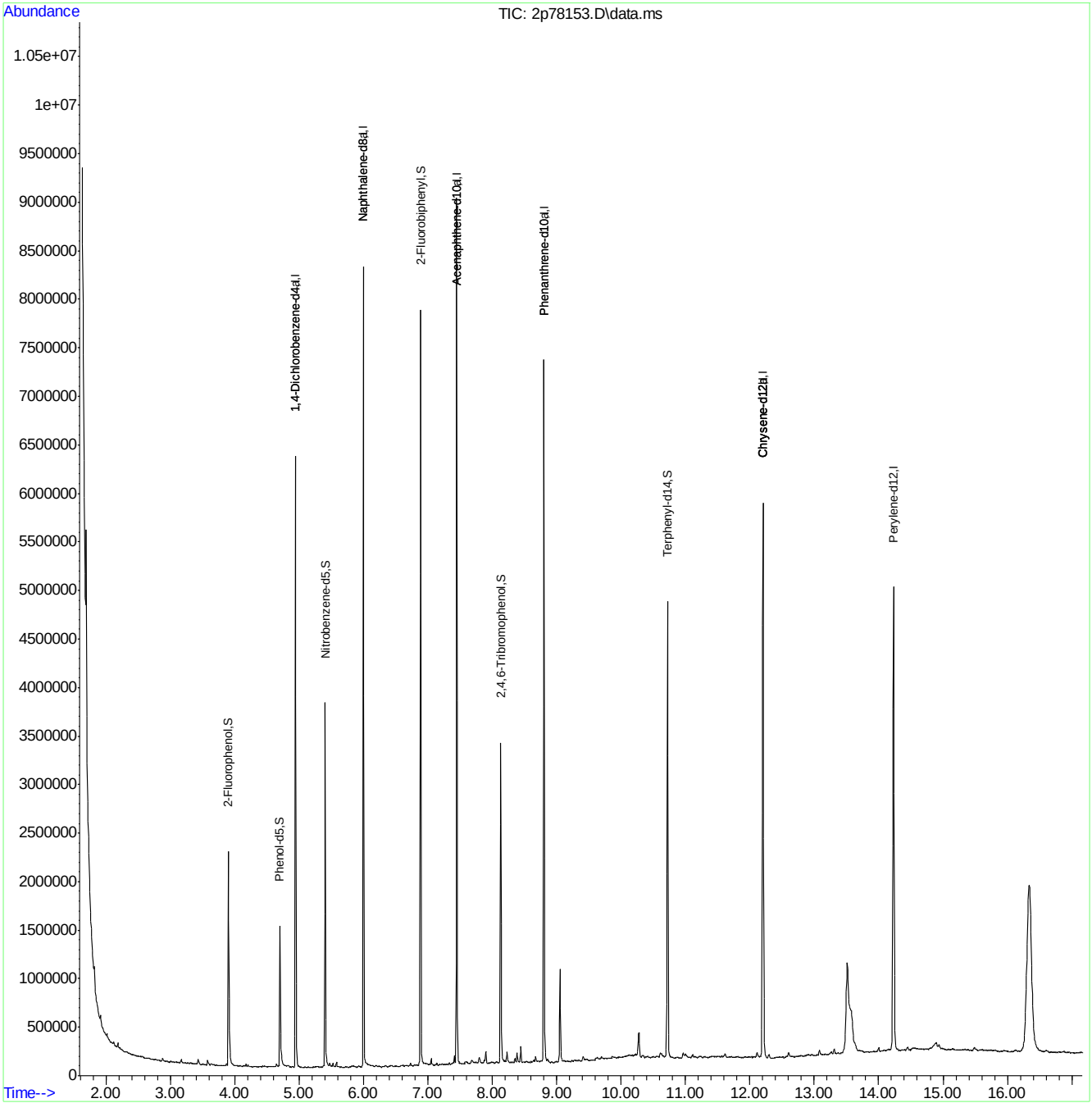
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78153.D
Acq On : 29 Mar 2018 12:51 am
Operator : johnb1
Sample : jc62879-18
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 29 13:24:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78154.D
Acq On : 29 Mar 2018 1:13 am
Operator : johnb1
Sample : jc62879-20
Misc : op10883,e2p3440,1020,,,1,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 29 13:25:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

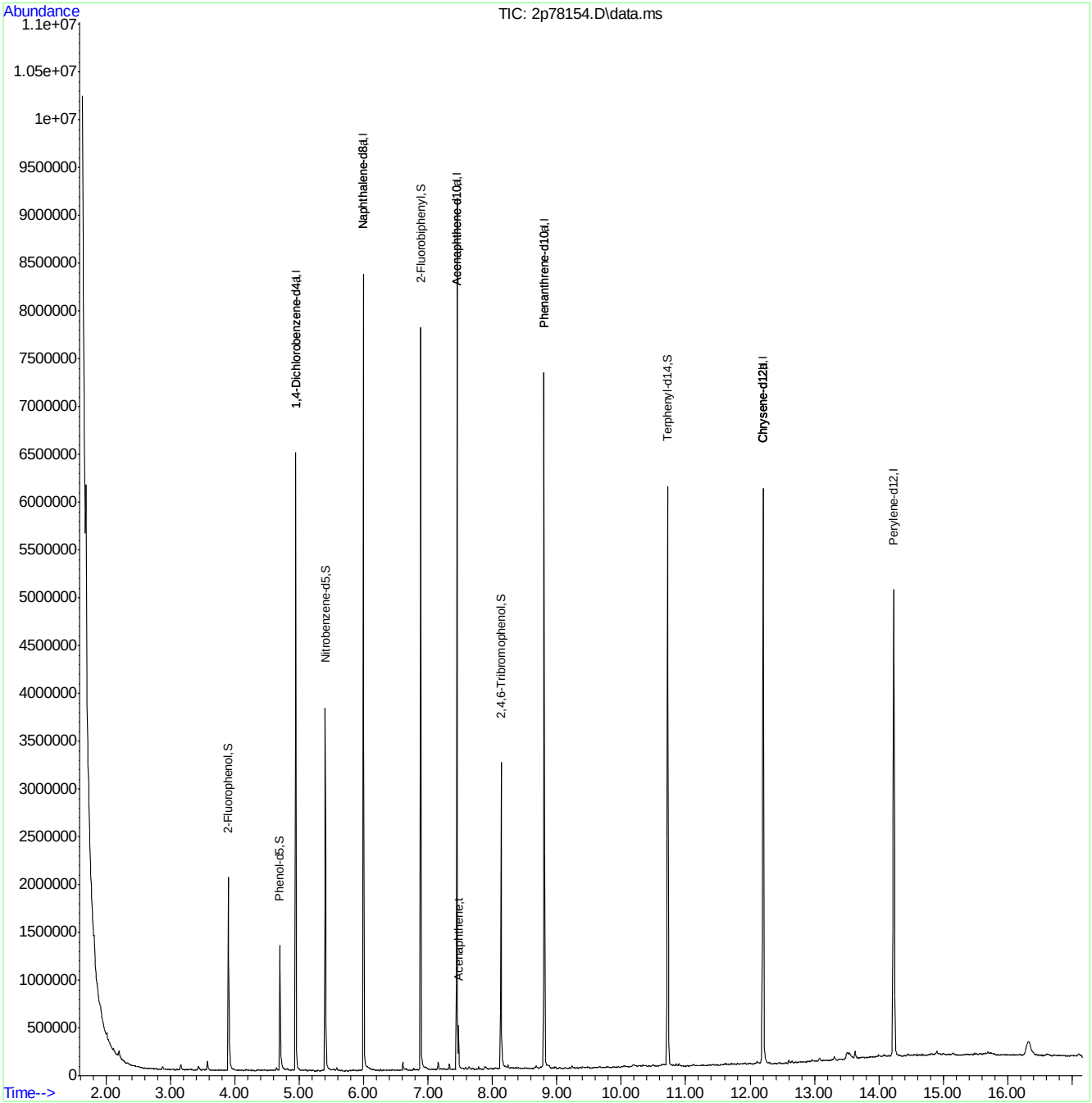
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	833716	40.00	ppm	-0.03
24) Naphthalene-d8	6.000	136	3028232	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1585108	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	2750055	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	2717547	40.00	ppm	-0.03
91) Perylene-d12	14.231	264	2481265	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.946	152	833716	40.00	ppm	-0.03
103) Naphthalene-d8a	6.000	136	3028232	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1585108	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	2717547	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	2750055	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	2717547	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	609763	16.79	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 33.58%			
8) Phenol-d5	4.700	99	500572	11.49	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 22.98%			
25) Nitrobenzene-d5	5.406	82	1023043	30.63	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 61.26%#			
51) 2-Fluorobiphenyl	6.887	172	1968809	31.68	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 63.36%#			
73) 2,4,6-Tribromophenol	8.134	330	349743	41.97	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 83.94%#			
85) Terphenyl-d14	10.722	244	2428519	33.80	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 67.60%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
59) Acenaphthene	7.476	153	85311	1.59	ppm	94

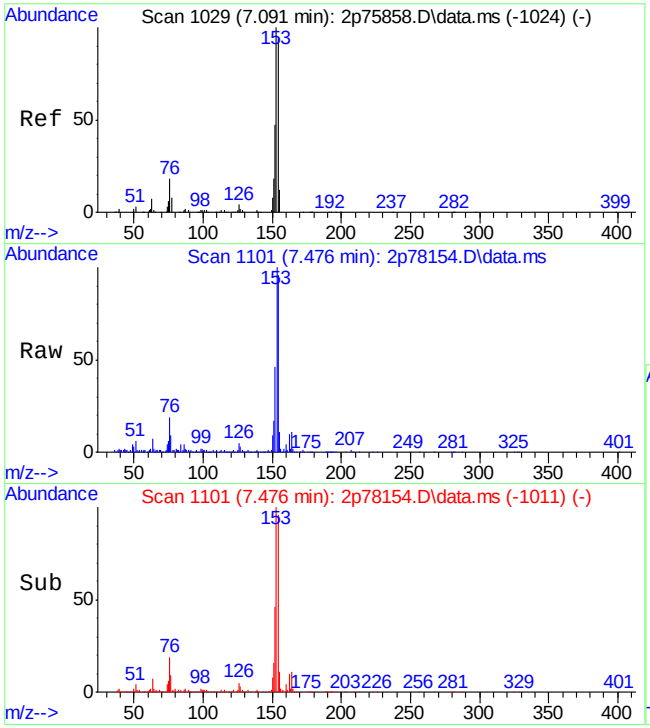
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78154.D
Acq On : 29 Mar 2018 1:13 am
Operator : johnb1
Sample : jc62879-20
Misc : op10883,e2p3440,1020,,,1,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 29 13:25:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

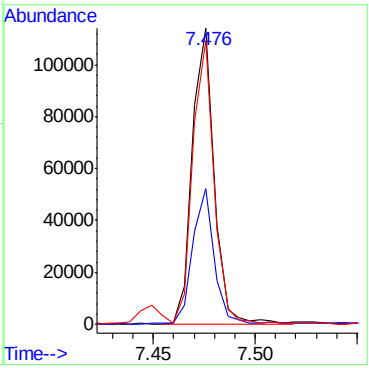




#59
Acenaphthene
Concen: 1.59 ppm
RT: 7.476 min Scan# 1101
Delta R.T. -0.020 min
Lab File: 2p78154.D
Acq: 29 Mar 2018 1:13 am

Tgt Ion:153 Resp: 85311

Ion	Ratio	Lower	Upper
153	100		
152	45.7	13.5	73.5
154	94.4	57.1	117.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175213.D
Acq On : 27 Mar 2018 1:20 pm
Operator : johnb1
Sample : op10877-mb1
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 01 16:52:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration

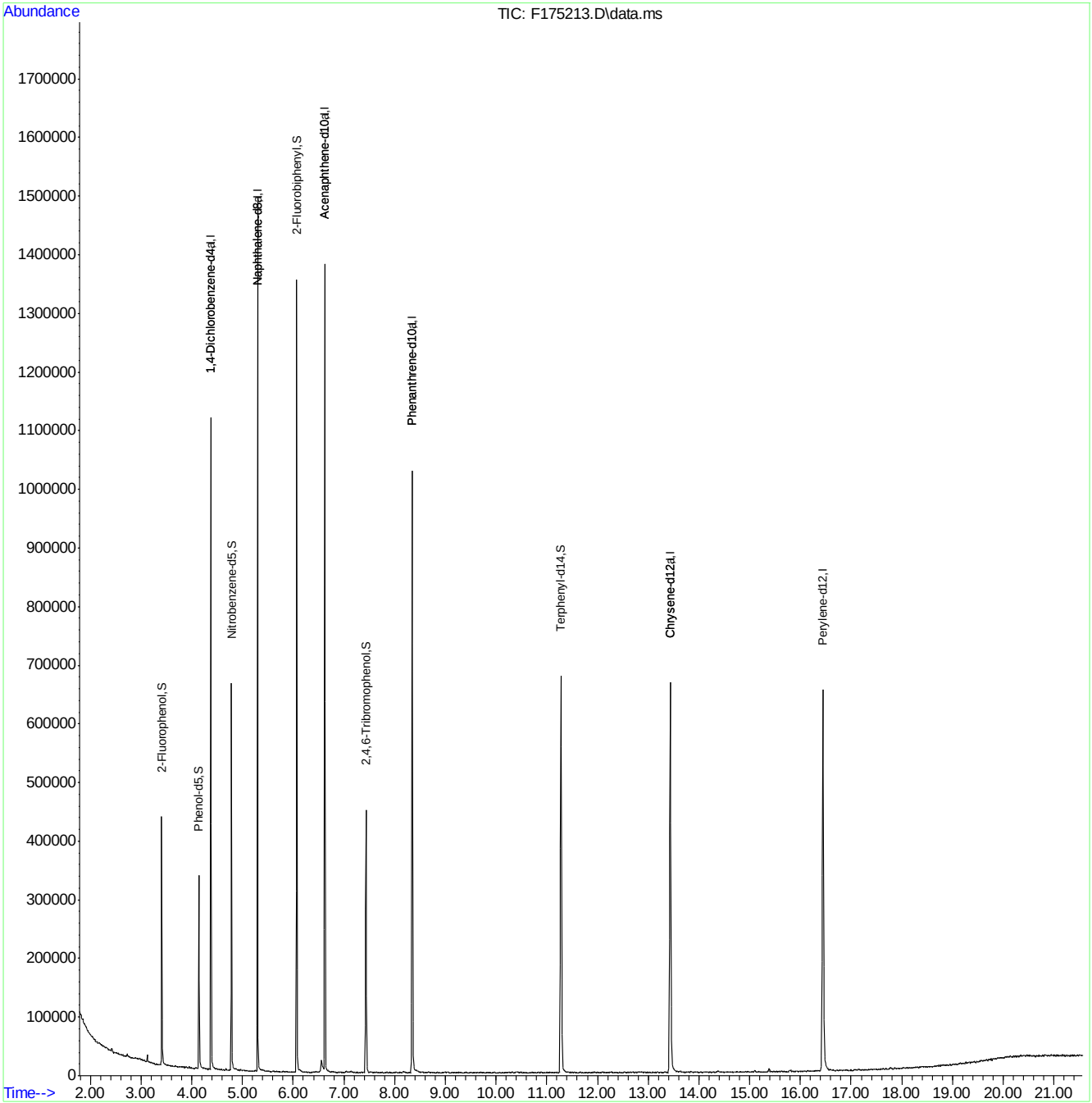
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.378	152	130109	40.00	ppm	0.00
24) Naphthalene-d8	5.297	136	490657	40.00	ppm	0.00
47) Acenaphthene-d10	6.622	164	260446	40.00	ppm	0.00
69) Phenanthrene-d10	8.348	188	447603	40.00	ppm	0.00
83) Chrysene-d12	13.433	240	397409	40.00	ppm	-0.01
91) Perylene-d12	16.446	264	418928	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.378	152	130109	40.00	ppm	-0.05
103) Phenanthrene-d10a	8.348	188	447603	40.00	ppm	-0.10
105) Chrysene-d12a	13.433	240	397409	40.00	ppm	-0.13
107) Naphthalene-d8a	5.297	136	490657	40.00	ppm	-0.05
109) Acenaphthene-d10a	6.622	164	260446	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.406	112	109938	26.14	ppm	-0.06
Spiked Amount 50.000			Recovery = 52.28%			
8) Phenol-d5	4.138	99	95763	17.44	ppm	0.00
Spiked Amount 50.000			Recovery = 34.88%			
25) Nitrobenzene-d5	4.779	82	176745	33.90	ppm	-0.02
Spiked Amount 50.000			Recovery = 67.80%			
51) 2-Fluorobiphenyl	6.066	172	348773	34.93	ppm	0.02
Spiked Amount 50.000			Recovery = 69.86%			
73) 2,4,6-Tribromophenol	7.434	330	56765	43.14	ppm	0.00
Spiked Amount 50.000			Recovery = 86.28%			
85) Terphenyl-d14	11.281	244	357445	40.57	ppm	0.00
Spiked Amount 50.000			Recovery = 81.14%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175213.D
Acq On : 27 Mar 2018 1:20 pm
Operator : johnb1
Sample : op10877-mb1
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 01 16:52:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78131.D
Acq On : 28 Mar 2018 4:16 pm
Operator : johnb1
Sample : op10883-mb1
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 29 12:32:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

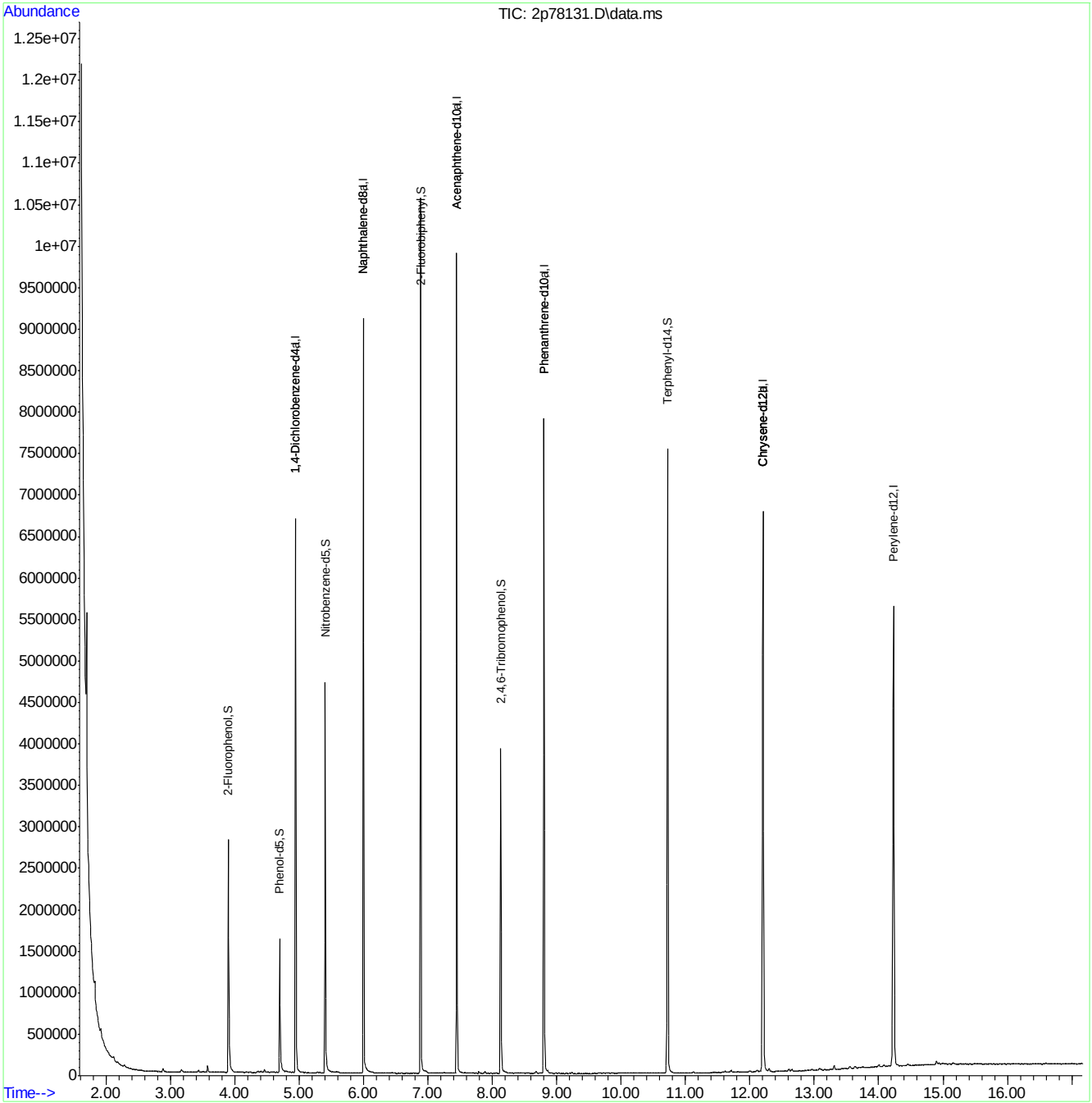
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	920239	40.00	ppm	-0.03
24) Naphthalene-d8	6.000	136	3323722	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1739098	40.00	ppm	-0.02
69) Phenanthrene-d10	8.802	188	3084709	40.00	ppm	-0.03
83) Chrysene-d12	12.204	240	3085982	40.00	ppm	-0.03
91) Perylene-d12	14.231	264	2802746	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.946	152	920239	40.00	ppm	-0.03
103) Naphthalene-d8a	6.000	136	3323722	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1739098	40.00	ppm	-0.02
108) Chrysene-d12a	12.204	240	3085982	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.802	188	3084709	40.00	ppm	-0.03
114) Chrysene-d12b	12.204	240	3085982	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.903	112	769562	19.20	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 38.40%			
8) Phenol-d5	4.700	99	618163	12.86	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 25.72%			
25) Nitrobenzene-d5	5.406	82	1368539	37.33	ppm	-0.03
Spiked Amount 50.000	Range 19 - 61		Recovery = 74.66%#			
51) 2-Fluorobiphenyl	6.887	172	2603582	38.19	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 76.38%#			
73) 2,4,6-Tribromophenol	8.134	330	412573	44.14	ppm	-0.02
Spiked Amount 50.000	Range 12 - 68		Recovery = 88.28%#			
85) Terphenyl-d14	10.722	244	3012909	36.92	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 73.84%#			
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78131.D
Acq On : 28 Mar 2018 4:16 pm
Operator : johnb1
Sample : op10883-mb1
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 29 12:32:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
04/02/18 20:41

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175214.D
Acq On : 27 Mar 2018 2:42 pm
Operator : johnb1
Sample : op10877-bs1
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 16:59:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.378	152	132051	40.00	ppm	0.00
24) Naphthalene-d8	5.297	136	482767	40.00	ppm	0.00
47) Acenaphthene-d10	6.627	164	250805	40.00	ppm	0.00
69) Phenanthrene-d10	8.358	188	418653	40.00	ppm	0.00
83) Chrysene-d12	13.449	240	359004	40.00	ppm	0.00
91) Perylene-d12	16.457	264	385953	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.378	152	132051	40.00	ppm	-0.05
103) Phenanthrene-d10a	8.358	188	418653	40.00	ppm	-0.08
105) Chrysene-d12a	13.449	240	359004	40.00	ppm	-0.11
107) Naphthalene-d8a	5.297	136	482767	40.00	ppm	-0.05
109) Acenaphthene-d10a	6.627	164	250805	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.406	112	146639	34.36	ppm	-0.06
Spiked Amount 50.000			Recovery = 68.72%			
8) Phenol-d5	4.138	99	128303	23.02	ppm	0.00
Spiked Amount 50.000			Recovery = 46.04%			
25) Nitrobenzene-d5	4.784	82	199016	38.79	ppm	-0.02
Spiked Amount 50.000			Recovery = 77.58%			
51) 2-Fluorobiphenyl	6.072	172	377299	39.24	ppm	0.03
Spiked Amount 50.000			Recovery = 78.48%			
73) 2,4,6-Tribromophenol	7.445	330	61329	49.84	ppm	0.02
Spiked Amount 50.000			Recovery = 99.68%			
85) Terphenyl-d14	11.291	244	345932	43.46	ppm	0.00
Spiked Amount 50.000			Recovery = 86.92%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.835	88	57258	25.23	ppm	97
3) Pyridine	2.183	79	139338	26.57	ppm	99
4) N-Nitrosodimethylamine	2.145	42	43709	27.01	ppm	90
6) Indene	4.565	116	348334	44.40	ppm	98
7) Cumene	3.785	105	399667	35.64	ppm	99
9) Phenol	4.149	94	143088	22.09	ppm	81
10) Aniline	4.138	93	141923	21.14	ppm	92
11) bis(2-Chloroethyl)ether	4.186	93	183085	41.62	ppm	95
12) 2-Chlorophenol	4.234	128	202341	42.35	ppm	100
13) Decane	4.271	43	97957	28.66	ppm	96
14) 1,3-Dichlorobenzene	4.336	146	189979	35.35	ppm	100
15) 1,4-Dichlorobenzene	4.394	146	198600	35.86	ppm	100
16) Benzyl alcohol	4.490	108	123172	42.61	ppm	95
17) 1,2-Dichlorobenzene	4.501	146	189662	37.19	ppm	97
18) Acetophenone	4.672	105	259557	41.31	ppm	97
19) 2-Methylphenol	4.587	108	160904	36.77	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.587	121	55859	44.17	ppm #	71
21) 3&4-Methylphenol	4.693	108	170424	36.37	ppm	99
22) n-Nitroso-di-n-propyla...	4.677	70	124593	34.43	ppm	97
23) Hexachloroethane	4.747	201	52420	33.66	ppm	95
26) Nitrobenzene	4.795	77	193110	38.69	ppm	99
27) Quinoline	5.554	129	387327	43.32	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175214.D
Acq On : 27 Mar 2018 2:42 pm
Operator : johnb1
Sample : op10877-bs1
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 16:59:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	4.971	82	334265	40.67	ppm	95
29) 2-Nitrophenol	5.030	139	109022	47.93	ppm	88
30) 2,4-Dimethylphenol	5.073	107	184884	44.25	ppm	96
31) Benzoic acid	5.153	105	85651	24.63	ppm	96
32) bis(2-Chloroethoxy)met...	5.126	93	205118	43.79	ppm	99
33) 2,4-Dichlorophenol	5.212	162	154249	44.63	ppm	98
34) 2,6-Dichlorophenol	5.367	162	156990	45.29	ppm	98
36) 1,2,4-Trichlorobenzene	5.260	180	145762	38.73	ppm	99
38) Naphthalene	5.313	128	526247	38.88	ppm	100
39) 4-Chloroaniline	5.356	127	86549	15.84	ppm	93
40) 2,3-Dichloroaniline	6.013	161	157793	37.43	ppm	98
41) Caprolactam	5.602	55	19111	12.39	ppm	97
42) Hexachlorobutadiene	5.409	225	70109	36.56	ppm	99
43) 4-Chloro-3-methylphenol	5.714	107	159748	43.22	ppm	98
44) 2-Methylnaphthalene	5.805	141	277832	38.64	ppm	98
45) 1-Methylnaphthalene	5.879	142	335943	38.07	ppm	99
46) Dimethylnaphthalene	6.269	156	310975	41.46	ppm	97
48) Hexachlorocyclopentadiene	5.922	237	133699	76.30	ppm	99
49) 2,4,6-Trichlorophenol	6.018	196	98560	44.53	ppm	97
50) 2,4,5-Trichlorophenol	6.050	196	110615	45.17	ppm	97
52) 2-Chloronaphthalene	6.163	162	297846	38.14	ppm	97
53) Biphenyl	6.147	154	431252	43.01	ppm	100
54) 2-Nitroaniline	6.248	65	95531	41.87	ppm	96
55) Dimethylphthalate	6.392	163	361074	43.12	ppm	99
56) Acenaphthylene	6.499	152	517007	41.25	ppm	100
57) 2,6-Dinitrotoluene	6.440	165	81583	46.15	ppm	99
58) 3-Nitroaniline	6.590	138	50701	23.55	ppm	94
59) Acenaphthene	6.654	153	330875	41.21	ppm	97
60) 2,4-Dinitrophenol	6.686	184	100901	91.57	ppm	86
61) 4-Nitrophenol	6.766	109	31329m	28.08	ppm	
62) Dibenzofuran	6.820	168	447466	40.30	ppm	93
63) 2,4-Dinitrotoluene	6.809	165	108915	45.34	ppm	98
64) 2,3,4,6-Tetrachlorophenol	6.948	232	86618	47.75	ppm	98
65) Diethylphthalate	7.055	149	367099	42.61	ppm	100
66) Fluorene	7.167	166	341107	40.43	ppm	99
67) 4-Chlorophenyl-phenyle...	7.172	204	146805	40.97	ppm	99
68) 4-Nitroaniline	7.199	138	95009	43.37	ppm	95
70) 4,6-Dinitro-2-methylph...	7.231	198	66233	44.72	ppm	98
71) n-Nitrosodiphenylamine	7.306	169	255382	43.63	ppm	99
72) 1,2-Diphenylhydrazine	7.349	77	358807m	38.44	ppm	
74) 4-Bromophenyl-phenylether	7.755	248	89732	42.35	ppm	96
75) Hexachlorobenzene	7.835	284	106633	40.32	ppm	91
76) Pentachlorophenol	8.107	266	78104	55.67	ppm	97
77) Phenanthrene	8.390	178	497710	40.60	ppm	99
78) Anthracene	8.465	178	496181	41.82	ppm	100
79) Carbazole	8.732	167	492817	42.80	ppm	100
80) Di-n-butylphthalate	9.411	149	568148	42.66	ppm	100
81) Fluoranthene	10.431	202	489417	43.83	ppm	97
82) Octadecane	8.289	57	167402	37.70	ppm	98
84) Pyrene	10.853	202	511173	42.64	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175214.D
Acq On : 27 Mar 2018 2:42 pm
Operator : johnb1
Sample : op10877-bs1
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 16:59:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration

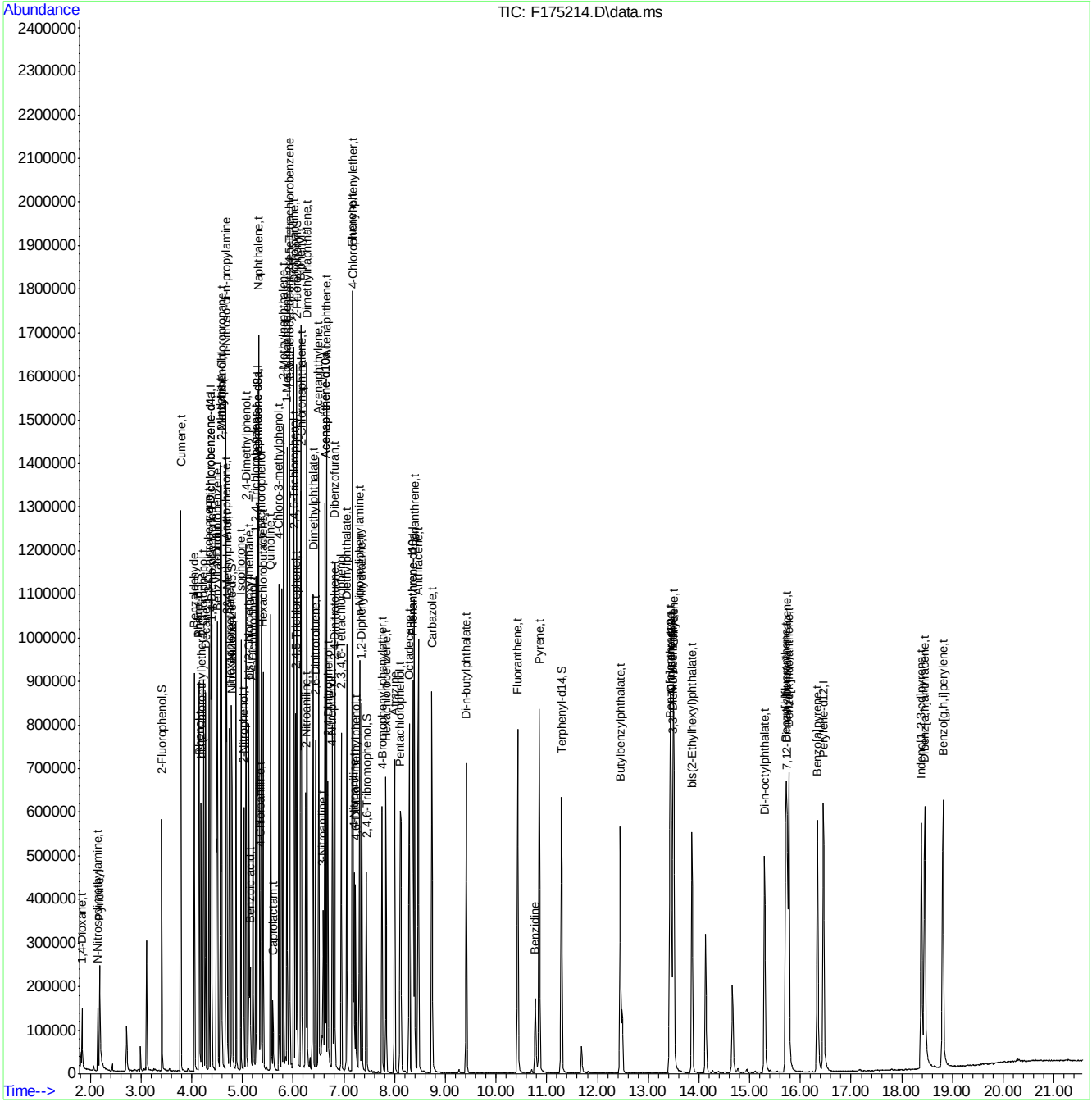
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) Butylbenzylphthalate	12.450	149	236753	42.08	ppm	98
87) Benzo[a]anthracene	13.428	228	416921	41.67	ppm	98
88) 3,3'-Dichlorobenzidine	13.487	252	152317	41.21	ppm	98
89) Chrysene	13.503	228	442365	40.58	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.861	149	316806	38.35	ppm	99
92) Di-n-octylphthalate	15.298	149	525060	37.48	ppm	99
93) Benzo[b]fluoranthene	15.715	252	449634	42.82	ppm	98
94) Benzo[k]fluoranthene	15.773	252	456157	40.45	ppm	98
95) Benzo[a]pyrene	16.340	252	402268	44.09	ppm	98
96) Indeno[1,2,3-cd]pyrene	18.386	276	393569	42.96	ppm	99
98) Dibenz[a,h]anthracene	18.455	278	429261	48.05	ppm	96
99) 7,12-Dimethylbenz(a)an...	15.741	256	177378	38.28	ppm	99
100) Benzo[g,h,i]perylene	18.813	276	454248	50.49	ppm	99
102) Benzaldehyde	4.052	105	136322	36.09	ppm	99
104) Atrazine	8.000	200	95091	48.42	ppm	97
106) Benzidine	10.773	184	120818	18.76	ppm	99
110) 1,2,4,5-Tetrachloroben...	5.928	216	144871	36.32	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175214.D
Acq On : 27 Mar 2018 2:42 pm
Operator : johnb1
Sample : op10877-bs1
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 16:59:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration



Manual Integration Approval Summary

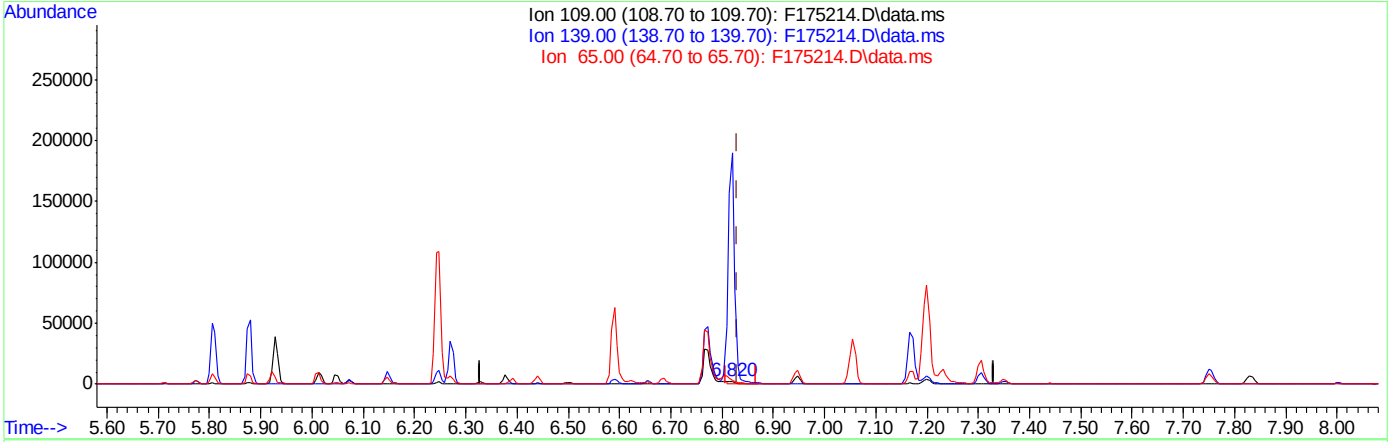
Sample Number:	OP10877-BS1	**Method:**	SW846 8270D
Lab FileID:	F175214.D	**Analyst approved:**	04/01/18 17:14 Dipa Patel
Injection Time:	03/27/18 14:42	**Supervisor approved:**	04/02/18 20:41 Nina Pandya

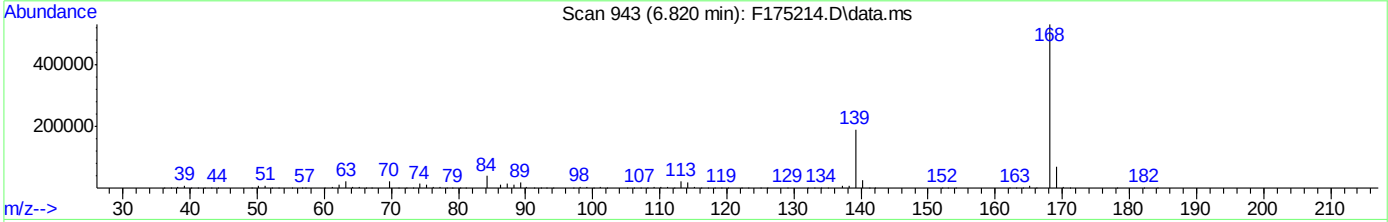
Parameter	CAS	Sig#	R.T. (min.)	Reason
4-Nitrophenol	100-02-7		6.77	Missed peak
1,2-Diphenylhydrazine	122-66-7		7.35	Missed peak

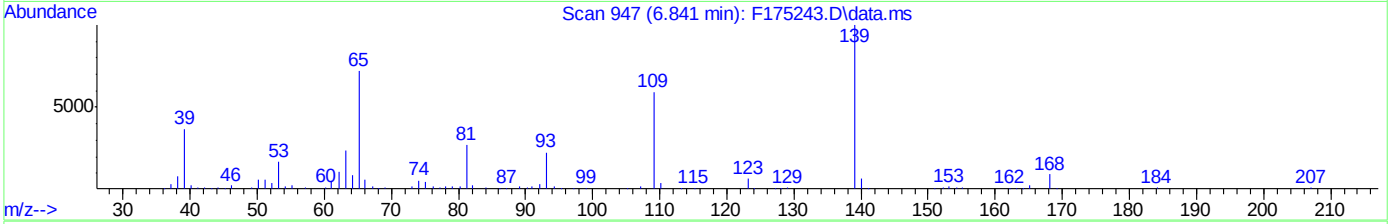
Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175214.D
Acq On : 27 Mar 2018 2:42 pm
Operator : johnb1
Sample : op10877-bs1
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 16:57:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration







TIC: F175214.D\data.ms

(61) 4-Nitrophenol (t)

6.820min (-0.011) 2.78ppm

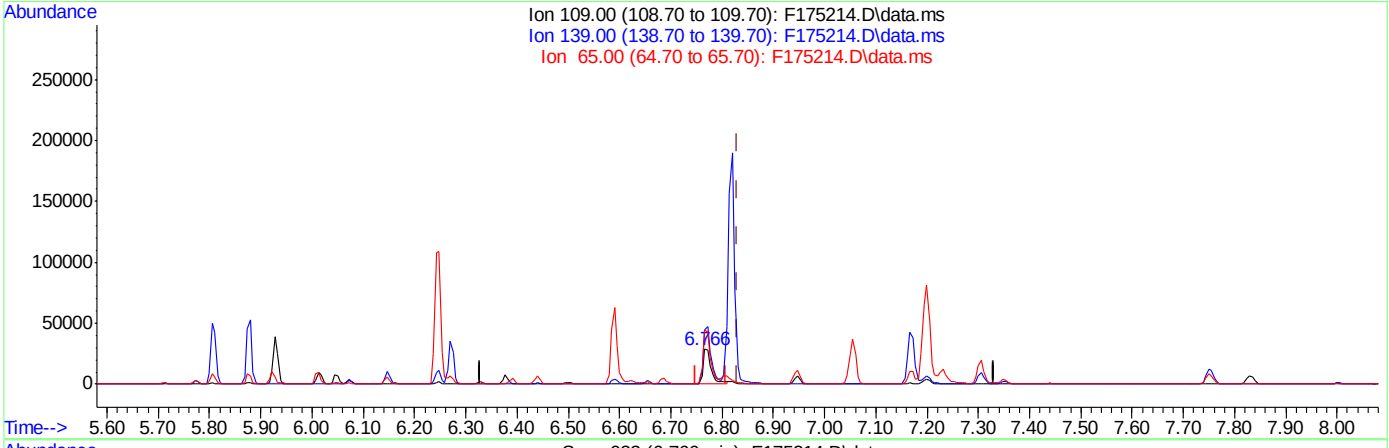
response 3100

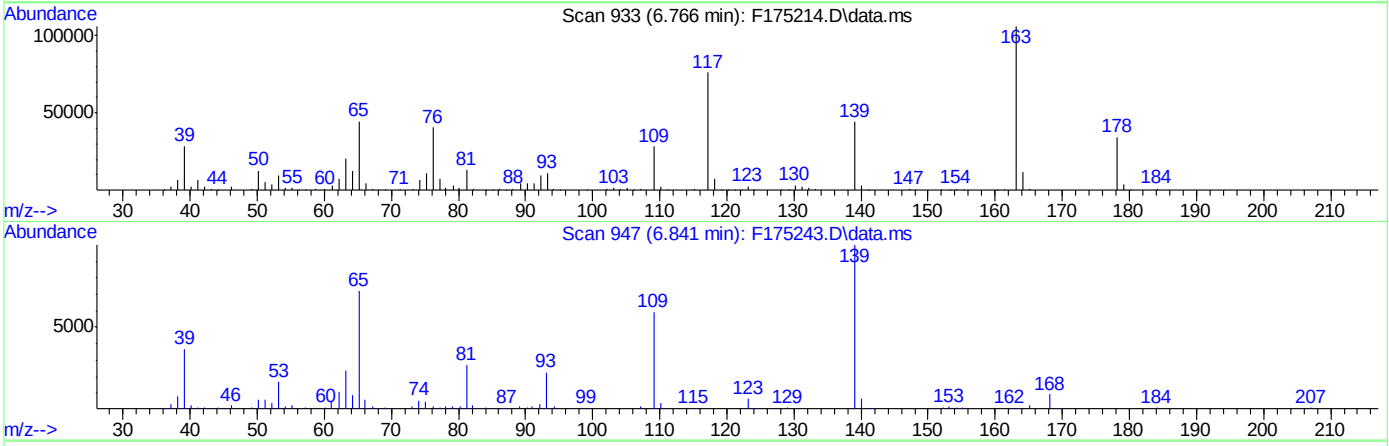
Ion	Exp%	Act%
109.00	100	100
139.00	168.00	11478.17#
65.00	120.80	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175214.D
Acq On : 27 Mar 2018 2:42 pm
Operator : johnb1
Sample : op10877-bs1
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 16:57:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration





TIC: F175214.D\data.ms

(61) 4-Nitrophenol (t)

6.766min (-0.064) 28.08ppm m

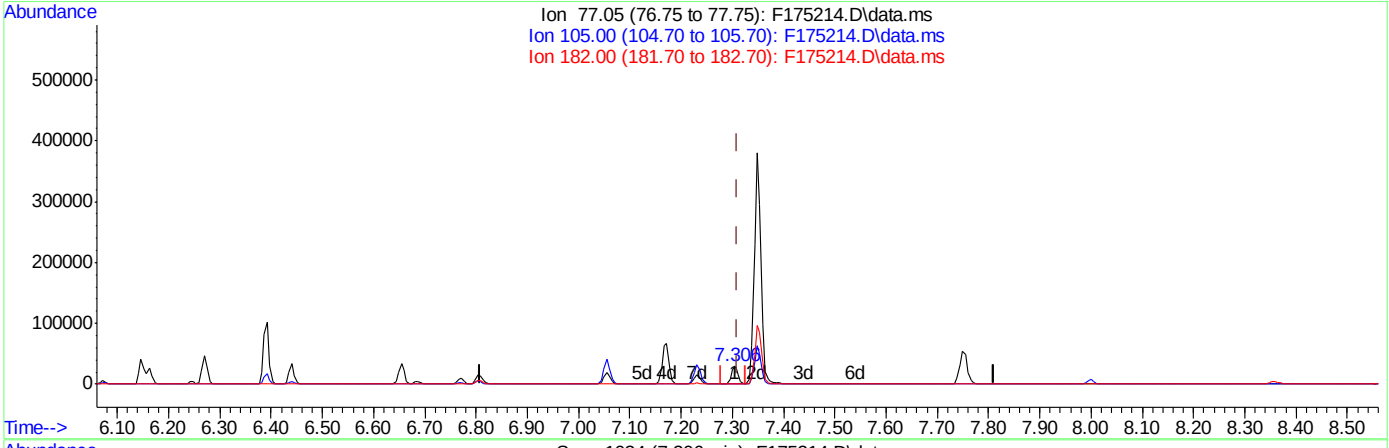
response 31329

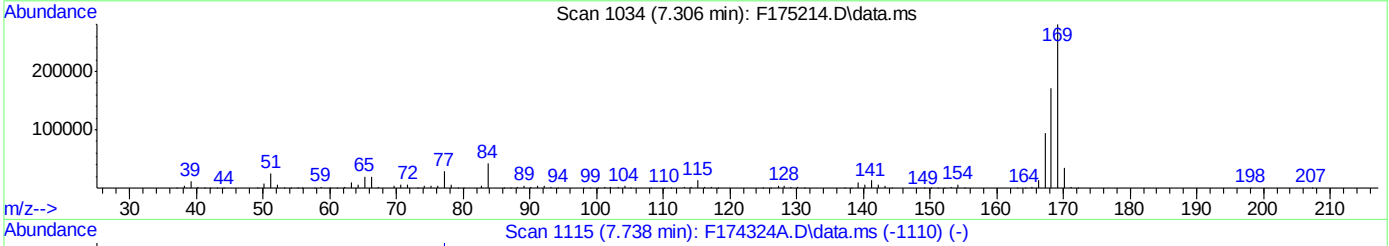
Ion	Exp%	Act%
109.00	100	100
139.00	168.00	155.81
65.00	120.80	157.25#
0.00	0.00	0.00

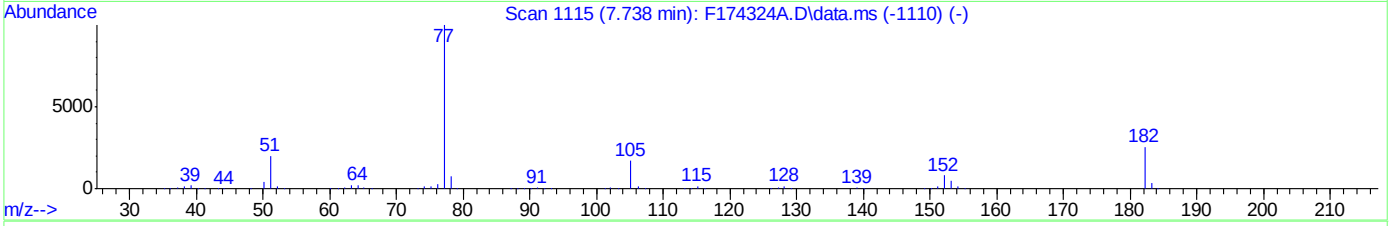
Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175214.D
Acq On : 27 Mar 2018 2:42 pm
Operator : johnb1
Sample : op10877-bs1
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 16:57:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration







TIC: F175214.D\data.ms

(72) 1,2-Diphenylhydrazine (t)

7.306min (-0.004) 2.86ppm

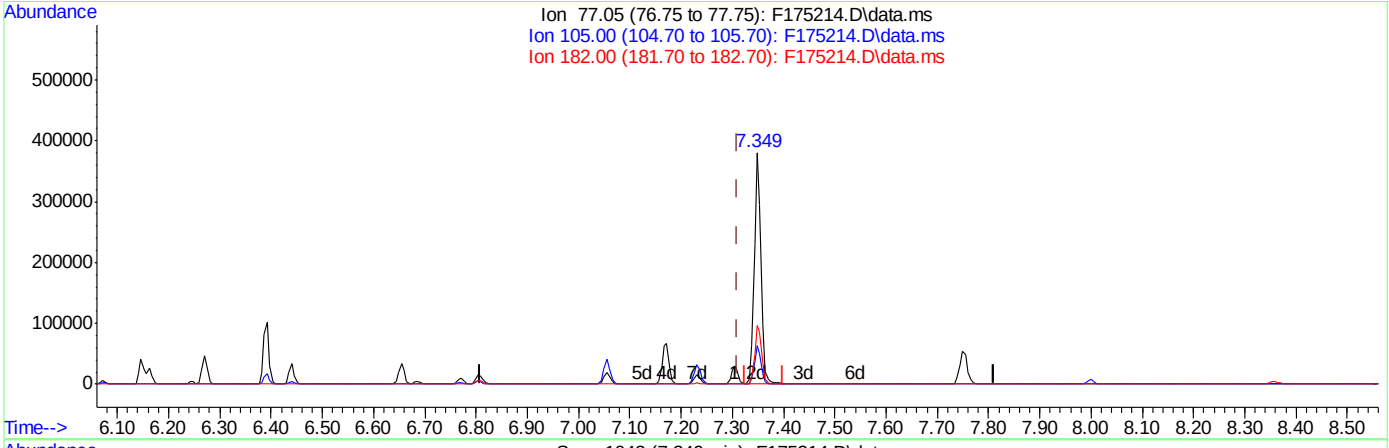
response 26657

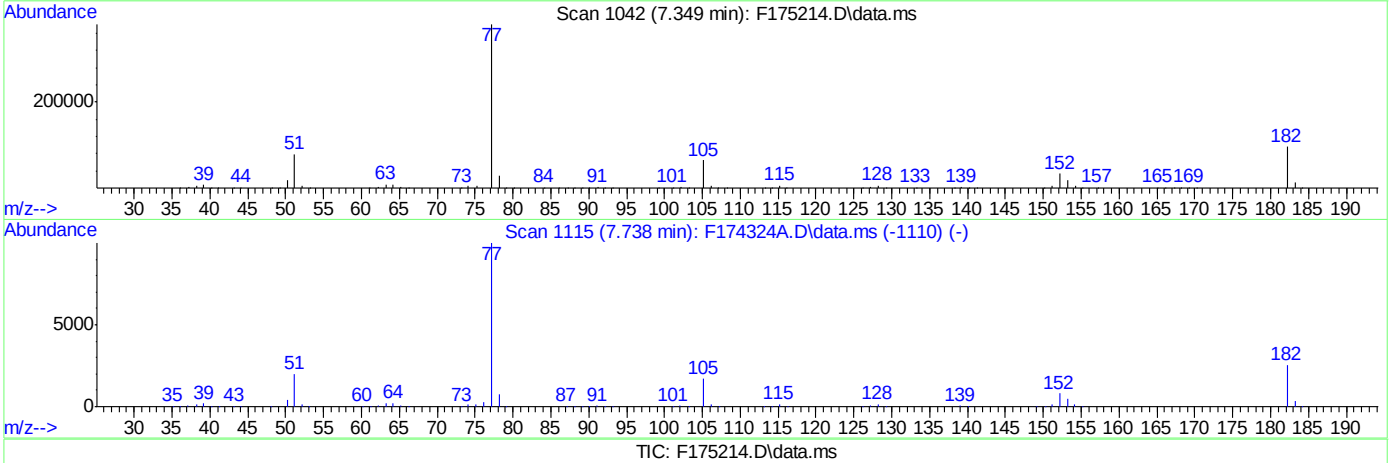
Ion	Exp%	Act%
77.05	100	100
105.00	16.70	0.54
182.00	23.10	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175214.D
Acq On : 27 Mar 2018 2:42 pm
Operator : johnb1
Sample : op10877-bs1
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 16:57:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration





TIC: F175214.D\data.ms

(72) 1,2-Diphenylhydrazine (t)

7.349min (+0.038) 38.44ppm m

response 358807

Ion	Exp%	Act%
77.05	100	100
105.00	16.70	16.84
182.00	23.10	25.22
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
04/02/18 20:41

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175215.D
Acq On : 27 Mar 2018 3:09 pm
Operator : johnb1
Sample : op10877-bsd
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 17:01:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.378	152	126254	40.00	ppm		0.00
24) Naphthalene-d8	5.297	136	448419	40.00	ppm		0.00
47) Acenaphthene-d10	6.622	164	234964	40.00	ppm		0.00
69) Phenanthrene-d10	8.353	188	401709	40.00	ppm		0.00
83) Chrysene-d12	13.439	240	343883	40.00	ppm		0.00
91) Perylene-d12	16.446	264	366104	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.378	152	126254	40.00	ppm		-0.05
103) Phenanthrene-d10a	8.353	188	401709	40.00	ppm		-0.09
105) Chrysene-d12a	13.439	240	343883	40.00	ppm		-0.12
107) Naphthalene-d8a	5.297	136	448419	40.00	ppm		-0.05
109) Acenaphthene-d10a	6.622	164	234964	40.00	ppm		-0.06
System Monitoring Compounds							
5) 2-Fluorophenol	3.406	112	139397	34.16	ppm		-0.06
Spiked Amount 50.000			Recovery = 68.32%				
8) Phenol-d5	4.138	99	121024	22.71	ppm		0.00
Spiked Amount 50.000			Recovery = 45.42%				
25) Nitrobenzene-d5	4.784	82	196089	41.15	ppm		-0.02
Spiked Amount 50.000			Recovery = 82.30%				
51) 2-Fluorobiphenyl	6.072	172	372785	41.38	ppm		0.03
Spiked Amount 50.000			Recovery = 82.76%				
73) 2,4,6-Tribromophenol	7.439	330	59774	50.62	ppm		0.01
Spiked Amount 50.000			Recovery = 101.24%				
85) Terphenyl-d14	11.281	244	342750	44.95	ppm		0.00
Spiked Amount 50.000			Recovery = 89.90%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.841	88	53252	24.54	ppm		97
3) Pyridine	2.183	79	139580	27.84	ppm		98
4) N-Nitrosodimethylamine	2.145	42	40906	26.44	ppm		87
6) Indene	4.565	116	334790	44.63	ppm		97
7) Cumene	3.785	105	388735	36.25	ppm		98
9) Phenol	4.149	94	139544	22.53	ppm		80
10) Aniline	4.138	93	142688	22.23	ppm		93
11) bis(2-Chloroethyl)ether	4.186	93	178952	42.55	ppm		96
12) 2-Chlorophenol	4.234	128	200226	43.84	ppm		98
13) Decane	4.272	43	94452	28.90	ppm		100
14) 1,3-Dichlorobenzene	4.336	146	192869	37.53	ppm		99
15) 1,4-Dichlorobenzene	4.389	146	198716	37.53	ppm		99
16) Benzyl alcohol	4.491	108	118892	43.02	ppm		98
17) 1,2-Dichlorobenzene	4.501	146	193212	39.63	ppm		98
18) Acetophenone	4.672	105	247926	41.27	ppm		98
19) 2-Methylphenol	4.581	108	158848	37.97	ppm		98
20) 2,2'-oxybis(1-Chloropr...	4.587	121	54737	45.27	ppm	#	77
21) 3&4-Methylphenol	4.694	108	166297	37.12	ppm		99
22) n-Nitroso-di-n-propyla...	4.678	70	120837	34.92	ppm		98
23) Hexachloroethane	4.747	201	55185	37.07	ppm		96
26) Nitrobenzene	4.795	77	189328	40.84	ppm		98
27) Quinoline	5.554	129	368359	44.35	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175215.D
Acq On : 27 Mar 2018 3:09 pm
Operator : johnb1
Sample : op10877-bsd
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 17:01:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
28) Isophorone	4.966	82	328656	43.05	ppm		98
29) 2-Nitrophenol	5.025	139	107207	50.74	ppm		83
30) 2,4-Dimethylphenol	5.068	107	183985	47.41	ppm		94
31) Benzoic acid	5.153	105	80016	24.77	ppm		99
32) bis(2-Chloroethoxy)met...	5.126	93	200513	46.08	ppm		99
33) 2,4-Dichlorophenol	5.206	162	152260	47.43	ppm		98
34) 2,6-Dichlorophenol	5.361	162	154037	47.84	ppm		99
36) 1,2,4-Trichlorobenzene	5.260	180	146131	41.80	ppm		99
38) Naphthalene	5.313	128	520866	41.43	ppm		99
39) 4-Chloroaniline	5.356	127	80212	15.80	ppm		97
40) 2,3-Dichloroaniline	6.008	161	152398	38.92	ppm		99
41) Caprolactam	5.596	55	18311	12.78	ppm		97
42) Hexachlorobutadiene	5.409	225	70890	39.80	ppm		99
43) 4-Chloro-3-methylphenol	5.714	107	156992	45.73	ppm	#	58
44) 2-Methylnaphthalene	5.805	141	274811	41.15	ppm		99
45) 1-Methylnaphthalene	5.874	142	327893	40.00	ppm		99
46) Dimethylnaphthalene	6.270	156	300306	43.11	ppm		99
48) Hexachlorocyclopentadiene	5.922	237	134202	81.75	ppm		99
49) 2,4,6-Trichlorophenol	6.013	196	96337	46.46	ppm		97
50) 2,4,5-Trichlorophenol	6.045	196	107973	47.06	ppm		98
52) 2-Chloronaphthalene	6.163	162	297034	40.60	ppm		99
53) Biphenyl	6.147	154	422459	44.98	ppm		99
54) 2-Nitroaniline	6.243	65	92448	43.25	ppm		95
55) Dimethylphthalate	6.387	163	352558	44.94	ppm		100
56) Acenaphthylene	6.499	152	507281	43.21	ppm		99
57) 2,6-Dinitrotoluene	6.435	165	80311	48.50	ppm		96
58) 3-Nitroaniline	6.585	138	45844	22.73	ppm		91
59) Acenaphthene	6.649	153	325764	43.31	ppm		96
60) 2,4-Dinitrophenol	6.681	184	96764	93.58	ppm		81
61) 4-Nitrophenol	6.766	109	28870m	27.62	ppm		
62) Dibenzofuran	6.814	168	437668	42.07	ppm		98
63) 2,4-Dinitrotoluene	6.804	165	106759	47.44	ppm		97
64) 2,3,4,6-Tetrachlorophenol	6.943	232	84918	49.97	ppm		98
65) Diethylphthalate	7.049	149	359668	44.56	ppm		100
66) Fluorene	7.162	166	338610	42.85	ppm		100
67) 4-Chlorophenyl-phenyle...	7.167	204	145905	43.46	ppm		99
68) 4-Nitroaniline	7.194	138	93273	45.44	ppm		97
70) 4,6-Dinitro-2-methylph...	7.226	198	63003	44.36	ppm		98
71) n-Nitrosodiphenylamine	7.301	169	248801	44.30	ppm		99
72) 1,2-Diphenylhydrazine	7.343	77	347733m	38.83	ppm		
74) 4-Bromophenyl-phenylether	7.749	248	90491	44.51	ppm		96
75) Hexachlorobenzene	7.829	284	110978	43.73	ppm		90
76) Pentachlorophenol	8.102	266	74934	55.66	ppm		99
77) Phenanthrene	8.385	178	499091	42.43	ppm		99
78) Anthracene	8.460	178	500844	44.00	ppm		100
79) Carbazole	8.727	167	484773	43.88	ppm		100
80) Di-n-butylphthalate	9.405	149	573769	44.90	ppm		100
81) Fluoranthene	10.420	202	487057	45.46	ppm		99
82) Octadecane	8.278	57	163492	38.37	ppm		94
84) Pyrene	10.848	202	508894	44.31	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175215.D
Acq On : 27 Mar 2018 3:09 pm
Operator : johnb1
Sample : op10877-bsd
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 17:01:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration

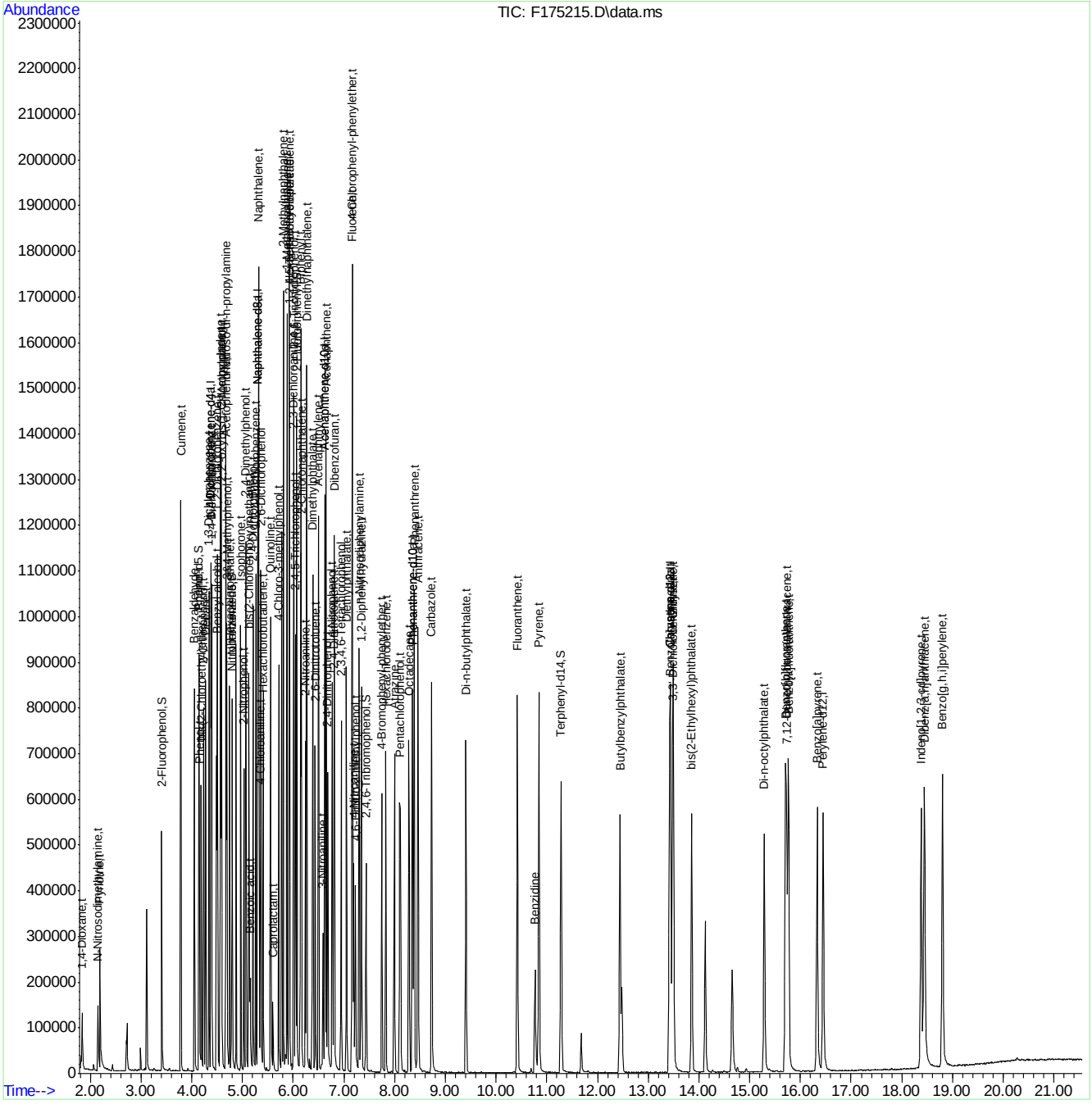
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) Butylbenzylphthalate	12.445	149	237855	44.13	ppm	100
87) Benzo[a]anthracene	13.423	228	428036	44.66	ppm	99
88) 3,3'-Dichlorobenzidine	13.482	252	134322	37.94	ppm	98
89) Chrysene	13.492	228	447079	42.81	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.855	149	315280	39.77	ppm	99
92) Di-n-octylphthalate	15.287	149	526799	39.55	ppm	99
93) Benzo[b]fluoranthene	15.709	252	446715	44.85	ppm	97
94) Benzo[k]fluoranthene	15.768	252	469063	43.85	ppm	98
95) Benzo[a]pyrene	16.334	252	403893	46.67	ppm	97
96) Indeno[1,2,3-cd]pyrene	18.380	276	405497	46.61	ppm	99
98) Dibenz[a,h]anthracene	18.444	278	441748	52.13	ppm	96
99) 7,12-Dimethylbenz(a)an...	15.731	256	172601	39.27	ppm	98
100) Benzo[g,h,i]perylene	18.802	276	469309	54.99	ppm	99
102) Benzaldehyde	4.052	105	129257	35.79	ppm	98
104) Atrazine	7.995	200	91812	48.72	ppm	99
106) Benzidine	10.768	184	161295	25.04	ppm	99
110) 1,2,4,5-Tetrachloroben...	5.928	216	142278	38.07	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175215.D
Acq On : 27 Mar 2018 3:09 pm
Operator : johnb1
Sample : op10877-bsd
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 17:01:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration



Manual Integration Approval Summary

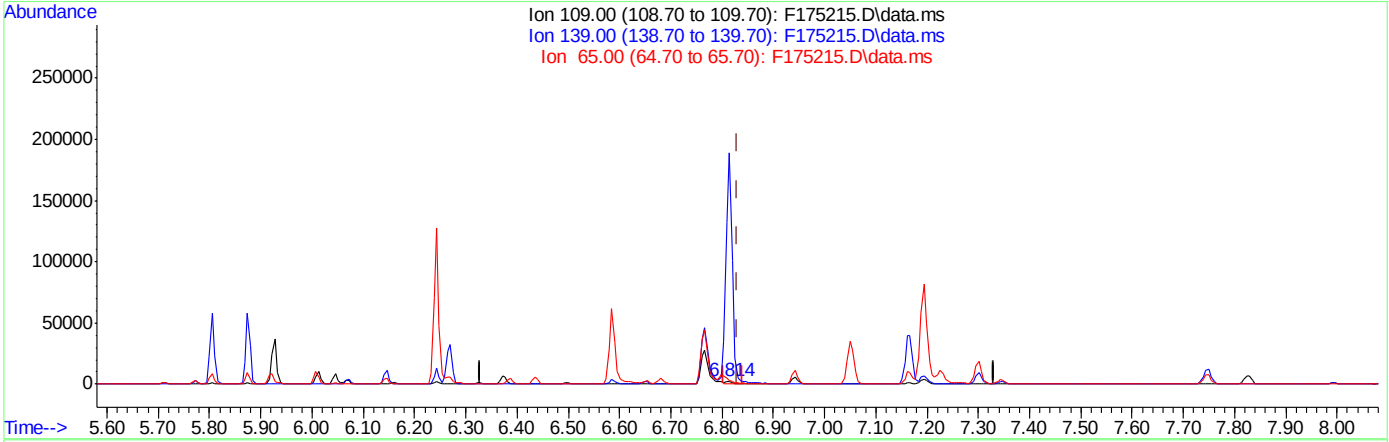
Sample Number:	OP10877-BSD	**Method:**	SW846 8270D
Lab FileID:	F175215.D	**Analyst approved:**	04/01/18 17:14 Dipa Patel
Injection Time:	03/27/18 15:09	**Supervisor approved:**	04/02/18 20:41 Nina Pandya

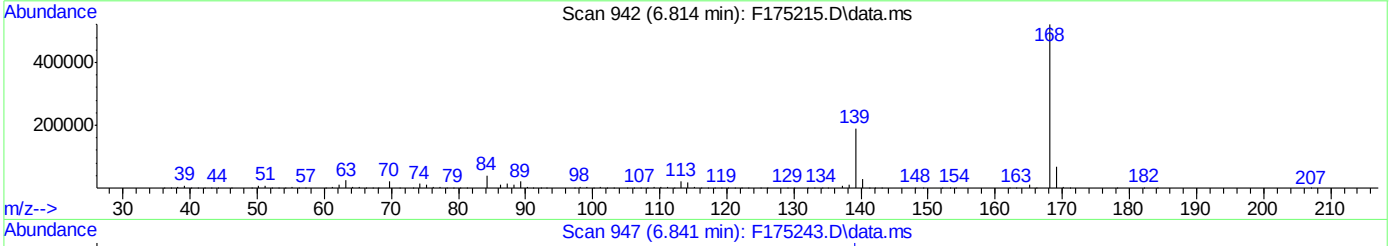
Parameter	CAS	Sig#	R.T. (min.)	Reason
4-Nitrophenol	100-02-7		6.77	Missed peak
1,2-Diphenylhydrazine	122-66-7		7.34	Missed peak

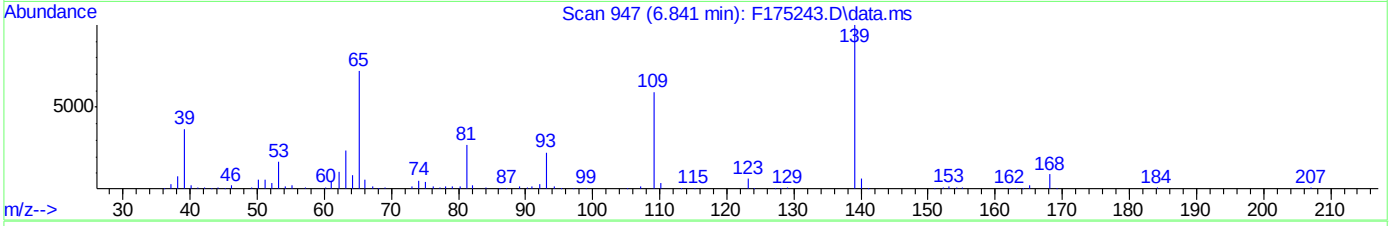
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175215.D
Acq On : 27 Mar 2018 3:09 pm
Operator : johnb1
Sample : op10877-bsd
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 16:59:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration







TIC: F175215.D\data.ms

(61) 4-Nitrophenol (t)

6.814min (-0.016) 2.43ppm

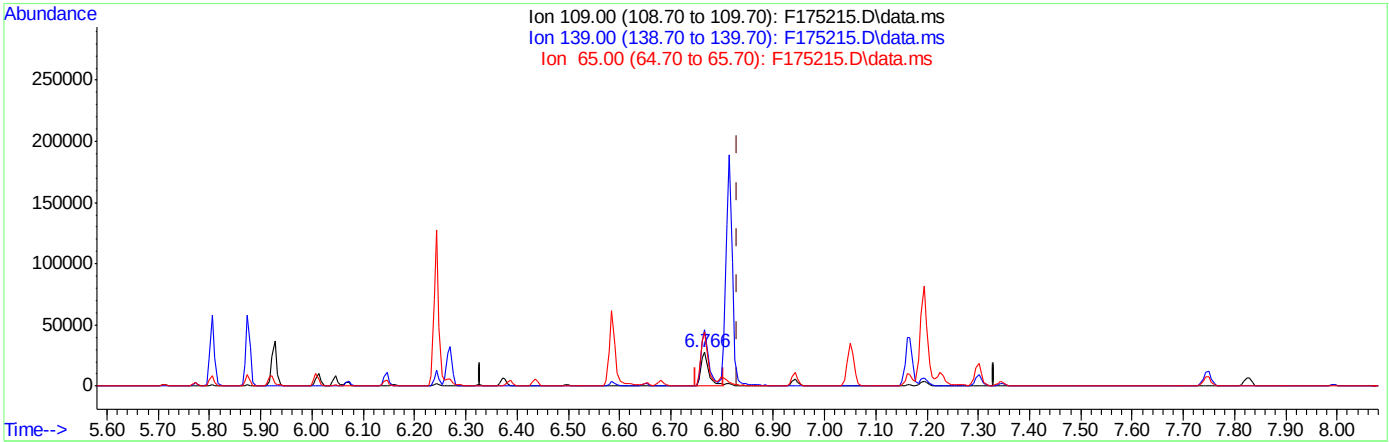
response 2535

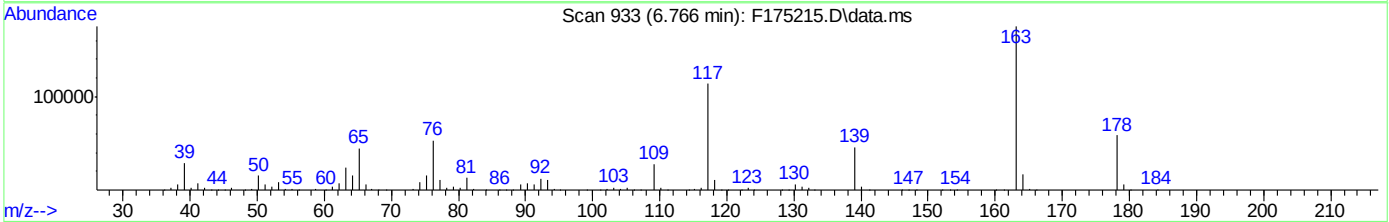
Ion	Exp%	Act%
109.00	100	100
139.00	168.00	11535.63#
65.00	120.80	0.00#
0.00	0.00	0.00

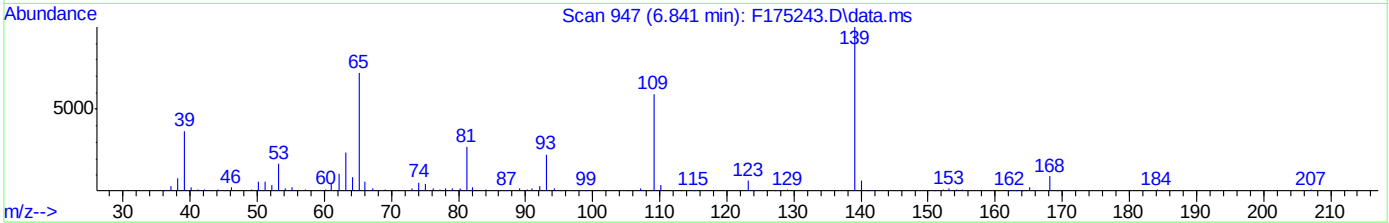
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175215.D
Acq On : 27 Mar 2018 3:09 pm
Operator : johnb1
Sample : op10877-bsd
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 16:59:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration







TIC: F175215.D\data.ms

(61) 4-Nitrophenol (t)

6.766min (-0.064) 27.62ppm m

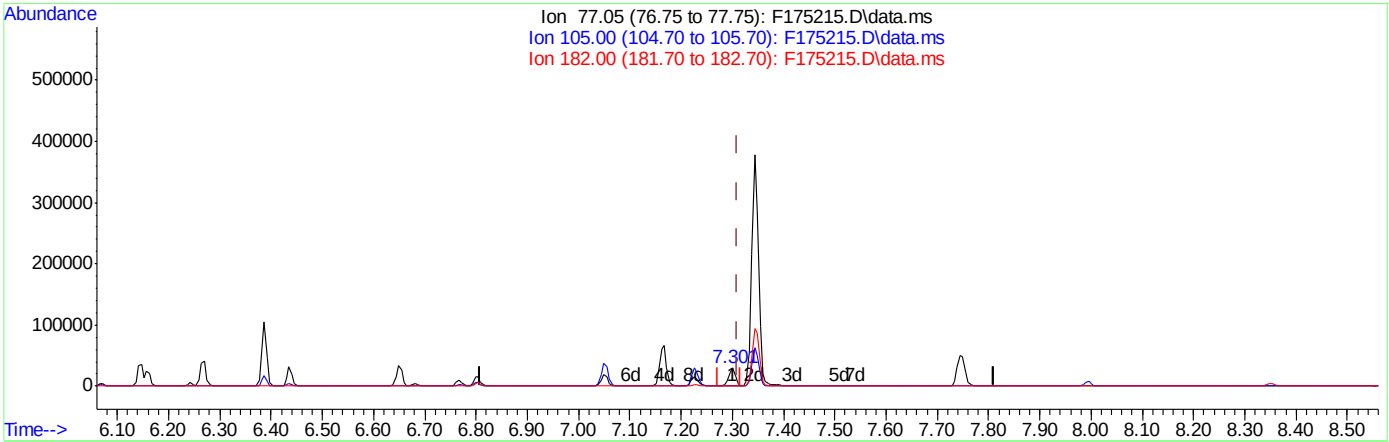
response 28870

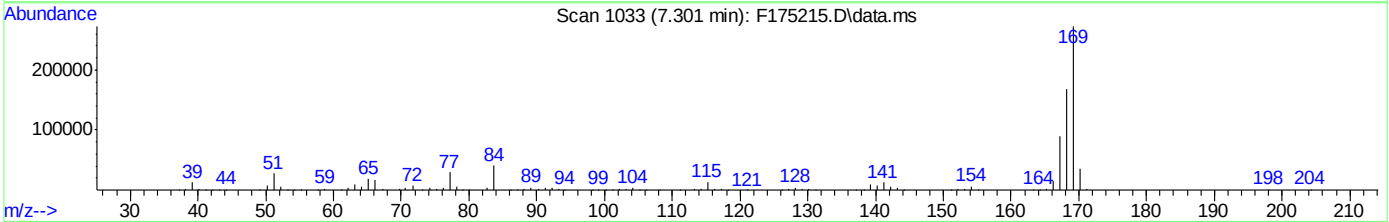
Ion	Exp%	Act%
109.00	100	100
139.00	168.00	163.48
65.00	120.80	158.30#
0.00	0.00	0.00

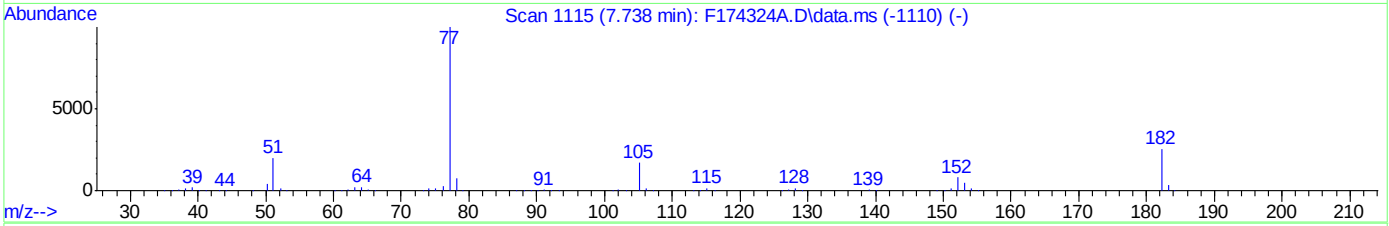
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175215.D
Acq On : 27 Mar 2018 3:09 pm
Operator : johnb1
Sample : op10877-bsd
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 16:59:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration







TIC: F175215.D\data.ms

(72) 1,2-Diphenylhydrazine (t)

7.301min (-0.010) 2.98ppm

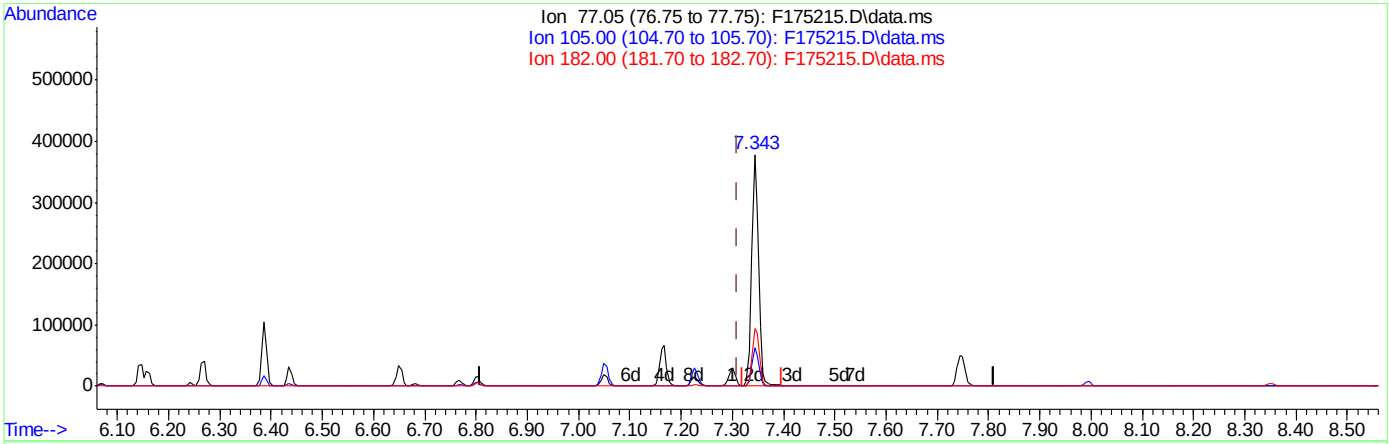
response 26704

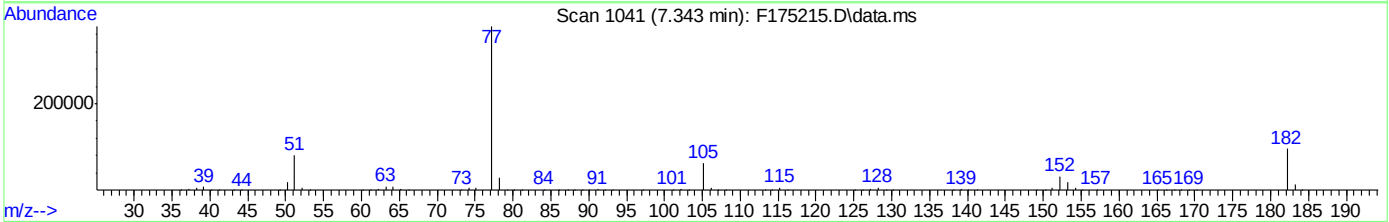
Ion	Exp%	Act%
77.05	100	100
105.00	16.70	0.78
182.00	23.10	0.00
0.00	0.00	0.00

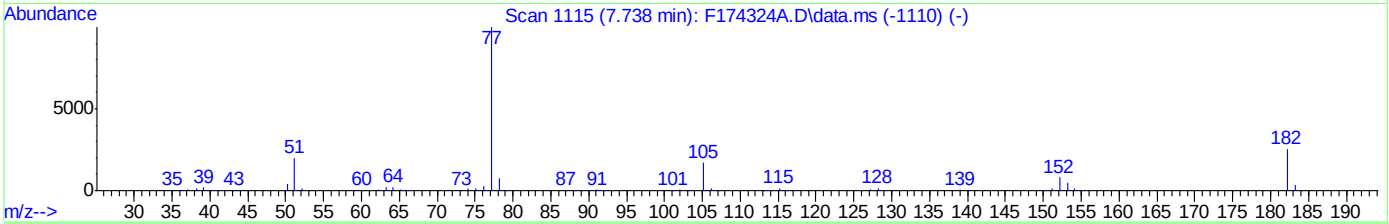
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EF7460\
Data File : F175215.D
Acq On : 27 Mar 2018 3:09 pm
Operator : johnb1
Sample : op10877-bsd
Misc : op10877,ef7460,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 16:59:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 01 16:57:06 2018
Response via : Initial Calibration







TIC: F175215.D\data.ms

(72) 1,2-Diphenylhydrazine (t)

7.343min (+0.033) 38.83ppm m

response 347733

Ion	Exp%	Act%
77.05	100	100
105.00	16.70	16.76
182.00	23.10	25.08
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nancy Ma
03/29/18 14:42

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78132.D
Acq On : 28 Mar 2018 4:38 pm
Operator : johnb1
Sample : op10883-bs1
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 29 12:34:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.951	152	668756	40.00	ppm	-0.02
24) Naphthalene-d8	6.005	136	2322859	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1203787	40.00	ppm	-0.02
69) Phenanthrene-d10	8.807	188	2194183	40.00	ppm	-0.02
83) Chrysene-d12	12.215	240	2116441	40.00	ppm	-0.02
91) Perylene-d12	14.236	264	2183298	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.951	152	668756	40.00	ppm	-0.02
103) Naphthalene-d8a	6.005	136	2322859	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1203787	40.00	ppm	-0.02
108) Chrysene-d12a	12.215	240	2116441	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.807	188	2194183	40.00	ppm	-0.02
114) Chrysene-d12b	12.215	240	2116441	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.908	112	608551	20.89	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 41.78%			
8) Phenol-d5	4.700	99	434910	12.45	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 24.90%			
25) Nitrobenzene-d5	5.411	82	785249	30.65	ppm	-0.02
Spiked Amount 50.000	Range 19 - 61		Recovery = 61.30%#			
51) 2-Fluorobiphenyl	6.887	172	1416016	30.00	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 60.00%#			
73) 2,4,6-Tribromophenol	8.139	330	293822	44.20	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery = 88.40%#			
85) Terphenyl-d14	10.722	244	2337576	41.77	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 83.54%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.325	88	154005	17.39	ppm	98
3) Pyridine	2.651	79	484456	19.88	ppm	97
4) N-Nitrosodimethylamine	2.624	74	266859	20.05	ppm	86
6) Indene	5.165	116	1314717	35.99	ppm	98
7) Cumene	4.288	105	2036783	28.73	ppm	99
9) Phenol	4.710	94	480566	12.64	ppm	80
10) Aniline	4.684	93	1030923	27.41	ppm	85
11) bis(2-Chloroethyl)ether	4.726	93	816452	35.29	ppm	98
12) 2-Chlorophenol	4.796	128	834493	30.72	ppm	97
13) Decane	4.817	57	548752	22.88	ppm	96
14) 1,3-Dichlorobenzene	4.903	146	753685	26.15	ppm	99
15) 1,4-Dichlorobenzene	4.962	146	706221	26.10	ppm	99
16) Benzyl alcohol	5.079	108	437567	29.21	ppm	84
17) 1,2-Dichlorobenzene	5.090	146	710604	28.93	ppm	98
18) Acetophenone	5.283	105	1016020	31.38	ppm #	70
19) 2-Methylphenol	5.192	108	546764	26.53	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.176	121	202293	32.25	ppm	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78132.D
Acq On : 28 Mar 2018 4:38 pm
Operator : johnb1
Sample : op10883-bs1
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 29 12:34:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21)	3&4-Methylphenol	5.320	108	549797	24.74	ppm		98
22)	n-Nitroso-di-n-propyla...	5.288	70	481217	30.73	ppm		98
23)	Hexachloroethane	5.368	201	238508	21.27	ppm		96
26)	Nitrobenzene	5.427	77	695610	29.06	ppm		94
27)	Quinoline	6.299	129	1726558	39.36	ppm		97
28)	Isophorone	5.620	82	1449502	33.04	ppm		98
29)	2-Nitrophenol	5.689	139	449732	34.81	ppm		90
30)	2,4-Dimethylphenol	5.743	107	774307	35.11	ppm		98
31)	Benzoic acid	5.860	105	264756	16.20	ppm		93
32)	bis(2-Chloroethoxy)met...	5.796	93	831669	36.26	ppm		100
33)	2,4-Dichlorophenol	5.909	162	692650	34.22	ppm		95
34)	2,6-Dichlorophenol	6.080	162	604888	34.03	ppm		98
36)	1,2,4-Trichlorobenzene	5.957	180	621222	26.14	ppm		98
38)	Naphthalene	6.021	128	1744946	29.19	ppm		100
39)	4-Chloroaniline	6.069	127	552660	20.75	ppm		97
40)	2,3-Dichloroaniline	6.828	161	714387	29.43	ppm		96
41)	Caprolactam	6.363	113	71937	10.03	ppm		98
42)	Hexachlorobutadiene	6.122	225	272792	20.75	ppm		97
43)	4-Chloro-3-methylphenol	6.497	107	751870	35.77	ppm	#	40
44)	2-Methylnaphthalene	6.588	141	1243791	31.86	ppm		97
45)	1-Methylnaphthalene	6.673	141	1193576	29.97	ppm		96
46)	Dimethylnaphthalene	7.107	156	1242627	31.29	ppm		97
48)	Hexachlorocyclopentadiene	6.721	237	597604	48.28	ppm		100
49)	2,4,6-Trichlorophenol	6.834	196	491917	33.72	ppm		99
50)	2,4,5-Trichlorophenol	6.882	196	527835	35.34	ppm		99
52)	2-Chloronaphthalene	6.994	162	1197646	29.90	ppm		94
53)	Biphenyl	6.973	154	1743704	32.24	ppm		99
54)	2-Nitroaniline	7.085	65	461795	35.48	ppm		97
55)	Dimethylphthalate	7.224	163	1670819	34.59	ppm		99
56)	Acenaphthylene	7.337	152	2100376	33.70	ppm		98
57)	2,6-Dinitrotoluene	7.278	165	405396	38.20	ppm		84
58)	3-Nitroaniline	7.422	138	334872	27.20	ppm		98
59)	Acenaphthene	7.481	153	1382538	33.92	ppm		98
60)	2,4-Dinitrophenol	7.508	184	388265	73.66	ppm	#	71
61)	4-Nitrophenol	7.604	109	108974	15.66	ppm		89
62)	Dibenzofuran	7.620	168	1879626	34.66	ppm		98
63)	2,4-Dinitrotoluene	7.615	165	512263	37.44	ppm		96
64)	2,3,4,6-Tetrachlorophenol	7.738	232	469391	35.60	ppm		99
65)	Diethylphthalate	7.807	149	1585719	34.63	ppm		97
66)	Fluorene	7.914	166	1586806	34.69	ppm		99
67)	4-Chlorophenyl-phenyle...	7.909	204	842579	32.60	ppm		94
68)	4-Nitroaniline	7.946	138	404881	34.48	ppm		89
70)	4,6-Dinitro-2-methylph...	7.968	198	331755	43.40	ppm		96
71)	n-Nitrosodiphenylamine	8.016	169	1138196	37.24	ppm		99
72)	1,2-Diphenylhydrazine	8.048	77	1472376	36.13	ppm		99
74)	4-Bromophenyl-phenylether	8.353	248	582756	38.26	ppm		98
75)	Hexachlorobenzene	8.428	284	635643	38.90	ppm		96
76)	Pentachlorophenol	8.631	266	340231	33.05	ppm		98
77)	Phenanthrene	8.834	178	2378924	38.99	ppm		99
78)	Anthracene	8.888	178	2403939	39.20	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78132.D
Acq On : 28 Mar 2018 4:38 pm
Operator : johnb1
Sample : op10883-bs1
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 29 12:34:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

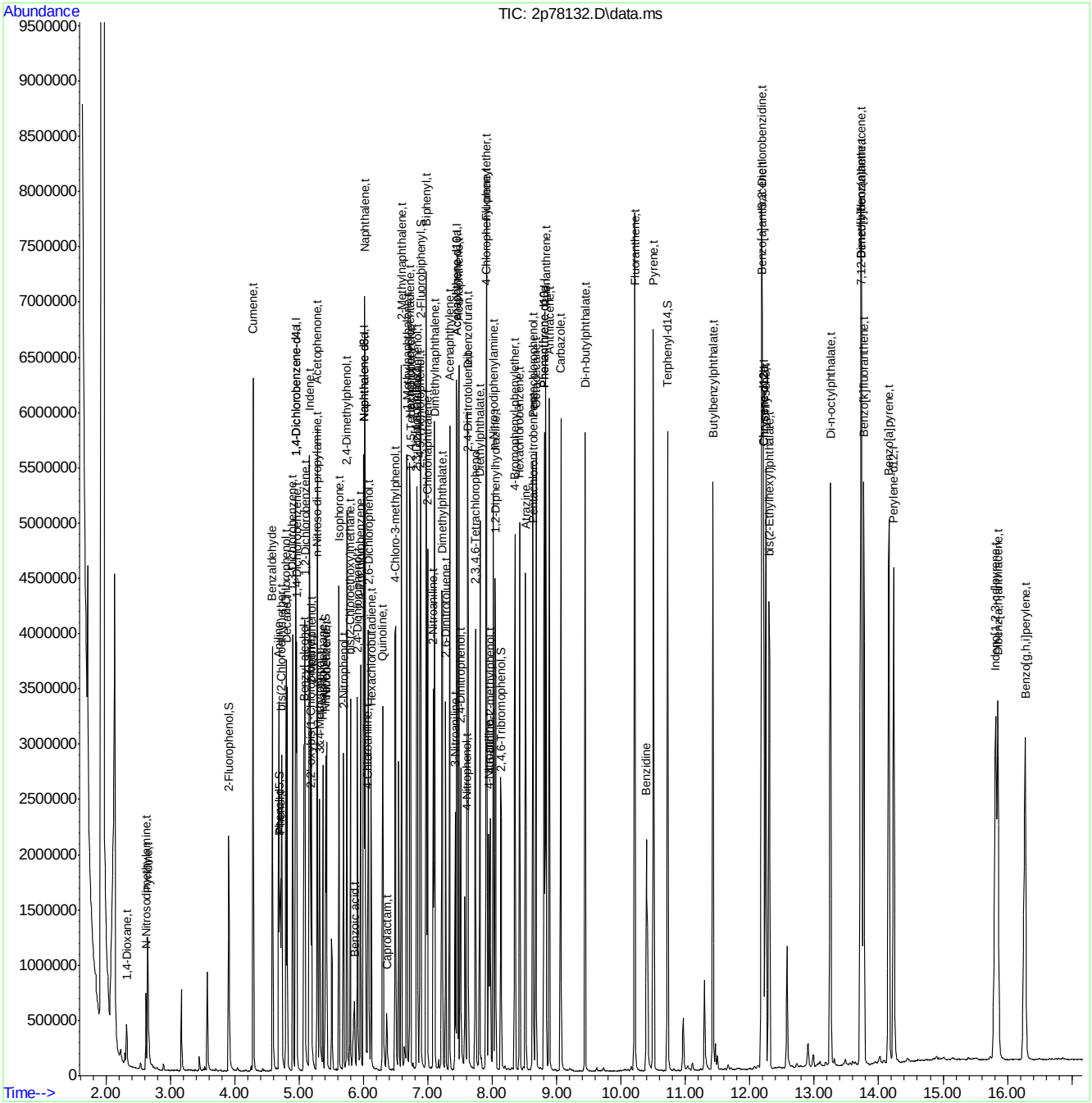
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) Carbazole	9.064	167	2512820	42.05	ppm	98
80) Di-n-butylphthalate	9.444	149	3144321	40.10	ppm	99
81) Fluoranthene	10.214	202	3654192	40.37	ppm	97
82) Octadecane	8.679	43	640535	36.04	ppm	97
84) Pyrene	10.503	202	3292978	40.54	ppm	99
86) Butylbenzylphthalate	11.428	149	1474501	41.06	ppm	99
87) Benzo[a]anthracene	12.193	228	3018658	38.16	ppm	100
88) 3,3'-Dichlorobenzidine	12.182	252	1167211	36.34	ppm	98
89) Chrysene	12.252	228	2439536	39.35	ppm	100
90) bis(2-Ethylhexyl)phtha...	12.300	149	1481777	41.10	ppm	99
92) Di-n-octylphthalate	13.252	149	3321084	43.95	ppm	99
93) Benzo[b]fluoranthene	13.734	252	2959043	37.35	ppm	97
94) Benzo[k]fluoranthene	13.771	252	2464351	36.49	ppm	97
95) Benzo[a]pyrene	14.161	252	2673810	38.99	ppm	98
96) Indeno[1,2,3-cd]pyrene	15.820	276	2484500m	37.60	ppm	
98) Dibenz[a,h]anthracene	15.852	278	2278640	37.20	ppm	95
99) 7,12-Dimethylbenz(a)an...	13.728	256	1344454	39.33	ppm	99
100) Benzo[g,h,i]perylene	16.280	276	2427560	39.61	ppm	94
102) Benzaldehyde	4.587	105	649890	32.28	ppm	96
106) Atrazine	8.519	215	295338	45.12	ppm	86
107) 1,2,4,5-Tetrachloroben...	6.732	216	703489	31.54	ppm	98
109) Benzidine	10.396	184	959108	24.21	ppm	98
113) Pentachloronitrobenzene	8.636	295	109116	55.44	ppm	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78132.D
Acq On : 28 Mar 2018 4:38 pm
Operator : johnb1
Sample : op10883-bs1
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 29 12:34:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



M2P3416.M Thu Mar 29 12:58:15 2018 RPT1 Page: 4

Manual Integration Approval Summary

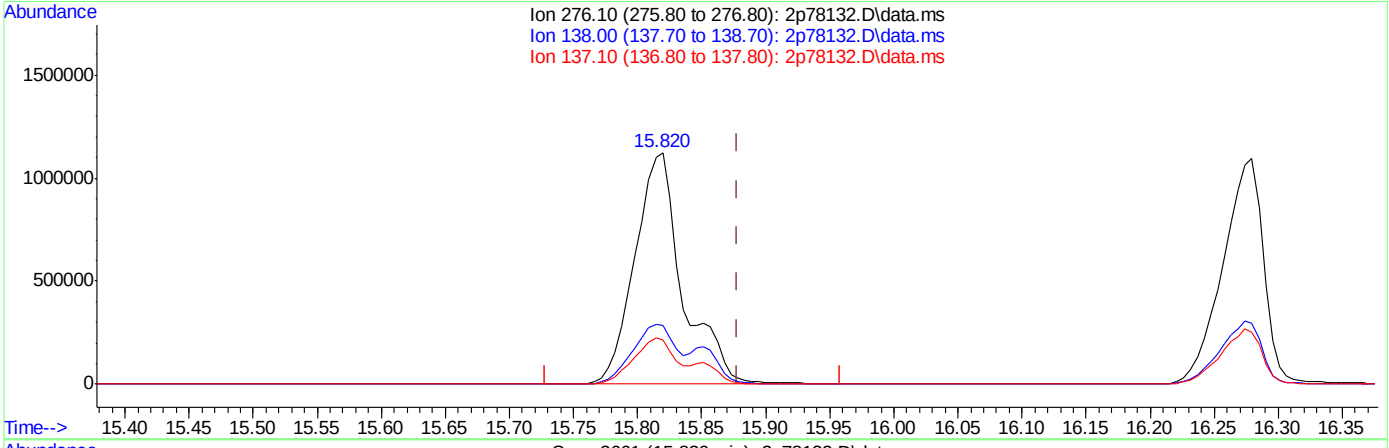
Sample Number:	OP10883-BS1	**Method:**	SW846 8270D
Lab FileID:	2P78132.D	**Analyst approved:**	03/29/18 12:54 Dipa Patel
Injection Time:	03/28/18 16:38	**Supervisor approved:**	03/29/18 14:42 Nancy Ma

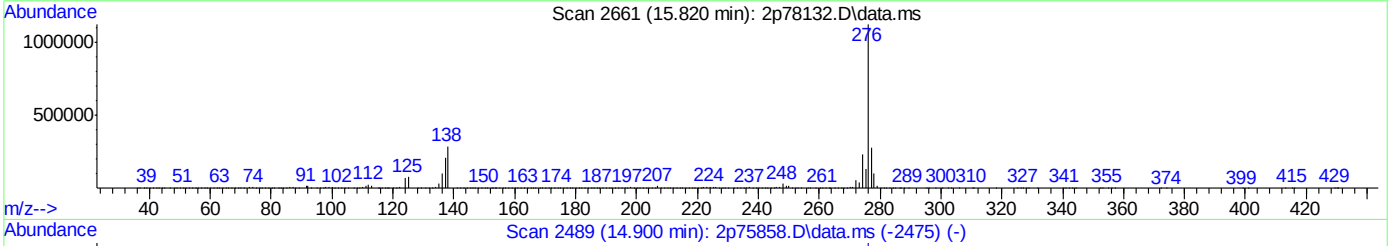
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		15.82	Overlapping peak

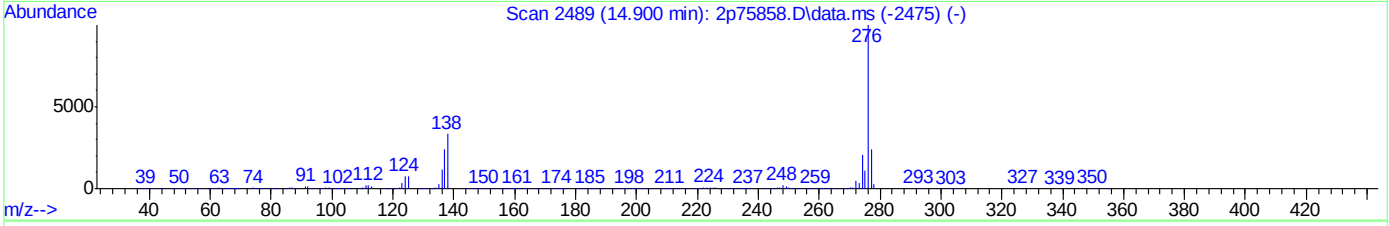
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78132.D
Acq On : 28 Mar 2018 4:38 pm
Operator : johnb1
Sample : op10883-bs1
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 16:53:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration







TIC: 2p78132.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.820min (-0.058) 44.20ppm

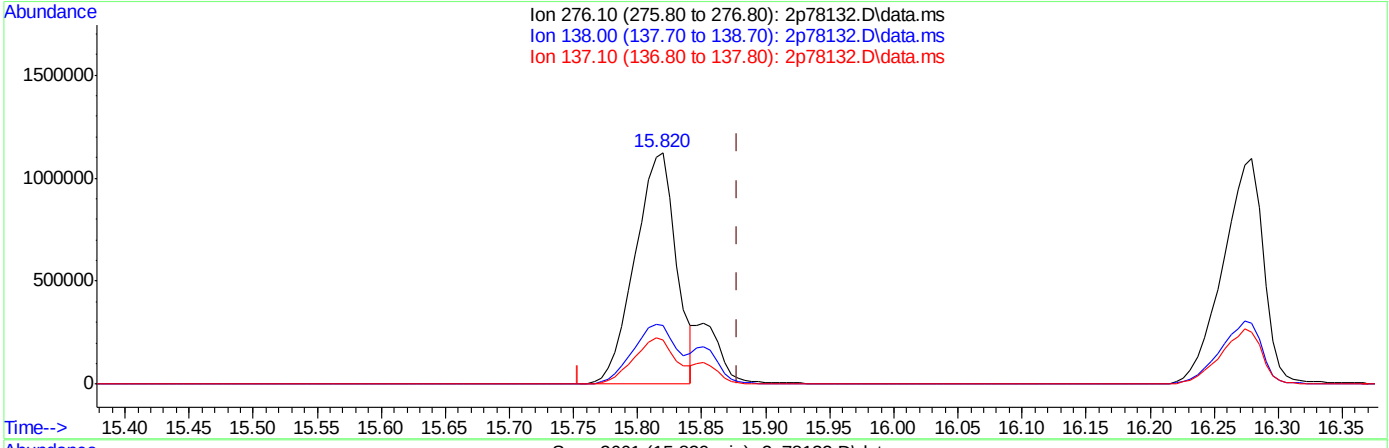
response 2920601

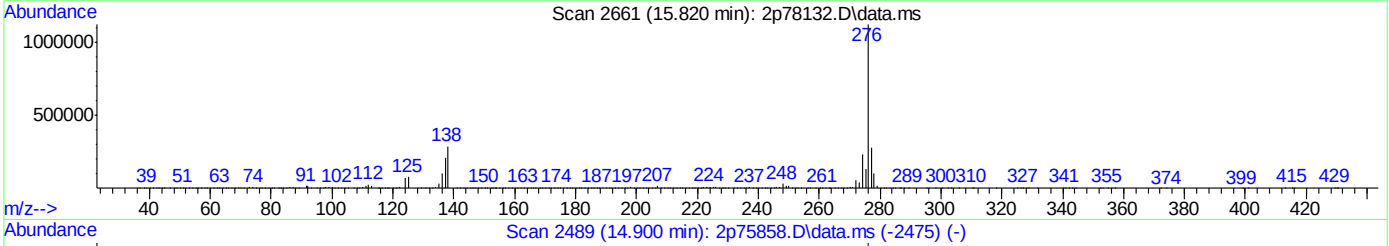
Ion	Exp%	Act%
276.10	100	100
138.00	17.60	25.35
137.10	13.50	18.80
0.00	0.00	0.00

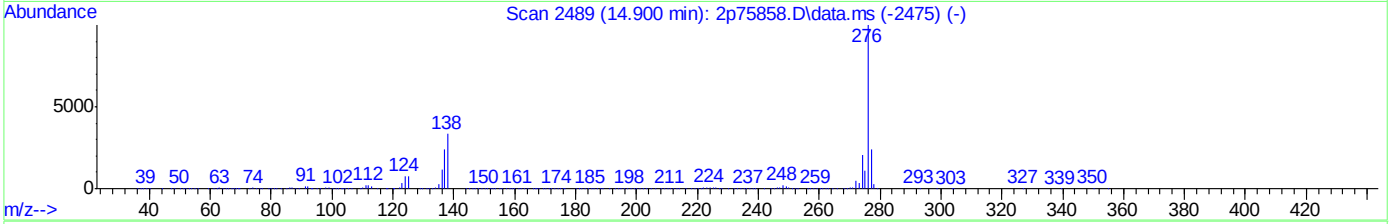
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78132.D
Acq On : 28 Mar 2018 4:38 pm
Operator : johnb1
Sample : op10883-bs1
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 16:53:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration







TIC: 2p78132.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.820min (-0.058) 37.60ppm m

response 2484500

Ion	Exp%	Act%
276.10	100	100
138.00	17.60	25.43
137.10	13.50	18.82
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nancy Ma
03/29/18 14:42

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78133.D
Acq On : 28 Mar 2018 4:59 pm
Operator : johnb1
Sample : op10883-ms
Misc : op10883,e2p3440,980,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 29 12:35:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.951	152	589434	40.00	ppm		-0.02
24) Naphthalene-d8	6.005	136	2055022	40.00	ppm		-0.02
47) Acenaphthene-d10	7.449	164	1103525	40.00	ppm		-0.02
69) Phenanthrene-d10	8.807	188	1964781	40.00	ppm		-0.02
83) Chrysene-d12	12.215	240	1930986	40.00	ppm		-0.02
91) Perylene-d12	14.236	264	2009811	40.00	ppm		-0.02
101) 1,4-Dichlorobenzene-d4a	4.951	152	589434	40.00	ppm		-0.02
103) Naphthalene-d8a	6.005	136	2055022	40.00	ppm		-0.02
105) Acenaphthene-d10a	7.449	164	1103525	40.00	ppm		-0.02
108) Chrysene-d12a	12.215	240	1930986	40.00	ppm		-0.02
110) Phenanthrene-d10a	8.807	188	1964781	40.00	ppm		-0.02
114) Chrysene-d12b	12.215	240	1930986	40.00	ppm		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	3.908	112	827449	32.22	ppm		0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 64.44%#				
8) Phenol-d5	4.705	99	675346	21.93	ppm		0.03
Spiked Amount 50.000	Range 10 - 59		Recovery = 43.86%				
25) Nitrobenzene-d5	5.411	82	871452	38.44	ppm		-0.02
Spiked Amount 50.000	Range 19 - 61		Recovery = 76.88%#				
51) 2-Fluorobiphenyl	6.893	172	1510462	34.91	ppm		-0.02
Spiked Amount 50.000	Range 21 - 58		Recovery = 69.82%#				
73) 2,4,6-Tribromophenol	8.139	330	285399	47.94	ppm		-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery = 95.88%#				
85) Terphenyl-d14	10.722	244	2200541	43.10	ppm		-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 86.20%#				
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm		
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#				
112) o-terphenyl	0.000	230	0d	0.00	ppm		
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#				
Target Compounds							Qvalue
2) 1,4-Dioxane	2.325	88	203015	25.10	ppm		98
3) Pyridine	2.651	79	604396	28.14	ppm		96
4) N-Nitrosodimethylamine	2.624	74	354774	30.24	ppm		84
6) Indene	5.165	116	1454532	45.17	ppm		97
7) Cumene	4.288	105	2229448	35.67	ppm		98
9) Phenol	4.716	94	767069	22.89	ppm		94
10) Aniline	4.689	93	431241	13.01	ppm	#	42
11) bis(2-Chloroethyl)ether	4.726	93	1027109	50.38	ppm		99
12) 2-Chlorophenol	4.796	128	1001061	41.81	ppm		98
13) Decane	4.817	57	658949	31.17	ppm		96
14) 1,3-Dichlorobenzene	4.903	146	864092	34.01	ppm		99
15) 1,4-Dichlorobenzene	4.962	146	826918	34.67	ppm		99
16) Benzyl alcohol	5.079	108	500845	37.93	ppm		90
17) 1,2-Dichlorobenzene	5.090	146	822502	37.99	ppm		98
18) Acetophenone	5.283	105	1110029	38.90	ppm		80
19) 2-Methylphenol	5.197	108	674315	37.12	ppm		96
20) 2,2'-oxybis(1-Chloropr...	5.176	121	237133	42.89	ppm		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78133.D
Acq On : 28 Mar 2018 4:59 pm
Operator : johnb1
Sample : op10883-ms
Misc : op10883,e2p3440,980,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 29 12:35:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21)	3&4-Methylphenol	5.320	108	688201	35.14	ppm		99
22)	n-Nitroso-di-n-propyla...	5.288	70	532342	38.57	ppm		96
23)	Hexachloroethane	5.368	201	279902	28.32	ppm		94
26)	Nitrobenzene	5.427	77	791116	37.36	ppm		96
27)	Quinoline	6.315	129	1745539	44.98	ppm		98
28)	Isophorone	5.620	82	1557665	40.13	ppm		99
29)	2-Nitrophenol	5.689	139	517981	45.31	ppm		87
30)	2,4-Dimethylphenol	5.743	107	869168	44.55	ppm		98
31)	Benzoic acid	5.866	105	302365	20.91	ppm		95
32)	bis(2-Chloroethoxy)met...	5.796	93	922079	45.45	ppm		100
33)	2,4-Dichlorophenol	5.909	162	765436	42.74	ppm		97
34)	2,6-Dichlorophenol	6.080	162	676455	43.01	ppm		99
36)	1,2,4-Trichlorobenzene	5.957	180	770009	36.62	ppm		98
38)	Naphthalene	6.021	128	2110385	39.90	ppm		99
39)	4-Chloroaniline	6.074	127	199197	8.45	ppm		97
40)	2,3-Dichloroaniline	6.829	161	664266	30.93	ppm		98
41)	Caprolactam	6.374	113	87835	13.84	ppm		93
42)	Hexachlorobutadiene	6.122	225	355697	30.59	ppm		98
43)	4-Chloro-3-methylphenol	6.497	107	781274	42.01	ppm		75
44)	2-Methylnaphthalene	6.588	141	1342584	38.88	ppm		99
45)	1-Methylnaphthalene	6.673	141	1288725	36.58	ppm		94
46)	Dimethylnaphthalene	7.107	156	1339031	38.11	ppm		96
48)	Hexachlorocyclopentadiene	6.722	237	750283	66.12	ppm		100
49)	2,4,6-Trichlorophenol	6.839	196	500221	37.40	ppm		98
50)	2,4,5-Trichlorophenol	6.882	196	516504	37.72	ppm		99
52)	2-Chloronaphthalene	6.994	162	1321757	36.00	ppm		97
53)	Biphenyl	6.973	154	1885712	38.04	ppm		100
54)	2-Nitroaniline	7.085	65	445312	37.32	ppm		95
55)	Dimethylphthalate	7.224	163	1633715	36.90	ppm		99
56)	Acenaphthylene	7.337	152	2216366	38.79	ppm		99
57)	2,6-Dinitrotoluene	7.278	165	394945	40.60	ppm		86
58)	3-Nitroaniline	7.422	138	210537	18.66	ppm		96
59)	Acenaphthene	7.481	153	1628029	43.57	ppm		100
60)	2,4-Dinitrophenol	7.513	184	409948	83.34	ppm	#	54
61)	4-Nitrophenol	7.609	109	132107	20.71	ppm	#	73
62)	Dibenzofuran	7.620	168	1921597	38.65	ppm		99
63)	2,4-Dinitrotoluene	7.615	165	503163	40.11	ppm		94
64)	2,3,4,6-Tetrachlorophenol	7.738	232	457422	37.85	ppm		98
65)	Diethylphthalate	7.807	149	1591075	37.90	ppm		97
66)	Fluorene	7.914	166	1604951	38.27	ppm		98
67)	4-Chlorophenyl-phenyle...	7.909	204	871213	36.77	ppm		95
68)	4-Nitroaniline	7.946	138	346054	32.15	ppm		88
70)	4,6-Dinitro-2-methylph...	7.968	198	335816	48.65	ppm		95
71)	n-Nitrosodiphenylamine	8.016	169	1127696	41.20	ppm		99
72)	1,2-Diphenylhydrazine	8.048	77	1490426	40.84	ppm		99
74)	4-Bromophenyl-phenylether	8.353	248	589786	43.25	ppm		97
75)	Hexachlorobenzene	8.428	284	629387	43.02	ppm		97
76)	Pentachlorophenol	8.631	266	319989	34.72	ppm		98
77)	Phenanthrene	8.834	178	2382170	43.60	ppm		99
78)	Anthracene	8.888	178	2373220	43.22	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78133.D
Acq On : 28 Mar 2018 4:59 pm
Operator : johnb1
Sample : op10883-ms
Misc : op10883,e2p3440,980,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 29 12:35:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

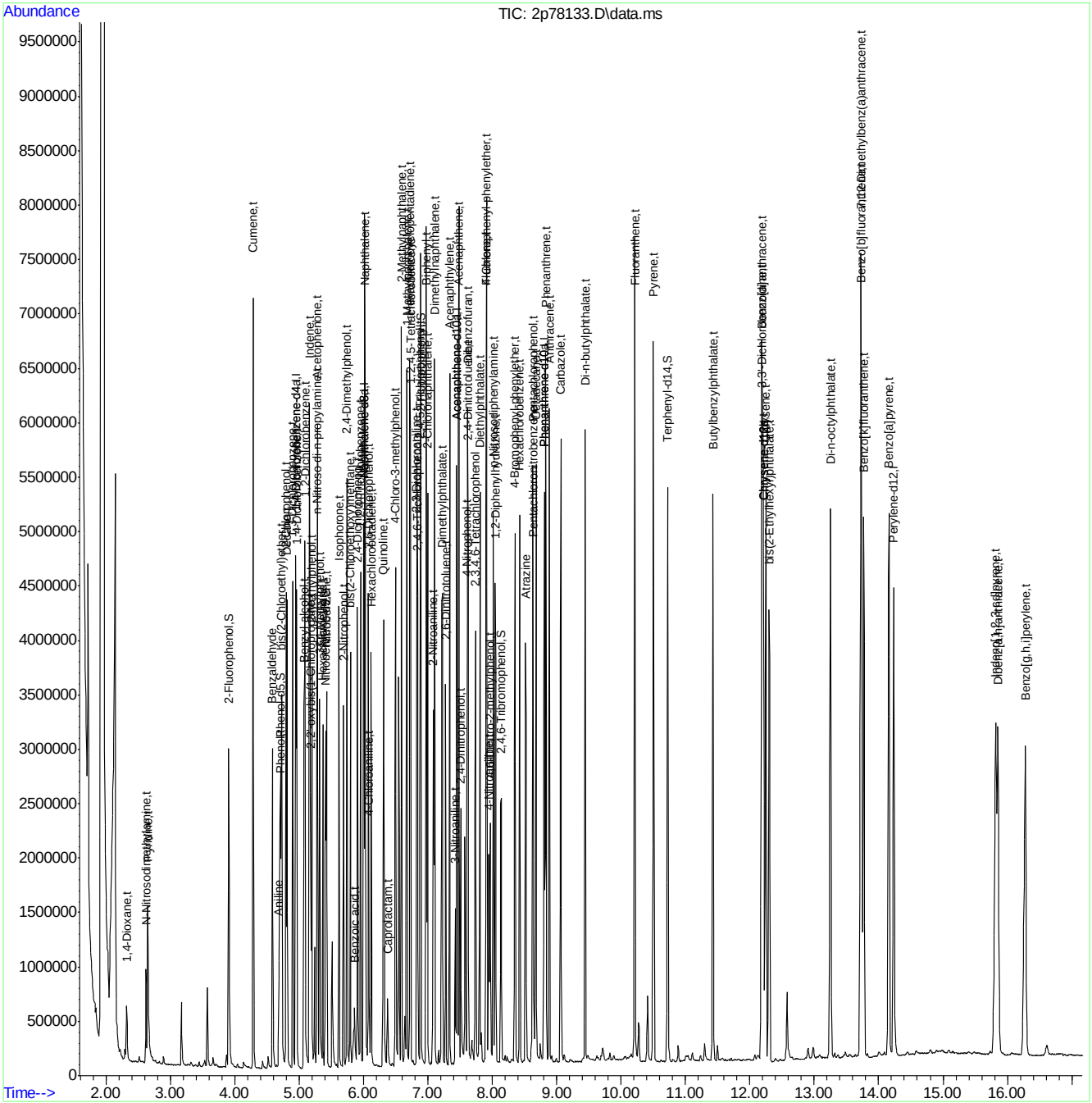
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) Carbazole	9.064	167	2413298	45.10	ppm	98
80) Di-n-butylphthalate	9.444	149	3019134	43.00	ppm	99
81) Fluoranthene	10.214	202	3414183	42.12	ppm	97
82) Octadecane	8.679	43	624916	39.26	ppm	97
84) Pyrene	10.503	202	3302832	44.56	ppm	100
86) Butylbenzylphthalate	11.428	149	1436881	43.86	ppm	99
87) Benzo[a]anthracene	12.193	228	2932584	40.63	ppm	99
88) 3,3'-Dichlorobenzidine	12.182	252	831102	28.36	ppm	96
89) Chrysene	12.252	228	2408461	42.58	ppm	100
90) bis(2-Ethylhexyl)phtha...	12.300	149	1459396	44.37	ppm	99
92) Di-n-octylphthalate	13.252	149	3171328	45.59	ppm	99
93) Benzo[b]fluoranthene	13.734	252	2814609	38.59	ppm	98
94) Benzo[k]fluoranthene	13.771	252	2429746	39.08	ppm	96
95) Benzo[a]pyrene	14.161	252	2564955	40.63	ppm	97
96) Indeno[1,2,3-cd]pyrene	15.820	276	2480498m	40.78	ppm	
98) Dibenz[a,h]anthracene	15.857	278	2229166	39.54	ppm	95
99) 7,12-Dimethylbenz(a)an...	13.728	256	1293253	41.10	ppm	97
100) Benzo[g,h,i]perylene	16.280	276	2379913	42.18	ppm	94
102) Benzaldehyde	4.587	105	503922	28.40	ppm	96
106) Atrazine	8.519	215	269290	44.87	ppm	91
107) 1,2,4,5-Tetrachloroben...	6.732	216	805516	39.40	ppm	98
113) Pentachloronitrobenzene	8.636	295	107918	61.23	ppm	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78133.D
Acq On : 28 Mar 2018 4:59 pm
Operator : johnb1
Sample : op10883-ms
Misc : op10883,e2p3440,980,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 29 12:35:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Manual Integration Approval Summary

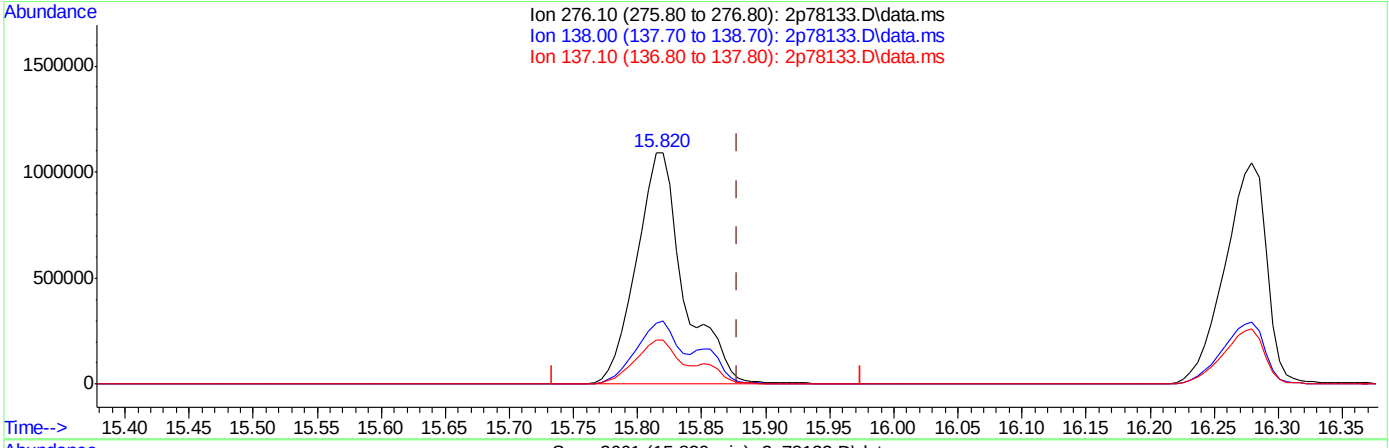
Sample Number:	OP10883-MS	**Method:**	SW846 8270D
Lab FileID:	2P78133.D	**Analyst approved:**	03/29/18 12:54 Dipa Patel
Injection Time:	03/28/18 16:59	**Supervisor approved:**	03/29/18 14:42 Nancy Ma

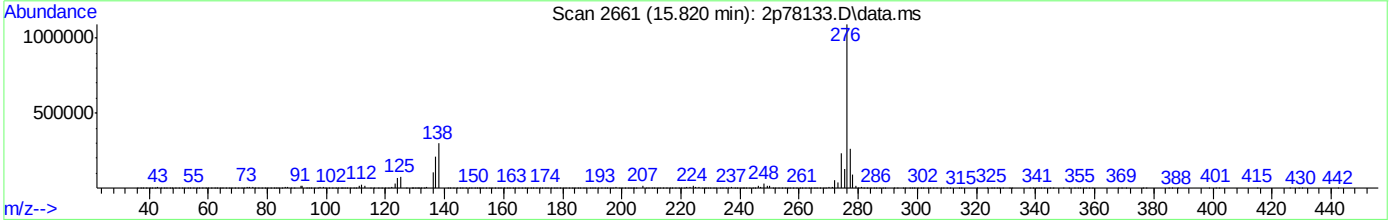
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		15.82	Overlapping peak

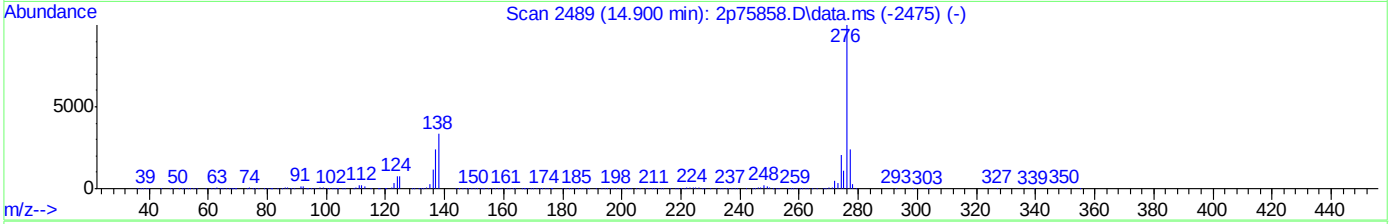
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78133.D
Acq On : 28 Mar 2018 4:59 pm
Operator : johnb1
Sample : op10883-ms
Misc : op10883,e2p3440,980,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 17:15:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration







TIC: 2p78133.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.820min (-0.058) 46.59ppm

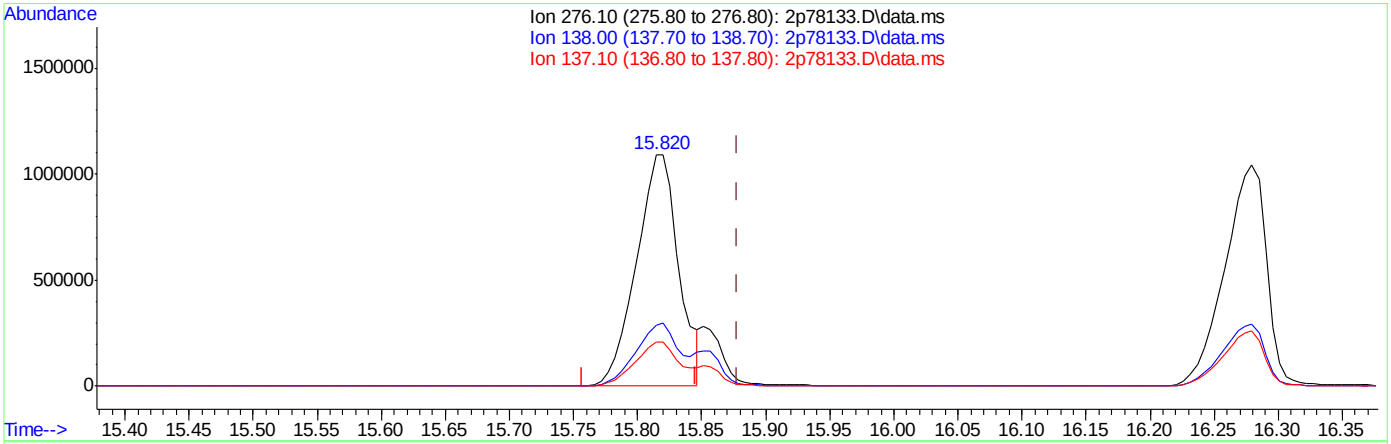
response 2833758

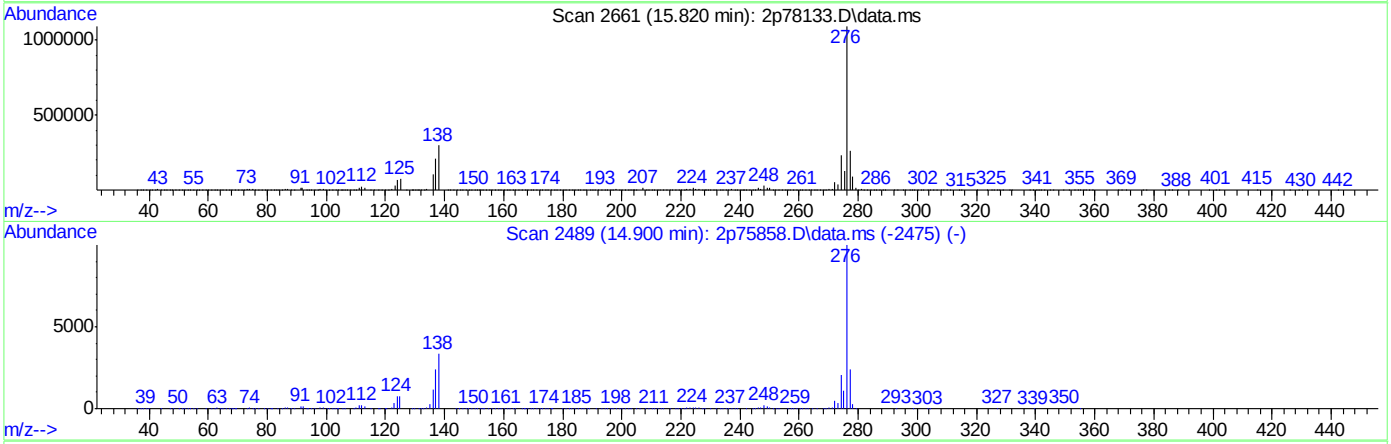
Ion	Exp%	Act%
276.10	100	100
138.00	17.60	27.30
137.10	13.50	18.85
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78133.D
Acq On : 28 Mar 2018 4:59 pm
Operator : johnb1
Sample : op10883-ms
Misc : op10883,e2p3440,980,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 17:15:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration





TIC: 2p78133.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.820min (-0.058) 40.78ppm m

response 2480498

Ion	Exp%	Act%
276.10	100	100
138.00	17.60	27.33
137.10	13.50	18.92
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nancy Ma
03/29/18 14:42

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78134.D
Acq On : 28 Mar 2018 5:21 pm
Operator : johnb1
Sample : op10883-msd
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 29 12:38:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.951	152	598623	40.00	ppm	-0.02
24) Naphthalene-d8	6.005	136	2074305	40.00	ppm	-0.02
47) Acenaphthene-d10	7.454	164	1089998	40.00	ppm	-0.02
69) Phenanthrene-d10	8.807	188	1959225	40.00	ppm	-0.02
83) Chrysene-d12	12.215	240	1904600	40.00	ppm	-0.02
91) Perylene-d12	14.236	264	1978373	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.951	152	598623	40.00	ppm	-0.02
103) Naphthalene-d8a	6.005	136	2074305	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.454	164	1089998	40.00	ppm	-0.02
108) Chrysene-d12a	12.215	240	1904600	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.807	188	1959225	40.00	ppm	-0.02
114) Chrysene-d12b	12.215	240	1904600	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.908	112	866144	33.21	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 66.42%#			
8) Phenol-d5	4.705	99	679479	21.72	ppm	0.03
Spiked Amount 50.000	Range 10 - 59		Recovery = 43.44%			
25) Nitrobenzene-d5	5.411	82	893496	39.05	ppm	-0.02
Spiked Amount 50.000	Range 19 - 61		Recovery = 78.10%#			
51) 2-Fluorobiphenyl	6.893	172	1565098	36.63	ppm	-0.02
Spiked Amount 50.000	Range 21 - 58		Recovery = 73.26%#			
73) 2,4,6-Tribromophenol	8.139	330	310960	52.38	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery = 104.76%#			
85) Terphenyl-d14	10.722	244	2304735	45.77	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 91.54%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.325	88	220349	26.69	ppm	98
3) Pyridine	2.656	79	718305	32.93	ppm	93
4) N-Nitrosodimethylamine	2.630	74	378453	31.76	ppm	81
6) Indene	5.165	116	1530295	46.80	ppm	98
7) Cumene	4.288	105	2345320	36.95	ppm	98
9) Phenol	4.716	94	736203	21.63	ppm	85
10) Aniline	4.684	93	871281	25.88	ppm	73
11) bis(2-Chloroethyl)ether	4.732	93	962355	46.48	ppm	92
12) 2-Chlorophenol	4.796	128	1024262	42.12	ppm	98
13) Decane	4.817	57	679191	31.64	ppm	99
14) 1,3-Dichlorobenzene	4.903	146	894083	34.65	ppm	98
15) 1,4-Dichlorobenzene	4.962	146	844782	34.88	ppm	99
16) Benzyl alcohol	5.079	108	551099	41.09	ppm	85
17) 1,2-Dichlorobenzene	5.090	146	846813	38.51	ppm	99
18) Acetophenone	5.283	105	1137765	39.26	ppm	82
19) 2-Methylphenol	5.197	108	700301	37.96	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.176	121	245196	43.67	ppm	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78134.D
Acq On : 28 Mar 2018 5:21 pm
Operator : johnb1
Sample : op10883-msd
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 29 12:38:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21)	3&4-Methylphenol	5.320	108	720785	36.24	ppm		96
22)	n-Nitroso-di-n-propyla...	5.293	70	554827	39.58	ppm		99
23)	Hexachloroethane	5.368	201	289692	28.86	ppm		94
26)	Nitrobenzene	5.427	77	817620	38.25	ppm		96
27)	Quinoline	6.315	129	1866729	47.65	ppm		98
28)	Isophorone	5.625	82	1621233	41.38	ppm		95
29)	2-Nitrophenol	5.689	139	525846	45.57	ppm		90
30)	2,4-Dimethylphenol	5.743	107	894578	45.42	ppm		98
31)	Benzoic acid	5.871	105	352548	24.16	ppm		95
32)	bis(2-Chloroethoxy)met...	5.796	93	973448	47.53	ppm		99
33)	2,4-Dichlorophenol	5.908	162	793003	43.87	ppm		96
34)	2,6-Dichlorophenol	6.080	162	692531	43.62	ppm		99
36)	1,2,4-Trichlorobenzene	5.957	180	790872	37.27	ppm		98
38)	Naphthalene	6.021	128	2145364	40.19	ppm		99
39)	4-Chloroaniline	6.074	127	341950	14.38	ppm		99
40)	2,3-Dichloroaniline	6.828	161	659309	30.41	ppm		98
41)	Caprolactam	6.374	113	92271	14.40	ppm		96
42)	Hexachlorobutadiene	6.122	225	364566	31.06	ppm		98
43)	4-Chloro-3-methylphenol	6.497	107	824247	43.91	ppm		95
44)	2-Methylnaphthalene	6.588	141	1387631	39.81	ppm		98
45)	1-Methylnaphthalene	6.673	141	1337065	37.60	ppm		97
46)	Dimethylnaphthalene	7.107	156	1368082	38.57	ppm		97
48)	Hexachlorocyclopentadiene	6.721	237	771893	68.87	ppm		99
49)	2,4,6-Trichlorophenol	6.839	196	523732	39.64	ppm		98
50)	2,4,5-Trichlorophenol	6.882	196	545163	40.31	ppm		99
52)	2-Chloronaphthalene	6.994	162	1369843	37.78	ppm		97
53)	Biphenyl	6.973	154	1934658	39.51	ppm		99
54)	2-Nitroaniline	7.085	65	474100	40.23	ppm		93
55)	Dimethylphthalate	7.224	163	1722237	39.38	ppm		99
56)	Acenaphthylene	7.337	152	2314260	41.01	ppm		98
57)	2,6-Dinitrotoluene	7.278	165	415037	43.19	ppm		88
58)	3-Nitroaniline	7.427	138	225664	20.24	ppm		97
59)	Acenaphthene	7.481	153	1681585	45.56	ppm		95
60)	2,4-Dinitrophenol	7.513	184	443108	90.15	ppm	#	58
61)	4-Nitrophenol	7.609	109	142561	22.63	ppm		87
62)	Dibenzofuran	7.625	168	2000128	40.73	ppm		95
63)	2,4-Dinitrotoluene	7.615	165	534584	43.15	ppm		94
64)	2,3,4,6-Tetrachlorophenol	7.738	232	486948	40.79	ppm		96
65)	Diethylphthalate	7.807	149	1694842	40.88	ppm		98
66)	Fluorene	7.914	166	1676054	40.46	ppm		98
67)	4-Chlorophenyl-phenyle...	7.909	204	913821	39.05	ppm		96
68)	4-Nitroaniline	7.952	138	373877	35.16	ppm		86
70)	4,6-Dinitro-2-methylph...	7.968	198	352946	51.09	ppm		71
71)	n-Nitrosodiphenylamine	8.016	169	1204311	44.12	ppm		100
72)	1,2-Diphenylhydrazine	8.048	77	1557571	42.80	ppm		98
74)	4-Bromophenyl-phenylether	8.353	248	616928	45.37	ppm		97
75)	Hexachlorobenzene	8.428	284	669044	45.86	ppm		96
76)	Pentachlorophenol	8.631	266	387464	42.16	ppm		98
77)	Phenanthrene	8.834	178	2526693	46.37	ppm		100
78)	Anthracene	8.888	178	2494365	45.55	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78134.D
Acq On : 28 Mar 2018 5:21 pm
Operator : johnb1
Sample : op10883-msd
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 29 12:38:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

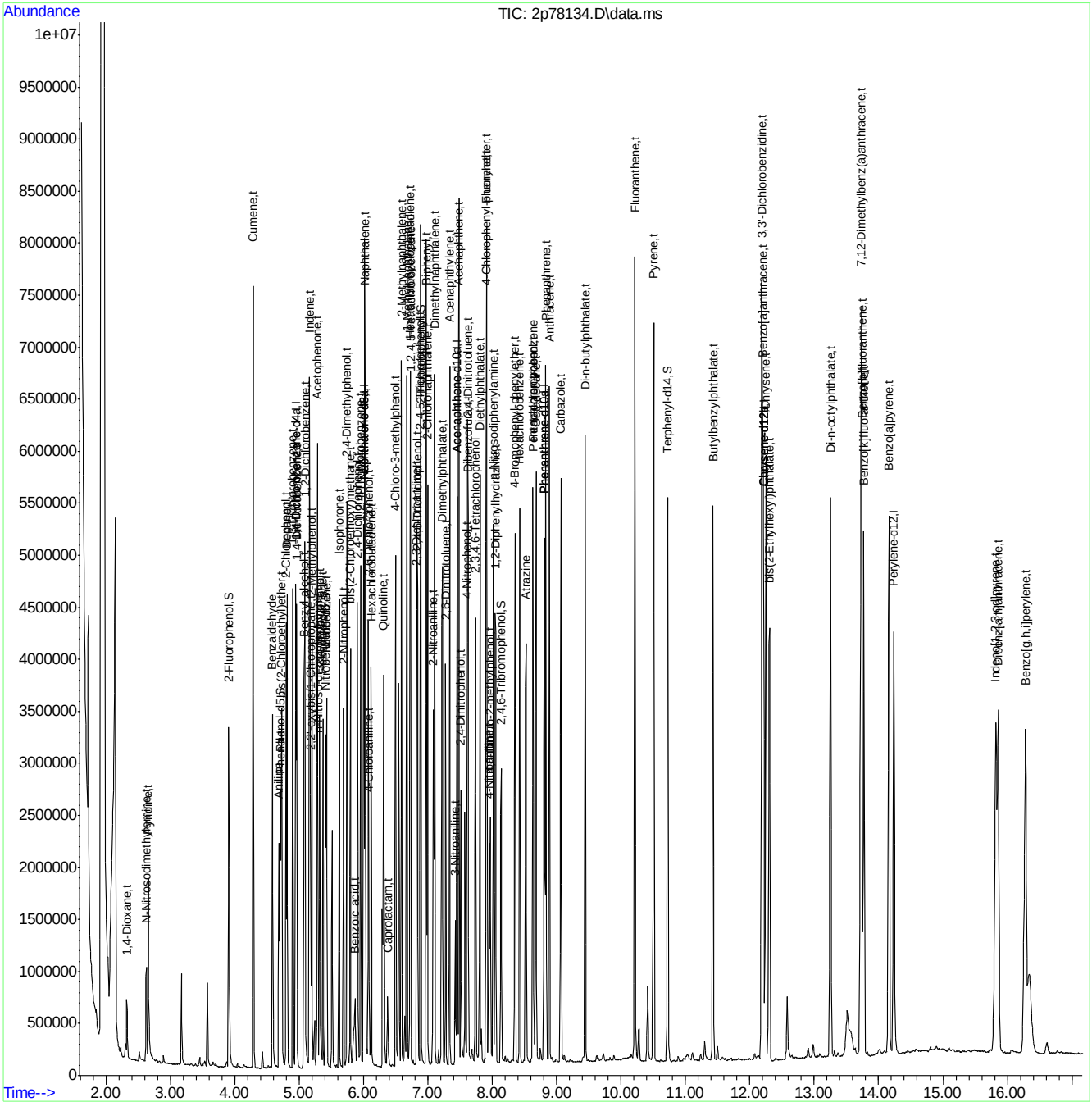
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79)	Carbazole	9.064	167	2531161	47.44	ppm	99
80)	Di-n-butylphthalate	9.444	149	3228723	46.12	ppm	99
81)	Fluoranthene	10.214	202	3615848	44.74	ppm	96
82)	Octadecane	8.679	43	653818	41.19	ppm	97
84)	Pyrene	10.508	202	3470030	47.47	ppm	99
86)	Butylbenzylphthalate	11.428	149	1520460	47.05	ppm	100
87)	Benzo[a]anthracene	12.198	228	3064182	43.04	ppm	99
88)	3,3'-Dichlorobenzidine	12.188	252	1003272	34.71	ppm	99
89)	Chrysene	12.252	228	2513073	45.05	ppm	99
90)	bis(2-Ethylhexyl)phtha...	12.305	149	1559889	48.08	ppm	100
92)	Di-n-octylphthalate	13.252	149	3363016	49.11	ppm	99
93)	Benzo[b]fluoranthene	13.739	252	2996477	41.74	ppm	96
94)	Benzo[k]fluoranthene	13.771	252	2439046	39.85	ppm	96
95)	Benzo[a]pyrene	14.161	252	2740707	44.10	ppm	98
96)	Indeno[1,2,3-cd]pyrene	15.820	276	2684484m	44.84	ppm	
98)	Dibenz[a,h]anthracene	15.857	278	2386416	43.00	ppm	95
99)	7,12-Dimethylbenz(a)an...	13.728	256	1313968	42.42	ppm	99
100)	Benzo[g,h,i]perylene	16.285	276	2530551	45.56	ppm	95
102)	Benzaldehyde	4.587	105	574095	31.85	ppm	95
106)	Atrazine	8.524	215	285437	48.16	ppm	84
107)	1,2,4,5-Tetrachloroben...	6.732	216	844207	41.80	ppm	97
113)	Pentachloronitrobenzene	8.636	295	114113	64.93	ppm	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78134.D
Acq On : 28 Mar 2018 5:21 pm
Operator : johnb1
Sample : op10883-msd
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 29 12:38:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Manual Integration Approval Summary

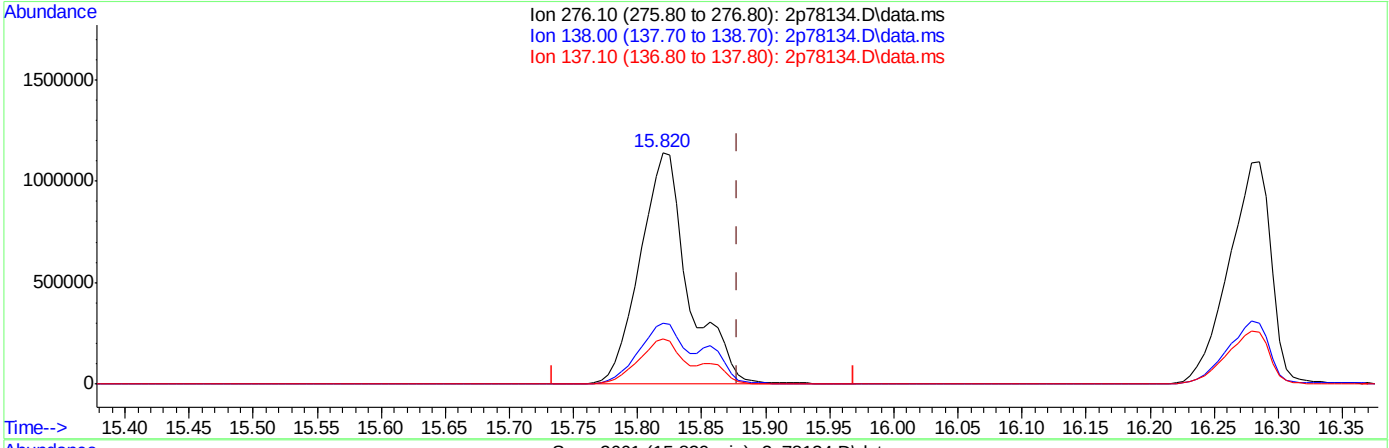
Sample Number:	OP10883-MSD	**Method:**	SW846 8270D
Lab FileID:	2P78134.D	**Analyst approved:**	03/29/18 12:54 Dipa Patel
Injection Time:	03/28/18 17:21	**Supervisor approved:**	03/29/18 14:42 Nancy Ma

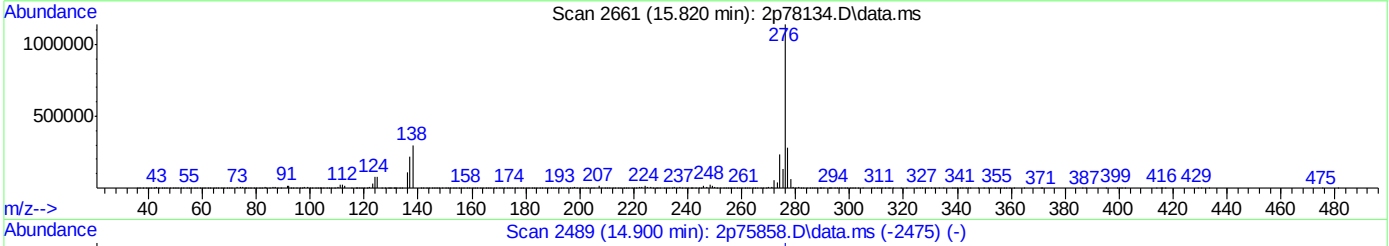
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		15.82	Overlapping peak

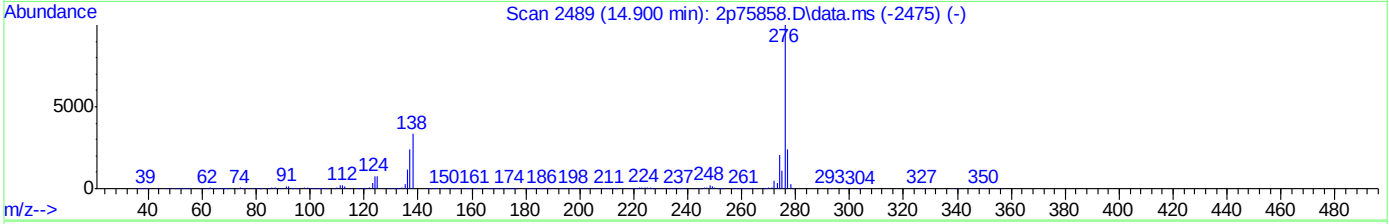
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78134.D
Acq On : 28 Mar 2018 5:21 pm
Operator : johnb1
Sample : op10883-msd
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 28 17:36:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration







TIC: 2p78134.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.820min (-0.059) 50.52ppm

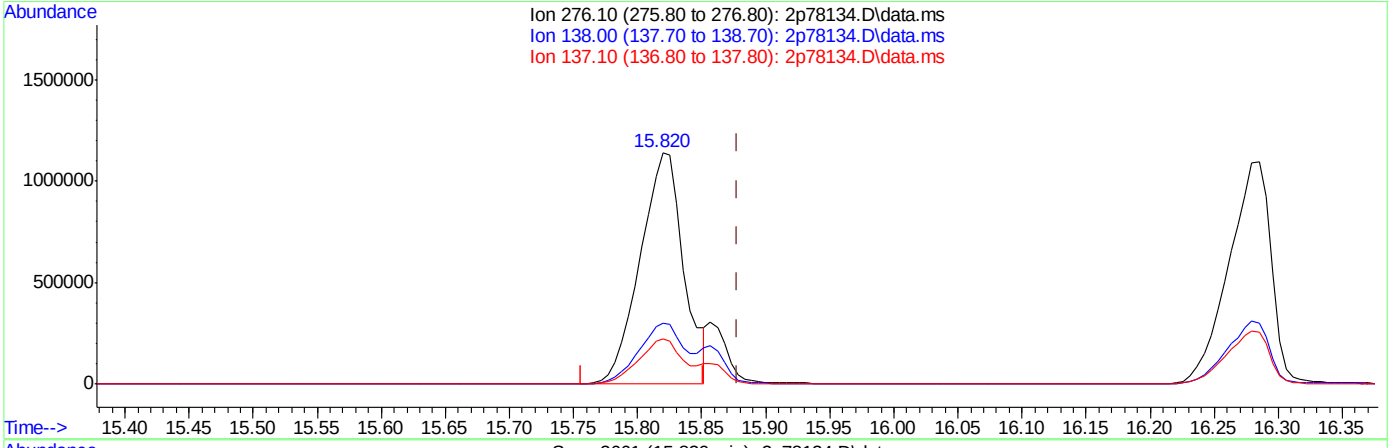
response 3024936

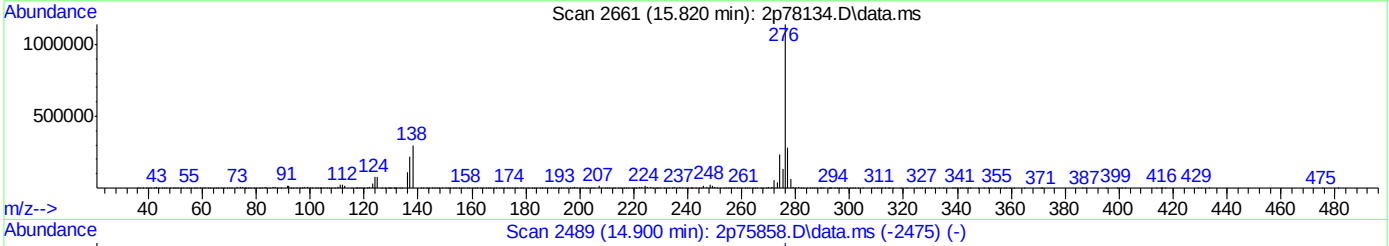
Ion	Exp%	Act%
276.10	100	100
138.00	17.60	26.28
137.10	13.50	19.31
0.00	0.00	0.00

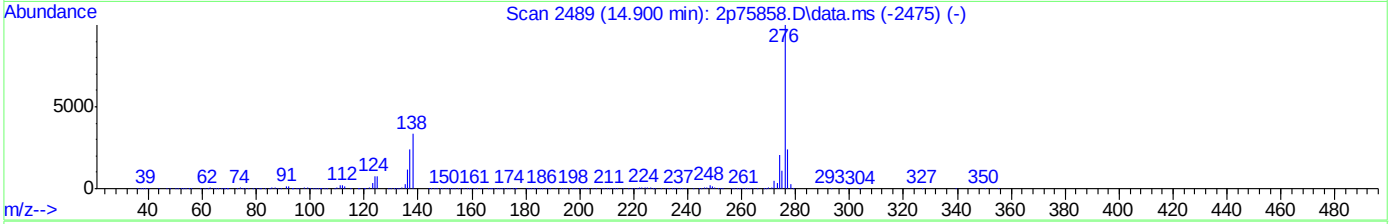
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78134.D
Acq On : 28 Mar 2018 5:21 pm
Operator : johnb1
Sample : op10883-msd
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 28 17:36:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration







TIC: 2p78134.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.820min (-0.059) 44.84ppm m

response 2684484

Ion	Exp%	Act%
276.10	100	100
138.00	17.60	26.33
137.10	13.50	19.39
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nancy Ma
03/29/18 14:42

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78135.D
Acq On : 28 Mar 2018 5:42 pm
Operator : johnb1
Sample : op10883-ms2
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 29 12:40:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.951	152	616384	40.00	ppm	-0.02
24) Naphthalene-d8	5.999	136	2149900	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1117626	40.00	ppm	-0.02
69) Phenanthrene-d10	8.807	188	2040012	40.00	ppm	-0.02
83) Chrysene-d12	12.209	240	2036893	40.00	ppm	-0.03
91) Perylene-d12	14.236	264	2011337	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.951	152	616384	40.00	ppm	-0.02
103) Naphthalene-d8a	5.999	136	2149900	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1117626	40.00	ppm	-0.02
108) Chrysene-d12a	12.209	240	2036893	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.807	188	2040012	40.00	ppm	-0.02
114) Chrysene-d12b	12.209	240	2036893	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.908	112	675473	25.15	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 50.30%			
8) Phenol-d5	4.705	99	572669	17.78	ppm	0.03
Spiked Amount 50.000	Range 10 - 59		Recovery = 35.56%			
25) Nitrobenzene-d5	5.411	82	769488	32.45	ppm	-0.02
Spiked Amount 50.000	Range 19 - 61		Recovery = 64.90%#			
51) 2-Fluorobiphenyl	6.887	172	1395807	31.86	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 63.72%#			
73) 2,4,6-Tribromophenol	8.139	330	270597	43.78	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery = 87.56%#			
85) Terphenyl-d14	10.722	244	1676590	31.13	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 62.26%			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.320	88	157844	19.14	ppm	96
3) Pyridine	2.657	79	210069	9.35	ppm	97
4) N-Nitrosodimethylamine	2.624	74	293736	23.94	ppm	84
6) Indene	5.160	116	1233888	36.65	ppm	99
7) Cumene	4.288	105	1776021	27.18	ppm	98
9) Phenol	4.716	94	611770	17.46	ppm	85
10) Aniline	4.684	93	867007	25.01	ppm	80
11) bis(2-Chloroethyl)ether	4.726	93	778240	36.50	ppm	98
12) 2-Chlorophenol	4.796	128	836985	33.43	ppm	97
13) Decane	4.817	57	516435	23.36	ppm	97
14) 1,3-Dichlorobenzene	4.903	146	708504	26.67	ppm	98
15) 1,4-Dichlorobenzene	4.962	146	675595	27.09	ppm	99
16) Benzyl alcohol	5.079	108	464020	33.60	ppm	84
17) 1,2-Dichlorobenzene	5.090	146	699120	30.88	ppm	99
18) Acetophenone	5.283	105	984165	32.98	ppm	81
19) 2-Methylphenol	5.197	108	588870	31.00	ppm	97
20) 2,2'-oxybis(1-Chloropr...	5.176	121	199619	34.53	ppm	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78135.D
Acq On : 28 Mar 2018 5:42 pm
Operator : johnb1
Sample : op10883-ms2
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 29 12:40:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.320	108	620994	30.32	ppm		99
22) n-Nitroso-di-n-propyla...	5.288	70	487058	33.75	ppm		97
23) Hexachloroethane	5.368	201	226923	21.96	ppm		93
26) Nitrobenzene	5.427	77	745791	33.67	ppm		95
27) Quinoline	6.310	129	1021659	25.16	ppm		98
28) Isophorone	5.620	82	1443027	35.54	ppm		99
29) 2-Nitrophenol	5.689	139	454409	38.00	ppm		87
30) 2,4-Dimethylphenol	5.743	107	737736	36.14	ppm		98
31) Benzoic acid	5.866	105	375621	24.83	ppm		97
32) bis(2-Chloroethoxy)met...	5.796	93	831765	39.19	ppm		100
33) 2,4-Dichlorophenol	5.909	162	685226	36.58	ppm		96
34) 2,6-Dichlorophenol	6.080	162	598242	36.36	ppm		98
36) 1,2,4-Trichlorobenzene	5.957	180	641451	29.16	ppm		97
38) Naphthalene	6.021	128	1810306	32.72	ppm		99
39) 4-Chloroaniline	6.069	127	535699	21.73	ppm		97
40) 2,3-Dichloroaniline	6.829	161	632992	28.17	ppm		99
41) Caprolactam	6.369	113	89606	13.49	ppm		92
42) Hexachlorobutadiene	6.122	225	286002	23.51	ppm		97
43) 4-Chloro-3-methylphenol	6.497	107	738585	37.97	ppm		98
44) 2-Methylnaphthalene	6.588	141	1261304	34.91	ppm		97
45) 1-Methylnaphthalene	6.673	141	1218183	33.05	ppm		96
46) Dimethylnaphthalene	7.107	156	1256938	34.19	ppm		96
48) Hexachlorocyclopentadiene	6.722	237	670631	58.36	ppm		99
49) 2,4,6-Trichlorophenol	6.839	196	469230	34.64	ppm		97
50) 2,4,5-Trichlorophenol	6.882	196	495390	35.72	ppm		97
52) 2-Chloronaphthalene	6.994	162	1204975	32.41	ppm		97
53) Biphenyl	6.973	154	1739846	34.65	ppm		99
54) 2-Nitroaniline	7.085	65	392457	32.48	ppm		97
55) Dimethylphthalate	7.224	163	1584014	35.33	ppm		99
56) Acenaphthylene	7.337	152	2076855	35.89	ppm		97
57) 2,6-Dinitrotoluene	7.278	165	384029	38.98	ppm		84
58) 3-Nitroaniline	7.428	138	327795	28.68	ppm		95
59) Acenaphthene	7.481	153	1388156	36.68	ppm		100
60) 2,4-Dinitrophenol	7.508	184	384838	77.99	ppm	#	69
61) 4-Nitrophenol	7.609	109	124936	19.34	ppm	#	72
62) Dibenzofuran	7.620	168	1828548	36.32	ppm		99
63) 2,4-Dinitrotoluene	7.615	165	487885	38.41	ppm		91
64) 2,3,4,6-Tetrachlorophenol	7.738	232	437872	35.77	ppm		99
65) Diethylphthalate	7.807	149	1544185	36.32	ppm		98
66) Fluorene	7.914	166	1510814	35.57	ppm		98
67) 4-Chlorophenyl-phenyle...	7.909	204	840487	35.03	ppm		94
68) 4-Nitroaniline	7.946	138	289337	26.54	ppm		91
70) 4,6-Dinitro-2-methylph...	7.968	198	315478	44.32	ppm		95
71) n-Nitrosodiphenylamine	8.016	169	872957	30.72	ppm		99
72) 1,2-Diphenylhydrazine	8.048	77	1441085	38.03	ppm		99
74) 4-Bromophenyl-phenylether	8.353	248	553874	39.12	ppm		97
75) Hexachlorobenzene	8.428	284	595840	39.22	ppm		97
76) Pentachlorophenol	8.631	266	329490	34.43	ppm		99
77) Phenanthrene	8.834	178	2276864	40.13	ppm		99
78) Anthracene	8.888	178	2167205	38.01	ppm		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78135.D
Acq On : 28 Mar 2018 5:42 pm
Operator : johnb1
Sample : op10883-ms2
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 29 12:40:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

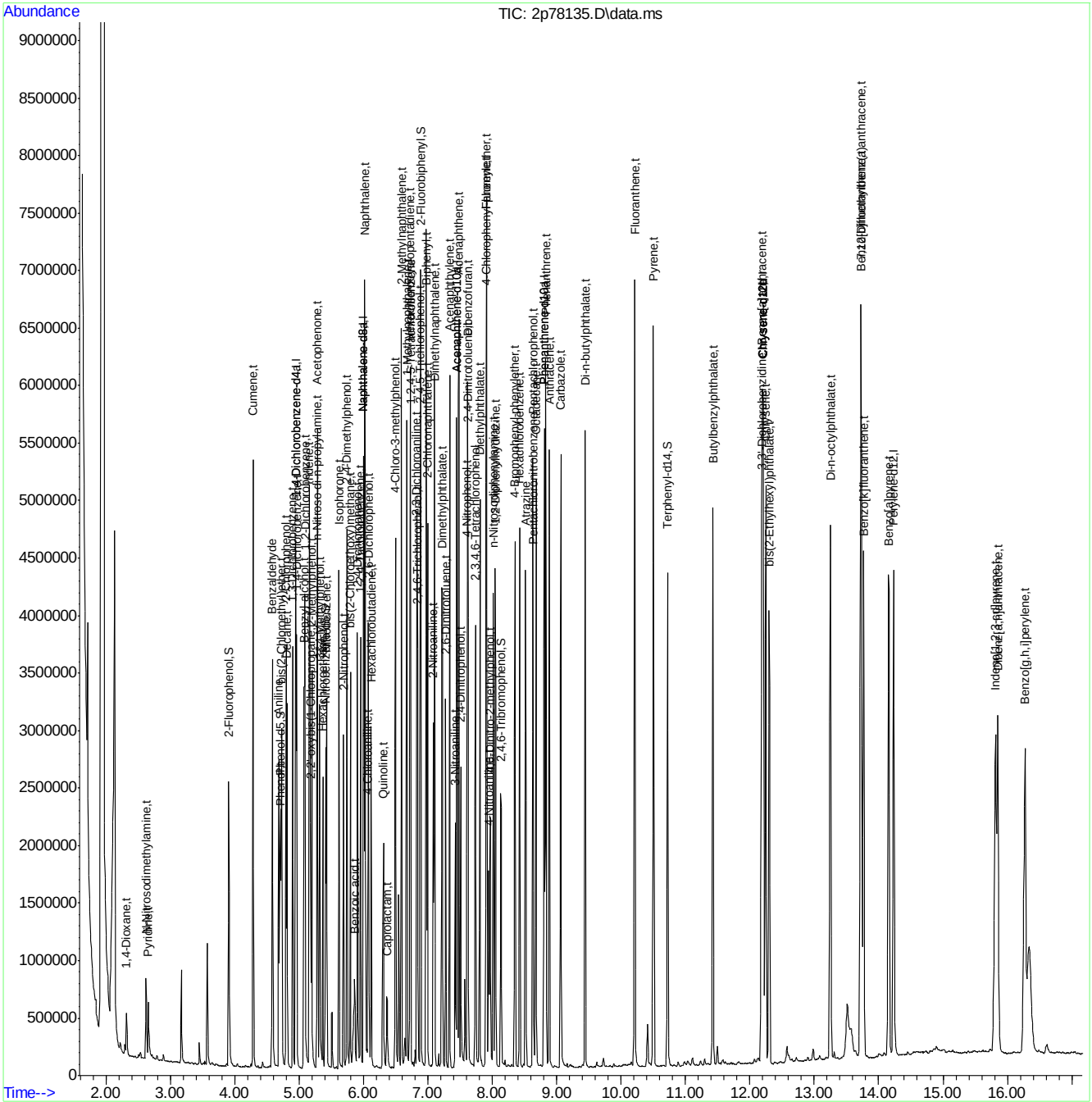
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) Carbazole	9.064	167	2269624	40.85	ppm	99
80) Di-n-butylphthalate	9.444	149	2926558	40.15	ppm	99
81) Fluoranthene	10.214	202	3292871	39.13	ppm	97
82) Octadecane	8.679	43	596802	36.11	ppm	97
84) Pyrene	10.503	202	3183169	40.71	ppm	100
86) Butylbenzylphthalate	11.428	149	1368433	39.60	ppm	98
87) Benzo[a]anthracene	12.193	228	2723617	35.77	ppm	99
88) 3,3'-Dichlorobenzidine	12.182	252	536818	17.36	ppm	96
89) Chrysene	12.247	228	2155293	36.12	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.300	149	1395521	40.22	ppm	98
92) Di-n-octylphthalate	13.252	149	2972566	42.70	ppm	99
93) Benzo[b]fluoranthene	13.728	252	2522118	34.56	ppm	98
94) Benzo[k]fluoranthene	13.771	252	2117867	34.04	ppm	98
95) Benzo[a]pyrene	14.161	252	2230014	35.30	ppm	98
96) Indeno[1,2,3-cd]pyrene	15.814	276	2159696m	35.48	ppm	
98) Dibenz[a,h]anthracene	15.852	278	2041223	36.17	ppm	94
99) 7,12-Dimethylbenz(a)an...	13.723	256	1036006	32.90	ppm	99
100) Benzo[g,h,i]perylene	16.274	276	2083796	36.90	ppm	95
102) Benzaldehyde	4.587	105	614467	33.11	ppm	96
106) Atrazine	8.519	215	271786	44.72	ppm	91
107) 1,2,4,5-Tetrachloroben...	6.732	216	751048	36.27	ppm	99
113) Pentachloronitrobenzene	8.636	295	101582	55.51	ppm	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78135.D
Acq On : 28 Mar 2018 5:42 pm
Operator : johnb1
Sample : op10883-ms2
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 29 12:40:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Manual Integration Approval Summary

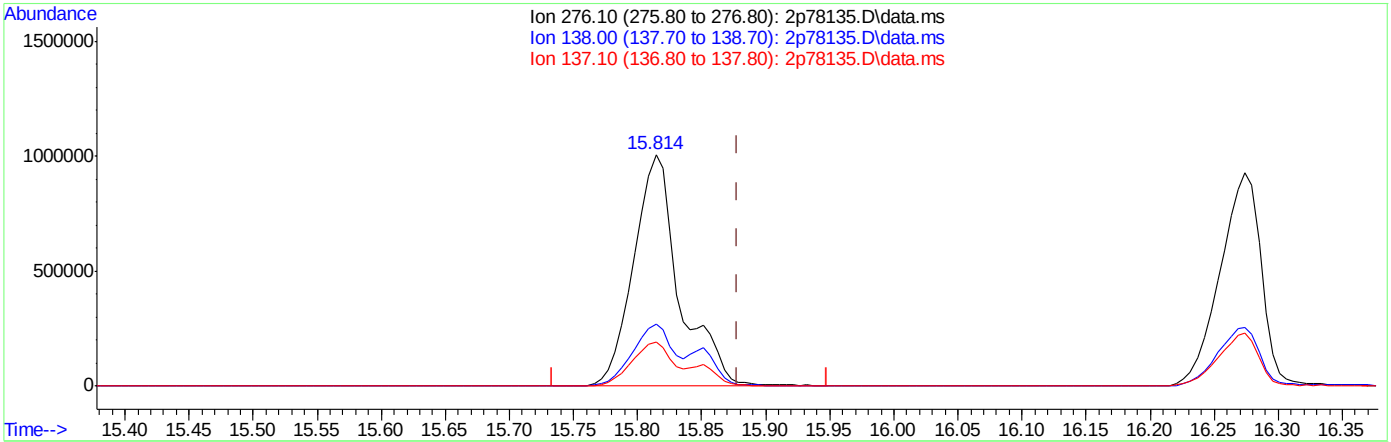
Sample Number:	OP10883-MS2	**Method:**	SW846 8270D
Lab FileID:	2P78135.D	**Analyst approved:**	03/29/18 12:54 Dipa Patel
Injection Time:	03/28/18 17:42	**Supervisor approved:**	03/29/18 14:42 Nancy Ma

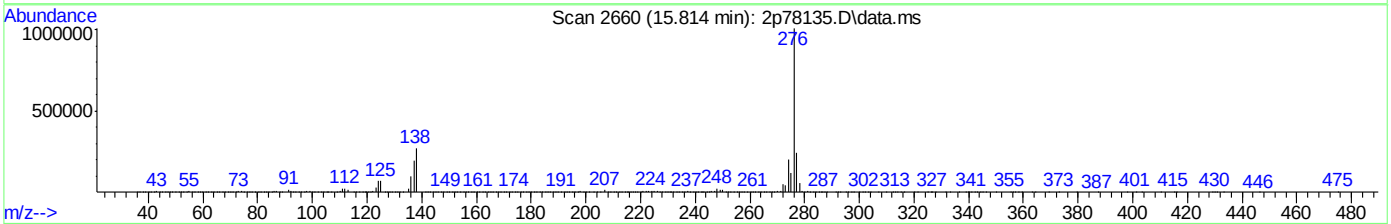
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		15.81	Overlapping peak

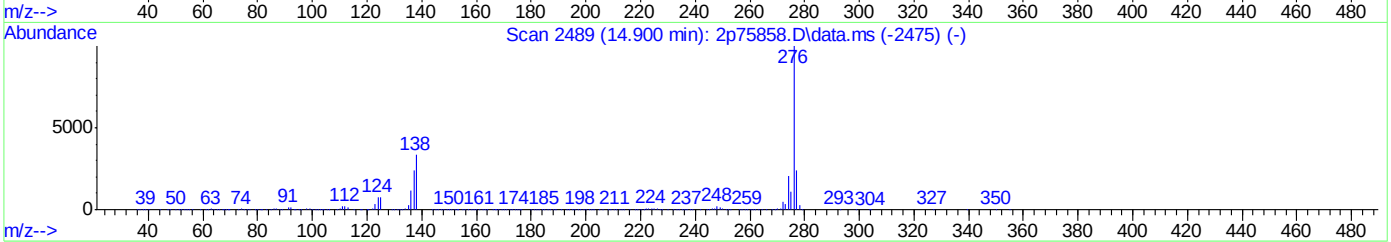
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78135.D
Acq On : 28 Mar 2018 5:42 pm
Operator : johnb1
Sample : op10883-ms2
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 17:58:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration







TIC: 2p78135.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.814min (-0.064) 41.27ppm

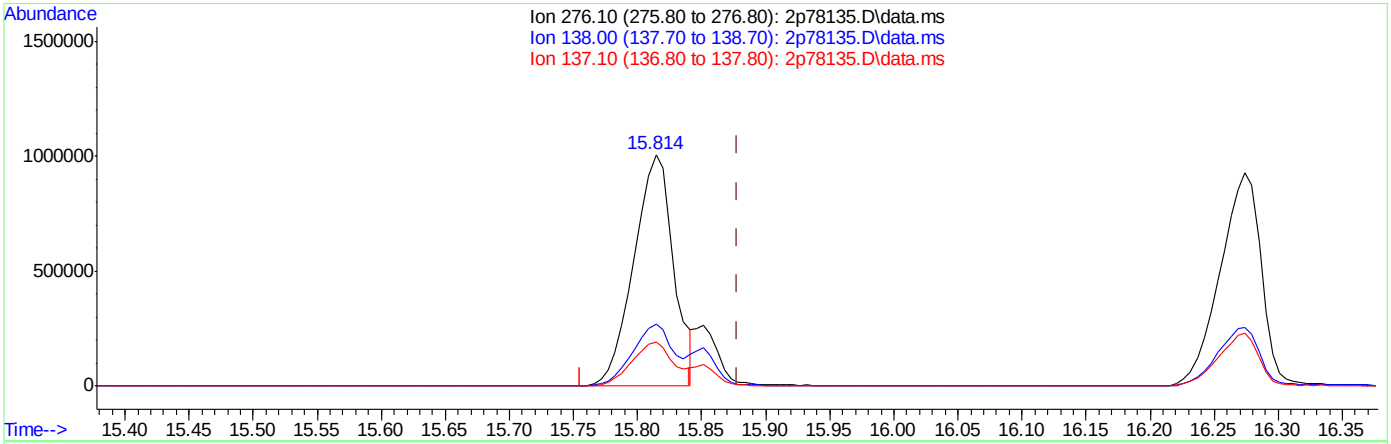
response 2511947

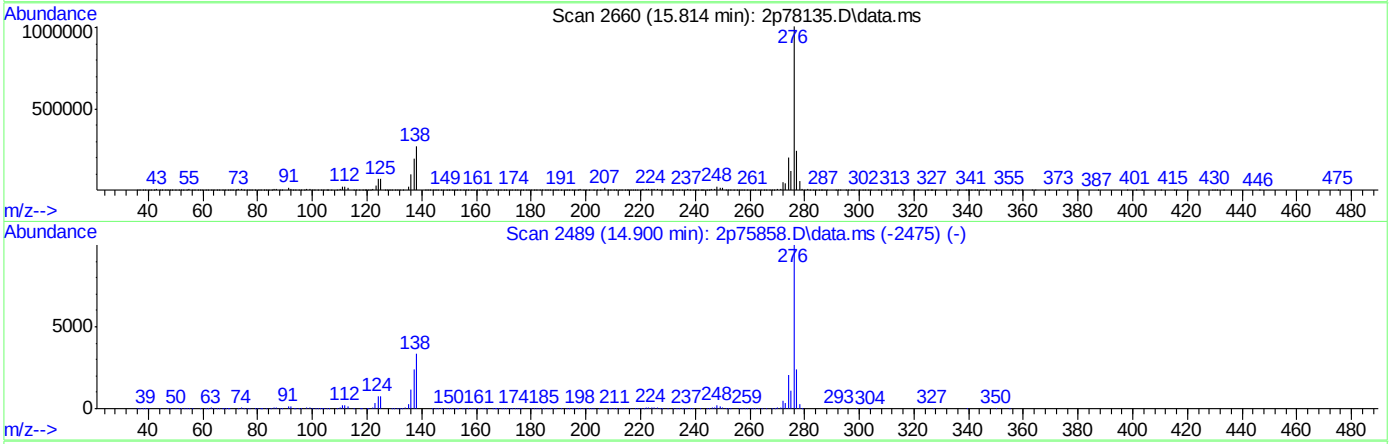
Ion	Exp%	Act%
276.10	100	100
138.00	17.60	26.85
137.10	13.50	18.81
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78135.D
Acq On : 28 Mar 2018 5:42 pm
Operator : johnb1
Sample : op10883-ms2
Misc : op10883,e2p3440,900,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 17:58:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration





TIC: 2p78135.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.814min (-0.064) 35.48ppm m

response 2159696

Ion	Exp%	Act%
276.10	100	100
138.00	17.60	26.89
137.10	13.50	18.87
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nancy Ma
03/29/18 14:42

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78136.D
Acq On : 28 Mar 2018 6:47 pm
Operator : johnb1
Sample : op10883-msd2
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 29 12:41:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.951	152	599802	40.00	ppm	-0.02
24) Naphthalene-d8	6.005	136	2144769	40.00	ppm	-0.02
47) Acenaphthene-d10	7.454	164	1128569	40.00	ppm	-0.02
69) Phenanthrene-d10	8.808	188	2046070	40.00	ppm	-0.02
83) Chrysene-d12	12.215	240	2009617	40.00	ppm	-0.02
91) Perylene-d12	14.236	264	2025615	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.951	152	599802	40.00	ppm	-0.02
103) Naphthalene-d8a	6.005	136	2144769	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.454	164	1128569	40.00	ppm	-0.02
108) Chrysene-d12a	12.215	240	2009617	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.808	188	2046070	40.00	ppm	-0.02
114) Chrysene-d12b	12.215	240	2009617	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.908	112	807446	30.90	ppm	0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 61.80%#			
8) Phenol-d5	4.705	99	620782	19.81	ppm	0.03
Spiked Amount 50.000	Range 10 - 59		Recovery = 39.62%			
25) Nitrobenzene-d5	5.411	82	909884	38.46	ppm	-0.02
Spiked Amount 50.000	Range 19 - 61		Recovery = 76.92%#			
51) 2-Fluorobiphenyl	6.887	172	1546618	34.96	ppm	-0.03
Spiked Amount 50.000	Range 21 - 58		Recovery = 69.92%#			
73) 2,4,6-Tribromophenol	8.139	330	303432	48.95	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery = 97.90%#			
85) Terphenyl-d14	10.722	244	2033359	38.27	ppm	-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 76.54%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.325	88	207817	25.24	ppm	99
3) Pyridine	2.657	79	218499	10.00	ppm	97
4) N-Nitrosodimethylamine	2.624	74	354995	29.74	ppm	89
6) Indene	5.165	116	1518617	46.35	ppm	98
7) Cumene	4.288	105	2307600	36.29	ppm	98
9) Phenol	4.716	94	666453	19.54	ppm	85
10) Aniline	4.684	93	968930	28.72	ppm	78
11) bis(2-Chloroethyl)ether	4.726	93	949290	45.75	ppm	100
12) 2-Chlorophenol	4.796	128	986645	40.49	ppm	98
13) Decane	4.817	57	665442	30.94	ppm	97
14) 1,3-Dichlorobenzene	4.903	146	866988	33.54	ppm	99
15) 1,4-Dichlorobenzene	4.962	146	817362	33.68	ppm	98
16) Benzyl alcohol	5.080	108	549360	40.88	ppm	84
17) 1,2-Dichlorobenzene	5.090	146	853189	38.73	ppm	99
18) Acetophenone	5.283	105	1168213	40.23	ppm	81
19) 2-Methylphenol	5.197	108	663573	35.90	ppm	96
20) 2,2'-oxybis(1-Chloropr...	5.176	121	237748	42.26	ppm #	82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78136.D
Acq On : 28 Mar 2018 6:47 pm
Operator : johnb1
Sample : op10883-msd2
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 29 12:41:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21)	3&4-Methylphenol	5.320	108	691093	34.68	ppm		97
22)	n-Nitroso-di-n-propyla...	5.288	70	557414	39.69	ppm		96
23)	Hexachloroethane	5.368	201	284430	28.28	ppm		93
26)	Nitrobenzene	5.427	77	890215	40.28	ppm		96
27)	Quinoline	6.310	129	1324701	32.71	ppm		97
28)	Isophorone	5.620	82	1649606	40.72	ppm		100
29)	2-Nitrophenol	5.689	139	533097	44.68	ppm		88
30)	2,4-Dimethylphenol	5.743	107	826507	40.59	ppm		98
31)	Benzoic acid	5.866	105	402560	26.68	ppm		95
32)	bis(2-Chloroethoxy)met...	5.796	93	976588	46.12	ppm		100
33)	2,4-Dichlorophenol	5.909	162	794117	42.49	ppm		96
34)	2,6-Dichlorophenol	6.085	162	690043	42.04	ppm		97
36)	1,2,4-Trichlorobenzene	5.957	180	737202	33.60	ppm		99
38)	Naphthalene	6.021	128	2062799	37.37	ppm		100
39)	4-Chloroaniline	6.074	127	470656	19.14	ppm		99
40)	2,3-Dichloroaniline	6.829	161	669483	29.87	ppm		97
41)	Caprolactam	6.369	113	93060	14.05	ppm		95
42)	Hexachlorobutadiene	6.122	225	342153	28.19	ppm		99
43)	4-Chloro-3-methylphenol	6.497	107	822017	42.36	ppm		89
44)	2-Methylnaphthalene	6.588	141	1393223	38.66	ppm		98
45)	1-Methylnaphthalene	6.673	141	1369912	37.26	ppm		96
46)	Dimethylnaphthalene	7.107	156	1370455	37.37	ppm		97
48)	Hexachlorocyclopentadiene	6.722	237	690412	59.49	ppm		99
49)	2,4,6-Trichlorophenol	6.839	196	532136	38.90	ppm		98
50)	2,4,5-Trichlorophenol	6.882	196	553985	39.56	ppm		99
52)	2-Chloronaphthalene	6.994	162	1321802	35.20	ppm		96
53)	Biphenyl	6.973	154	1954849	38.56	ppm		99
54)	2-Nitroaniline	7.085	65	446028	36.55	ppm		93
55)	Dimethylphthalate	7.224	163	1739849	38.42	ppm		99
56)	Acenaphthylene	7.337	152	2299706	39.36	ppm		99
57)	2,6-Dinitrotoluene	7.278	165	418626	42.07	ppm		87
58)	3-Nitroaniline	7.428	138	322310	27.93	ppm		96
59)	Acenaphthene	7.481	153	1524295	39.89	ppm		98
60)	2,4-Dinitrophenol	7.513	184	436130	86.25	ppm	#	59
61)	4-Nitrophenol	7.609	109	134361	20.60	ppm		79
62)	Dibenzofuran	7.620	168	1990841	39.16	ppm		98
63)	2,4-Dinitrotoluene	7.615	165	537617	41.91	ppm		95
64)	2,3,4,6-Tetrachlorophenol	7.738	232	497916	40.28	ppm		99
65)	Diethylphthalate	7.807	149	1675434	39.03	ppm		98
66)	Fluorene	7.914	166	1666058	38.85	ppm		98
67)	4-Chlorophenyl-phenyle...	7.909	204	917133	37.85	ppm		95
68)	4-Nitroaniline	7.952	138	338251	30.73	ppm		85
70)	4,6-Dinitro-2-methylph...	7.968	198	355576	49.41	ppm		94
71)	n-Nitrosodiphenylamine	8.016	169	1018992	35.75	ppm		99
72)	1,2-Diphenylhydrazine	8.048	77	1570108	41.31	ppm		99
74)	4-Bromophenyl-phenylether	8.353	248	620291	43.68	ppm		98
75)	Hexachlorobenzene	8.428	284	666540	43.75	ppm		97
76)	Pentachlorophenol	8.631	266	390228	40.65	ppm		98
77)	Phenanthrene	8.834	178	2508049	44.08	ppm		99
78)	Anthracene	8.888	178	2395957	41.90	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78136.D
Acq On : 28 Mar 2018 6:47 pm
Operator : johnb1
Sample : op10883-msd2
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 29 12:41:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

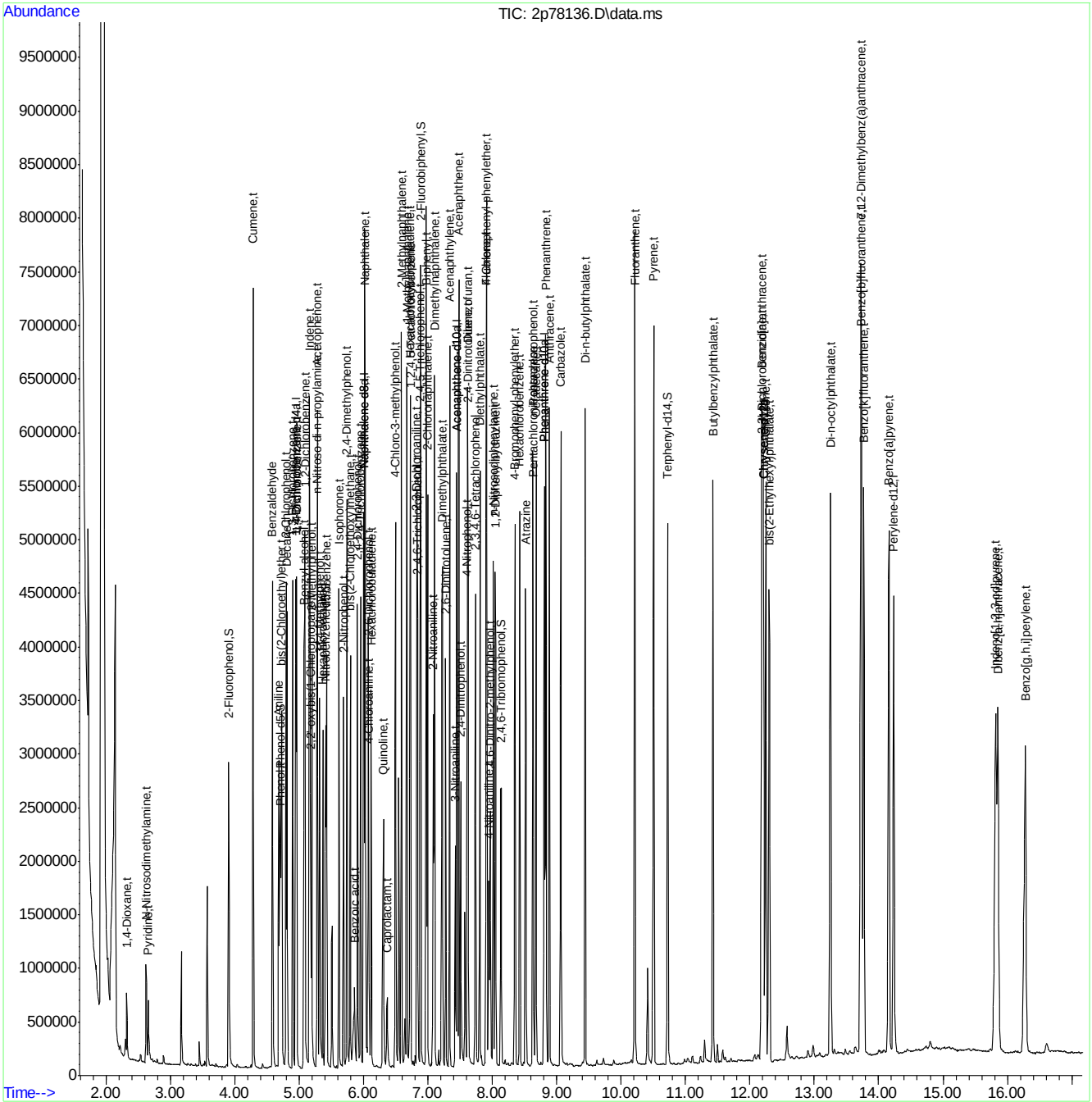
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) Carbazole	9.064	167	2543842	45.65	ppm	99
80) Di-n-butylphthalate	9.444	149	3223817	44.09	ppm	99
81) Fluoranthene	10.214	202	3649755	43.24	ppm	97
82) Octadecane	8.679	43	637561	38.47	ppm	96
84) Pyrene	10.508	202	3443257	44.64	ppm	99
86) Butylbenzylphthalate	11.428	149	1528245	44.82	ppm	99
87) Benzo[a]anthracene	12.193	228	3027961	40.31	ppm	99
88) 3,3'-Dichlorobenzidine	12.182	252	684706	22.45	ppm	96
89) Chrysene	12.252	228	2435822	41.38	ppm	100
90) bis(2-Ethylhexyl)phtha...	12.300	149	1570301	45.87	ppm	99
92) Di-n-octylphthalate	13.252	149	3341705	47.66	ppm	99
93) Benzo[b]fluoranthene	13.734	252	2848566	38.75	ppm	97
94) Benzo[k]fluoranthene	13.771	252	2483522	39.63	ppm	96
95) Benzo[a]pyrene	14.162	252	2601881	40.89	ppm	98
96) Indeno[1,2,3-cd]pyrene	15.820	276	2596225m	42.35	ppm	
98) Dibenz[a,h]anthracene	15.857	278	2339614	41.17	ppm	96
99) 7,12-Dimethylbenz(a)an...	13.728	256	1267675	39.97	ppm	100
100) Benzo[g,h,i]perylene	16.280	276	2453500	43.14	ppm	94
102) Benzaldehyde	4.587	105	778974	43.14	ppm	95
106) Atrazine	8.519	215	304820	49.67	ppm	93
107) 1,2,4,5-Tetrachloroben...	6.732	216	830815	39.73	ppm	99
113) Pentachloronitrobenzene	8.636	295	110839	60.39	ppm	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78136.D
Acq On : 28 Mar 2018 6:47 pm
Operator : johnb1
Sample : op10883-msd2
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 29 12:41:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Manual Integration Approval Summary

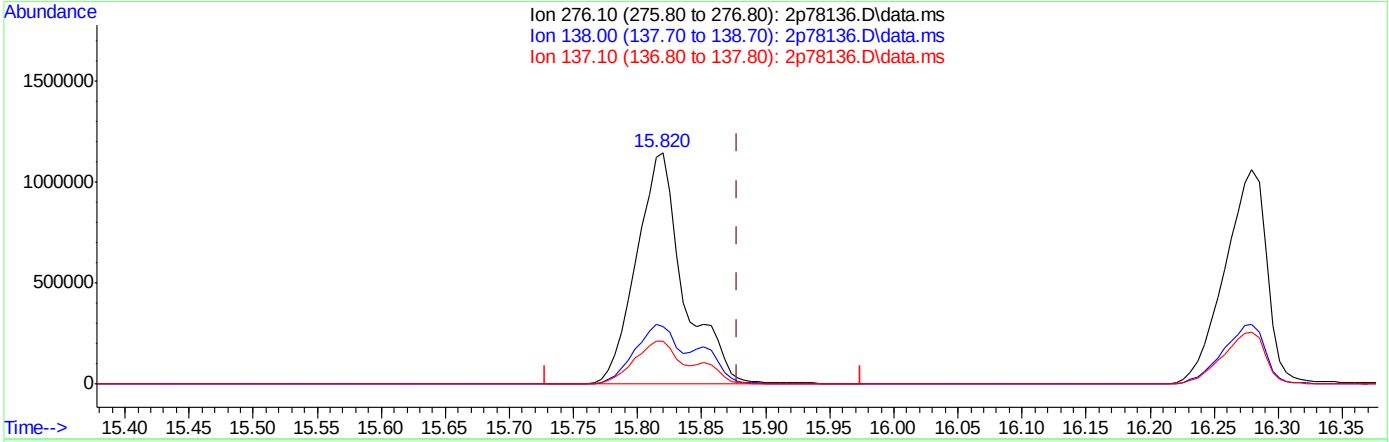
Sample Number:	OP10883-MSD2	**Method:**	SW846 8270D
Lab FileID:	2P78136.D	**Analyst approved:**	03/29/18 12:54 Dipa Patel
Injection Time:	03/28/18 18:47	**Supervisor approved:**	03/29/18 14:42 Nancy Ma

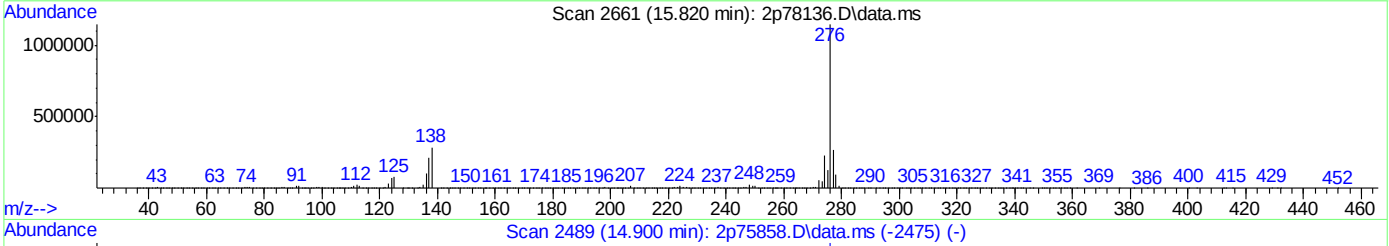
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		15.82	Overlapping peak

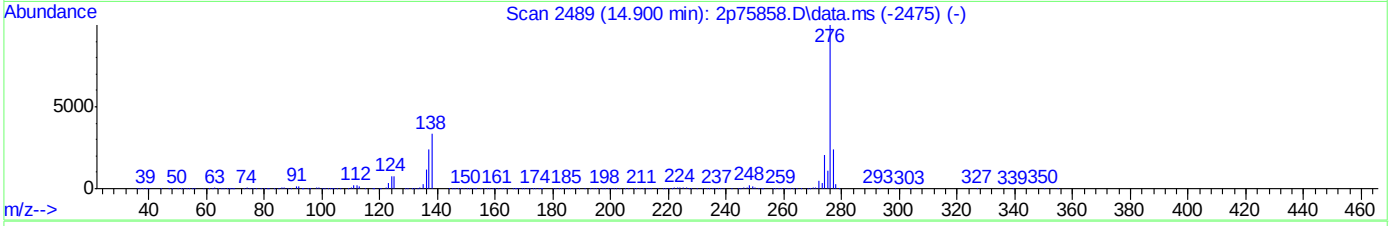
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78136.D
Acq On : 28 Mar 2018 6:47 pm
Operator : johnb1
Sample : op10883-msd2
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 28 19:02:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration







TIC: 2p78136.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.820min (-0.058) 48.27ppm

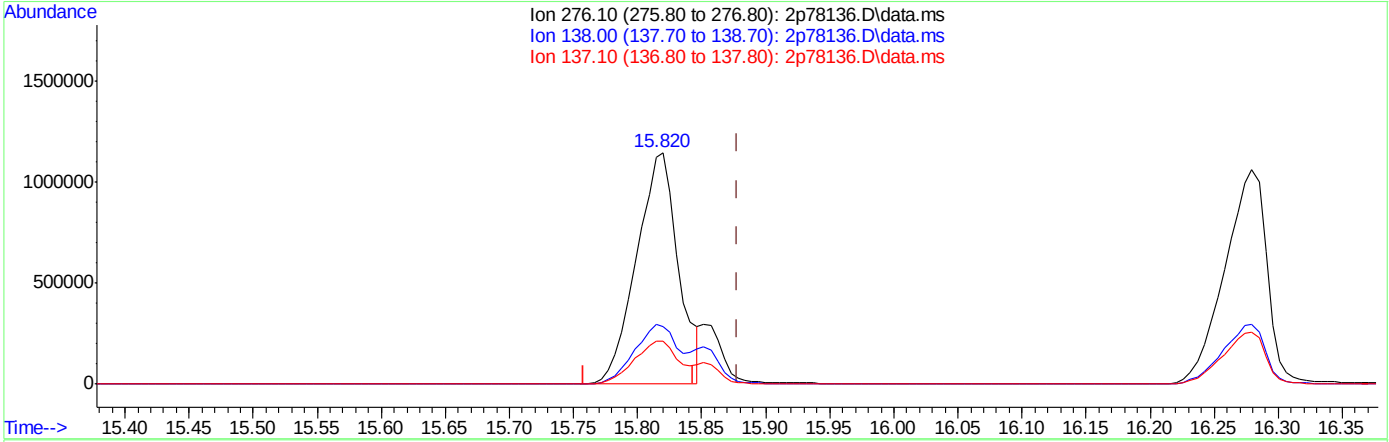
response 2958836

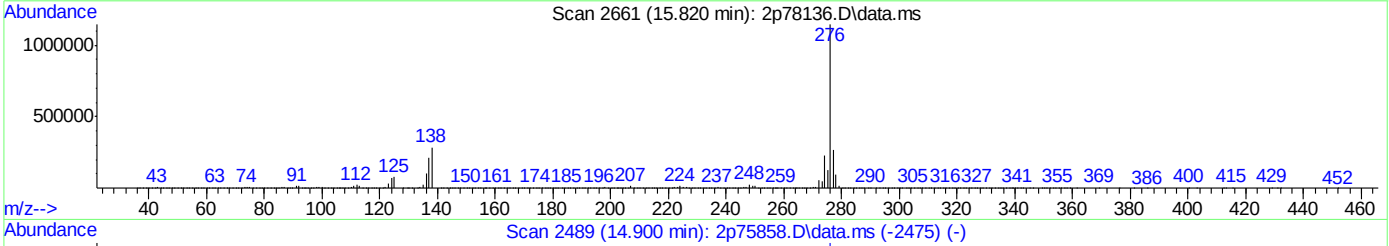
Ion	Exp%	Act%
276.10	100	100
138.00	17.60	24.71
137.10	13.50	18.41
0.00	0.00	0.00

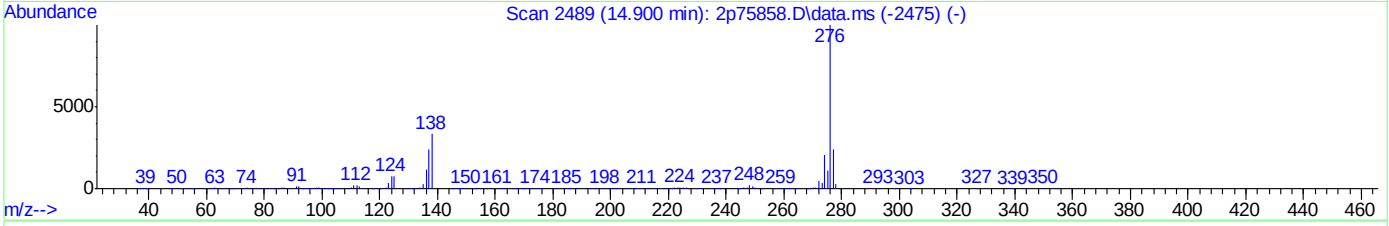
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78136.D
Acq On : 28 Mar 2018 6:47 pm
Operator : johnb1
Sample : op10883-msd2
Misc : op10883,e2p3440,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 28 19:02:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration







TIC: 2p78136.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.820min (-0.058) 42.35ppm m

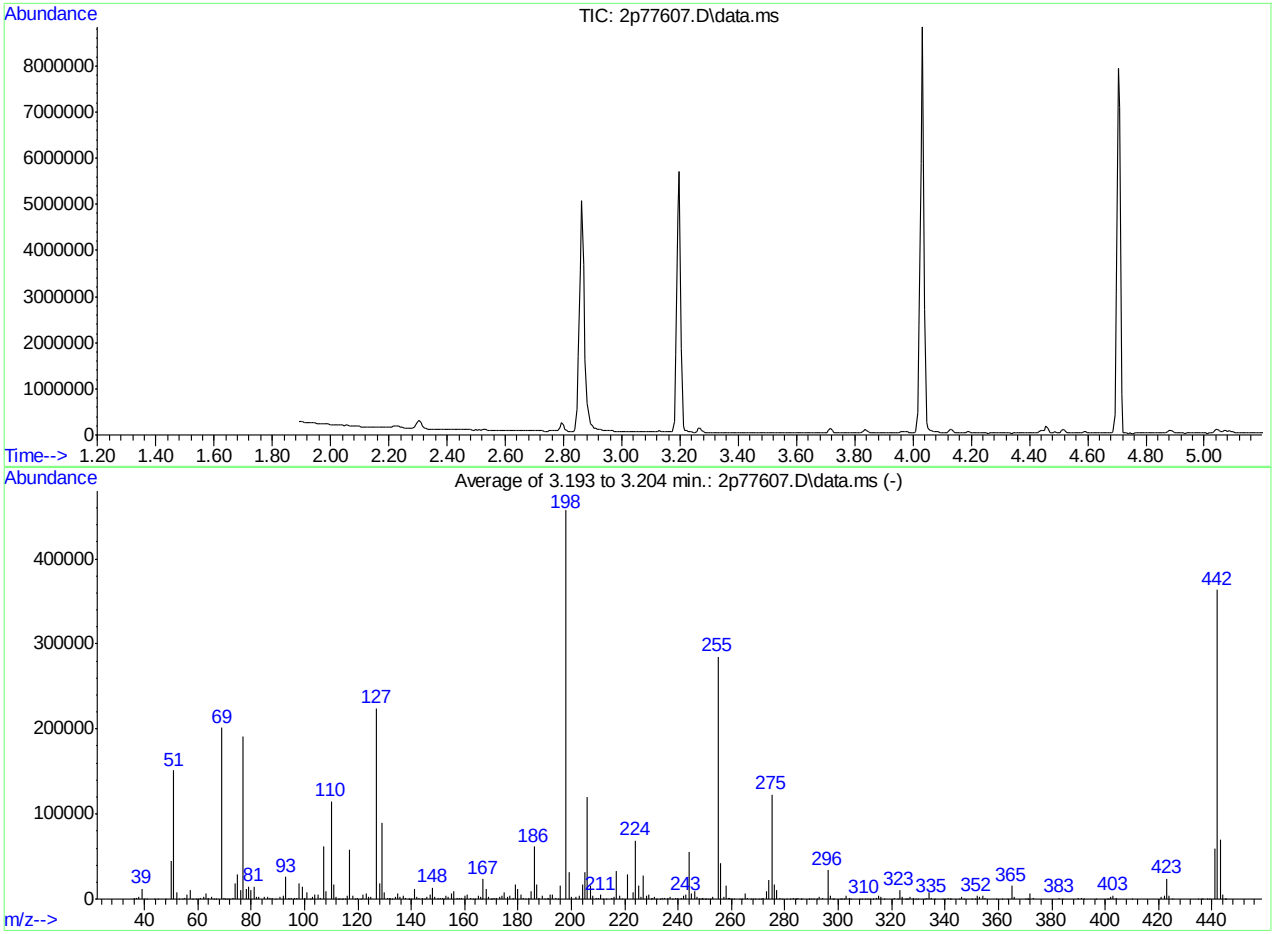
response 2596225

Ion	Exp%	Act%
276.10	100	100
138.00	17.60	24.77
137.10	13.50	18.47
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3416\2p77607.D Vial: 1
Acq On : 23 Feb 2018 10:41 am Operator: kristis
Sample : DFTPP Inst : MS2P
Misc : op8196,e2p3416,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3416.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS



AutoFind: Scans 222, 223, 224; Background Corrected with Scan 216

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.1	151235	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	44.1	201541	PASS
70	69	0.00	2	0.4	903	PASS
127	198	40	60	49.1	224283	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	456917	PASS
199	198	5	9	6.9	31719	PASS
275	198	10	30	26.8	122675	PASS
365	198	1	100	3.4	15532	PASS
441	443	0.10	100	86.3	59899	PASS
442	198	40	100	79.5	363221	PASS
443	442	17	23	19.1	69408	PASS

2p77607.D M2P3416.M Wed Feb 28 18:55:42 2018 RPT1

Average of 3.193 to 3.204 min.: 2p77607.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	854	52.00	8466	63.00	6665	74.00	18805
37.00	925	53.00	504	64.00	806	75.00	29464
37.95	2067	54.10	128	65.05	2862	76.10	10861
39.00	11975	55.00	888	66.10	217	77.00	191272
40.00	584	56.00	5350	66.95	347	78.05	12509
40.95	356	57.00	11213	69.00	201541	79.00	14964
43.95	333	58.00	685	69.90	903	80.00	10185
45.00	299	59.15	279	70.10	168	81.00	14781
47.95	22	59.95	66	71.00	155	82.00	3141
50.00	44231	61.00	1989	72.00	213	83.00	3095
51.00	151235	62.05	2557	73.00	1807	84.95	2674

Average of 3.193 to 3.204 min.: 2p77607.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.00	3007	98.00	19089	110.00	114685	118.95	555
86.95	1975	99.00	14721	111.00	17406	119.90	718
87.90	1078	100.00	1147	112.00	2278	120.90	177
89.00	551	101.00	8064	112.80	389	121.95	4824
91.00	2920	102.00	567	113.00	364	123.00	6975
92.00	4017	103.00	3336	113.90	126	124.00	2916
93.00	25749	103.95	5329	114.40	118	125.00	2965
94.00	1612	105.00	5076	115.05	370	127.00	224283
94.90	789	105.95	1079	116.00	4137	128.00	18018
96.10	1395	107.00	61789	117.00	58485	129.00	90072
96.95	754	108.00	8906	118.00	3910	130.00	7627

Average of 3.193 to 3.204 min.: 2p77607.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.95	1732	139.95	622	151.05	1481	161.00	5077
131.90	712	141.00	11445	151.70	779	162.00	1781
132.10	130	141.95	3063	152.10	386	162.90	329
132.90	228	143.00	2016	153.00	3560	163.80	280
134.00	2214	143.95	782	154.00	2667	164.95	3940
135.00	6367	145.05	664	155.00	6118	166.00	2893
135.95	3108	146.00	2280	156.00	9098	166.20	390
137.05	3407	147.00	5385	157.05	1773	167.00	23484
138.00	791	148.00	13528	157.90	1705	168.00	11256
138.90	502	148.95	2299	158.90	1722	169.00	2037
139.20	117	150.00	941	160.00	3936	169.90	421

Average of 3.193 to 3.204 min.: 2p77607.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.20	295	181.00	5543	191.30	208	204.00	17790
171.10	1006	182.00	1148	192.00	5425	205.05	31764
172.00	1647	182.95	448	193.00	5693	206.00	120547
173.00	2484	184.00	1365	193.95	1076	207.00	15441
174.00	4520	185.00	8676	194.80	163	208.00	4070
175.00	8211	186.00	61485	196.00	16235	209.05	1345
176.05	2823	187.00	17497	198.00	456917	210.00	2024
177.00	3745	188.00	1938	199.00	31719	211.00	5255
178.05	1625	189.00	3884	200.00	2262	211.90	85
179.00	16790	189.90	571	201.50	2969	212.95	267
180.00	11349	191.05	1687	203.00	3939	214.95	1205

Average of 3.193 to 3.204 min.: 2p77607.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.10	2048	228.95	5566	238.95	1301	248.70	255
217.00	32614	229.80	166	239.95	911	249.00	1639
217.95	3719	230.05	973	241.00	1820	249.20	280
219.05	434	231.00	2708	242.00	3778	249.80	276

221.00	29706	231.95	646	243.05	4812	250.20	216
223.05	8336	233.00	660	244.00	54856	251.10	569
224.00	68643	234.00	1879	245.00	6905	252.00	700
225.05	16353	235.00	1591	246.00	9346	253.10	2063
226.05	2354	235.95	1409	246.95	2354	255.00	285227
227.00	27560	237.00	2311	247.70	88	256.00	41672
228.00	4258	238.00	305	248.00	579	257.05	2982

Average of 3.193 to 3.204 min.: 2p77607.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
258.00	15938	267.90	342	279.00	273	290.00	228
258.90	940	269.00	83	280.80	93	290.90	399
259.05	1660	270.00	605	281.85	248	292.00	612
259.80	152	271.00	648	283.05	1329	293.00	2087
260.20	105	272.00	1016	283.95	558	293.95	778
260.95	399	273.00	8927	284.20	88	296.00	34021
263.20	256	274.00	22629	285.00	1478	297.00	4517
263.90	516	275.00	122675	286.00	177	297.90	88
265.00	6465	276.00	16808	286.20	142	298.10	105
265.80	963	277.00	9964	288.85	244	301.00	151
267.00	204	277.95	1666	289.10	226	301.40	95

Average of 3.193 to 3.204 min.: 2p77607.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
302.00	696	315.00	3905	328.00	1353	341.80	152
303.10	4411	316.05	2322	329.00	97	342.10	97
304.00	1148	317.00	325	330.00	87	345.20	89
304.70	101	321.00	1194	332.15	610	346.00	2524
307.85	509	322.05	450	333.00	1189	347.00	228
308.95	383	323.00	10950	334.00	7448	349.90	96
309.95	538	324.10	2392	334.95	1882	351.10	158
310.70	92	325.20	132	335.90	116	352.00	3386
311.90	115	325.70	86	339.05	254	353.10	2464
312.90	273	325.95	292	340.00	155	354.00	4071
314.05	1865	327.00	2307	341.00	1342	355.15	862

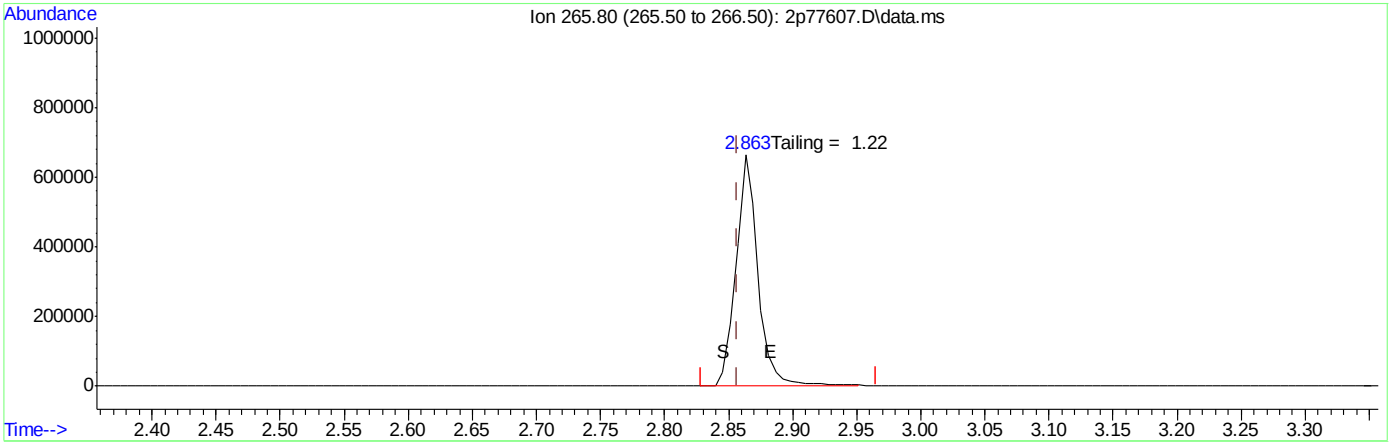
Average of 3.193 to 3.204 min.: 2p77607.D\data.ms
DFTPP
Modified:subtracted

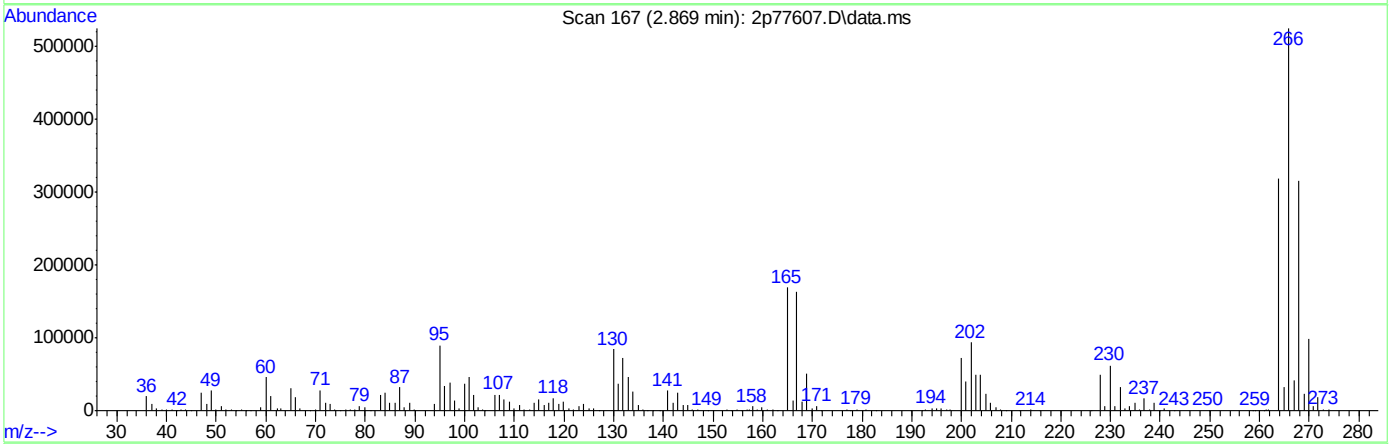
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
359.10	94	383.90	534	421.00	3076	442.10	363221
361.30	101	390.00	841	422.05	3581	443.10	69408
363.25	191	391.05	822	423.05	23744	444.05	5886
364.95	15532	391.95	538	424.05	4350	444.90	205
365.95	2178	396.70	90	425.05	401	445.10	173
370.05	489	400.80	142	435.00	105		
370.90	207	401.20	291	436.10	109		
371.10	321	402.00	2222	436.60	100		
372.00	6441	403.00	4006	438.10	130		
373.05	1419	404.05	1512	439.00	105		
382.90	1528	409.90	135	441.10	59899		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77607.D
Acq On : 23 Feb 2018 10:41 am
Operator : kristis
Sample : DFTPP
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 23 10:45:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77607.D\data.ms

(1) Pentacholorphenol

2.867min (+0.010) 165.82ppb

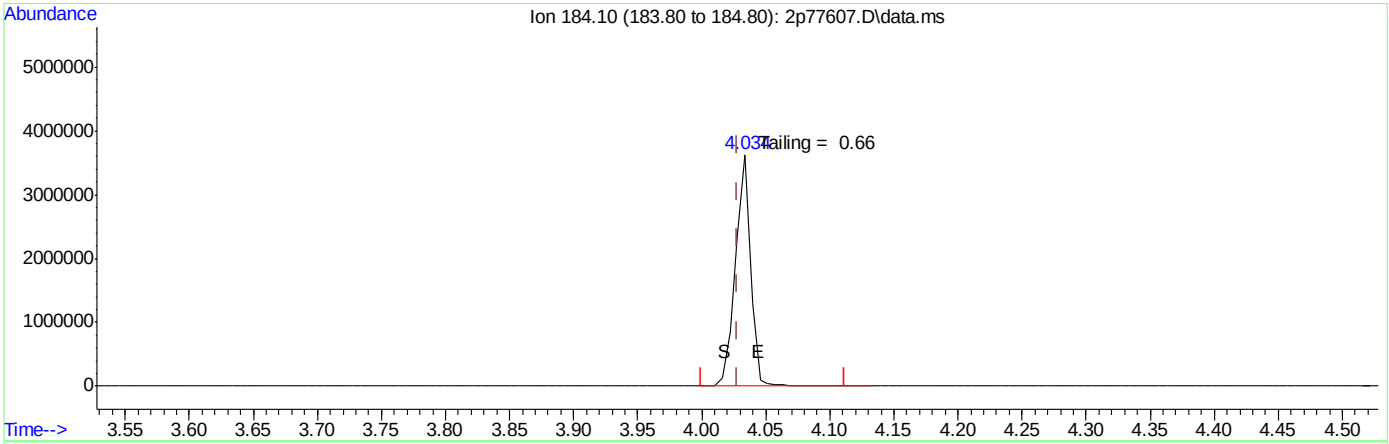
response 7882161

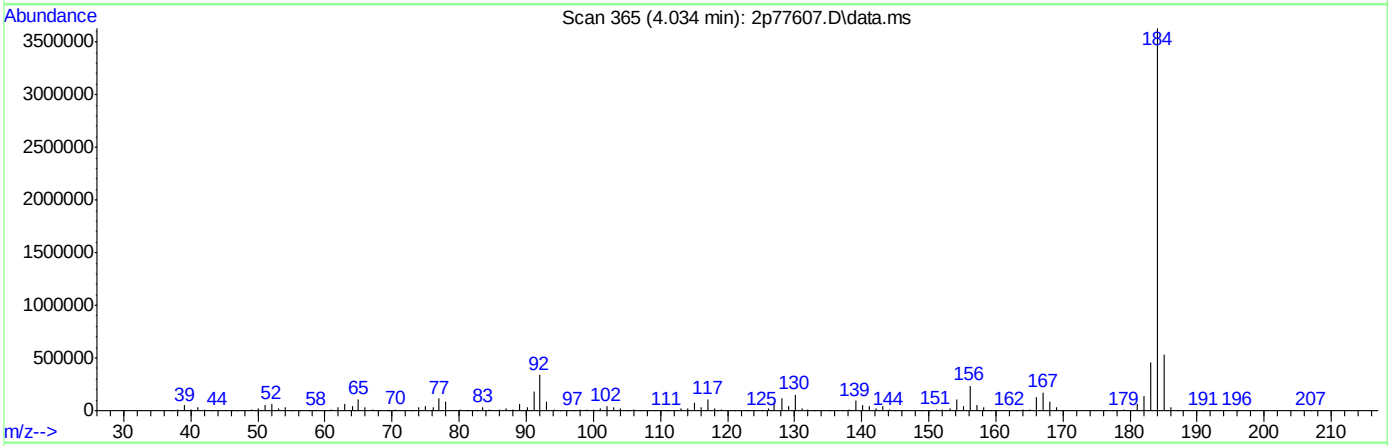
Ion	Exp%	Act%
265.80	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77607.D
Acq On : 23 Feb 2018 10:41 am
Operator : kristis
Sample : DFTPP
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 23 10:45:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77607.D\data.ms

(2) Benzidine

4.035min (+0.007) 131.43ppb

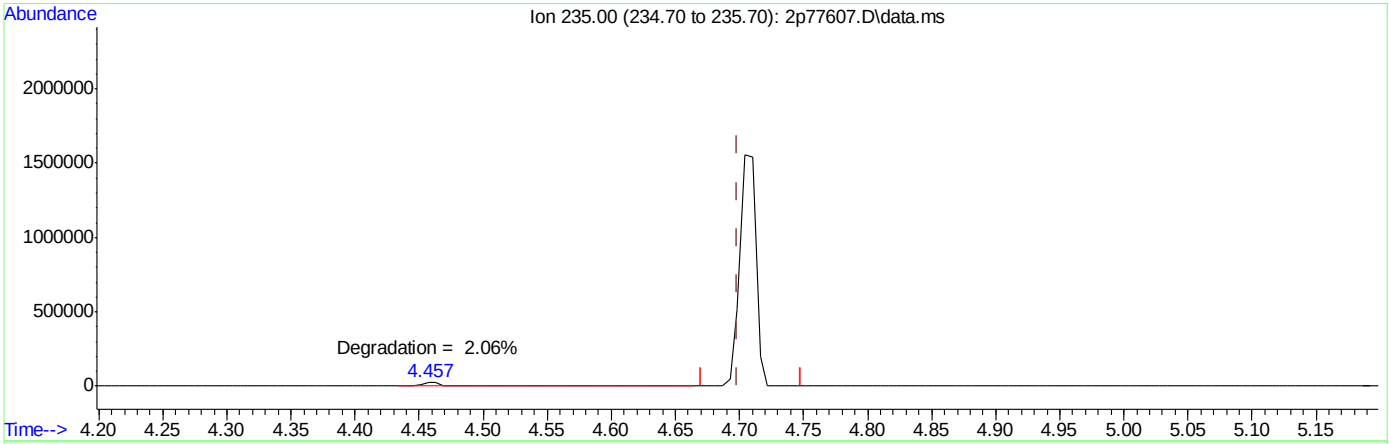
response 29705440

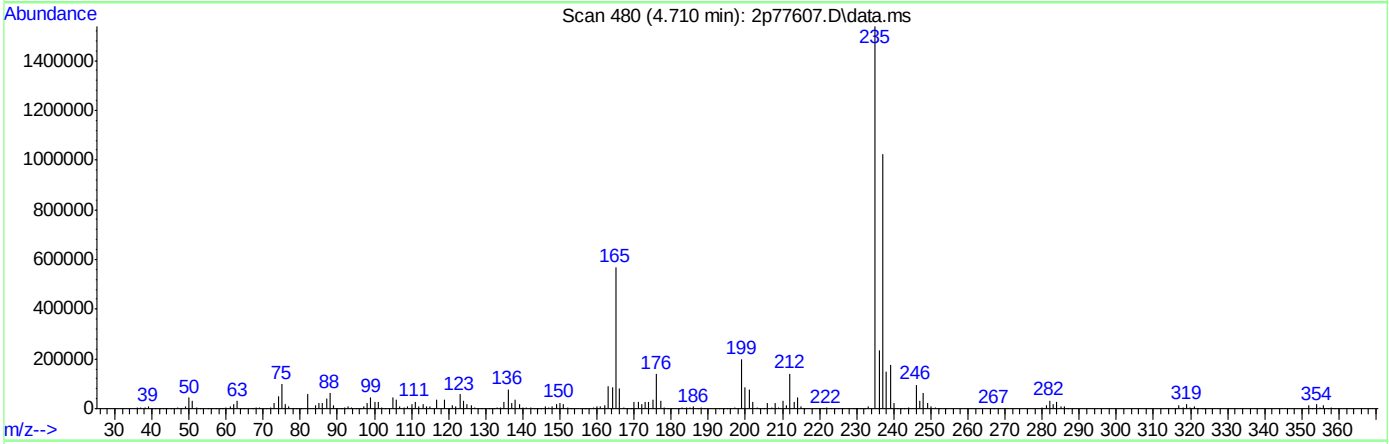
Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77607.D
Acq On : 23 Feb 2018 10:41 am
Operator : kristis
Sample : DFTPP
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 23 10:45:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77607.D\data.ms

(3) PP-DDT

4.709min (+0.011) 145.04ppb

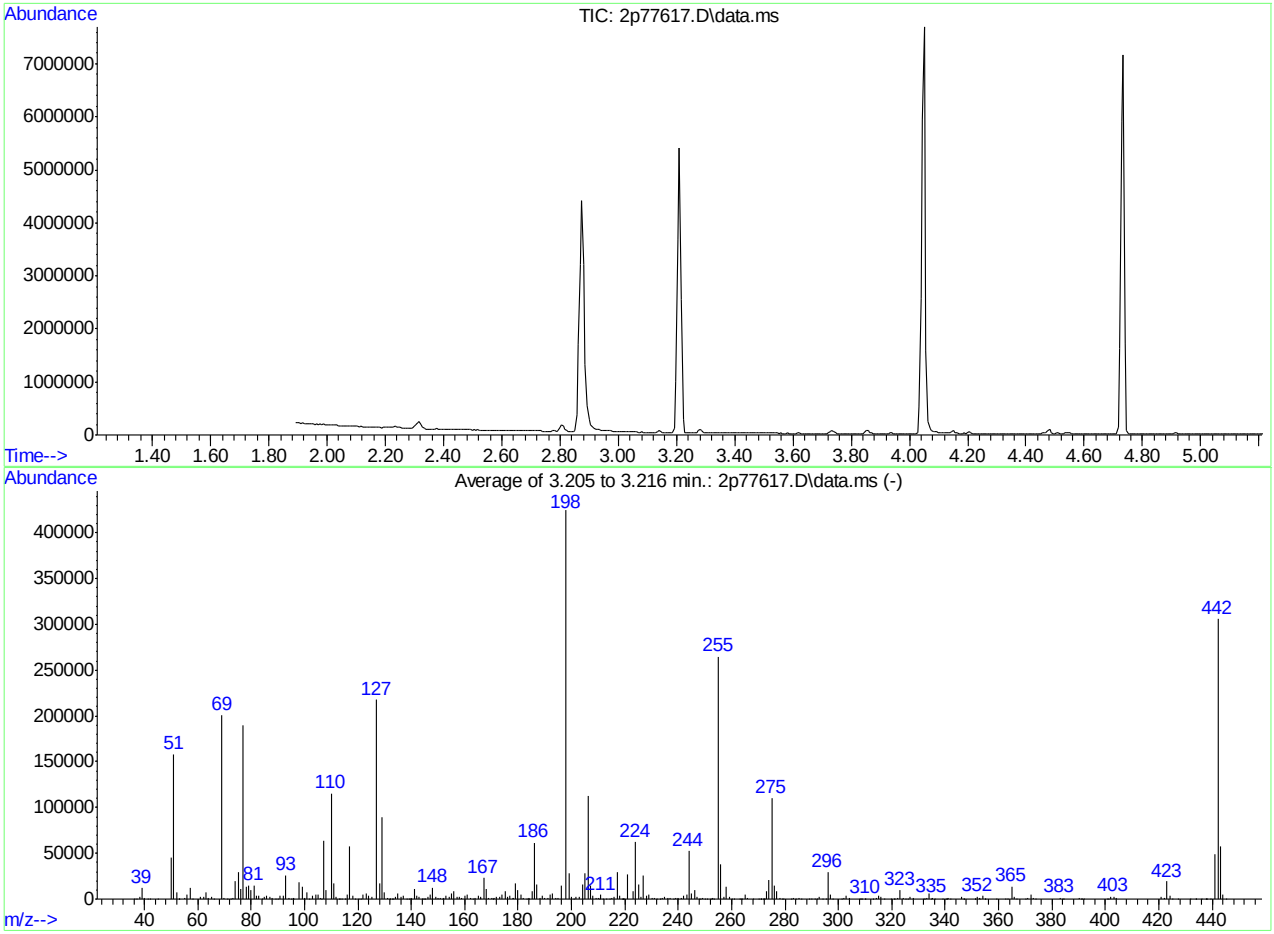
response 13645824

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3417\2p77617.D Vial: 1
Acq On : 23 Feb 2018 5:06 pm Operator: robertl1
Sample : DFTPP Inst : MS2P
Misc : op8196,e2p3417,1000,,,1,1 Multiplr: 1.00
MS Integration Params: events.e

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (ChemStation Integrator)
Title :



AutoFind: Scans 224, 225, 226; Background Corrected with Scan 220

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.3	158301	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.4	201157	PASS
70	69	0.00	2	0.5	940	PASS
127	198	40	60	51.3	217851	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	424384	PASS
199	198	5	9	6.5	27689	PASS
275	198	10	30	26.0	110525	PASS
365	198	1	100	3.3	13851	PASS
441	443	0.01	100	86.0	49123	PASS
442	198	40	100	72.0	305749	PASS
443	442	17	23	18.7	57101	PASS

2p77617.D DFTPP2P.M Wed Feb 28 14:45:45 2018 RPT1

Average of 3.205 to 3.216 min.: 2p77617.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	431	52.90	142	66.05	181	79.00	14625
37.00	313	53.10	136	69.00	201157	80.00	10324
38.05	2426	54.95	673	69.90	940	81.00	14912
39.05	11786	56.00	5117	70.95	389	81.95	3639
40.00	850	57.00	11747	72.10	138	82.95	3125
41.00	458	58.00	441	72.90	1837	83.95	210
42.00	15	61.00	1928	74.05	19681	85.00	2189
45.00	462	62.05	2700	75.00	29373	85.90	3417
50.05	45151	63.00	6945	76.05	11394	87.00	1985
51.00	158301	64.00	929	77.05	189432	87.95	918
52.00	7880	65.05	3051	78.05	13186	89.00	542

Average of 3.205 to 3.216 min.: 2p77617.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.00	89	101.00	7403	111.95	2353	122.00	4586
90.95	3335	101.85	631	112.85	355	123.00	6704
92.00	3725	103.00	3135	113.10	255	123.95	3289
93.00	25852	104.00	5158	113.80	86	125.00	2664
94.00	1808	105.00	4650	115.20	152	127.00	217851
94.95	323	106.00	1159	116.05	4351	128.05	17229
95.60	158	106.20	448	117.00	57315	129.00	89096
96.00	1176	107.00	63251	118.00	3946	130.00	7519
98.00	18701	108.00	9545	118.95	471	131.00	1370
99.00	13845	110.00	115208	120.00	433	131.90	291
99.95	1216	111.00	17241	121.15	345	132.10	447

Average of 3.205 to 3.216 min.: 2p77617.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.80	190	142.05	3222	150.95	1225	161.05	4849
133.00	417	143.00	2701	151.60	518	162.00	1568
134.00	2751	143.90	239	151.95	932	162.95	365
135.00	5789	144.10	232	153.00	3848	163.95	715
136.05	2989	144.80	203	154.00	2538	164.95	3621
136.95	3208	145.00	393	155.10	5585	165.90	1048
138.05	309	146.00	2354	156.00	8543	166.05	2117
139.00	396	147.00	5317	157.10	1929	167.00	23064
139.80	239	148.00	12429	158.00	2115	168.00	10884
140.05	1114	149.00	2757	159.00	1549	169.00	1536
141.00	10539	150.00	860	160.00	3376	169.95	810

Average of 3.205 to 3.216 min.: 2p77617.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.60	177	180.00	10337	189.95	708	201.50	2661
170.85	742	181.00	5121	191.05	1712	203.05	2994
171.95	1984	181.90	1005	191.95	5359	204.00	15842
173.00	2492	182.95	560	193.00	6106	205.10	28797
174.00	4918	183.80	461	194.05	1277	206.05	113043
175.10	8167	184.10	992	195.00	801	207.00	14946
176.05	2628	185.05	8710	196.00	15228	208.00	4130
177.00	3693	186.00	61445	198.00	424384	209.05	1267
178.00	881	187.05	16215	199.00	27689	210.00	1065
178.20	762	188.05	1741	200.00	2590	210.40	440
179.00	17319	189.00	3739	200.90	225	211.05	4757

Average of 3.205 to 3.216 min.: 2p77617.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
211.90	165	221.00	27040	232.95	424	243.15	4874
213.05	408	223.05	8016	233.90	1655	244.05	52216
214.20	158	224.00	62205	235.00	2049	245.05	6448
215.00	1324	225.00	16018	235.95	1351	246.00	9328

216.05	2010	226.10	2210	237.00	1832	247.00	2328
217.00	29432	227.00	25811	238.00	130	247.90	555
218.00	3356	228.00	3799	239.00	1032	248.20	100
218.80	238	229.00	5408	239.70	120	249.05	1480
219.10	156	230.05	907	240.05	792	249.95	427
219.40	127	231.00	1869	241.00	1169	250.95	470
219.70	269	231.95	414	242.05	3866	252.00	422

Average of 3.205 to 3.216 min.: 2p77617.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
252.30	171	263.20	139	273.05	8808	285.05	1570
253.05	1019	263.85	274	274.05	21179	285.90	343
253.30	421	265.00	5446	275.00	110525	289.10	368
255.00	264747	265.95	795	276.05	14670	289.95	536
256.00	38560	267.80	541	277.00	8402	291.05	402
257.00	2906	270.05	261	278.05	1475	292.00	551
258.00	14057	270.80	187	279.00	203	292.95	2509
259.00	2567	270.95	491	279.20	90	294.10	653
260.05	398	271.80	226	282.10	258	295.10	378
260.90	311	272.00	395	283.00	1111	296.00	29717
263.00	85	272.20	347	284.15	600	297.00	4559

Average of 3.205 to 3.216 min.: 2p77617.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
297.95	355	314.05	1670	326.10	227	340.15	203
301.05	366	315.00	3413	327.00	1902	340.70	187
302.15	853	316.05	2362	328.05	871	341.00	1136
303.00	3692	317.00	130	331.95	468	341.95	194
304.05	1135	319.80	90	332.15	521	345.95	1980
307.95	304	320.90	609	333.05	1192	346.80	158
308.20	112	321.10	343	334.05	6168	347.00	282
308.95	320	322.10	848	334.90	417	351.00	86
309.80	108	323.05	10177	335.15	1242	351.15	289
310.20	421	324.10	1797	335.90	95	352.05	3089
312.95	213	325.20	118	339.00	125	352.90	431

Average of 3.205 to 3.216 min.: 2p77617.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
353.05	1406	371.05	912	400.80	138	427.00	110
354.00	3285	372.05	4648	401.20	139	431.70	90
355.00	212	373.15	1303	402.10	2065	433.80	142
355.15	476	373.90	86	403.05	2989	434.10	97
359.10	130	383.05	1269	404.05	1117	435.85	280
362.40	89	384.00	290	421.05	2629	437.60	111
363.30	130	384.20	122	422.00	1336	437.80	160
365.00	13851	390.05	915	422.20	1364	438.20	137
365.95	2510	390.90	443	423.05	19442	439.25	283
366.90	84	391.10	195	424.05	3776	441.10	49123
370.00	121	392.00	201	425.05	313	442.10	305749

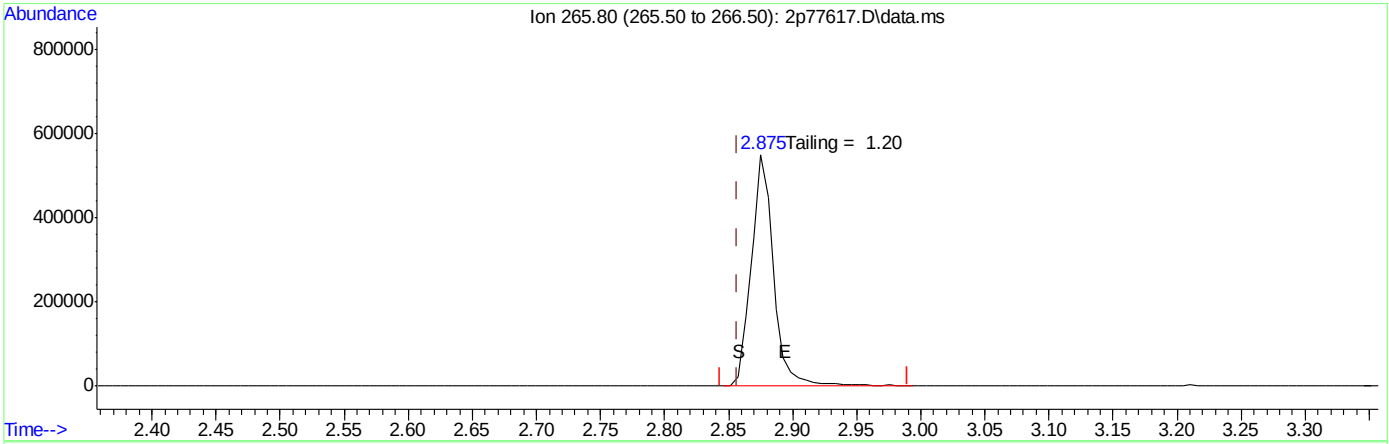
Average of 3.205 to 3.216 min.: 2p77617.D\data.ms
DFTPP
Modified:subtracted

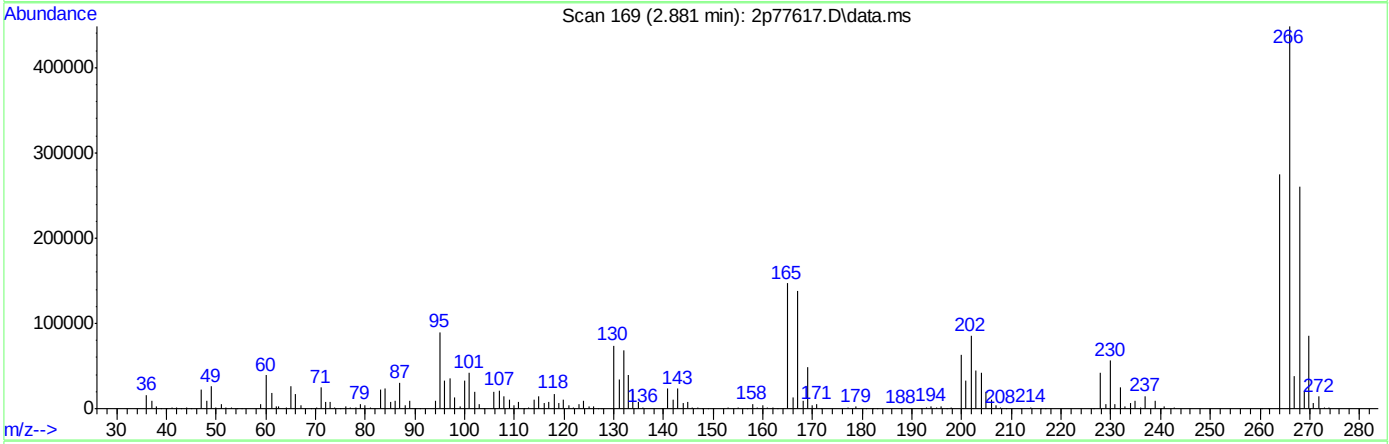
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
443.10	57101						
444.10	4849						
445.05	251						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77617.D
Acq On : 23 Feb 2018 5:06 pm
Operator : robertl1
Sample : DFTPP
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 23 17:10:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77617.D\data.ms

(1) Pentacholorphenol

2.879min (+0.022) 139.52ppb

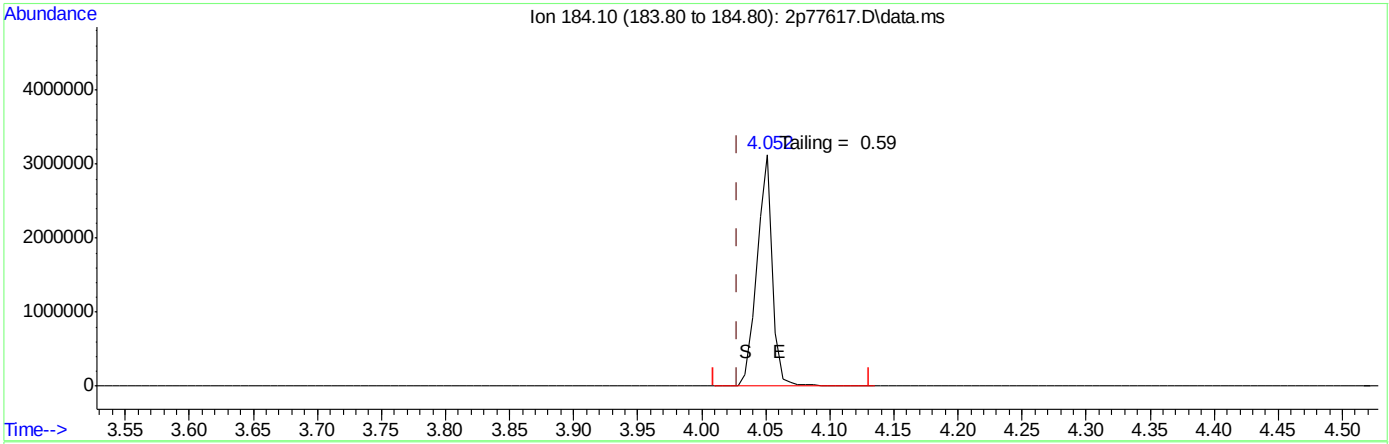
response 6632305

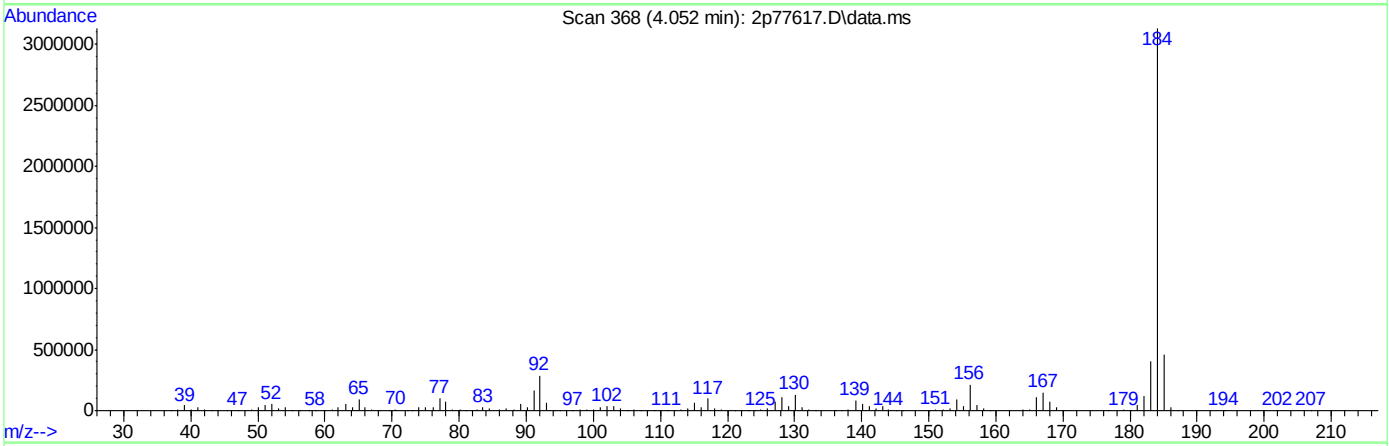
Ion	Exp%	Act%
265.80	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77617.D
Acq On : 23 Feb 2018 5:06 pm
Operator : robertl1
Sample : DFTPP
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 23 17:10:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77617.D\data.ms

(2) Benzidine

4.052min (+0.024) 116.07ppb

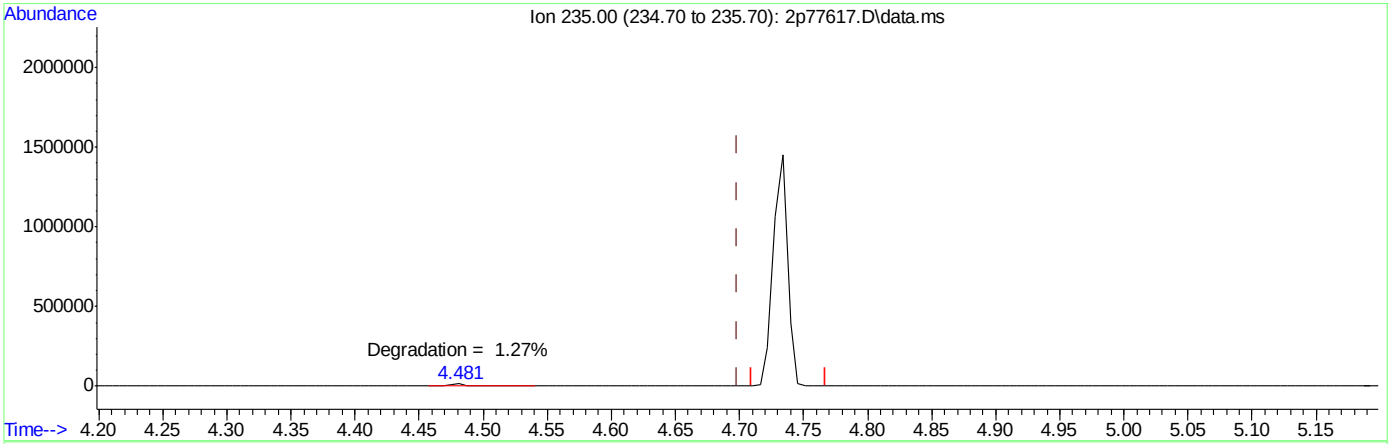
response 26234566

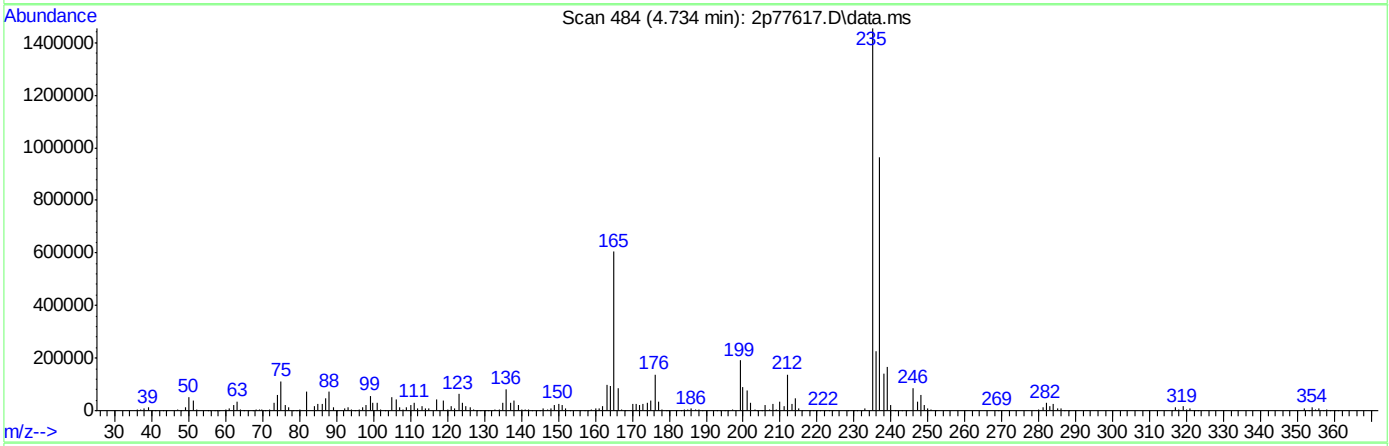
Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77617.D
Acq On : 23 Feb 2018 5:06 pm
Operator : robertl1
Sample : DFTPP
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 23 17:10:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77617.D\data.ms

(3) PP-DDT

4.734min (+0.036) 119.29ppb

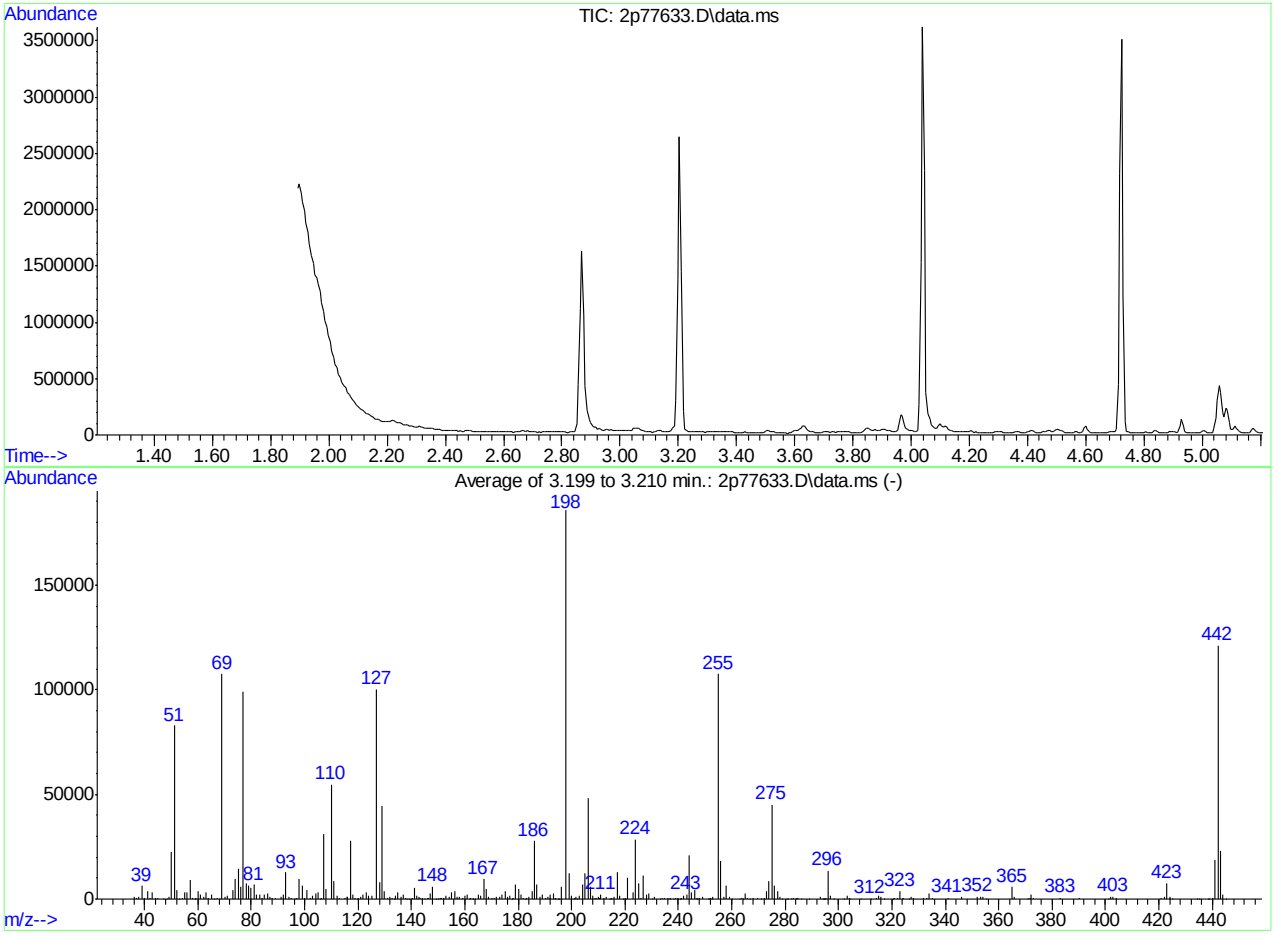
response 11223146

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3418\2p77633.D Vial: 1
Acq On : 26 Feb 2018 10:36 am Operator: robertl1
Sample : DFTPP Inst : MS2P
Misc : op8196,e2p3418,1000,,,1,1 Multiplr: 1.00
MS Integration Params: events.e

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (ChemStation Integrator)
Title :



AutoFind: Scans 223, 224, 225; Background Corrected with Scan 218

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.7	83025	PASS
68	69	0.00	2	0.3	272	PASS
69	198	0.00	100	57.9	107474	PASS
70	69	0.00	2	0.9	1013	PASS
127	198	40	60	54.0	100307	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	185728	PASS
199	198	5	9	6.6	12305	PASS
275	198	10	30	24.3	45152	PASS
365	198	1	100	3.1	5692	PASS
441	443	0.01	100	82.8	18940	PASS
442	198	40	100	65.2	121163	PASS
443	442	17	23	18.9	22886	PASS

2p77633.D DFTPP2P.M Mon Feb 26 11:02:47 2018 RPT1

Average of 3.199 to 3.210 min.: 2p77633.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	974	48.30	96	58.90	197	69.00	107474
37.00	757	49.00	898	59.10	440	70.05	1013
37.95	1250	50.00	22327	60.00	3557	71.05	1815
39.05	6209	51.10	83025	61.05	2243	73.05	4545
40.00	416	52.05	4101	62.05	1359	74.05	9750
41.05	3564	53.00	140	63.00	3476	75.00	14658
42.05	529	54.05	610	64.05	748	76.10	5933
43.05	3399	55.10	3451	65.00	2065	77.05	99043
44.00	679	56.00	3008	66.00	62	78.10	7523
45.00	615	57.00	9218	67.05	606	78.95	6393
47.10	105	57.95	572	68.00	272	80.00	5368

Average of 3.199 to 3.210 min.: 2p77633.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
81.00	6910	93.00	12823	104.00	2916	115.90	1211
82.05	2109	94.00	1110	104.95	3078	116.15	1184
83.05	2266	95.00	306	105.95	225	117.00	27675
84.00	664	96.00	59	106.20	672	118.05	1941
85.05	2414	97.05	759	107.00	31139	119.00	519
86.00	2465	98.00	9642	108.00	5110	119.80	201
87.00	1358	99.00	6719	110.00	54875	120.10	350
88.00	519	100.00	696	111.00	8765	121.05	974
89.00	301	101.00	4078	112.00	1762	122.00	2126
91.00	1136	102.00	447	113.00	621	123.00	3005
92.00	2137	103.05	1723	115.20	399	124.00	1543

Average of 3.199 to 3.210 min.: 2p77633.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
125.05	1723	136.15	1148	145.00	226	154.00	1125
127.00	100307	137.00	1938	146.00	635	155.05	3253
128.00	8101	137.80	373	146.20	309	156.05	4039
129.00	44467	138.10	189	147.05	2572	157.05	1004
130.00	3837	139.00	261	148.00	6134	158.00	1141
131.00	550	140.10	658	149.00	132	159.05	748
131.90	856	141.00	5135	149.95	36	160.05	1545
132.80	470	142.00	1525	151.00	324	161.05	1923
133.40	107	142.90	1158	151.25	777	161.70	235
134.00	1478	143.10	325	152.00	427	162.00	681
134.95	3216	144.05	329	153.10	1421	162.90	135

Average of 3.199 to 3.210 min.: 2p77633.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
163.10	197	174.00	2180	182.70	89	192.05	2243
163.85	250	175.05	3633	182.95	360	193.05	2456
165.00	2293	175.90	516	184.10	848	193.80	146
166.00	1860	176.05	990	185.10	3885	194.05	526
167.00	9581	176.95	1861	186.05	27715	194.90	254
168.10	5100	177.80	263	187.05	6871	195.20	208
169.00	1236	178.05	615	188.15	844	196.00	6119
170.15	369	179.00	6913	189.05	1929	198.00	185728
171.05	784	180.00	4722	190.15	342	199.00	12305
171.95	1014	181.00	2368	191.05	903	200.05	1442
173.05	1253	181.95	326	191.90	603	200.80	123

Average of 3.199 to 3.210 min.: 2p77633.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
201.10	370	210.05	945	219.10	110	230.00	190
201.45	981	210.45	749	220.00	151	231.00	912
201.90	223	211.00	2168	220.30	428	233.10	106
203.00	1556	212.05	341	221.05	10291	234.05	617

204.05	7201	213.10	955	223.05	3175	235.00	754
205.05	12575	214.10	124	224.05	28403	236.00	304
206.10	48381	214.60	98	225.05	7524	236.70	90
207.00	6064	214.90	503	226.00	419	237.00	665
208.00	1552	216.10	1074	227.00	11072	238.30	134
208.85	361	217.00	12867	228.00	1908	239.00	786
209.10	303	218.00	1612	229.00	2516	239.80	126

Average of 3.199 to 3.210 min.: 2p77633.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
240.00	375	248.95	1087	260.00	275	273.05	3867
240.80	177	251.10	110	263.00	91	274.05	8467
241.00	602	251.75	250	263.75	515	275.00	45152
242.05	1451	252.05	326	264.00	275	276.10	6314
243.05	2278	252.60	141	265.05	2487	277.05	3703
244.05	21005	253.05	963	265.85	739	277.90	861
245.05	3001	255.00	107472	266.85	248	278.90	101
245.95	4188	256.00	18202	267.85	574	280.40	138
246.80	125	256.95	1315	269.85	314	281.00	152
246.95	546	258.05	6516	270.80	276	282.10	93
248.00	365	259.15	893	272.00	295	283.15	366

Average of 3.199 to 3.210 min.: 2p77633.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
283.80	117	296.00	13590	315.05	1590	328.05	621
284.20	377	296.90	442	315.95	931	332.00	306
284.95	684	297.10	1405	317.10	128	333.05	588
285.90	118	298.00	109	320.40	88	334.05	2467
288.90	88	302.05	259	321.00	431	335.05	535
293.05	863	303.05	1560	322.00	289	340.90	736
294.00	189	303.90	138	323.05	3852	346.00	876
294.30	97	304.05	426	323.90	176	352.05	1258
294.60	92	308.10	86	324.05	692	353.10	917
295.00	95	312.00	90	326.30	117	353.95	1229
295.20	429	314.00	630	327.00	836	355.20	182

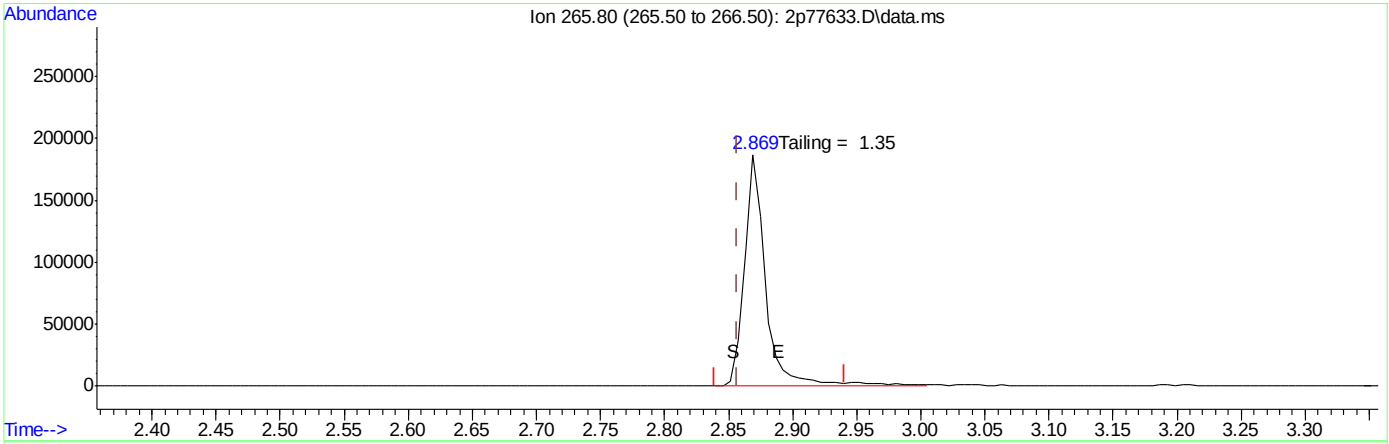
Average of 3.199 to 3.210 min.: 2p77633.D\data.ms
DFTPP
Modified:subtracted

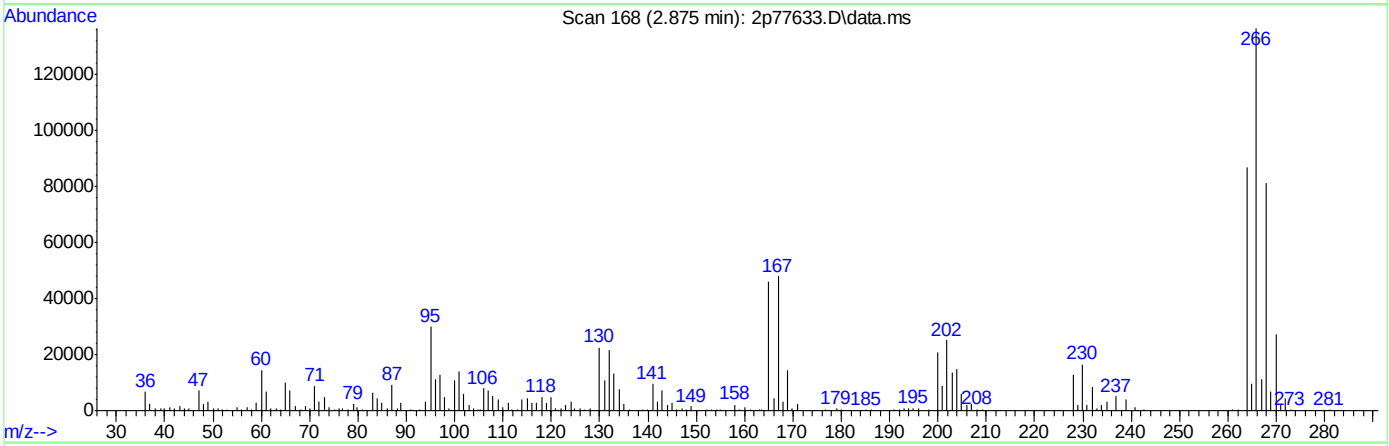
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
365.00	5692	404.00	436	440.20	475		
365.95	1013	421.00	767	441.10	18940		
371.00	95	422.15	887	442.10	121163		
371.80	439	423.05	7768	443.10	22886		
372.00	2209	424.00	1136	444.05	2015		
373.15	529	424.20	468	445.00	92		
383.10	592	425.00	84				
390.00	492	434.10	120				
401.00	283	435.10	88				
402.10	1020	438.50	142				
402.90	1207	438.90	115				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3418\
Data File : 2p77633.D
Acq On : 26 Feb 2018 10:36 am
Operator : robertl1
Sample : DFTPP
Misc : op8196,e2p3418,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 26 10:41:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77633.D\data.ms

(1) Pentacholorphenol

2.873min (+0.016) 42.82ppb

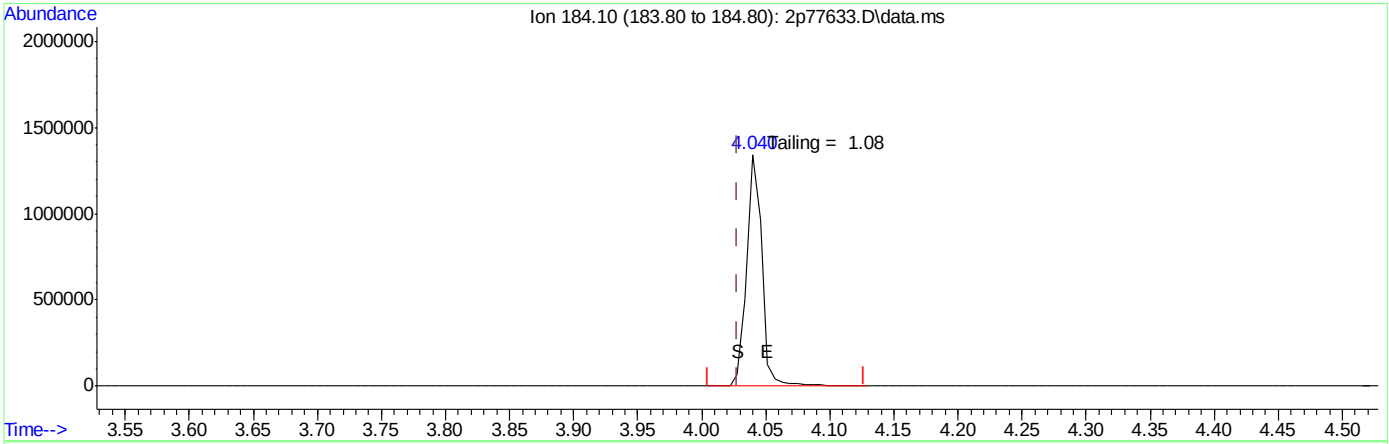
response 2035347

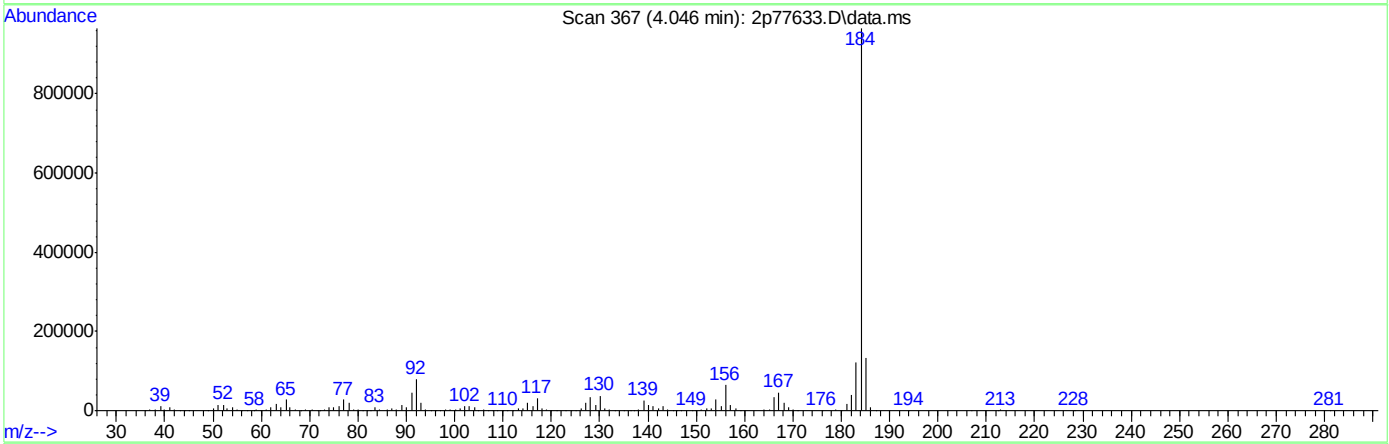
Ion	Exp%	Act%
265.80	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3418\
Data File : 2p77633.D
Acq On : 26 Feb 2018 10:36 am
Operator : robertl1
Sample : DFTPP
Misc : op8196,e2p3418,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 26 10:41:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77633.D\data.ms

(2) Benzidine

4.044min (+0.016) 48.66ppb

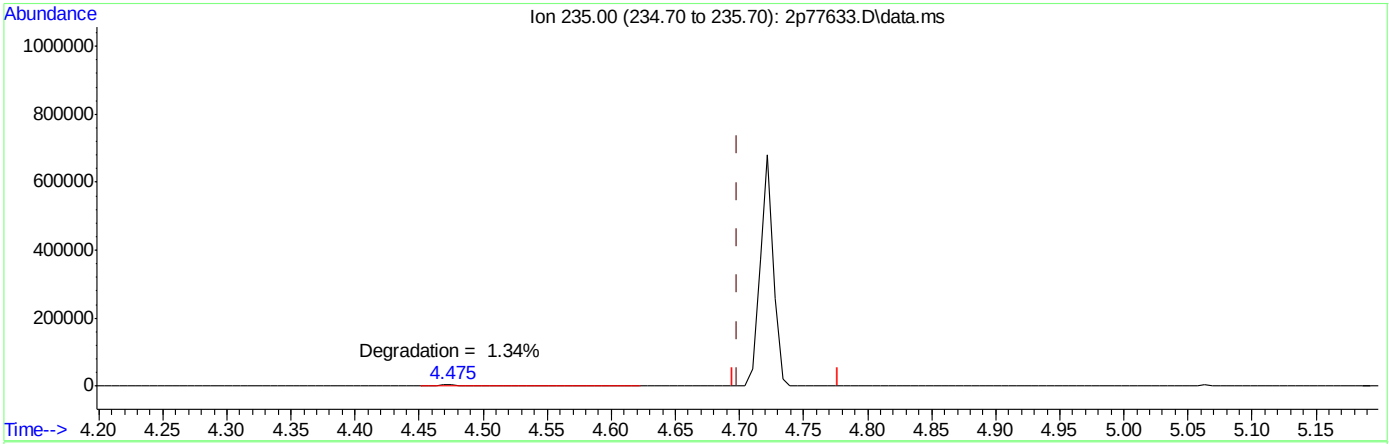
response 10997061

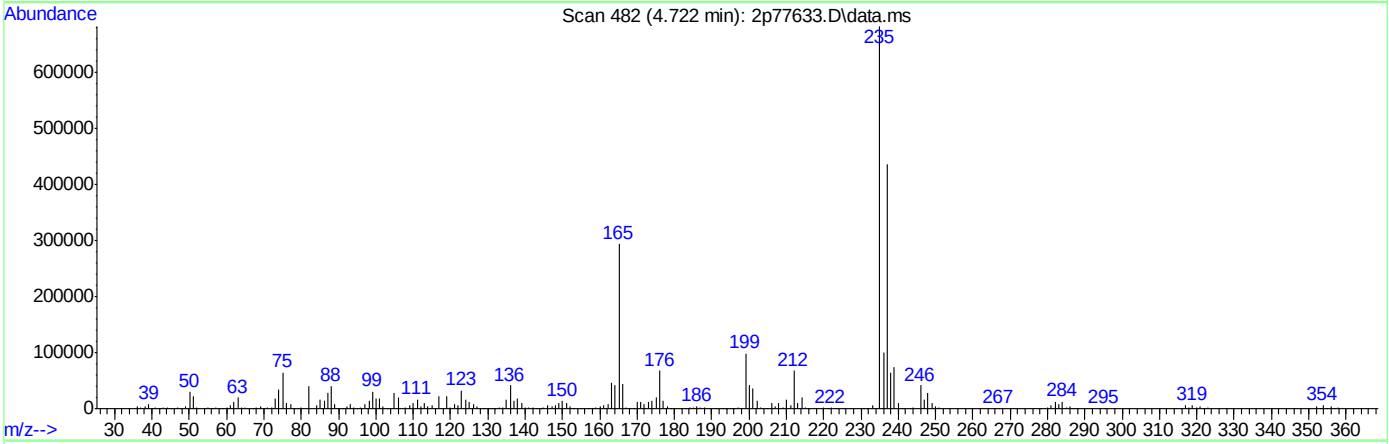
Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3418\
Data File : 2p77633.D
Acq On : 26 Feb 2018 10:36 am
Operator : robertl1
Sample : DFTPP
Misc : op8196,e2p3418,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 26 10:41:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77633.D\data.ms

(3) PP-DDT

4.724min (+0.025) 52.22ppb

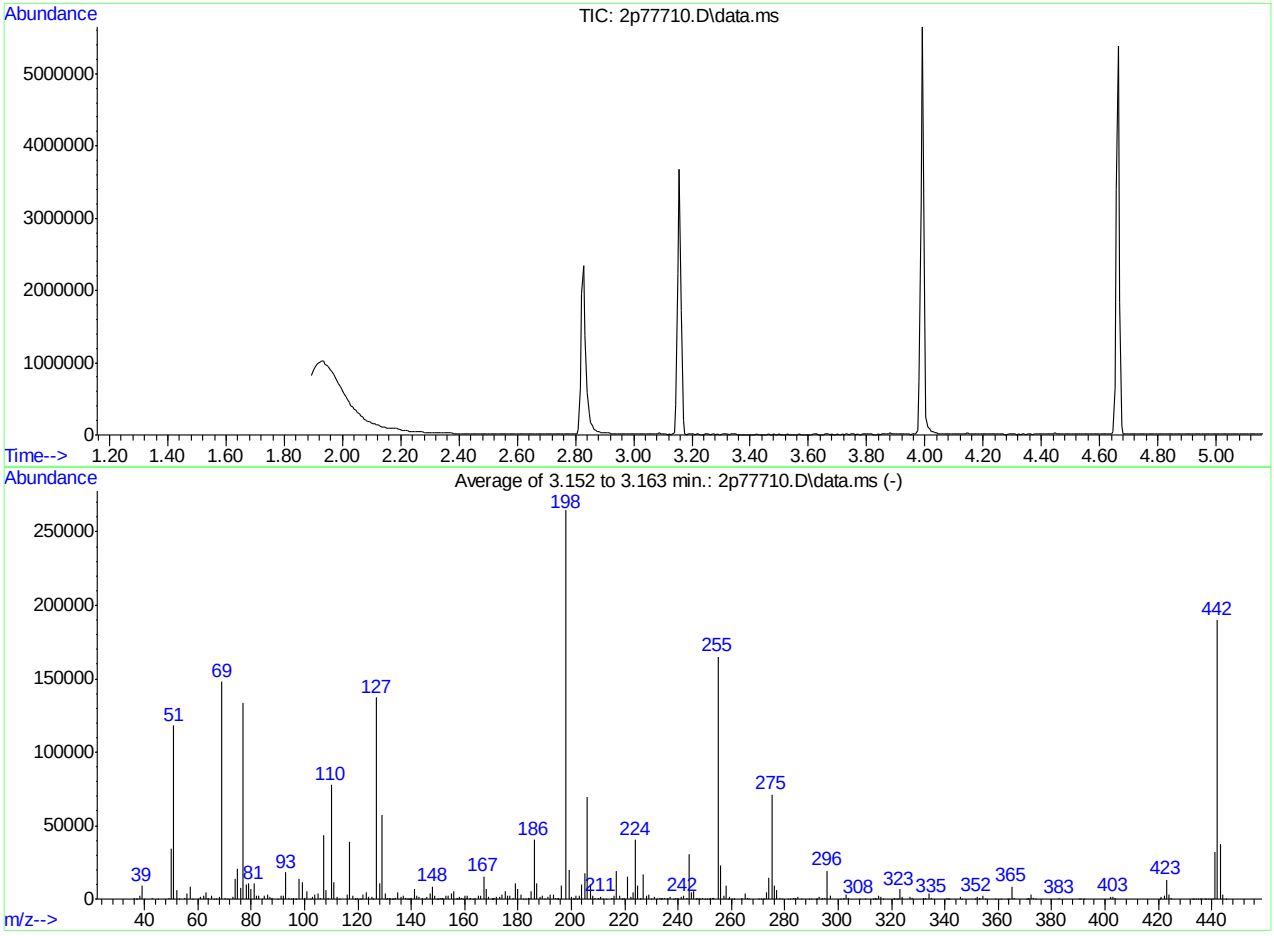
response 4912659

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3422\2p77710.D Vial: 1
Acq On : 9 Mar 2018 9:05 am Operator: chriss2
Sample : DFTPP Inst : MS2P
Misc : op8196,e2p3422,1000,,,1,1 Multiplr: 1.00
MS Integration Params: events.e

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (ChemStation Integrator)
Title :



AutoFind: Scans 215, 216, 217; Background Corrected with Scan 211

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.7	118227	PASS
68	69	0.00	2	1.2	1714	PASS
69	198	0.00	100	55.9	147923	PASS
70	69	0.00	2	0.4	617	PASS
127	198	40	60	51.9	137259	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	264597	PASS
199	198	5	9	7.4	19626	PASS
275	198	10	30	26.9	71245	PASS
365	198	1	100	3.3	8699	PASS
441	443	0.01	100	86.7	32295	PASS
442	198	40	100	71.8	189931	PASS
443	442	17	23	19.6	37235	PASS

2p77710.D DFTPP2P.M Fri Mar 09 14:55:33 2018 RPT1

Average of 3.152 to 3.163 min.: 2p77710.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	622	52.05	6024	65.00	2308	77.10	133309
36.90	397	53.15	254	66.00	390	78.10	9654
37.10	339	55.00	873	66.90	91	79.00	10868
38.05	2083	56.05	3909	68.00	1714	80.00	6981
39.10	8928	57.00	8753	69.00	147923	81.00	10552
40.00	266	58.05	397	70.00	617	82.00	2255
43.05	442	59.90	133	71.05	342	82.90	2452
44.95	315	61.00	1562	73.00	1732	83.95	159
49.20	1054	62.05	2078	74.05	13661	85.05	2488
50.05	34562	63.00	4855	75.00	20673	85.95	2964
51.05	118227	64.05	908	76.10	7463	87.05	1682

Average of 3.152 to 3.163 min.: 2p77710.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.60	107	98.00	13536	109.05	1016	120.80	112
88.00	498	99.00	11150	110.00	77819	121.05	249
90.10	155	100.05	936	111.00	11446	122.05	3299
91.00	2354	101.00	5218	112.05	1220	123.00	4508
92.05	2651	101.95	256	112.95	379	123.95	1770
93.00	18238	103.05	1535	116.05	3343	125.10	1718
94.00	1025	104.00	3272	117.00	38688	125.50	186
95.05	336	105.05	3479	118.00	2599	127.00	137259
96.00	874	106.10	460	118.85	269	128.05	10557
96.60	96	107.00	43176	119.10	133	129.00	57645
96.85	314	108.00	6107	119.95	803	130.10	4147

Average of 3.152 to 3.163 min.: 2p77710.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.80	234	137.95	440	146.00	1403	154.00	1979
131.00	654	138.25	392	147.00	3745	155.00	3898
131.90	124	138.80	167	148.00	8610	156.05	5690
132.15	445	139.00	253	148.95	2090	157.00	991
132.80	113	139.70	222	149.70	130	157.20	107
133.20	97	140.05	873	150.10	365	157.80	323
133.90	527	141.00	7042	150.95	940	158.05	1434
134.10	783	142.00	2530	151.30	375	158.95	453
135.00	4514	143.00	1495	151.60	217	159.20	261
136.00	1934	144.15	509	151.90	490	160.05	2116
137.05	2235	144.85	412	153.05	2157	160.90	880

Average of 3.152 to 3.163 min.: 2p77710.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
161.05	2491	170.20	374	180.05	7207	190.00	358
161.70	199	170.70	240	181.00	3232	191.05	1269
162.00	720	171.10	701	181.90	407	192.00	3265
163.00	117	172.05	1416	182.75	290	193.10	2995
164.00	487	173.00	1512	183.90	422	194.00	998
165.05	2339	174.05	3009	184.15	734	194.80	365
166.00	2337	175.05	5508	185.05	5585	195.10	420
167.05	15535	176.10	2121	186.05	40229	196.05	8942
168.00	7178	177.00	2447	187.05	11088	198.00	264597
169.00	1202	178.00	1102	188.05	1461	199.00	19626
170.00	158	179.00	10802	188.95	2073	199.95	1518

Average of 3.152 to 3.163 min.: 2p77710.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
200.70	478	209.00	697	218.80	213	228.05	2386
201.00	253	210.00	1113	219.10	295	229.00	3065
201.55	2034	210.30	314	219.95	692	229.95	234
202.20	110	210.80	1018	221.00	15148	231.00	1794

202.90	644	211.00	1622	222.10	1258	232.00	89
203.05	2125	211.90	356	223.10	4960	233.00	524
204.00	10004	212.90	93	224.10	40344	233.60	112
205.05	17720	215.00	773	225.00	9235	234.05	1148
206.10	69445	216.10	2232	225.80	315	235.00	980
207.05	9613	217.00	18772	225.95	831	235.70	128
208.00	2369	218.00	2357	227.00	17017	236.05	832

Average of 3.152 to 3.163 min.: 2p77710.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
236.95	1318	246.80	249	253.05	625	263.85	638
238.10	96	246.95	956	253.30	615	265.00	3609
238.95	725	247.70	121	255.00	164965	265.95	647
239.80	157	248.10	153	256.00	22765	266.20	240
240.05	522	248.30	126	257.00	2093	270.10	215
241.05	1251	249.05	1025	258.00	9205	271.20	172
242.00	2003	250.00	307	258.90	414	271.90	384
243.10	701	250.85	309	259.05	1377	272.20	214
244.10	30240	251.90	321	259.90	224	272.95	4780
245.05	4429	252.25	457	260.90	83	274.00	14649
246.00	5600	252.75	815	261.10	161	275.05	71245

Average of 3.152 to 3.163 min.: 2p77710.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
276.05	9237	289.00	142	301.95	476	317.00	244
277.05	6193	290.05	357	303.00	2818	320.90	156
278.00	1120	291.80	89	303.95	547	321.10	797
279.15	290	292.00	282	307.90	157	321.90	142
281.00	110	293.05	1344	310.10	103	322.10	150
282.10	110	293.90	142	313.20	153	323.05	6706
283.00	642	294.15	491	313.80	282	324.00	1239
283.60	111	295.00	513	314.00	538	327.00	1484
284.05	748	296.00	19282	314.40	258	327.95	609
285.00	1274	296.95	2254	314.95	1976	331.90	427
286.20	107	301.00	135	316.10	1582	332.20	294

Average of 3.152 to 3.163 min.: 2p77710.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
332.95	715	353.05	930	371.40	421	420.80	115
334.05	3749	354.10	2285	372.10	3303	421.05	1622
335.00	1005	354.95	409	373.05	994	422.25	2049
340.90	485	358.90	104	374.10	125	423.00	13257
341.20	128	360.90	90	382.95	765	424.10	2718
341.70	158	363.40	96	390.20	192	425.00	548
345.95	1261	363.90	125	390.80	261	432.90	156
346.20	243	365.00	8699	392.00	184	433.30	94
351.10	86	365.90	925	401.95	1566	433.90	86
352.00	1860	370.70	198	403.05	1926	435.00	288
352.90	310	371.10	239	403.95	739	435.70	191

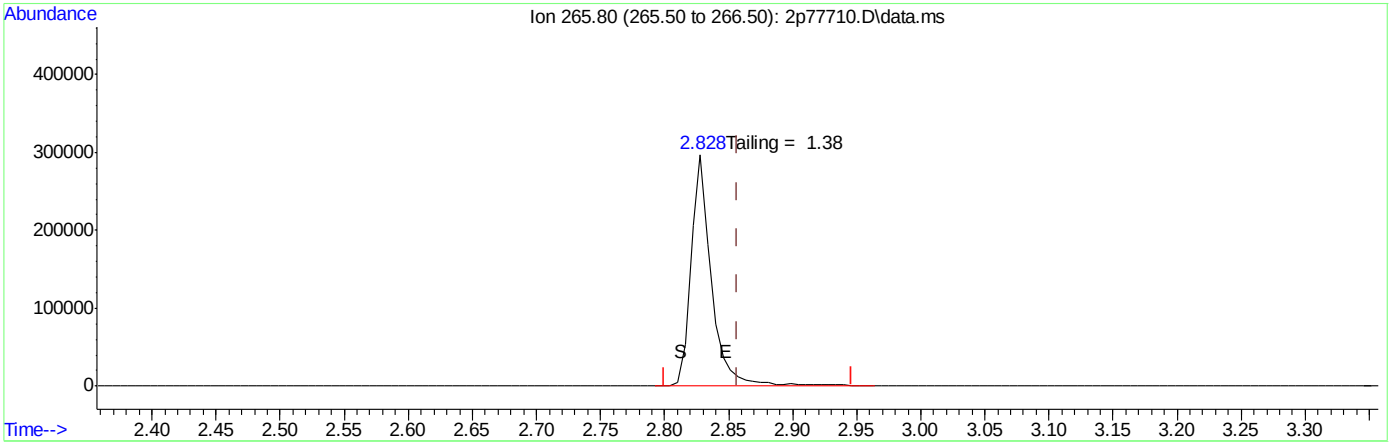
Average of 3.152 to 3.163 min.: 2p77710.D\data.ms
DFTPP
Modified:subtracted

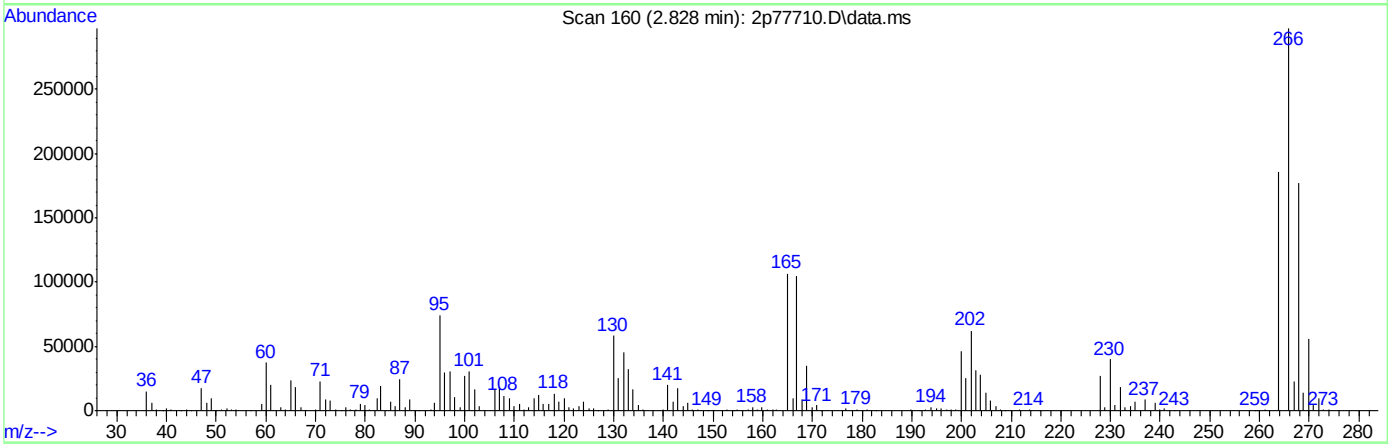
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
436.00	118						
437.20	294						
437.80	161						
438.80	90						
439.30	128						
440.20	252						
441.10	32295						
442.10	189931						
443.10	37235						
444.05	3380						
445.20	88						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77710.D
Acq On : 9 Mar 2018 9:05 am
Operator : chriss2
Sample : DFTPP
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 09 09:09:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77710.D\data.ms

(1) Pentacholorphenol

2.830min (-0.027) 68.76ppb

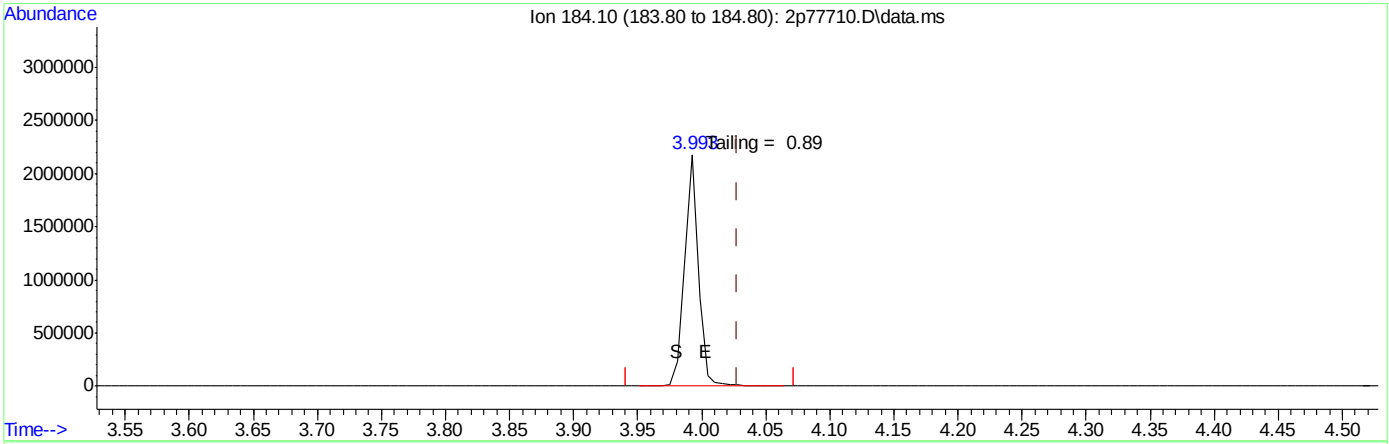
response 3268472

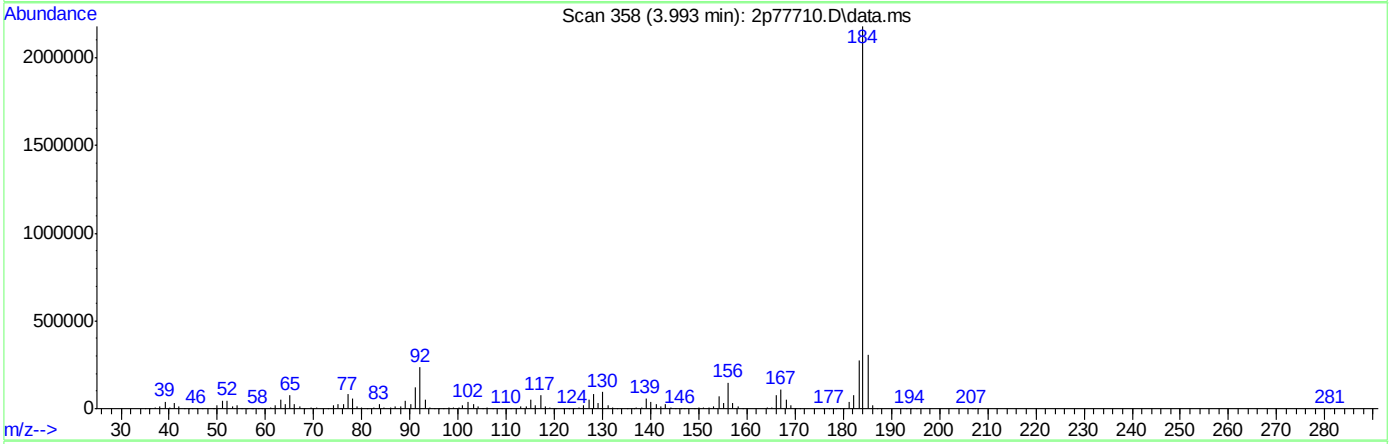
Ion	Exp%	Act%
265.80	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77710.D
Acq On : 9 Mar 2018 9:05 am
Operator : chriss2
Sample : DFTPP
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 09 09:09:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77710.D\data.ms

(2) Benzidine

3.995min (-0.033) 71.46ppb

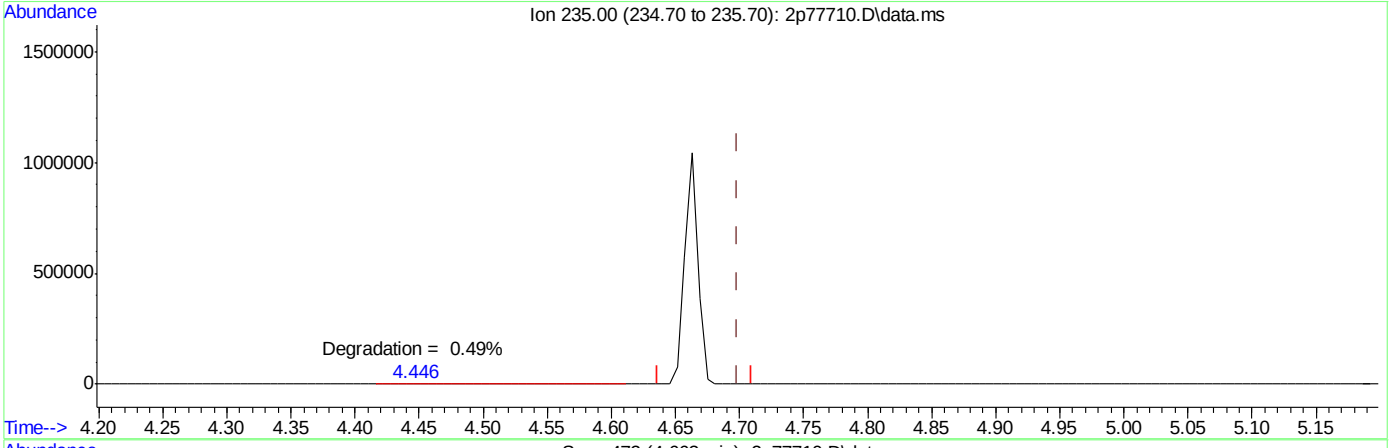
response 16150862

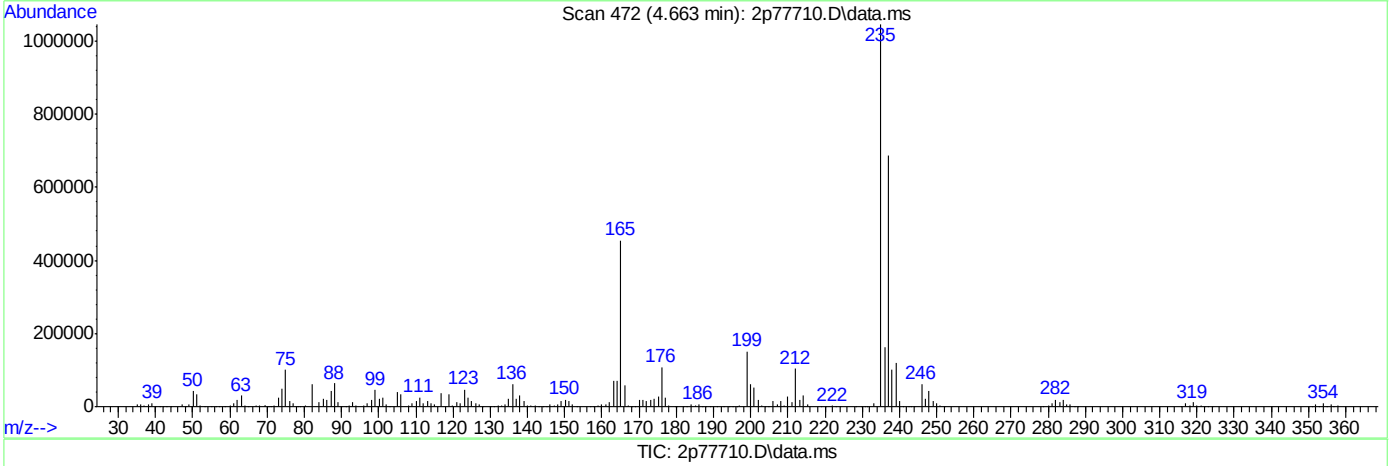
Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77710.D
Acq On : 9 Mar 2018 9:05 am
Operator : chriss2
Sample : DFTPP
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 09 09:09:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p77710.D\data.ms

(3) PP-DDT

4.665min (-0.033) 79.21ppb

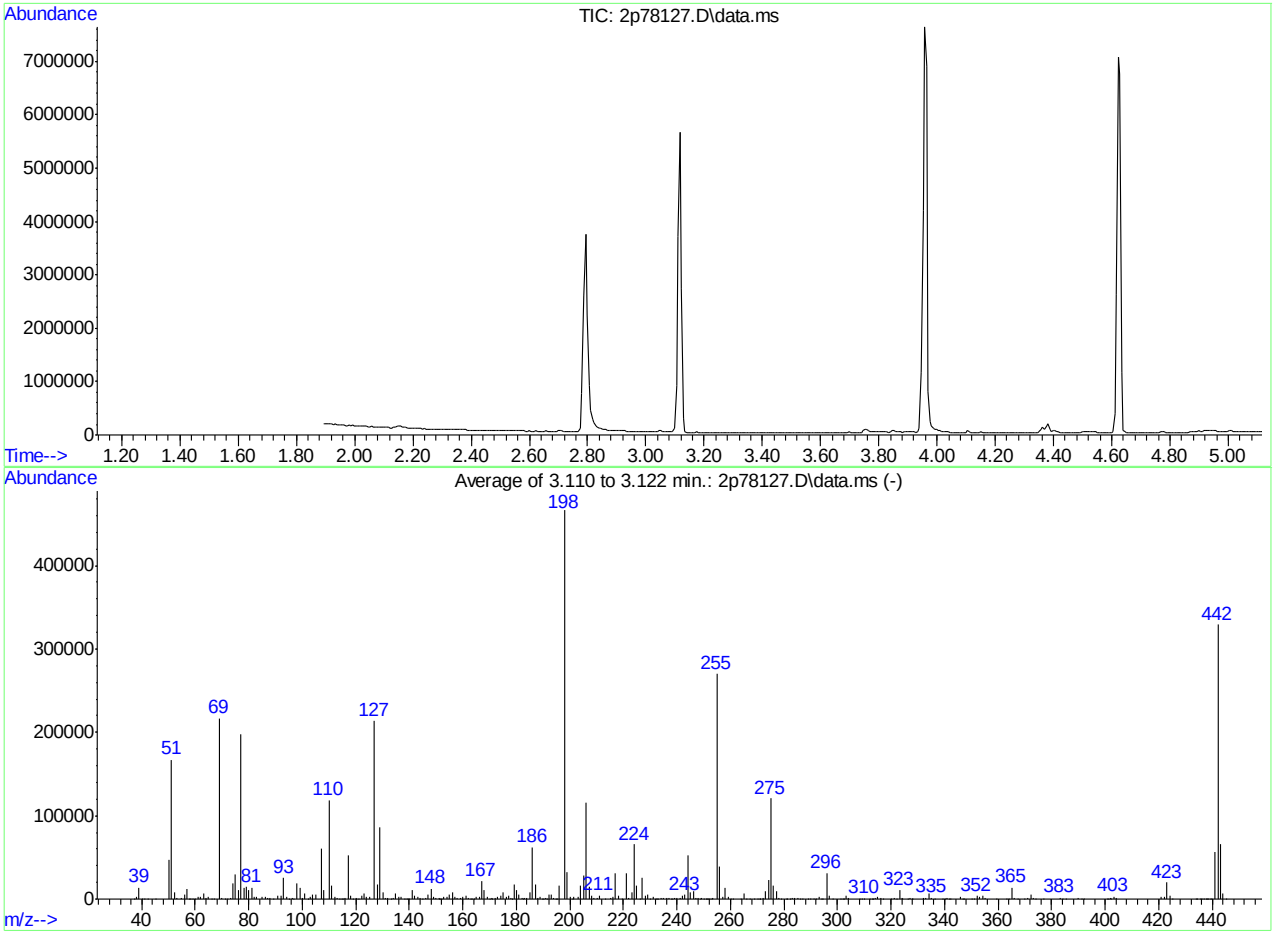
response 7452294

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3440\2p78127.D Vial: 1
Acq On : 28 Mar 2018 2:58 pm Operator: johnb1
Sample : DFTPP Inst : MS2P
Misc : op8196,e2p3440,1000,,,1,1 Multiplr: 1.00
MS Integration Params: events.e

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (ChemStation Integrator)
Title :



AutoFind: Scans 208, 209, 210; Background Corrected with Scan 203

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.9	167140	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.6	217081	PASS
70	69	0.00	2	0.3	726	PASS
127	198	40	60	45.8	213552	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	466091	PASS
199	198	5	9	6.9	32027	PASS
275	198	10	30	26.0	121005	PASS
365	198	1	100	3.0	14112	PASS
441	443	0.01	100	86.3	56571	PASS
442	198	40	100	70.7	329387	PASS
443	442	17	23	19.9	65549	PASS

2p78127.D DFTPP2P.M Thu Mar 29 11:49:14 2018 RPT1

Average of 3.110 to 3.122 min.: 2p78127.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	659	55.00	1041	65.05	2950	77.10	198304
37.95	2524	56.00	5550	66.00	139	78.10	14128
39.00	13964	57.00	12301	67.00	289	79.00	15058
40.00	557	57.80	158	69.00	217081	80.00	10287
41.05	619	58.05	360	70.00	726	81.00	13604
42.05	245	58.95	389	70.95	142	82.00	3380
45.00	211	60.00	219	72.15	203	83.00	2662
50.00	47006	61.00	2616	73.05	1586	85.00	2713
51.05	167140	62.00	2856	74.05	18474	86.00	2915
52.10	8199	63.05	6366	75.00	29321	86.95	1544
53.00	785	64.05	1097	76.10	10759	87.90	803

Average of 3.110 to 3.122 min.: 2p78127.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
89.00	352	100.95	6896	113.90	151	123.00	6239
91.00	3702	102.00	505	114.80	111	124.00	2755
92.05	3716	103.05	2958	115.00	134	125.05	2558
92.95	24975	104.00	4967	116.10	1528	127.00	213552
94.00	2073	105.00	4792	117.00	52181	128.05	18017
94.90	379	106.95	59896	118.00	4355	129.00	85435
96.10	917	108.00	10136	119.00	339	130.00	7646
96.80	142	110.00	118875	119.95	746	130.95	1455
98.00	18815	111.00	16747	120.20	117	132.05	989
99.00	13432	112.00	2213	121.05	350	132.95	592
100.00	1177	112.95	720	122.05	4085	133.95	1901

Average of 3.110 to 3.122 min.: 2p78127.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
135.00	6222	145.05	632	154.05	2781	163.90	673
136.00	2141	146.05	1870	155.10	5884	164.95	3126
137.00	3372	147.05	5159	156.10	8504	166.05	3175
138.10	390	148.00	12250	157.00	2293	166.95	22226
139.00	527	149.00	2215	158.00	1863	168.05	10532
139.20	101	150.00	727	159.10	1499	169.00	2066
139.90	194	151.00	247	160.05	3302	170.05	590
141.00	11140	151.30	1494	161.05	4669	170.65	577
142.05	3939	151.70	362	162.05	1624	171.00	911
143.00	2357	152.00	567	162.85	366	172.00	1914
144.00	748	153.00	3249	163.10	89	173.00	2418

Average of 3.110 to 3.122 min.: 2p78127.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.05	4387	183.10	890	192.00	5306	203.00	3160
175.10	8186	183.95	1554	193.05	4934	204.05	16282
176.05	2684	185.10	7899	194.05	1230	205.05	27837
177.00	4074	186.00	61907	194.70	367	206.10	116008
178.00	1234	187.00	17404	195.20	380	207.10	14861
178.30	573	188.00	1618	196.00	15948	208.00	3706
179.00	17835	189.00	3364	198.00	466091	209.05	1384
180.00	10437	189.70	146	199.00	32027	210.00	1598
181.05	4889	190.00	479	200.05	2971	210.95	4484
182.00	853	190.95	930	200.90	295	213.05	494
182.40	437	191.30	480	201.55	3366	215.00	1018

Average of 3.110 to 3.122 min.: 2p78127.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.05	3144	228.00	3684	237.90	126	248.00	723
217.00	30373	229.00	6081	238.15	298	248.80	457
218.00	4083	230.00	679	239.00	1119	248.95	1528
219.25	492	231.05	2478	240.00	1171	249.90	558

221.05	31461	231.85	387	241.00	1539	250.85	414
222.00	1594	232.20	149	242.10	3604	251.30	166
223.05	7579	232.90	514	243.05	5020	251.70	156
224.05	65792	234.05	1714	244.05	52557	252.15	554
225.00	16510	235.00	2058	245.05	7987	252.70	165
225.90	369	235.95	1344	246.00	9048	253.15	1452
227.00	25280	237.05	1775	247.00	1828	255.00	269824

Average of 3.110 to 3.122 min.: 2p78127.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
256.00	39341	270.05	434	280.80	108	292.00	547
257.10	3282	270.85	285	281.10	140	293.00	2279
258.00	14132	271.10	221	282.05	333	294.05	633
259.00	2447	272.10	1059	283.10	971	294.50	96
260.00	583	273.00	8923	284.05	919	296.00	31296
260.95	455	274.05	23541	285.05	1852	297.05	4226
263.85	528	275.00	121005	286.05	245	298.00	385
265.00	6221	276.05	16132	287.00	88	301.05	349
265.80	414	277.00	9669	288.85	466	301.95	546
267.10	168	277.95	1839	289.85	279	302.30	114
269.00	97	279.00	240	291.10	249	303.05	4112

Average of 3.110 to 3.122 min.: 2p78127.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
304.00	1293	320.00	208	332.95	1370	347.10	173
308.05	455	321.05	914	334.10	6392	349.90	95
308.90	415	322.15	662	335.05	1468	350.95	342
310.00	521	323.05	10927	336.20	101	352.05	3663
311.80	98	323.90	514	339.00	99	353.05	2370
312.90	233	324.10	1578	339.90	228	354.05	3655
313.20	282	326.05	331	341.05	1505	354.95	744
314.05	1476	326.90	1965	341.80	96	359.10	207
314.95	3368	327.80	205	341.95	280	363.10	173
316.05	2014	328.00	626	345.95	3015	364.00	216
316.85	387	332.15	754	346.85	246	365.00	14112

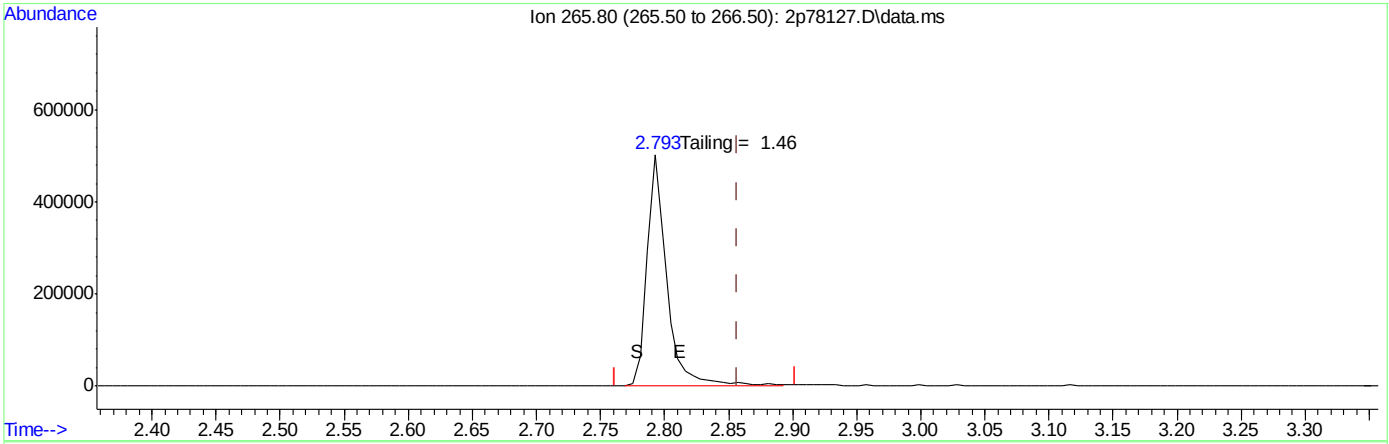
Average of 3.110 to 3.122 min.: 2p78127.D\data.ms
DFTPP
Modified:subtracted

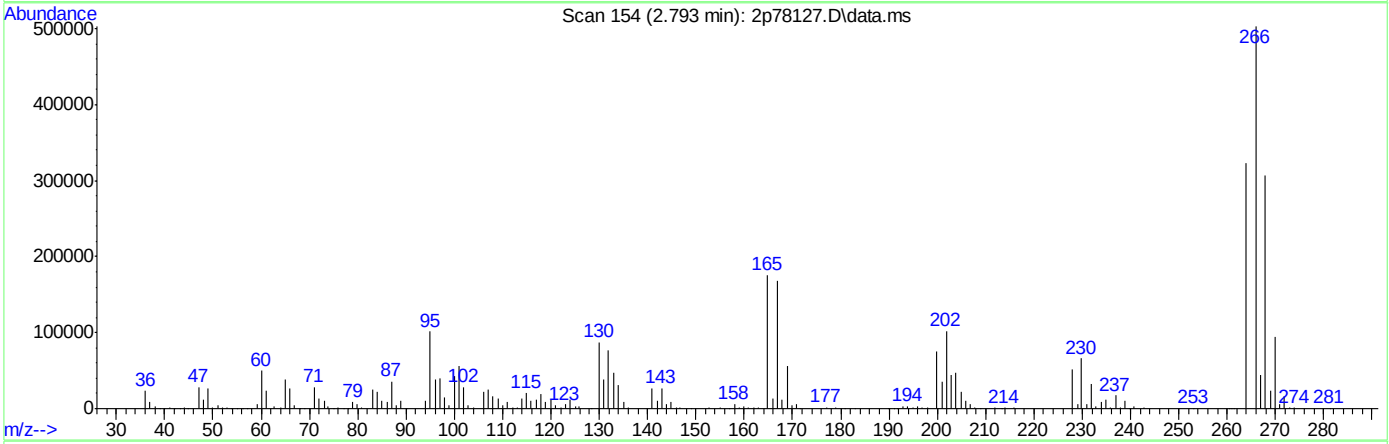
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
366.00	1945	390.00	1105	423.10	19952	439.30	386
367.10	91	391.00	416	424.05	4714	439.60	245
369.95	263	391.90	557	425.10	374	441.10	56571
371.05	980	400.80	112	433.70	268	442.10	329387
372.10	5756	401.05	437	434.40	146	443.10	65549
373.10	1462	401.90	422	435.40	234	444.05	6361
374.05	187	402.05	1741	435.95	353	444.95	332
377.00	114	403.05	2964	436.60	124		
383.05	1589	404.00	1049	437.80	270		
383.90	502	421.05	2460	438.05	294		
385.10	86	422.10	2944	438.60	438		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78127.D
Acq On : 28 Mar 2018 2:58 pm
Operator : johnb1
Sample : DFTPP
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 28 15:02:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p78127.D\data.ms

(1) Pentacholorphenol

2.796min (-0.062) 110.91ppb

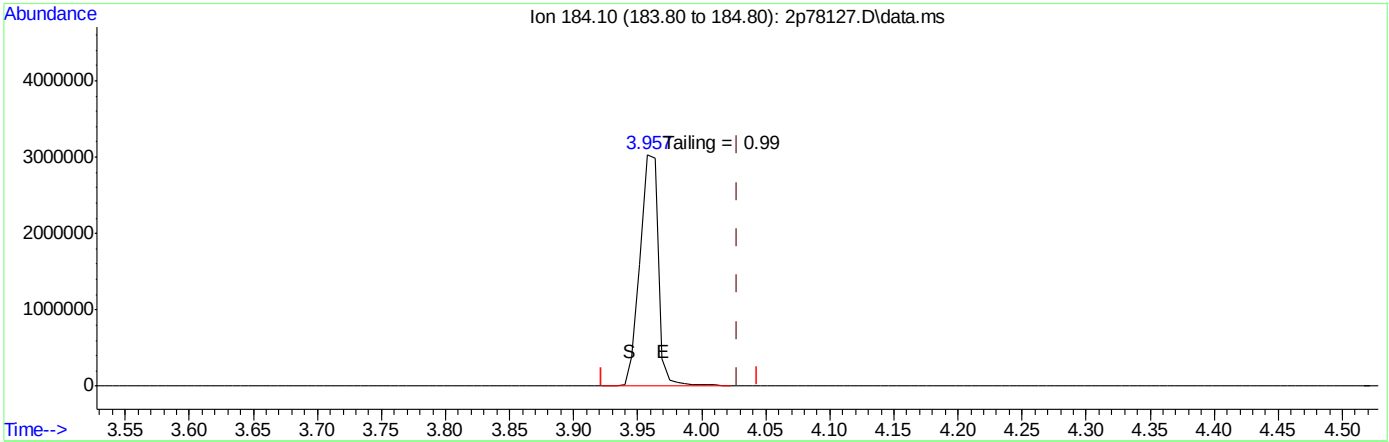
response 5272066

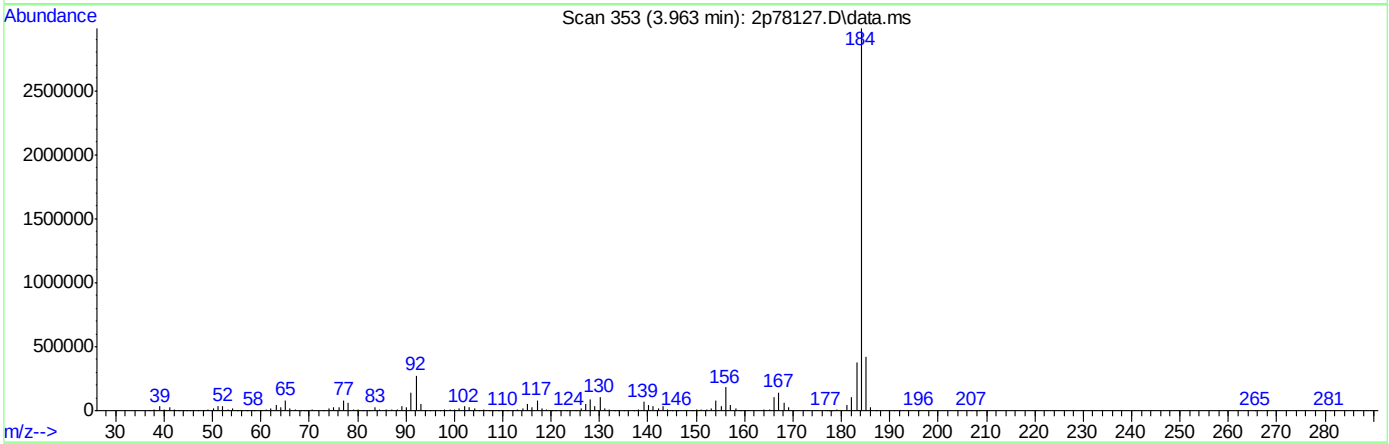
Ion	Exp%	Act%
265.80	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78127.D
Acq On : 28 Mar 2018 2:58 pm
Operator : johnb1
Sample : DFTPP
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 28 15:02:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p78127.D\data.ms

(2) Benzidine

3.962min (-0.066) 133.85ppb

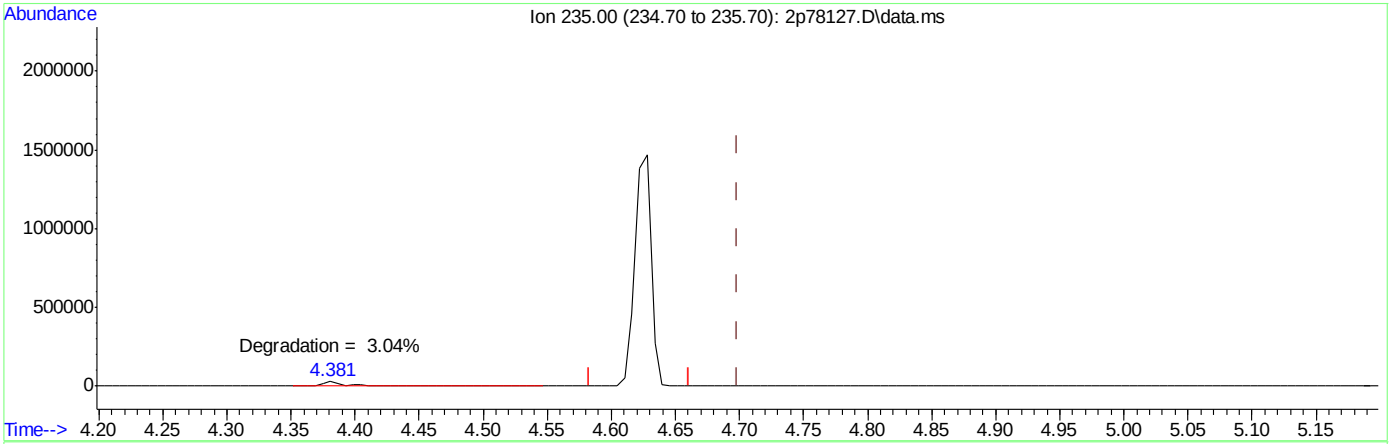
response 30252614

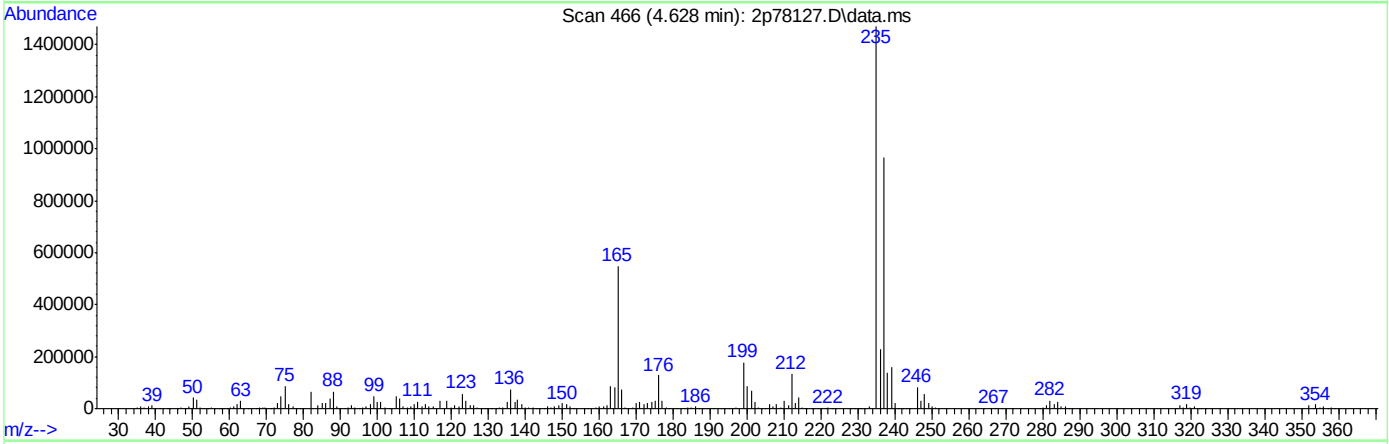
Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78127.D
Acq On : 28 Mar 2018 2:58 pm
Operator : johnb1
Sample : DFTPP
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 28 15:02:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
Quant Title :
QLast Update : Fri Feb 23 09:56:21 2018
Response via : Initial Calibration





TIC: 2p78127.D\data.ms

(3) PP-DDT

4.628min (-0.071) 136.83ppb

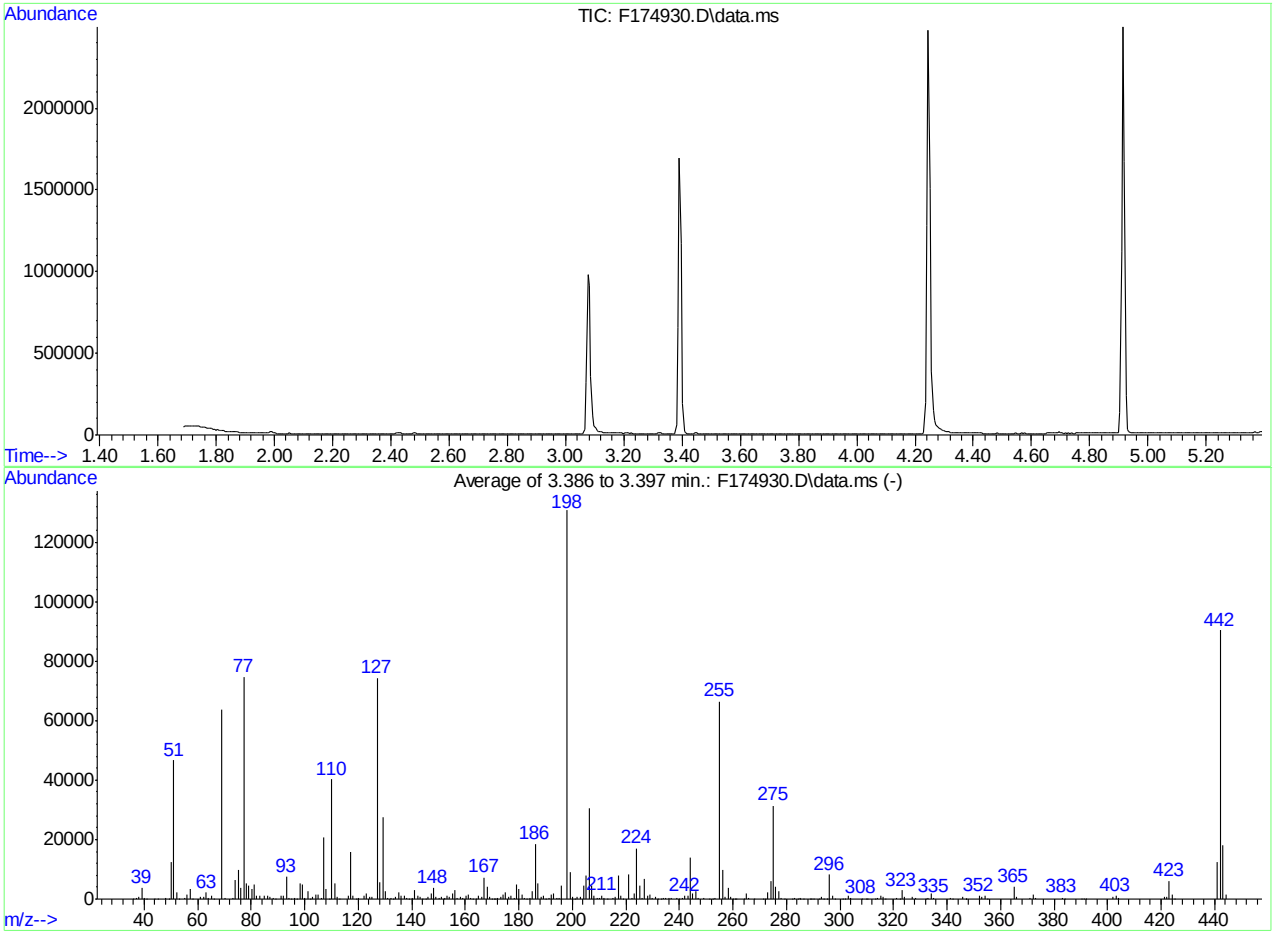
response 12873211

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF7441\F174930.D Vial: 1
Acq On : 13 Mar 2018 10:56 pm Operator: chriss2
Sample : DFTPP Inst : GCMSF
Misc : op9377,ef7441,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 319, 320, 321; Background Corrected with Scan 315

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.7	46578	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	48.9	63877	PASS
70	69	0.00	2	0.6	399	PASS
127	198	40	60	57.0	74437	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	130632	PASS
199	198	5	9	6.8	8931	PASS
275	198	10	30	24.1	31460	PASS
365	198	1	100	3.2	4134	PASS
441	443	0.10	100	69.3	12471	PASS
442	198	40	100	69.2	90370	PASS
443	442	17	23	19.9	17990	PASS

F174930.D DFTPPF.M Wed Mar 14 13:58:54 2018

Average of 3.386 to 3.397 min.: F174930.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	21	51.15	46578	65.20	1145	80.10	3268
37.15	278	52.20	2360	66.25	140	81.10	4833
38.15	714	53.10	65	69.10	63877	82.10	1224
39.20	3645	55.10	264	70.10	399	83.10	1222
40.15	302	56.10	1384	73.15	551	85.10	1320
41.05	65	57.10	3436	74.15	6245	86.10	1237
44.05	98	58.10	64	75.10	9992	87.15	778
45.10	70	61.15	686	76.20	3870	88.05	242
48.10	245	62.15	865	77.20	74744	89.10	57
49.10	1	63.20	2201	78.20	5170	91.10	1189
50.20	12279	64.15	334	79.10	4530	92.10	1168

Average of 3.386 to 3.397 min.: F174930.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.10	7487	104.10	1588	117.10	15714	130.10	2546
94.10	583	105.10	1572	118.10	1312	131.10	489
95.00	147	106.10	452	119.10	91	132.15	279
96.15	393	107.10	20850	120.15	286	133.00	52
97.10	57	108.10	3322	122.05	1180	134.10	791
98.10	5445	109.10	138	123.10	1900	135.10	2154
99.10	4990	110.10	40304	124.15	843	136.10	967
100.10	362	111.10	5477	125.10	786	137.15	1221
101.10	2645	112.10	767	127.10	74437	138.10	263
102.10	94	113.10	124	128.10	5691	139.10	80
103.10	900	116.15	1149	129.10	27597	140.15	426

Average of 3.386 to 3.397 min.: F174930.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.10	3209	151.80	76	162.10	427	172.05	539
142.10	1081	152.15	208	163.00	60	173.10	783
143.05	732	153.10	1045	164.10	186	174.15	1364
144.10	196	154.10	856	165.10	1219	175.15	2347
145.10	180	155.10	1926	166.20	894	176.10	776
146.10	670	156.10	2903	167.10	7244	177.10	1128
147.10	1789	157.15	547	168.10	4330	178.10	375
148.10	3743	158.10	642	169.15	622	179.10	5093
149.10	888	159.10	438	170.10	113	180.10	3411
150.05	244	160.10	1085	170.90	60	181.10	1505
151.20	662	161.10	1497	171.05	160	182.10	230

Average of 3.386 to 3.397 min.: F174930.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
183.00	104	194.15	447	206.20	30703	218.05	1036
184.10	400	195.15	259	207.15	4504	219.10	65
185.10	2508	196.10	4560	208.10	1130	221.10	8120
186.10	18529	198.10	130632	209.10	338	222.10	417
187.15	5108	199.10	8931	210.15	238	223.10	1888
188.15	655	200.15	716	211.15	1331	224.15	17078
189.10	1196	200.95	149	211.90	307	225.10	4501
190.00	103	201.70	747	213.10	51	226.20	502
191.15	583	203.10	832	215.05	305	227.10	6775
192.15	1502	204.10	4395	216.20	734	228.10	1023
193.10	1715	205.15	7767	217.10	7963	229.10	1477

Average of 3.386 to 3.397 min.: F174930.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
230.00	263	242.10	1073	256.10	9862	271.10	148
231.10	604	243.15	1012	257.10	860	272.05	206
232.00	90	244.15	13932	258.10	3764	273.10	2100
233.15	141	245.10	1717	259.10	632	274.10	6007

234.10	509	246.10	2659	260.00	50	275.10	31460
235.05	549	247.10	525	261.00	84	276.10	4245
236.10	385	249.05	423	261.20	60	277.10	2776
237.10	567	251.00	61	264.05	157	278.10	429
239.05	240	252.25	174	265.10	1788	279.20	50
240.05	186	253.10	368	266.05	260	282.10	56
241.05	422	255.10	66450	267.90	54	283.10	226

Average of 3.386 to 3.397 min.: F174930.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
284.10	133	296.10	8239	314.10	498	333.05	241
285.00	71	297.15	1115	315.10	1057	334.10	1921
285.20	457	298.10	60	316.10	620	335.15	387
286.20	112	301.10	54	317.10	69	341.10	363
289.00	51	302.00	103	321.10	227	342.10	58
289.20	60	303.15	1181	322.20	166	346.05	670
290.10	143	304.15	341	323.15	2879	346.90	63
292.10	57	308.05	169	324.15	614	347.10	75
293.10	694	310.00	76	327.05	608	352.10	1039
294.05	152	310.20	63	328.10	282	353.10	692
295.00	79	313.20	55	332.10	177	354.10	1102

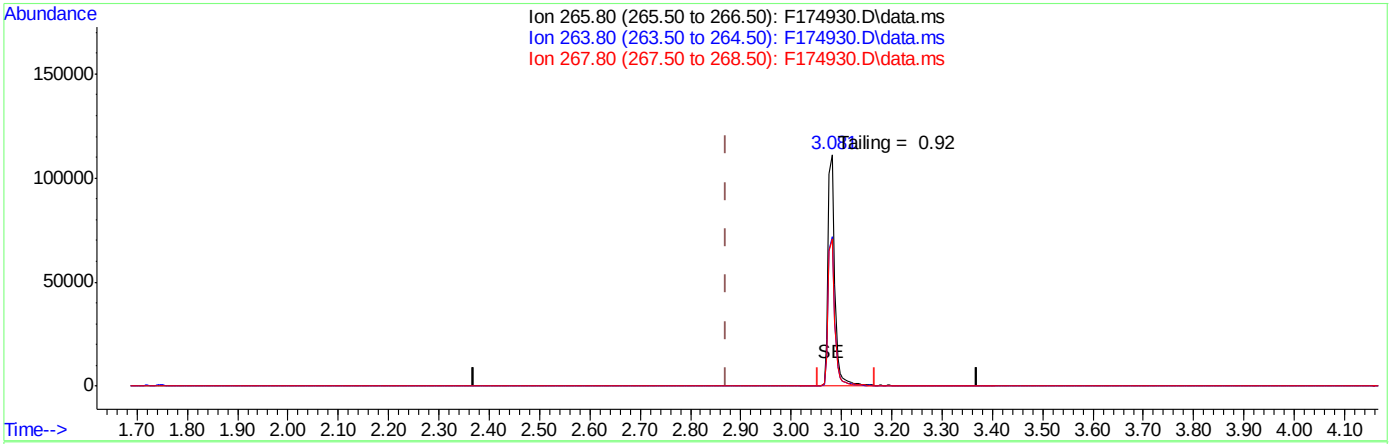
Average of 3.386 to 3.397 min.: F174930.D\data.ms
DFTPP
Modified:subtracted

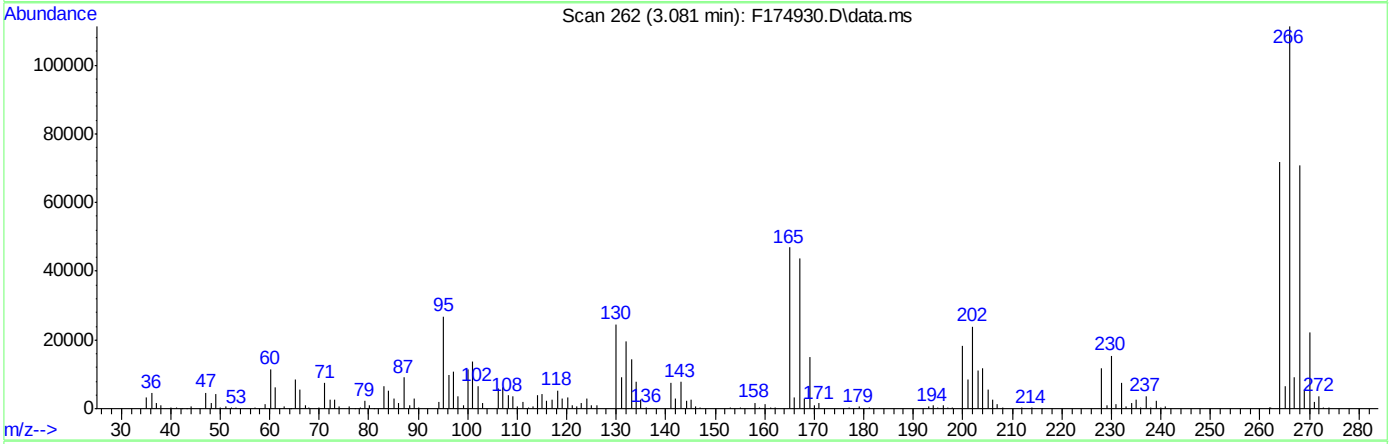
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
355.10	203	402.10	682	444.10	1594		
365.10	4134	403.10	1050				
366.10	635	404.15	336				
371.15	221	421.05	814				
372.10	1579	422.10	682				
373.10	468	423.10	6071				
383.10	480	424.10	1362				
384.00	73	425.00	162				
390.05	193	441.10	12471				
391.10	82	442.10	90370				
392.10	153	443.10	17990				

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174930.D
Acq On : 13 Mar 2018 10:56 pm
Operator : chriss2
Sample : DFTPP
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 13 23:02:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174930.D\data.ms

(1) Pentachlorophenol (t)

3.081min (+0.211) 55.89ppb

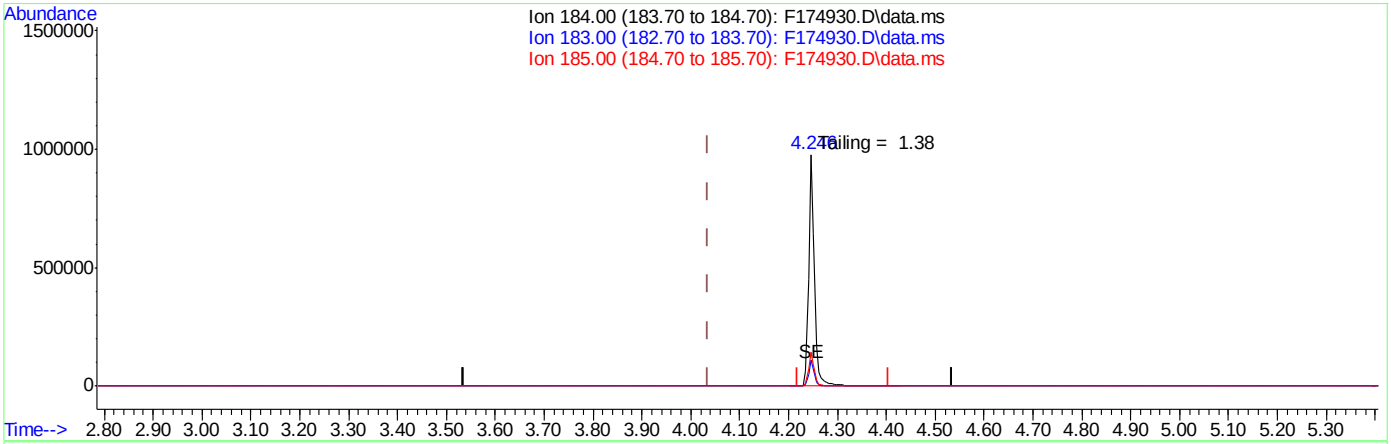
response 103887

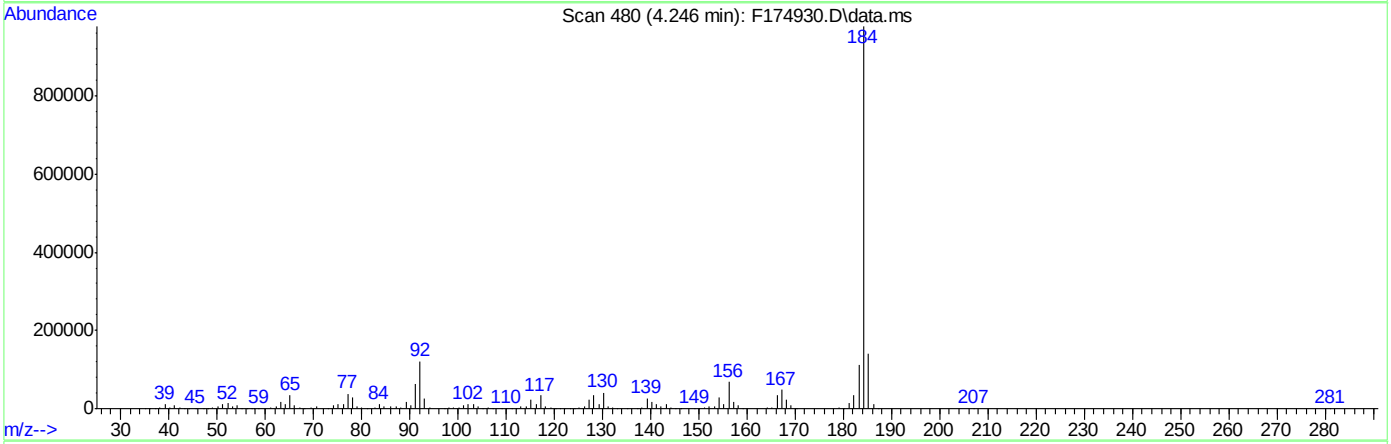
Ion	Exp%	Act%
265.80	100	100
263.80	64.10	64.63
267.80	62.50	63.74
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174930.D
Acq On : 13 Mar 2018 10:56 pm
Operator : chriss2
Sample : DFTPP
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 13 23:02:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174930.D\data.ms

(2) Benzidine (t)

4.246min (+0.211) 43.04ppb

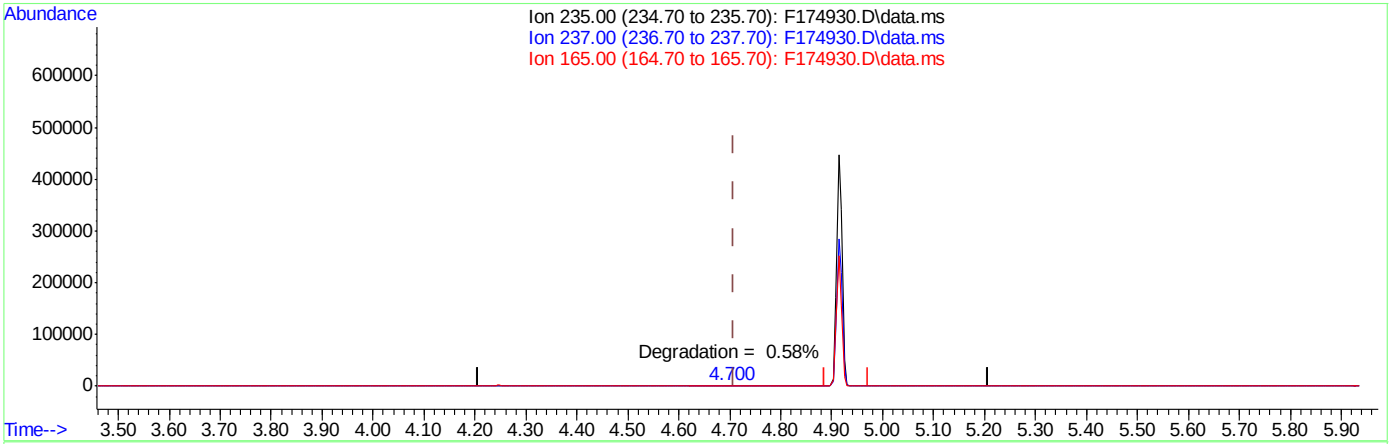
response 806306

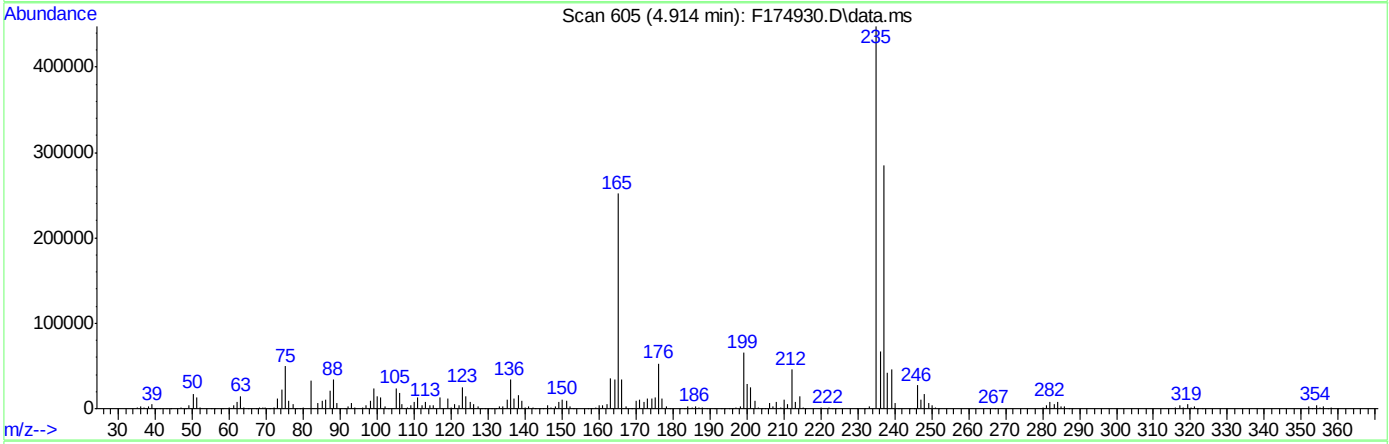
Ion	Exp%	Act%
184.00	100	100
183.00	11.10	11.25
185.00	14.30	14.76
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174930.D
Acq On : 13 Mar 2018 10:56 pm
Operator : chriss2
Sample : DFTPP
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 13 23:02:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174930.D\data.ms

(3) ddt (t)

4.914min (+0.206) 21.30ppb

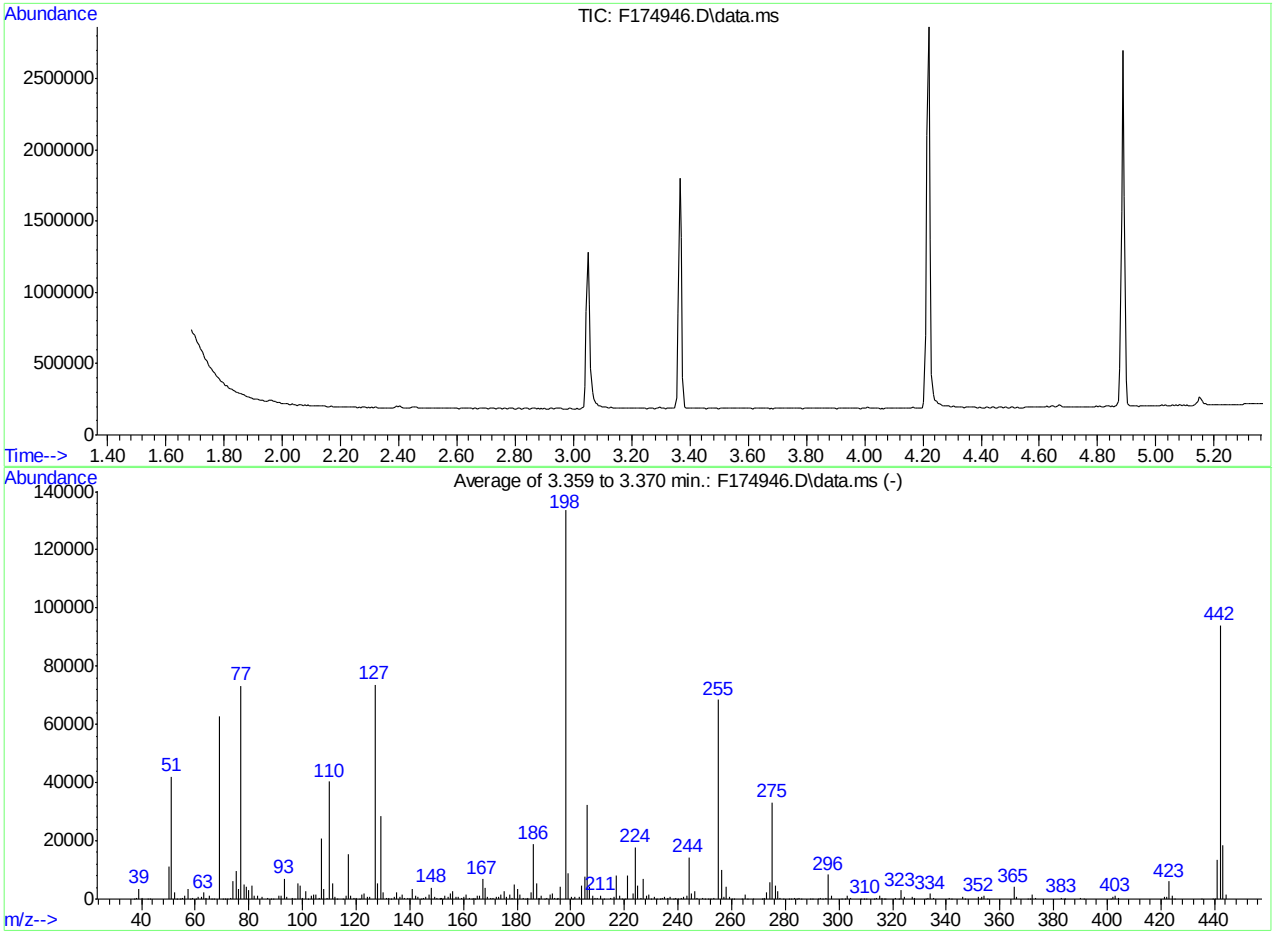
response 330780

Ion	Exp%	Act%
235.00	100	100
237.00	63.50	64.03
165.00	54.60	54.15
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF7442\F174946.D Vial: 1
Acq On : 14 Mar 2018 1:41 pm Operator: seanb1
Sample : DFTPP Inst : GCMSF
Misc : op9377,ef7442,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 314, 315, 316; Background Corrected with Scan 310

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.5	42111	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.1	62900	PASS
70	69	0.00	2	0.3	189	PASS
127	198	40	60	55.1	73591	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	133509	PASS
199	198	5	9	6.8	9041	PASS
275	198	10	30	24.9	33257	PASS
365	198	1	100	3.1	4180	PASS
441	443	0.10	100	72.4	13473	PASS
442	198	40	100	70.4	93989	PASS
443	442	17	23	19.8	18618	PASS

F174946.D DFTPPF.M Thu Mar 15 11:23:29 2018

Average of 3.359 to 3.370 min.: F174946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	1	55.20	385	66.15	156	78.15	5200
38.10	553	56.10	1312	67.15	126	79.10	4325
39.10	3607	57.15	3378	69.10	62900	80.10	3170
40.10	233	58.10	131	70.10	189	81.10	4783
42.10	14	59.10	215	71.15	38	82.10	1111
43.20	47	60.10	17	72.00	64	83.10	1069
50.10	11266	61.15	659	73.10	363	85.10	732
51.15	42111	62.20	753	74.15	6002	87.00	374
52.15	2384	63.15	2198	75.10	9683	88.05	161
53.10	117	64.15	316	76.20	3658	89.05	24
54.20	115	65.15	1289	77.15	73184	91.10	983

Average of 3.359 to 3.370 min.: F174946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.05	1039	104.10	1583	116.15	1164	128.10	5433
93.10	7021	105.10	1588	117.10	15384	129.10	28341
94.10	644	106.15	275	118.10	1268	130.10	2515
96.10	242	107.10	20880	119.10	253	131.10	541
97.20	3	108.10	3416	120.15	291	132.05	330
98.10	5361	109.20	237	121.15	150	133.05	133
99.10	4608	110.10	40264	122.10	1412	134.10	875
100.10	454	111.10	5465	123.10	2030	135.10	2319
101.10	2606	112.15	622	124.10	967	136.10	874
102.15	112	113.00	45	125.15	873	137.15	1384
103.10	1104	115.00	98	127.05	73591	138.10	316

Average of 3.359 to 3.370 min.: F174946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
139.05	252	150.05	303	159.15	457	169.10	624
140.10	341	151.15	550	160.05	970	170.15	243
141.10	3392	151.50	94	161.10	1492	171.10	357
142.10	1161	151.85	308	162.05	462	172.05	647
143.10	821	152.10	144	163.10	56	173.10	681
144.05	194	153.10	1109	164.00	220	174.10	1555
145.15	286	154.10	839	164.20	50	175.20	2691
146.10	633	155.10	1804	165.10	1237	176.10	935
147.10	1746	156.15	2701	166.10	986	177.10	1400
148.10	3931	157.10	669	167.10	6808	178.15	381
149.10	792	158.05	611	168.10	3798	179.10	4922

Average of 3.359 to 3.370 min.: F174946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
180.10	3480	190.05	139	200.80	50	212.15	130
181.10	1594	191.15	532	201.60	746	215.05	365
182.15	300	192.10	1481	203.10	891	216.20	647
183.00	186	193.10	1763	204.10	4529	217.10	8072
184.10	398	194.15	459	205.15	7849	218.10	1074
185.10	2314	195.00	56	206.15	32309	219.15	123
186.10	18985	195.15	256	207.10	4205	220.10	60
187.10	5451	196.10	4347	208.10	1183	221.10	8085
188.00	86	198.10	133509	209.05	382	223.10	1946
188.15	402	199.10	9041	210.05	333	224.15	17791
189.10	1066	200.10	743	211.15	1279	225.10	4614

Average of 3.359 to 3.370 min.: F174946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.15	541	237.10	713	249.05	481	261.00	77
227.10	6868	238.20	72	250.00	70	263.95	150
228.05	1091	239.10	253	251.15	114	265.10	1685
229.10	1537	240.05	179	252.10	137	266.00	118

230.10	198	241.10	383	253.10	321	268.00	54
231.10	688	242.15	925	255.10	68525	271.10	170
232.10	70	243.15	1012	256.10	9941	272.15	232
233.10	58	244.10	14346	257.15	879	273.10	2148
234.05	451	245.15	1845	258.10	4268	274.10	5957
235.10	598	246.10	2621	259.05	736	275.10	33257
236.10	360	247.10	580	260.00	57	276.10	4530

Average of 3.359 to 3.370 min.: F174946.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
277.10	2564	292.15	140	309.10	50	324.15	683
278.05	464	293.10	583	310.10	119	327.10	640
279.20	144	294.00	170	313.10	54	328.10	326
281.10	83	295.15	227	314.10	437	332.10	191
282.00	50	296.10	8414	315.10	1015	333.05	313
283.20	311	297.10	1269	316.10	516	334.15	1857
284.10	185	301.05	138	317.00	62	335.15	578
285.10	459	302.10	136	317.20	50	341.10	454
286.10	58	303.10	1129	321.15	260	342.05	162
289.10	56	304.10	216	322.05	133	346.10	754
290.10	68	308.20	84	323.10	3072	347.00	128

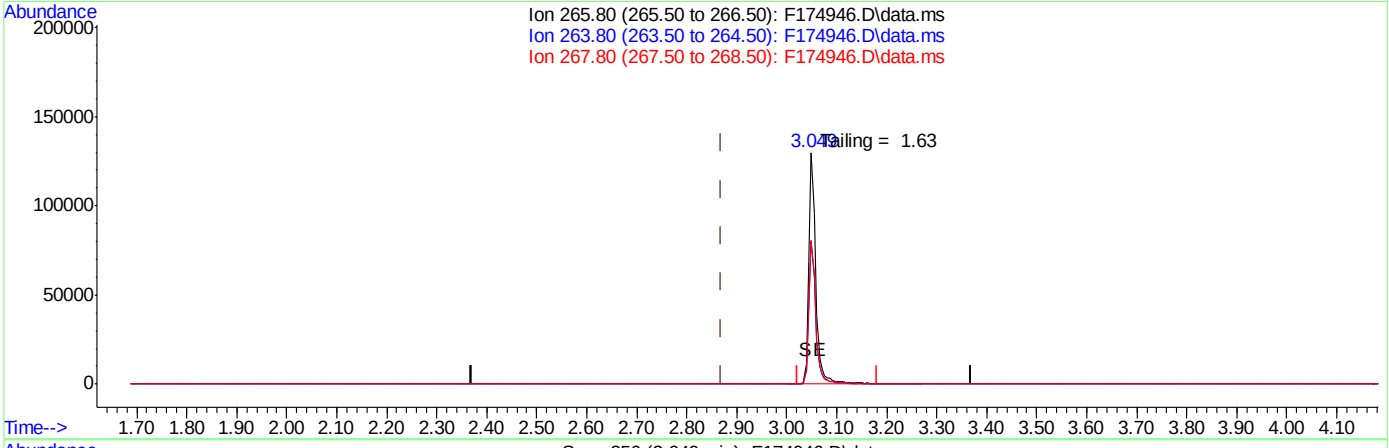
Average of 3.359 to 3.370 min.: F174946.D\data.ms
DFTPP
Modified:subtracted

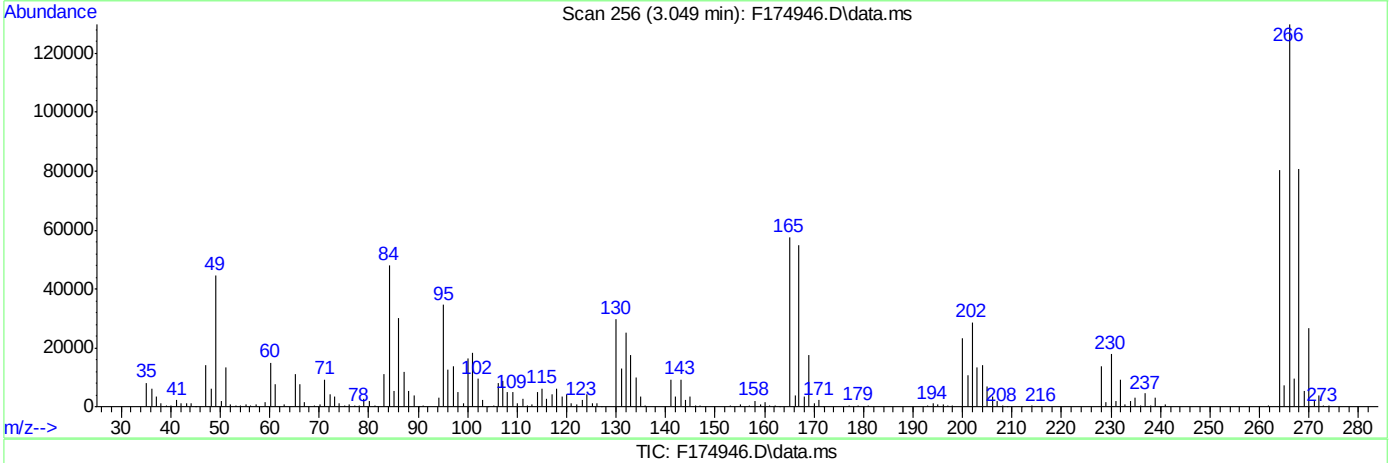
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
352.10	797	383.05	471	423.10	6057		
352.90	65	384.00	110	424.10	1200		
353.10	611	384.20	82	425.00	121		
354.10	1060	390.15	221	435.10	71		
355.15	205	391.05	140	439.30	56		
365.10	4180	401.10	55	440.10	60		
366.10	683	402.10	762	441.10	13473		
370.10	56	403.10	1066	442.10	93989		
371.15	179	404.05	247	443.10	18618		
372.10	1555	421.10	720	444.10	1715		
373.10	482	422.10	889				

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7442\
Data File : F174946.D
Acq On : 14 Mar 2018 1:41 pm
Operator : seanb1
Sample : DFTPP
Misc : op9377,ef7442,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 13:47:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174946.D\data.ms

(1) Pentachlorophenol (t)

3.049min (+0.179) 68.34ppb

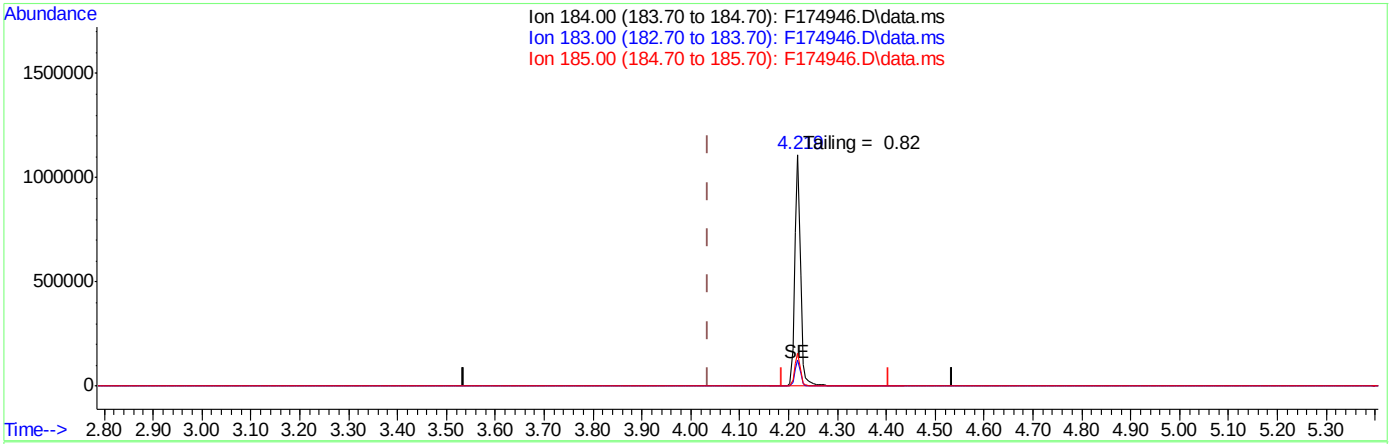
response 127032

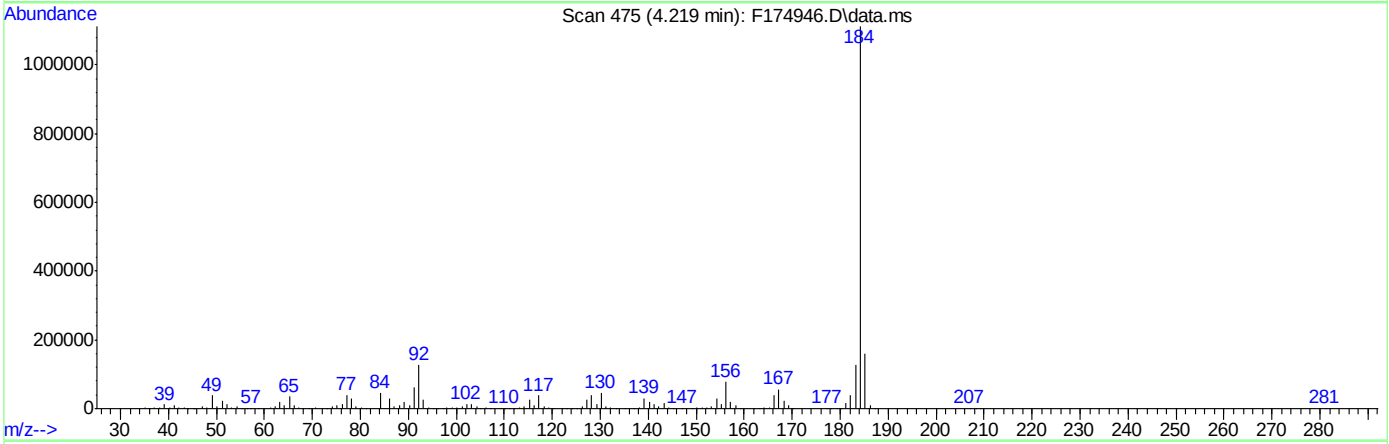
Ion	Exp%	Act%
265.80	100	100
263.80	64.10	61.78
267.80	62.50	62.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7442\
Data File : F174946.D
Acq On : 14 Mar 2018 1:41 pm
Operator : seanb1
Sample : DFTPP
Misc : op9377,ef7442,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 13:47:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174946.D\data.ms

(2) Benzidine (t)

4.219min (+0.184) 48.62ppb

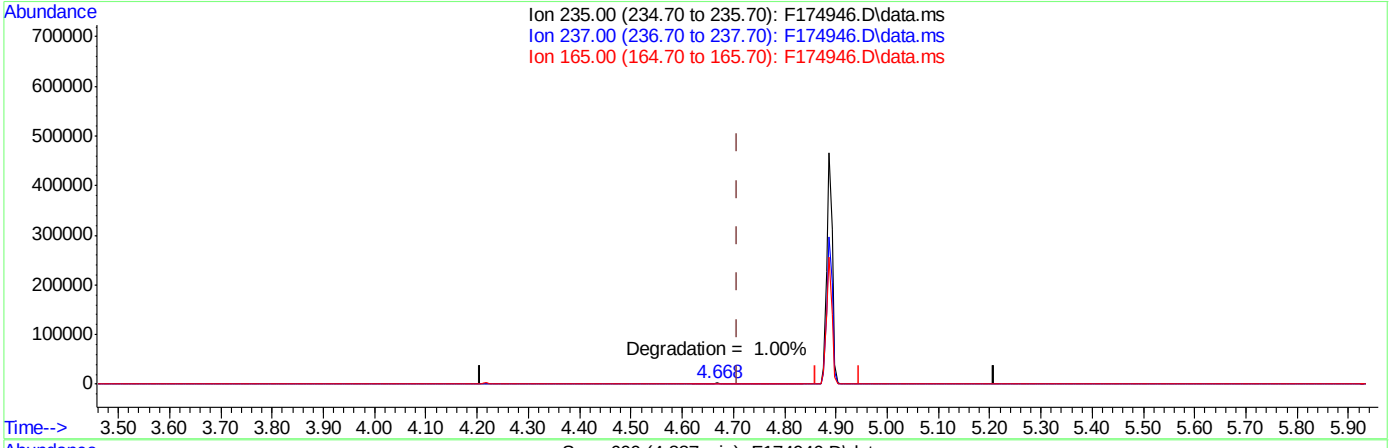
response 910804

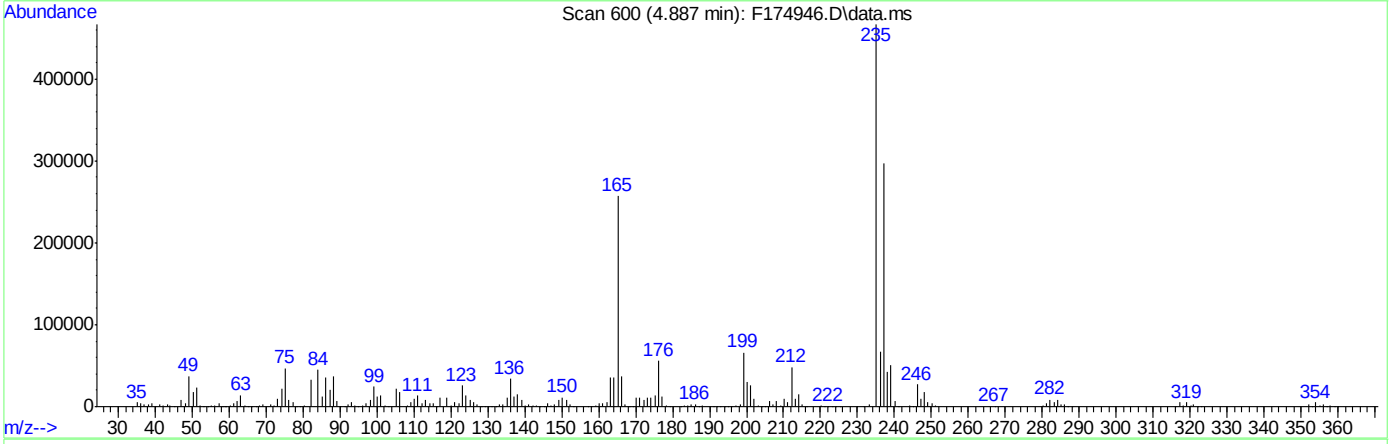
Ion	Exp%	Act%
184.00	100	100
183.00	11.10	11.23
185.00	14.30	14.27
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7442\
Data File : F174946.D
Acq On : 14 Mar 2018 1:41 pm
Operator : seanb1
Sample : DFTPP
Misc : op9377,ef7442,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 13:47:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174946.D\data.ms

(3) ddt (t)

4.887min (+0.179) 22.33ppb

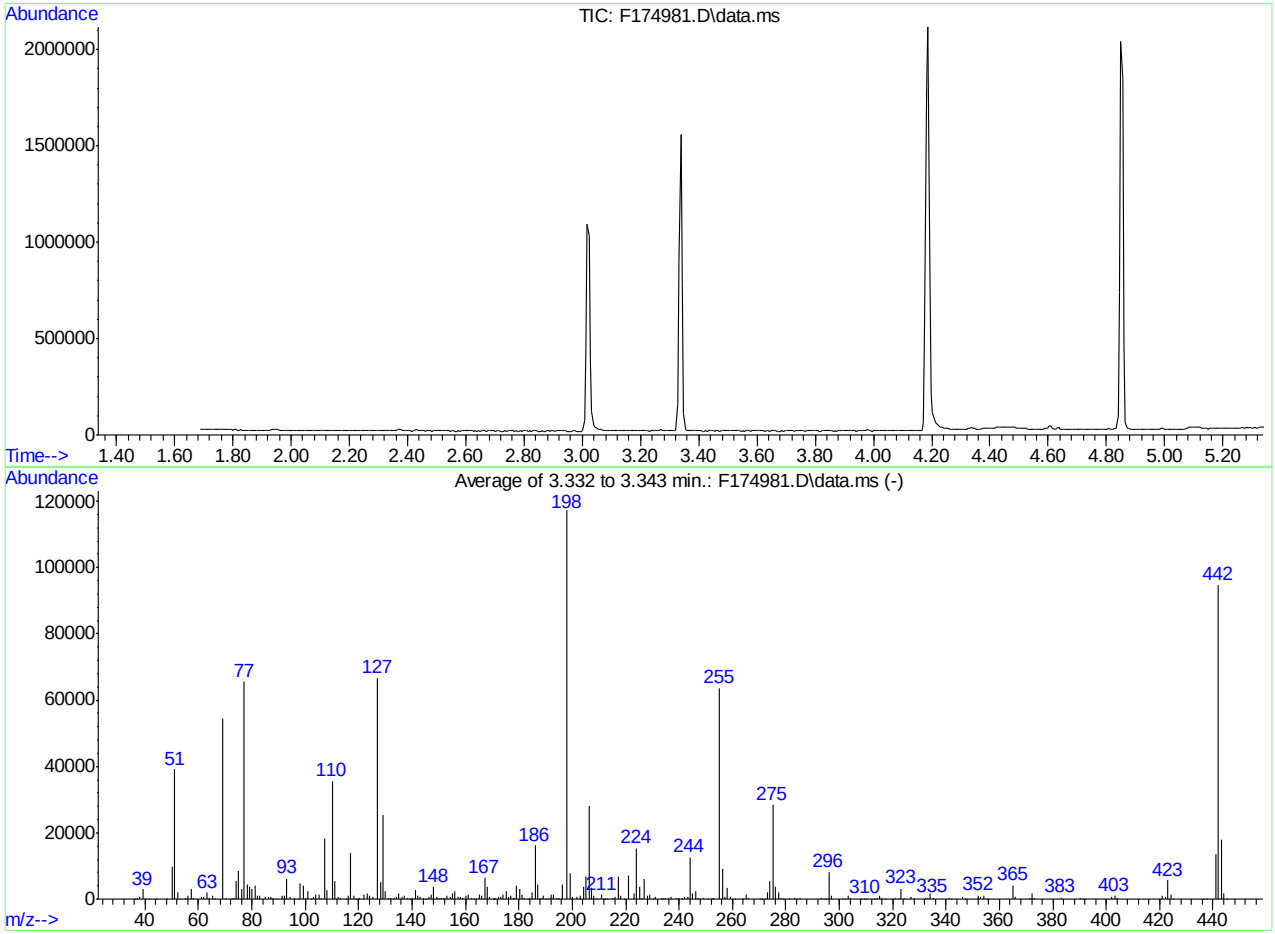
response 346784

Ion	Exp%	Act%
235.00	100	100
237.00	63.50	64.22
165.00	54.60	53.79
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF7445\F174981.D Vial: 1
Acq On : 16 Mar 2018 10:20 am Operator: seanb1
Sample : DFTPP Inst : GCMSF
Misc : op9377,ef7445,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 309, 310, 311; Background Corrected with Scan 304

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.5	39208	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.5	54431	PASS
70	69	0.00	2	0.9	473	PASS
127	198	40	60	56.9	66637	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	117173	PASS
199	198	5	9	6.7	7908	PASS
275	198	10	30	24.2	28317	PASS
365	198	1	100	3.6	4223	PASS
441	443	0.10	100	76.3	13581	PASS
442	198	40	100	80.8	94672	PASS
443	442	17	23	18.8	17792	PASS

F174981.D DFTPPF.M Mon Mar 19 09:41:16 2018

Average of 3.332 to 3.343 min.: F174981.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	32	53.20	121	69.10	54431	81.10	4019
37.10	352	55.10	329	70.15	473	82.15	1187
38.15	717	56.15	1096	72.20	59	83.10	1047
39.20	2890	57.10	2929	73.10	372	85.05	810
40.10	48	58.15	199	74.15	5323	86.10	838
41.15	36	61.10	586	75.10	8587	87.10	711
44.10	19	62.10	674	76.20	3217	88.10	287
48.10	108	63.20	1979	77.15	65460	89.20	93
50.15	9845	64.15	250	78.20	4310	91.10	1013
51.15	39208	65.20	1122	79.10	3885	92.10	1008
52.20	2133	66.10	63	80.10	2890	93.10	6166

Average of 3.332 to 3.343 min.: F174981.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.10	551	106.10	234	119.10	166	132.10	236
96.10	230	107.10	18278	120.15	206	133.15	199
97.10	61	108.10	2822	122.10	1228	134.10	654
98.10	4863	110.10	35522	123.10	1832	135.10	1855
99.10	4177	111.10	5381	124.10	896	136.10	731
100.10	425	112.10	698	125.10	775	137.10	1135
101.10	2277	113.15	181	127.10	66637	138.15	320
102.15	129	115.10	122	128.10	5171	139.10	59
103.10	776	116.15	1096	129.10	25315	140.15	244
104.10	1399	117.10	14023	130.10	2336	141.10	2883
105.10	1493	118.10	1099	131.05	441	142.10	1135

Average of 3.332 to 3.343 min.: F174981.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
143.10	682	153.10	949	164.10	156	174.10	1309
144.15	213	154.10	684	165.10	1216	175.10	2264
145.05	135	155.10	1827	166.10	965	176.15	813
146.10	601	156.15	2322	167.10	6297	177.10	1025
147.10	1463	157.10	647	168.10	3567	178.00	124
148.10	3632	158.05	642	169.15	553	178.15	334
149.10	691	159.05	444	170.10	165	179.10	4215
150.10	202	160.10	864	170.60	56	180.10	2961
151.10	425	161.10	1307	171.10	202	181.10	1477
151.90	261	162.15	471	172.15	522	182.05	270
152.20	62	163.10	77	173.10	689	183.25	110

Average of 3.332 to 3.343 min.: F174981.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
184.10	328	195.05	315	208.10	874	221.10	7248
185.10	2197	196.10	4287	209.15	321	223.10	1699
186.10	16200	198.10	117173	211.05	1214	224.10	15309
187.10	4521	199.10	7908	211.80	96	225.15	3743
188.15	514	200.10	679	212.20	74	226.15	389
189.10	981	201.60	635	213.00	69	227.10	6167
190.10	112	203.15	891	215.10	272	228.10	883
191.15	462	204.10	3847	216.15	650	229.10	1478
192.10	1423	205.20	6666	217.10	6932	230.10	94
193.10	1478	206.15	28096	218.10	881	231.10	666
194.10	470	207.10	3543	219.20	59	233.20	127

Average of 3.332 to 3.343 min.: F174981.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
234.10	386	246.10	2250	259.10	592	276.10	3841
235.10	508	247.10	470	261.00	62	277.10	2200
236.05	288	248.00	75	264.00	132	278.10	419
237.10	616	249.10	515	265.10	1402	279.10	74

239.05	284	251.00	115	266.05	243	281.20	51
240.10	188	252.20	118	270.10	55	283.15	235
241.10	358	253.10	378	271.05	125	284.10	113
242.10	703	255.10	63712	272.20	128	285.15	412
243.10	844	256.10	9092	273.10	1980	293.15	493
244.10	12529	257.10	713	274.10	5479	294.15	114
245.15	1702	258.10	3329	275.10	28317	295.05	163

Average of 3.332 to 3.343 min.: F174981.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.10	8173	315.10	1038	334.10	1860	366.10	580
297.10	1122	316.10	507	335.10	453	371.15	196
301.10	67	317.20	91	341.15	329	372.10	1677
302.10	81	321.15	262	342.10	60	373.10	419
303.15	958	322.20	60	346.05	639	383.10	450
304.15	246	323.15	3057	347.10	132	390.05	282
308.10	65	324.15	513	352.10	1070	391.05	131
309.10	54	327.05	546	353.05	685	392.00	66
310.00	103	328.10	298	354.10	916	402.10	666
313.10	56	332.10	287	355.20	102	403.10	1010
314.10	387	333.10	296	365.10	4223	404.05	337

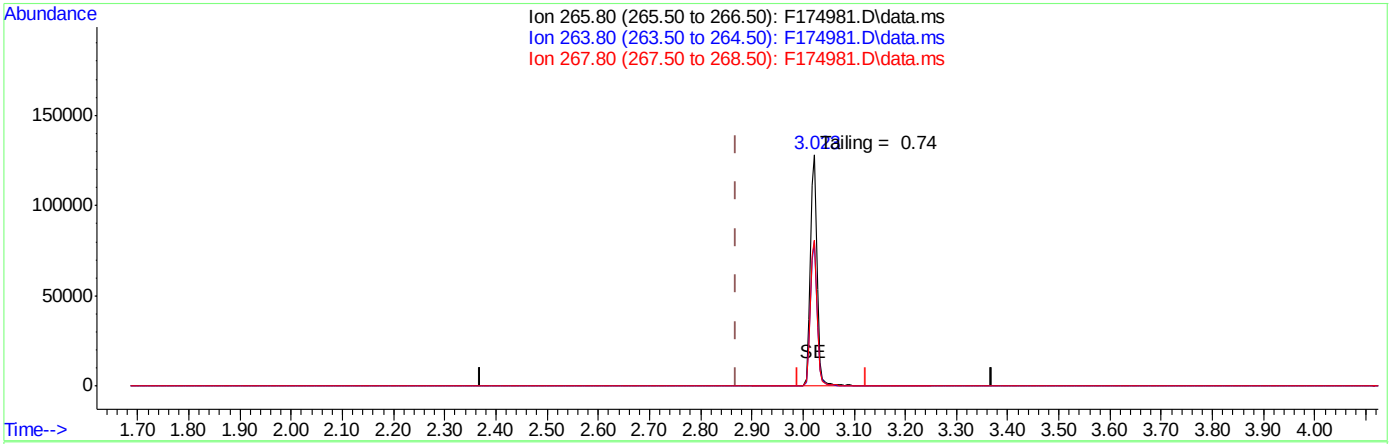
Average of 3.332 to 3.343 min.: F174981.D\data.ms
DFTPP
Modified:subtracted

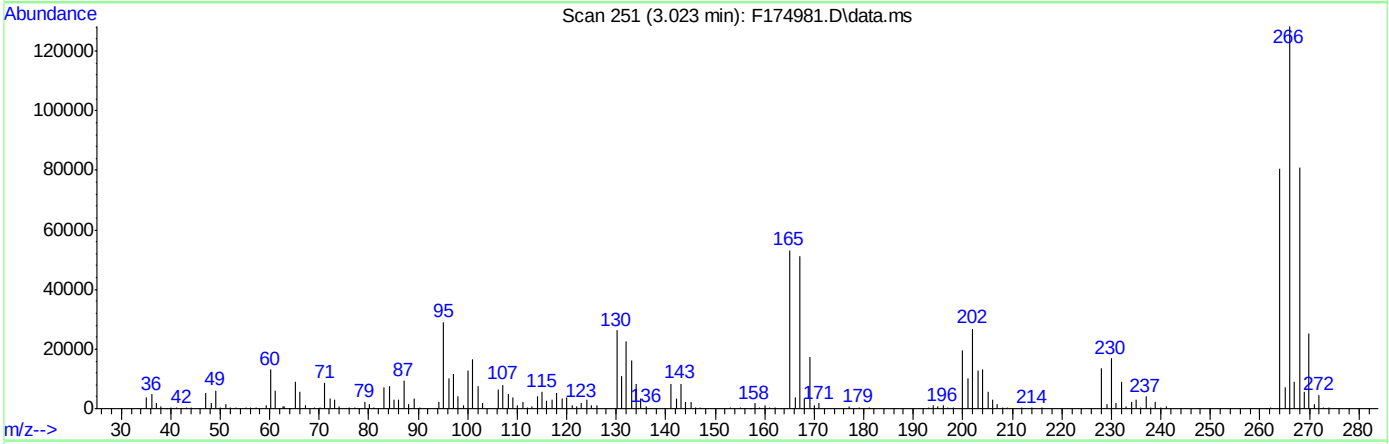
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
421.10	904	445.10	66				
422.10	733						
423.10	5678						
424.10	1351						
425.10	121						
436.30	54						
437.80	50						
441.10	13581						
442.10	94672						
443.10	17792						
444.10	1819						

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174981.D
Acq On : 16 Mar 2018 10:20 am
Operator : seanb1
Sample : DFTPP
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 10:26:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174981.D\data.ms

(1) Pentachlorophenol (t)

3.023min (+0.152) 62.72ppb

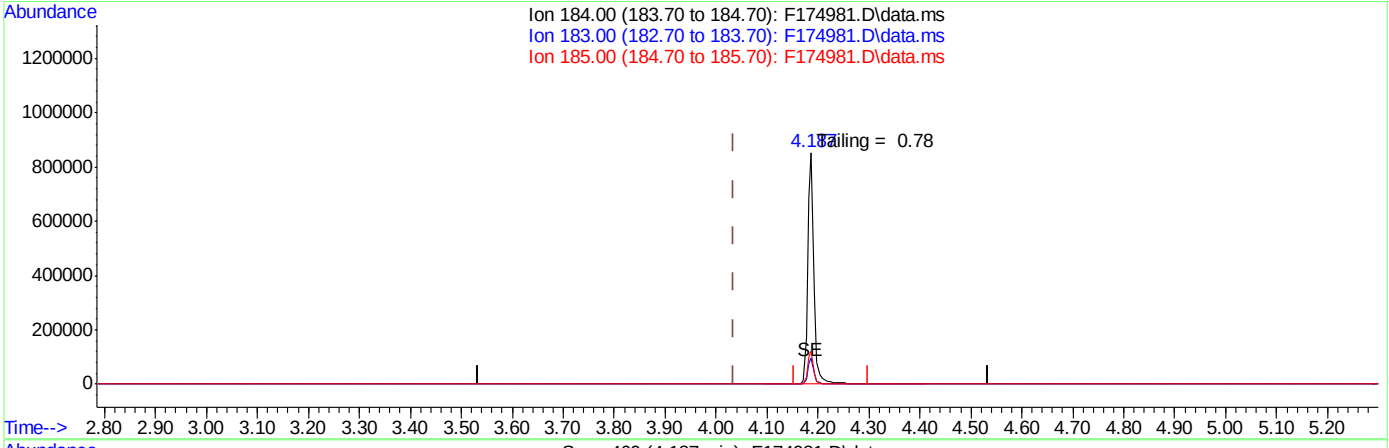
response 116589

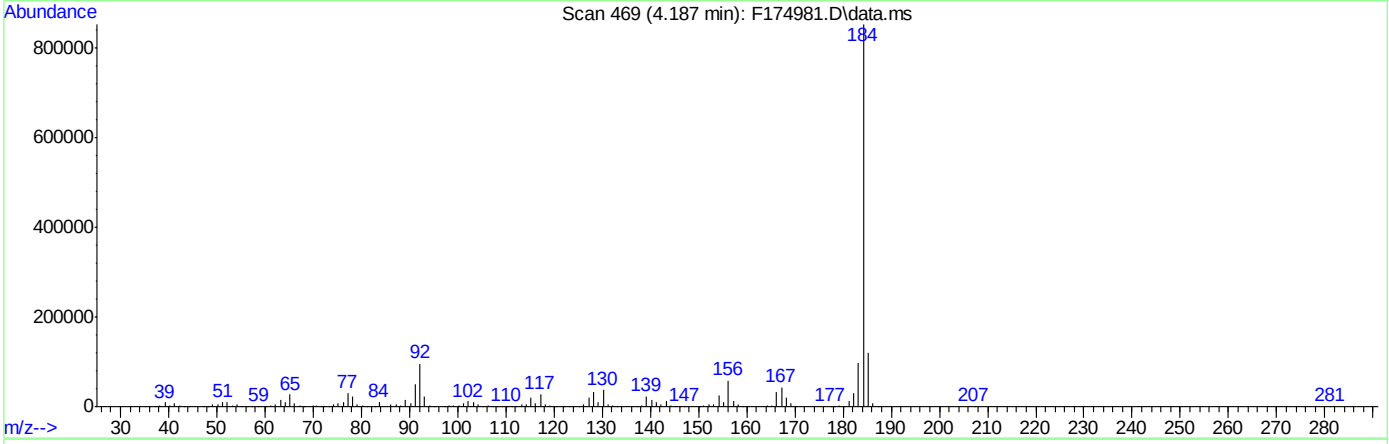
Ion	Exp%	Act%
265.80	100	100
263.80	64.10	62.84
267.80	62.50	63.15
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174981.D
Acq On : 16 Mar 2018 10:20 am
Operator : seanb1
Sample : DFTPP
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 10:26:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174981.D\data.ms

(2) Benzidine (t)

4.187min (+0.152) 38.94ppb

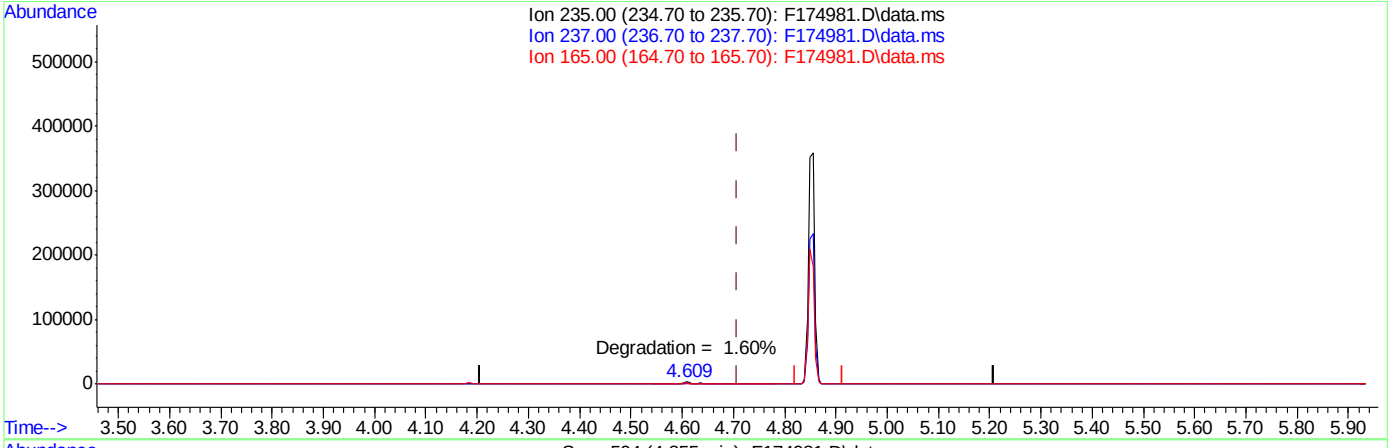
response 729453

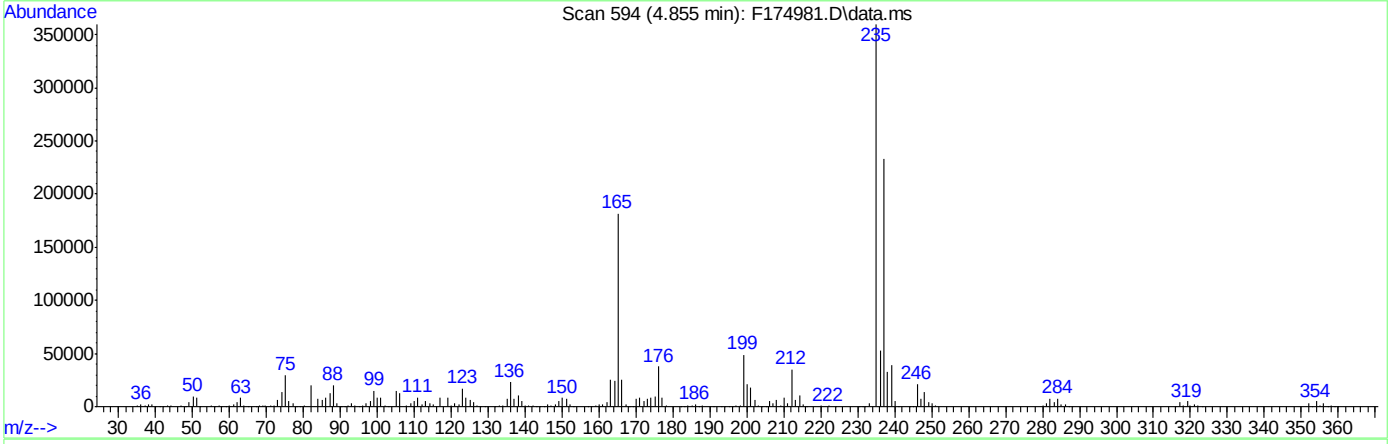
Ion	Exp%	Act%
184.00	100	100
183.00	11.10	11.36
185.00	14.30	14.20
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174981.D
Acq On : 16 Mar 2018 10:20 am
Operator : seanb1
Sample : DFTPP
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 10:26:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174981.D\data.ms

(3) ddt (t)

4.855min (+0.147) 19.16ppb

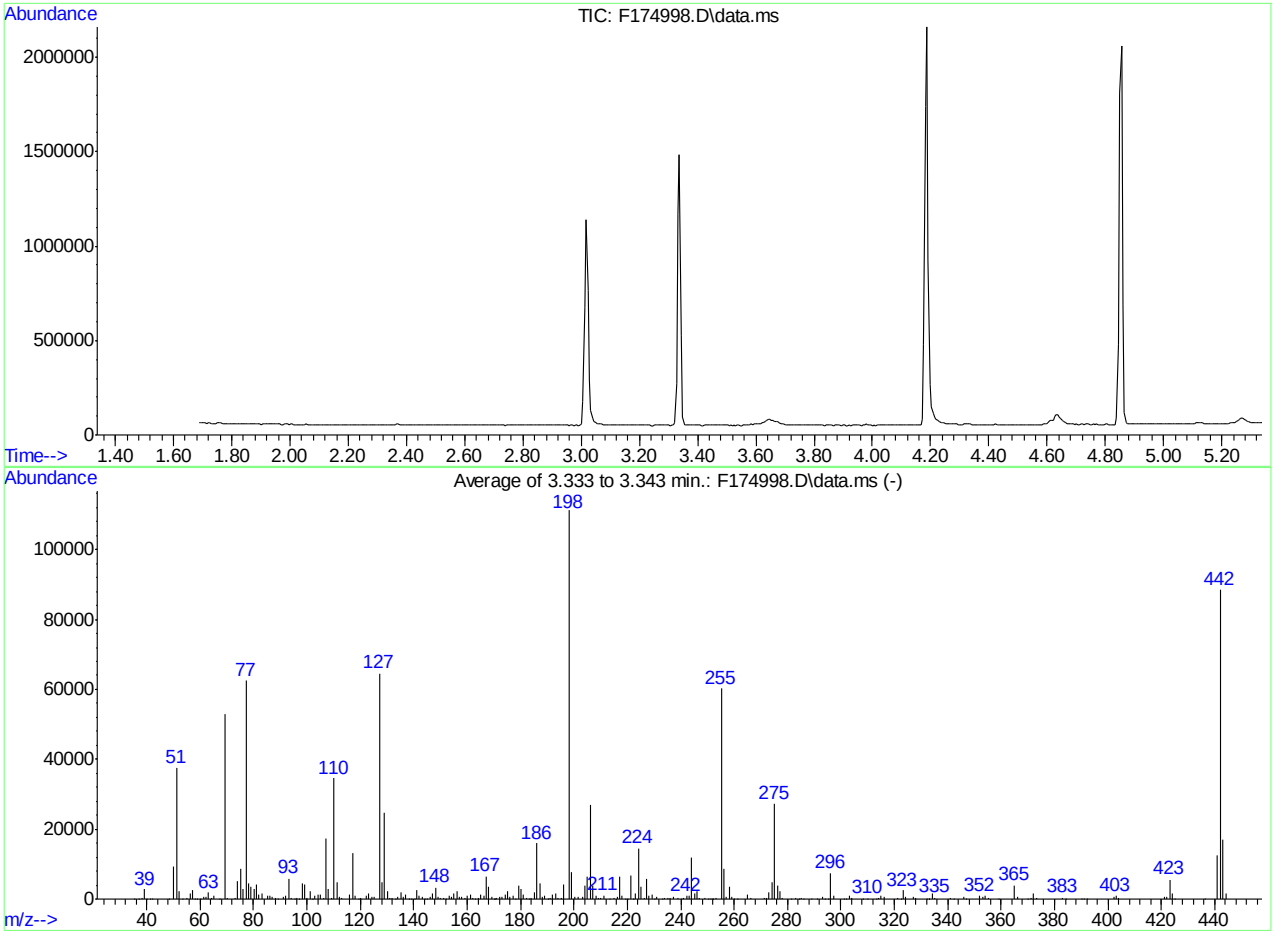
response 297599

Ion	Exp%	Act%
235.00	100	100
237.00	63.50	64.30
165.00	54.60	55.80
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF7446\F174998.D Vial: 1
Acq On : 19 Mar 2018 9:36 am Operator: seanb1
Sample : DFTPP Inst : GCMSF
Misc : op9377,ef7446,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 309, 310, 311; Background Corrected with Scan 304

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.7	37509	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.6	52955	PASS
70	69	0.00	2	0.4	212	PASS
127	198	40	60	58.1	64634	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	111181	PASS
199	198	5	9	6.9	7619	PASS
275	198	10	30	24.4	27162	PASS
365	198	1	100	3.6	3949	PASS
441	443	0.10	100	73.9	12483	PASS
442	198	40	100	79.6	88493	PASS
443	442	17	23	19.1	16881	PASS

F174998.D DFTPPF.M Mon Mar 19 09:42:59 2018

Average of 3.333 to 3.343 min.: F174998.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	8	53.20	60	65.20	1086	80.10	2940
37.10	126	55.15	196	67.15	114	81.10	4169
38.15	380	56.10	1469	69.10	52955	82.10	1211
39.15	2798	57.10	2730	70.10	212	83.10	1595
40.10	110	58.10	152	73.20	392	85.10	976
41.15	44	59.00	57	74.10	5089	86.10	1004
42.10	3	60.10	4	75.10	8521	87.10	516
48.10	114	61.15	570	76.20	3031	88.10	315
50.15	9463	62.15	576	77.20	62514	89.20	59
51.15	37509	63.15	1810	78.15	4614	91.10	807
52.20	2298	64.15	260	79.10	3506	92.10	1080

Average of 3.333 to 3.343 min.: F174998.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.10	5849	104.10	1351	117.10	13085	130.10	2136
94.10	433	105.10	1327	118.10	926	131.15	326
95.15	116	106.10	189	119.15	145	132.05	184
96.20	351	107.10	17483	120.10	251	133.10	91
97.20	167	108.10	2789	122.10	1133	134.10	586
98.10	4477	109.20	322	123.10	1624	135.10	1874
99.10	4161	110.10	34556	124.10	809	136.10	782
100.10	436	111.10	4951	125.10	782	137.10	1176
101.10	2352	112.10	667	127.10	64634	138.15	156
102.05	131	113.10	177	128.10	4848	139.05	150
103.10	890	116.10	1170	129.10	24766	140.10	144

Average of 3.333 to 3.343 min.: F174998.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.10	2674	152.05	166	163.00	82	173.10	623
142.10	1033	153.10	956	164.15	199	174.15	1196
143.10	663	154.10	740	165.10	1174	175.15	2099
144.15	155	155.10	1675	166.10	889	176.10	694
145.05	137	156.10	2402	167.10	6550	177.10	998
146.10	580	157.10	580	168.10	3604	178.10	139
147.10	1582	158.10	564	169.10	542	179.10	3842
148.10	3346	159.10	450	170.10	71	180.10	2831
149.10	711	160.10	913	170.50	67	181.10	1392
150.05	173	161.10	1284	171.05	281	182.20	205
151.15	476	162.10	351	172.10	509	183.20	101

Average of 3.333 to 3.343 min.: F174998.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
184.05	291	195.15	198	208.10	882	221.10	6787
185.10	1961	196.10	4182	209.15	332	222.00	134
186.10	16030	198.10	111181	210.15	434	223.10	1557
187.10	4555	199.10	7619	211.15	1058	224.10	14583
188.10	562	200.10	594	213.20	62	225.10	3662
189.10	847	201.45	645	215.10	222	226.15	432
190.10	143	203.10	671	216.10	548	227.10	5857
191.15	481	204.10	3858	217.10	6455	228.10	844
192.10	1167	205.10	6363	218.10	1020	229.10	1290
193.10	1647	206.15	26851	219.10	55	230.05	169
194.15	276	207.15	3714	220.00	71	231.10	586

Average of 3.333 to 3.343 min.: F174998.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
233.10	67	245.15	1594	257.10	778	275.10	27162
234.10	367	246.10	2186	258.10	3388	276.10	3751
235.10	446	247.10	423	259.10	521	277.10	2161
236.10	275	249.05	395	260.00	51	278.10	442

237.10	628	250.20	65	261.10	53	281.20	64
239.10	287	251.00	65	265.10	1314	283.15	253
240.10	151	251.80	53	266.05	274	284.10	122
241.10	336	252.10	55	271.10	180	285.15	439
242.10	915	253.10	364	272.15	190	286.10	59
243.15	862	255.10	60288	273.10	1884	289.10	55
244.10	11740	256.10	8664	274.10	4836	291.00	55

Average of 3.333 to 3.343 min.: F174998.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
293.10	544	313.10	51	333.00	62	355.10	273
294.00	50	314.15	307	333.15	162	359.10	53
295.05	151	315.05	868	334.10	1763	365.10	3949
296.10	7494	316.10	507	335.10	420	366.05	650
297.10	958	321.15	203	341.05	312	370.10	52
301.20	99	322.30	67	342.10	52	371.10	192
302.00	131	323.20	2483	346.10	605	372.10	1659
303.10	893	324.15	578	347.00	59	373.10	417
304.10	291	327.00	555	352.05	944	383.05	453
308.20	51	328.05	261	353.10	579	384.10	119
310.10	65	332.10	157	354.10	846	390.15	163

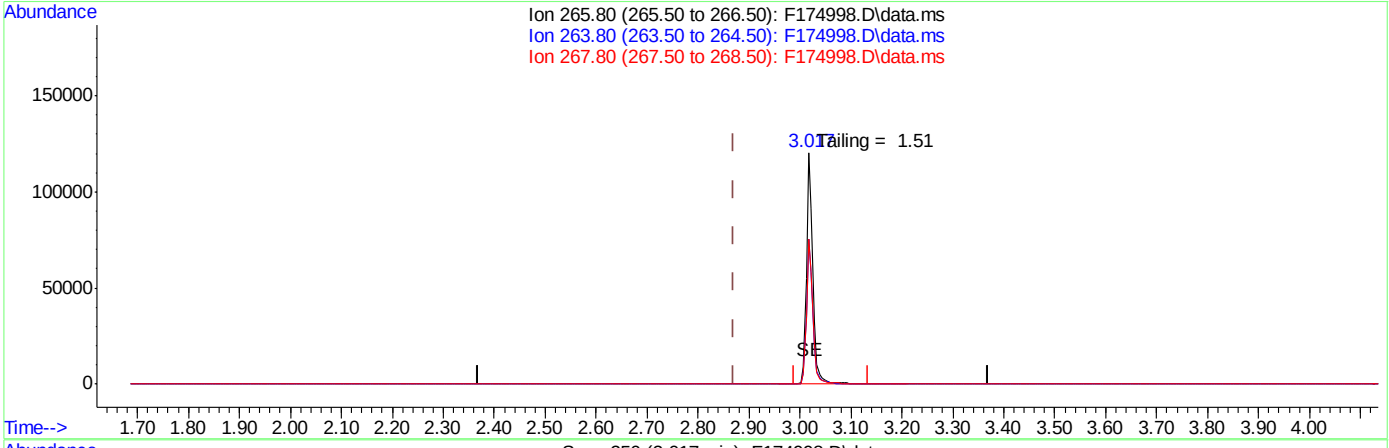
Average of 3.333 to 3.343 min.: F174998.D\data.ms
DFTPP
Modified:subtracted

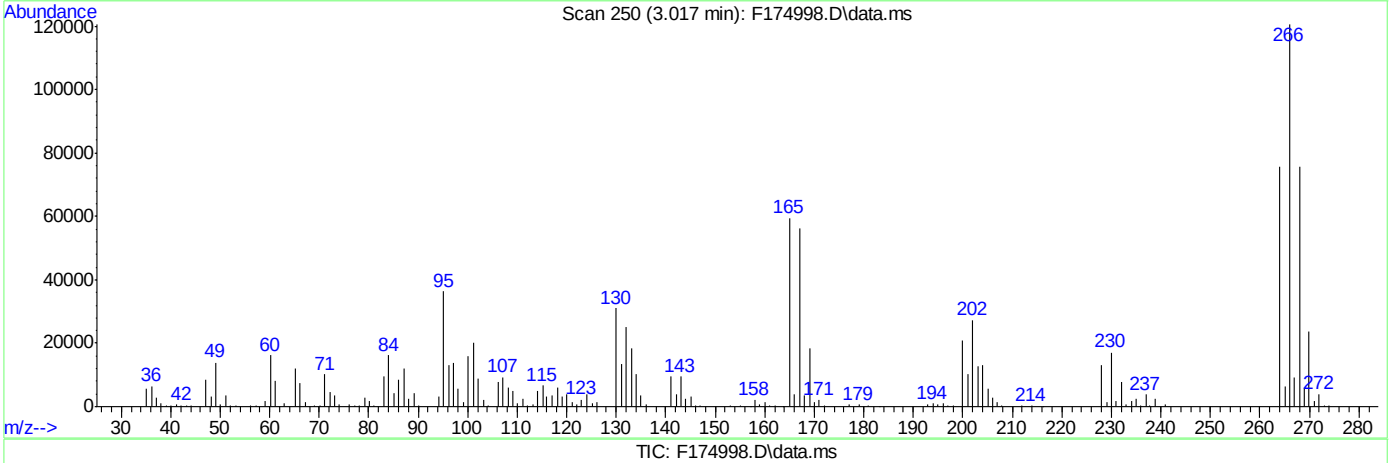
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
391.00	74	441.10	12483				
392.00	55	442.10	88493				
402.10	684	443.10	16881				
403.10	927	444.10	1678				
404.05	325						
421.10	732						
422.10	692						
423.10	5604						
424.10	1487						
424.90	59						
436.10	58						

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7446\
Data File : F174998.D
Acq On : 19 Mar 2018 9:36 am
Operator : seanb1
Sample : DFTPP
Misc : op9377,ef7446,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 19 09:42:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174998.D\data.ms

(1) Pentachlorophenol (t)

3.017min (+0.147) 58.50ppb

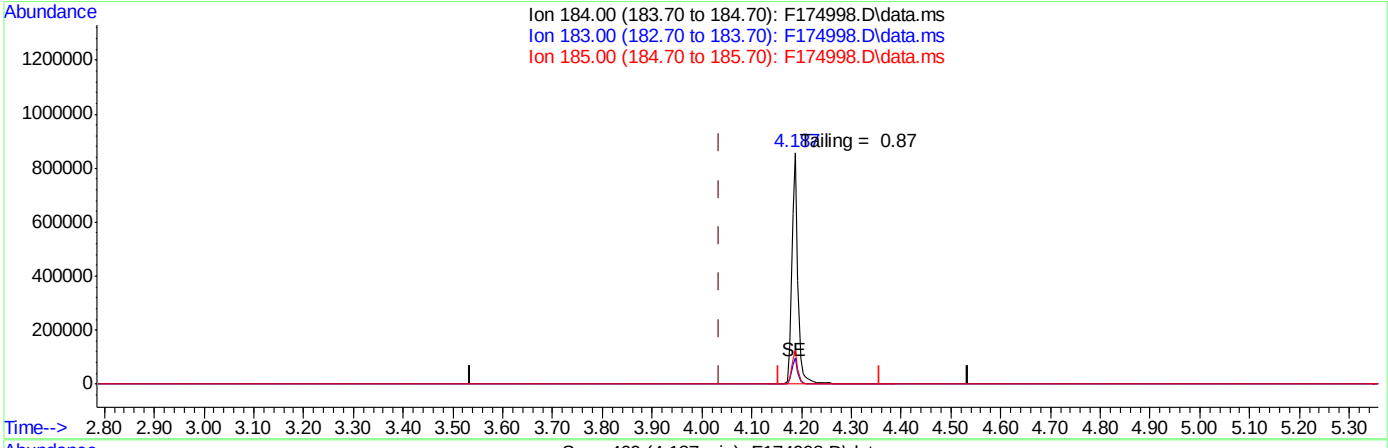
response 108755

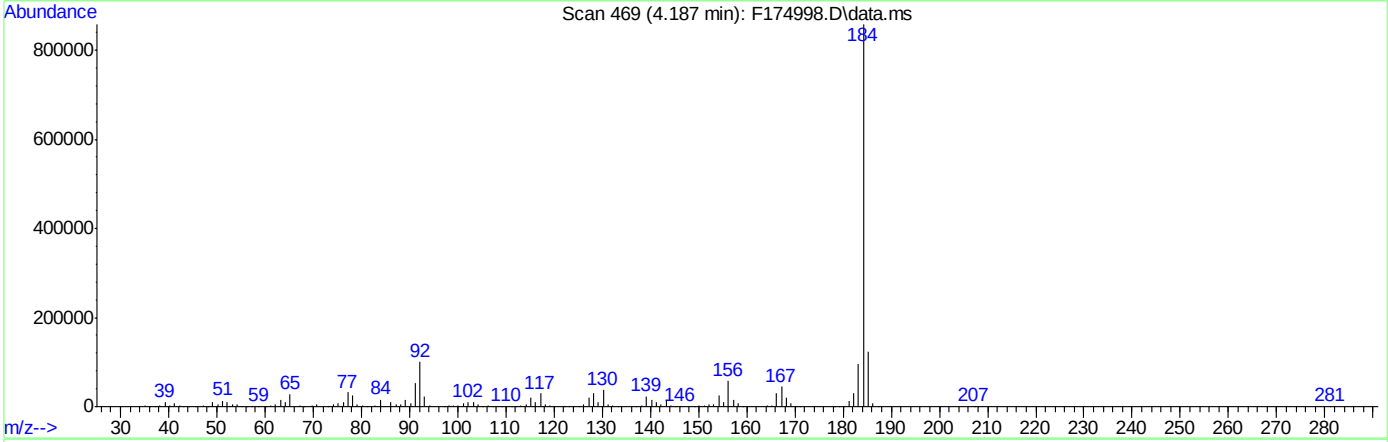
Ion	Exp%	Act%
265.80	100	100
263.80	64.10	62.62
267.80	62.50	62.87
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7446\
Data File : F174998.D
Acq On : 19 Mar 2018 9:36 am
Operator : seanb1
Sample : DFTPP
Misc : op9377,ef7446,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 19 09:42:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174998.D\data.ms

(2) Benzidine (t)

4.187min (+0.152) 39.20ppb

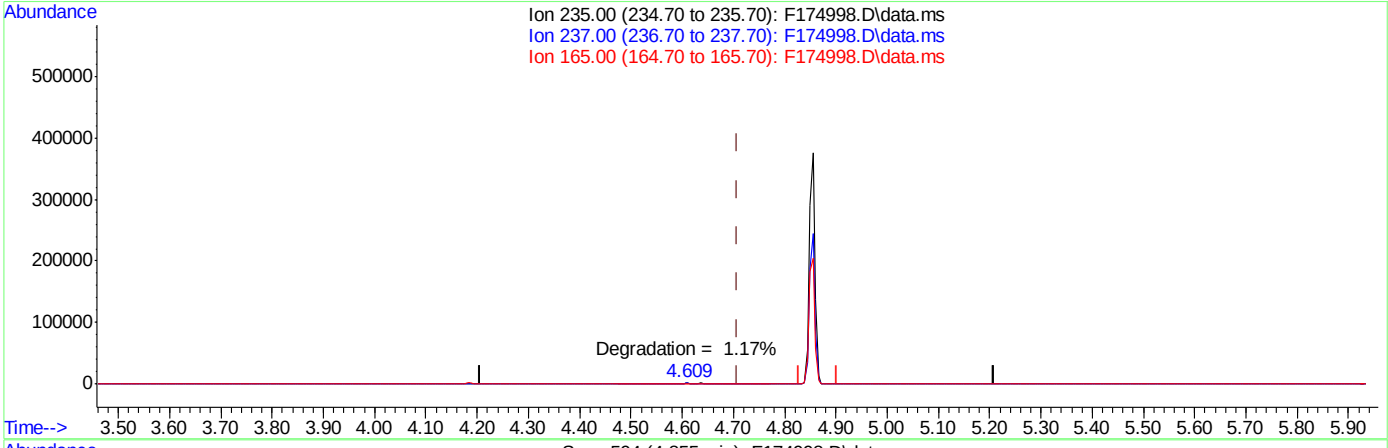
response 734285

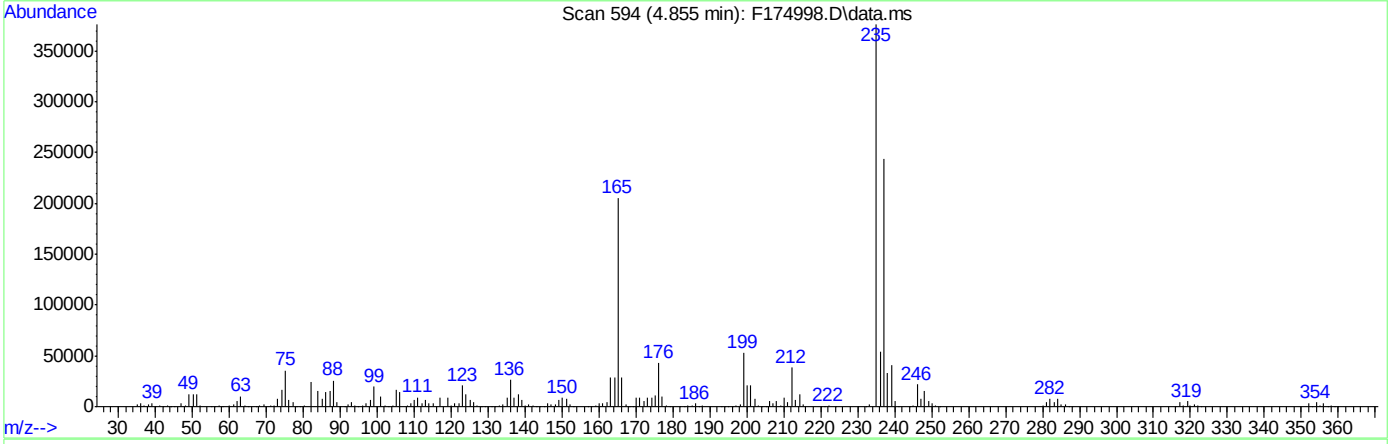
Ion	Exp%	Act%
184.00	100	100
183.00	11.10	11.17
185.00	14.30	14.31
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7446\
Data File : F174998.D
Acq On : 19 Mar 2018 9:36 am
Operator : seanb1
Sample : DFTPP
Misc : op9377,ef7446,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 19 09:42:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F174998.D\data.ms

(3) ddt (t)

4.855min (+0.147) 18.13ppb

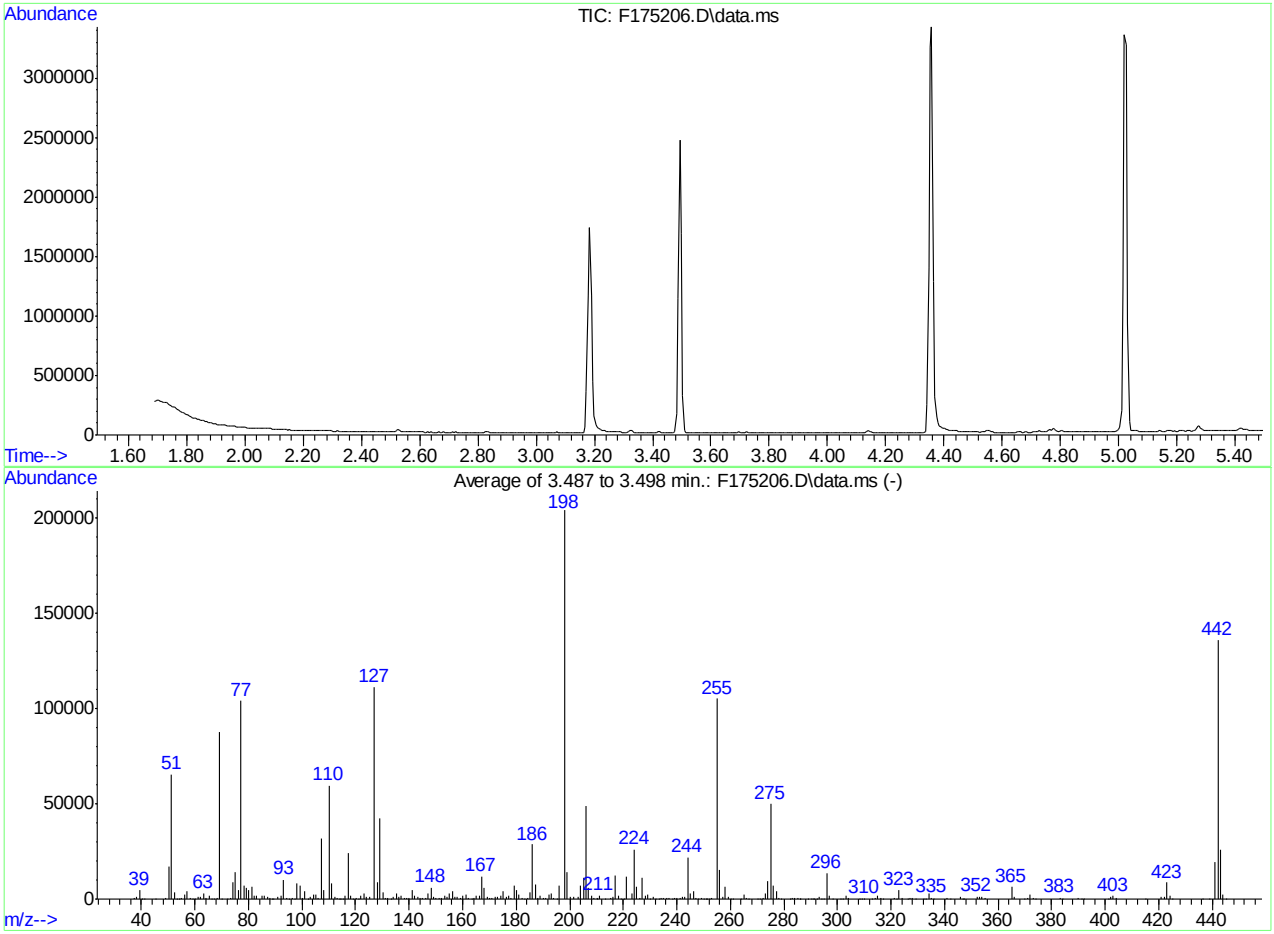
response 281491

Ion	Exp%	Act%
235.00	100	100
237.00	63.50	64.37
165.00	54.60	56.93
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF7460\F175206.D Vial: 1
Acq On : 27 Mar 2018 9:10 am Operator: johnb1
Sample : DFTPP Inst : GCMSF
Misc : op9377,ef7460,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 338, 339, 340; Background Corrected with Scan 333

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.1	65412	PASS
68	69	0.00	2	0.5	440	PASS
69	198	0.00	100	42.9	87454	PASS
70	69	0.00	2	0.3	289	PASS
127	198	40	60	54.6	111312	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	203904	PASS
199	198	5	9	6.9	14116	PASS
275	198	10	30	24.4	49770	PASS
365	198	1	100	3.1	6249	PASS
441	443	0.10	100	76.2	19592	PASS
442	198	40	100	66.8	136109	PASS
443	442	17	23	18.9	25728	PASS

F175206.D DFTPPF.M Wed Mar 28 16:56:52 2018

Average of 3.487 to 3.498 min.: F175206.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	476	54.10	53	65.20	1703	77.15	104045
38.15	968	55.10	346	66.10	161	78.20	7317
39.20	4932	56.10	2139	67.10	77	79.10	5942
40.10	158	57.10	4374	68.20	440	80.10	5014
41.10	55	58.10	368	69.10	87454	81.10	6595
45.10	74	59.10	57	70.10	289	82.05	1751
49.10	339	60.10	162	72.10	126	83.10	1607
50.20	16964	61.10	1060	73.15	739	85.10	1719
51.15	65412	62.15	1135	74.10	8698	86.05	1754
52.20	3648	63.15	3131	75.10	14186	87.10	1133
53.10	92	64.10	417	76.20	4992	88.05	524

Average of 3.487 to 3.498 min.: F175206.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
89.00	57	100.10	654	112.10	1129	122.10	1980
89.15	164	101.10	3968	113.15	406	123.10	2968
91.10	1399	102.10	239	114.00	70	124.10	1407
92.10	1586	103.10	1353	114.20	68	125.10	1166
93.10	10303	104.10	2424	115.10	174	127.10	111312
94.10	724	105.10	2165	116.10	1545	128.10	8691
95.15	153	106.15	897	117.10	23869	129.05	42288
96.15	528	107.10	31621	118.10	1807	130.10	3534
97.15	185	108.10	4924	119.05	262	131.10	764
98.10	8092	110.10	59437	120.10	436	132.05	381
99.10	7246	111.10	7965	121.10	238	133.10	118

Average of 3.487 to 3.498 min.: F175206.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
134.10	1033	145.10	399	156.10	4358	167.05	12031
135.10	3218	146.10	887	157.10	1041	168.10	5807
136.10	1244	147.10	2681	158.10	1039	169.10	914
137.10	1853	148.10	5963	159.10	832	170.10	328
138.10	524	149.10	1389	160.10	1738	171.05	435
139.05	362	150.05	463	161.10	2380	172.05	909
140.10	533	151.15	730	162.05	651	173.10	1201
141.10	4789	151.90	389	163.15	216	174.10	2066
142.10	1728	153.10	1606	164.05	390	175.10	3917
143.05	1245	154.10	1392	165.10	1782	176.15	1384
144.10	327	155.10	3059	166.10	1574	177.10	1881

Average of 3.487 to 3.498 min.: F175206.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
178.10	697	189.10	1693	201.60	1115	213.10	155
179.10	6913	190.10	329	203.05	1297	215.10	528
180.10	4954	191.15	807	204.10	6985	216.10	1181
181.10	2458	192.10	2341	205.10	11098	217.10	12444
182.10	437	193.10	2737	206.10	48781	218.10	1568
183.05	304	194.05	650	207.10	6197	219.20	179
184.10	595	195.10	291	208.10	1513	220.10	88
185.10	3484	196.10	6834	209.10	658	221.10	12020
186.10	28738	198.10	203904	210.20	181	223.10	3113
187.10	7897	199.10	14116	210.40	434	224.10	26198
188.10	824	200.05	1038	211.10	1966	225.10	6516

Average of 3.487 to 3.498 min.: F175206.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.15	697	237.05	901	248.15	159	259.10	1011
227.10	11177	238.15	149	249.10	768	260.15	169
228.10	1579	239.05	436	250.10	59	261.10	147
229.10	2362	240.10	373	251.00	65	264.05	246

230.10	311	241.10	670	251.20	53	265.10	2364
231.10	979	242.10	1331	252.05	244	266.00	358
232.10	139	243.10	1488	253.05	467	267.00	53
233.10	179	244.10	21921	255.10	105090	270.05	135
234.05	665	245.15	3209	256.10	15489	271.10	175
235.05	702	246.10	3869	257.10	1229	272.10	378
236.10	622	247.05	793	258.10	6365	273.05	3190

Average of 3.487 to 3.498 min.: F175206.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
274.10	9225	286.20	56	298.10	59	316.15	836
275.10	49770	289.10	143	301.10	216	317.10	68
276.10	6978	290.15	137	302.10	233	321.10	397
277.10	4220	291.00	73	303.05	1561	322.05	178
278.10	771	291.20	61	304.15	472	323.10	4727
279.05	163	292.15	165	308.10	136	324.10	850
282.10	101	293.05	976	309.05	152	326.10	52
283.10	582	294.10	188	310.10	155	327.05	864
284.05	357	295.05	215	313.05	148	328.10	393
285.10	628	296.10	13544	314.10	730	329.10	67
286.00	79	297.10	1973	315.10	1566	332.10	278

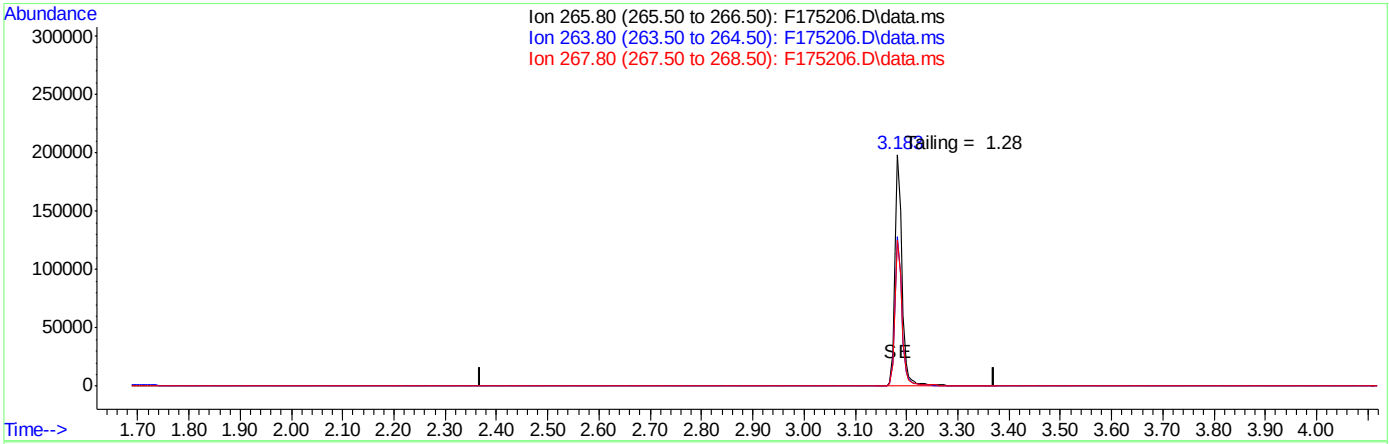
Average of 3.487 to 3.498 min.: F175206.D\data.ms
DFTPP
Modified:subtracted

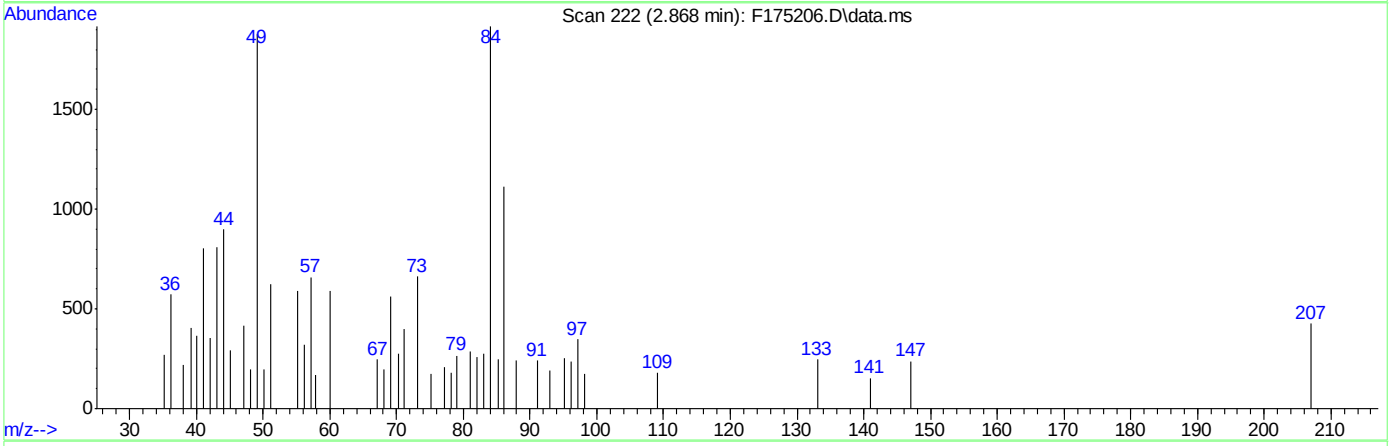
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
333.05	304	354.10	1463	390.10	324	424.10	1699
334.10	3152	355.10	411	391.15	229	425.10	162
335.10	764	365.10	6249	392.10	171	436.50	50
336.00	54	366.00	930	401.05	182	439.10	53
341.10	641	370.00	114	402.10	1019	441.10	19592
342.10	216	371.10	428	403.10	1661	442.10	136109
346.10	1126	372.10	2514	404.05	537	443.10	25728
346.90	62	373.10	666	415.10	62	444.10	2454
347.05	170	374.00	53	421.10	1275	445.05	131
352.10	1476	383.10	723	422.10	1095		
353.10	1064	384.10	201	423.10	8601		

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175206.D
Acq On : 27 Mar 2018 9:10 am
Operator : johnb1
Sample : DFTPP
Misc : op9377,ef7460,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 09:16:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F175206.D\data.ms

(1) Pentachlorophenol (t)

2.870min (-2.870) 0.00ppb

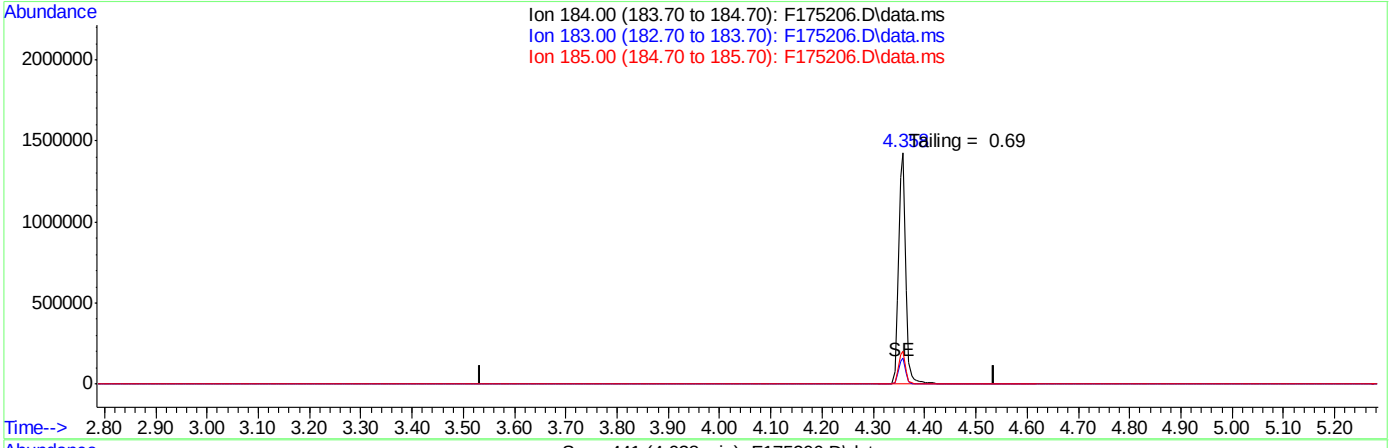
response 0

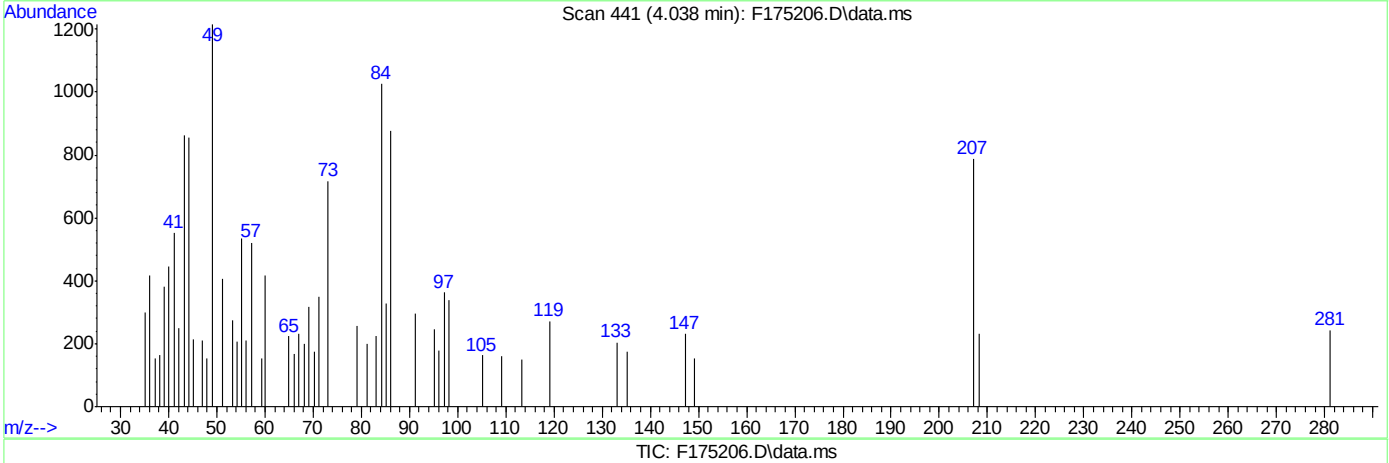
Ion	Exp%	Act%
265.80	100	0.00
263.80	64.10	0.00#
267.80	62.50	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175206.D
Acq On : 27 Mar 2018 9:10 am
Operator : johnb1
Sample : DFTPP
Misc : op9377,ef7460,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 09:16:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F175206.D\data.ms

(2) Benzidine (t)

4.035min (-4.035) 0.00ppb

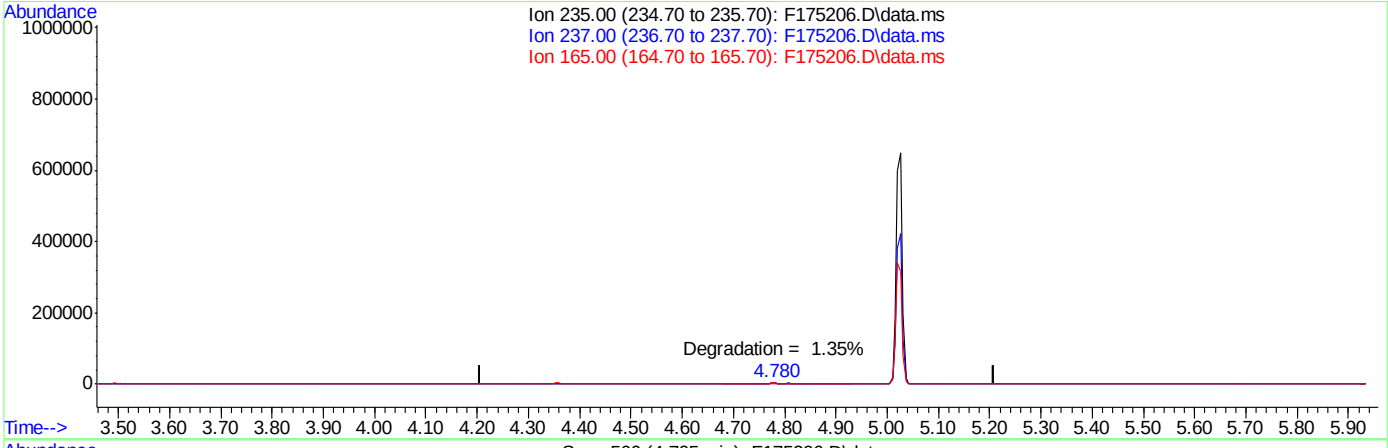
response 0

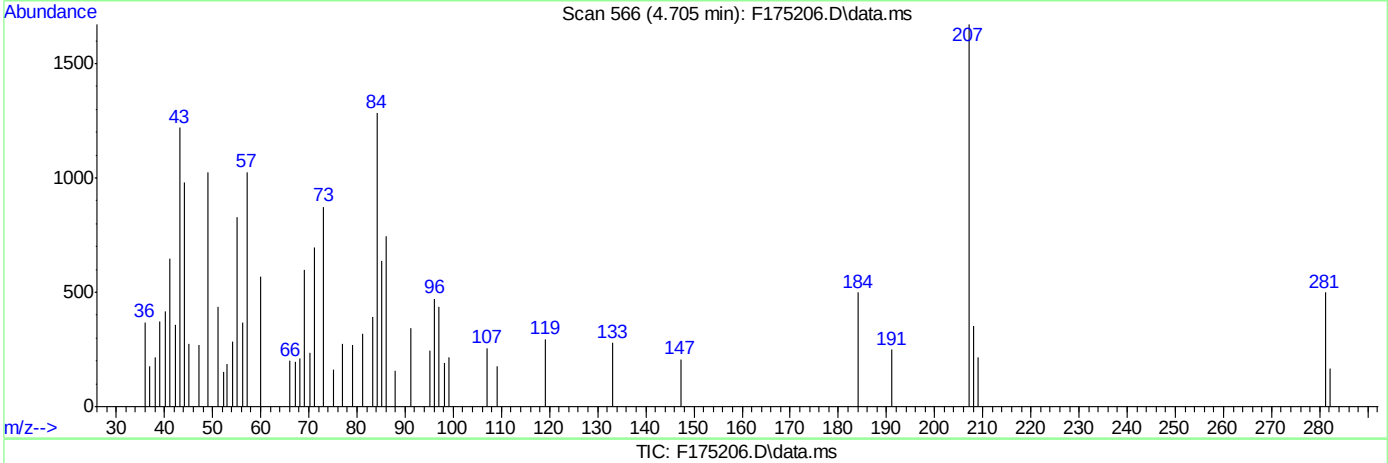
Ion	Exp%	Act%
184.00	100	0.00
183.00	11.10	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175206.D
Acq On : 27 Mar 2018 9:10 am
Operator : johnb1
Sample : DFTPP
Misc : op9377,ef7460,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 09:16:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Jan 04 09:28:12 2017
Response via : Initial Calibration





TIC: F175206.D\data.ms

(3) ddt (t)

4.708min (-4.708) 0.00ppb

response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.50	0.00#
165.00	54.60	0.00#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/01/18 11:12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77608.D
Acq On : 23 Feb 2018 10:54 am
Operator : kristis
Sample : ic3416-100
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 13:02:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	5.037	152	390586	40.00	ppm		0.00
24) Naphthalene-d8	6.090	136	1412350	40.00	ppm		0.00
47) Acenaphthene-d10	7.540	164	765619	40.00	ppm		0.00
69) Phenanthrene-d10	8.909	188	1587268	40.00	ppm		0.00
83) Chrysene-d12	12.338	240	1534648	40.00	ppm		0.00
91) Perylene-d12	14.359	264	1759498	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	5.037	152	390586	40.00	ppm		0.00
103) Naphthalene-d8a	6.090	136	1412350	40.00	ppm		0.00
105) Acenaphthene-d10a	7.540	164	765619	40.00	ppm		0.00
108) Chrysene-d12a	12.338	240	1534648	40.00	ppm		0.00
110) Phenanthrene-d10a	8.909	188	1587268	40.00	ppm		0.00
114) Chrysene-d12b	12.338	240	1534675	40.00	ppm		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	3.951	112	1970097	134.11	ppm		0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 268.22%#				
8) Phenol-d5	4.748	99	2155363	125.80	ppm		0.00
Spiked Amount 50.000	Range 10 - 59		Recovery = 251.60%#				
25) Nitrobenzene-d5	5.502	82	1433475	98.89	ppm		0.00
Spiked Amount 50.000	Range 19 - 61		Recovery = 197.78%#				
51) 2-Fluorobiphenyl	6.984	172	2632580	96.10	ppm		0.00
Spiked Amount 50.000	Range 21 - 58		Recovery = 192.20%#				
73) 2,4,6-Tribromophenol	8.230	330	555268	114.91	ppm		0.00
Spiked Amount 50.000	Range 12 - 68		Recovery = 229.82%#				
85) Terphenyl-d14	10.845	244	4292862	121.31	ppm		0.00
Spiked Amount 50.000	Range 16 - 65		Recovery = 242.62%#				
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm		
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#				
112) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#				
Target Compounds							Qvalue
2) 1,4-Dioxane	2.411	88	594572	81.66	ppm		93
3) Pyridine	2.742	79	1625790	103.26	ppm		98
4) N-Nitrosodimethylamine	2.721	74	915656	98.41	ppm		99
6) Indene	5.251	116	1927048	100.63	ppm		99
7) Cumene	4.379	105	4289650	125.73	ppm		97
9) Phenol	4.759	94	2136809	115.69	ppm		88
10) Aniline	4.764	93	1952567	95.96	ppm	#	48
11) bis(2-Chloroethyl)ether	4.823	93	1247146	109.75	ppm		94
12) 2-Chlorophenol	4.871	128	1416766	103.89	ppm		94
13) Decane	4.908	57	1193413	105.39	ppm		92
14) 1,3-Dichlorobenzene	4.994	146	1575627	100.17	ppm		98
15) 1,4-Dichlorobenzene	5.053	146	1522208	105.11	ppm		96
16) Benzyl alcohol	5.160	108	885135	116.25	ppm		80
17) 1,2-Dichlorobenzene	5.181	146	1296096	96.00	ppm		99
18) Acetophenone	5.379	105	1675088	101.78	ppm		81
19) 2-Methylphenol	5.251	108	1089119	103.76	ppm		98
20) 2,2'-oxybis(1-Chloropr...	5.267	121	325001	121.17	ppm	#	1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77608.D
Acq On : 23 Feb 2018 10:54 am
Operator : kristis
Sample : ic3416-100
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 13:02:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.379	108	1193702	105.80	ppm		99
22) n-Nitroso-di-n-propyla...	5.390	70	775730	95.25	ppm		85
23) Hexachloroethane	5.459	201	635083	116.05	ppm		88
26) Nitrobenzene	5.518	77	1285599	94.52	ppm		90
27) Quinoline	6.401	129	2713813	109.91	ppm		99
28) Isophorone	5.721	82	2630626	108.93	ppm		93
29) 2-Nitrophenol	5.780	139	810472	106.73	ppm		92
30) 2,4-Dimethylphenol	5.818	107	1248677	99.15	ppm		93
31) Benzoic acid	5.973	105	1124661m	119.58	ppm		
32) bis(2-Chloroethoxy)met...	5.887	93	1311228	95.18	ppm		97
33) 2,4-Dichlorophenol	5.978	162	1200315	101.50	ppm		99
34) 2,6-Dichlorophenol	6.165	162	1064455	99.59	ppm		97
35) 1,3,5-Trichlorobenzene	5.791	180	1421426	102.24	ppm		93
36) 1,2,4-Trichlorobenzene	6.042	180	1365783	99.79	ppm		98
37) 1,2,3-Trichlorobenzene	6.229	180	1175863	100.13	ppm		95
38) Naphthalene	6.112	128	3463222	98.61	ppm		98
39) 4-Chloroaniline	6.160	127	1531226	94.44	ppm		92
40) 2,3-Dichloroaniline	6.909	161	1394931	99.51	ppm		97
41) Caprolactam	6.492	113	494612m	141.99	ppm		
42) Hexachlorobutadiene	6.219	225	770414	103.21	ppm		99
43) 4-Chloro-3-methylphenol	6.561	107	1262368	110.80	ppm		94
44) 2-Methylnaphthalene	6.679	141	2308463	100.01	ppm		98
45) 1-Methylnaphthalene	6.764	141	2264085	98.80	ppm		97
46) Dimethylnaphthalene	7.198	156	2233444	102.01	ppm		92
48) Hexachlorocyclopentadiene	6.812	237	1701323	223.00	ppm		98
49) 2,4,6-Trichlorophenol	6.919	196	893976	113.08	ppm		90
50) 2,4,5-Trichlorophenol	6.952	196	927093	113.09	ppm		90
52) 2-Chloronaphthalene	7.085	162	2206843	97.01	ppm		96
53) Biphenyl	7.064	154	3134684	105.12	ppm		98
54) 2-Nitroaniline	7.171	65	759329	119.13	ppm	#	73
55) Dimethylphthalate	7.315	163	2888803	108.47	ppm		97
56) Acenaphthylene	7.428	152	3674130	96.94	ppm		98
57) 2,6-Dinitrotoluene	7.363	165	687628	128.26	ppm		89
58) 3-Nitroaniline	7.508	138	764744	116.03	ppm		98
59) Acenaphthene	7.572	153	2468850	106.66	ppm		97
60) 2,4-Dinitrophenol	7.593	184	788426	332.28	ppm		90
61) 4-Nitrophenol	7.647	109	452569	118.01	ppm		92
62) Dibenzofuran	7.716	168	3162136	97.53	ppm		92
63) 2,4-Dinitrotoluene	7.700	165	902775	130.72	ppm		89
64) 2,3,4,6-Tetrachlorophenol	7.818	232	953788	130.95	ppm		85
65) Diethylphthalate	7.904	149	2732241	99.02	ppm		92
66) Fluorene	8.011	166	2640267	98.48	ppm		99
67) 4-Chlorophenyl-phenyle...	8.005	204	1573480	121.66	ppm		83
68) 4-Nitroaniline	8.048	138	685978	109.41	ppm		96
70) 4,6-Dinitro-2-methylph...	8.064	198	585771	136.69	ppm		80
71) n-Nitrosodiphenylamine	8.112	169	2031136	90.36	ppm		97
72) 1,2-Diphenylhydrazine	8.150	77	2359544	82.15	ppm		76
74) 4-Bromophenyl-phenylether	8.454	248	1128190	113.13	ppm		95
75) Hexachlorobenzene	8.529	284	1178247	106.48	ppm		86
76) Pentachlorophenol	8.722	266	1770408	256.90	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77608.D
Acq On : 23 Feb 2018 10:54 am
Operator : kristis
Sample : ic3416-100
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 13:02:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

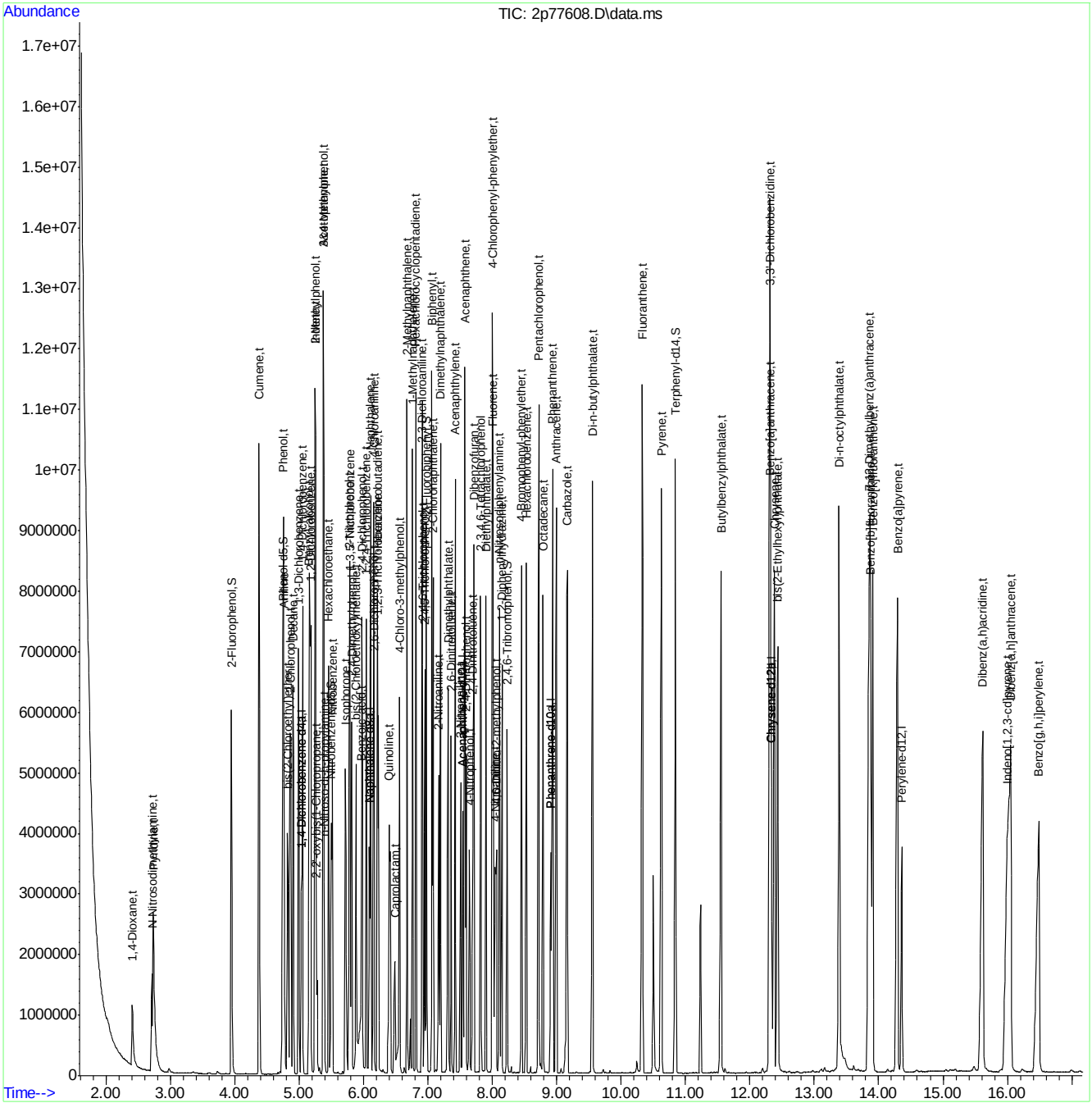
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	8.941	178	4235427	102.16	ppm	99
78) Anthracene	8.995	178	4108822	99.51	ppm	99
79) Carbazole	9.166	167	4129626	95.81	ppm	99
80) Di-n-butylphthalate	9.556	149	5678922	101.54	ppm	98
81) Fluoranthene	10.332	202	6538117	117.70	ppm	94
82) Octadecane	8.786	43	1020925	89.52	ppm	88
84) Pyrene	10.631	202	5904006	106.43	ppm	99
86) Butylbenzylphthalate	11.557	149	2814053	108.33	ppm	89
87) Benzo[a]anthracene	12.322	228	5675711	113.79	ppm	98
88) 3,3'-Dichlorobenzidine	12.311	252	2526917	146.80	ppm	95
89) Chrysene	12.386	228	4533009	112.55	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.434	149	2718827	92.56	ppm	85
92) Di-n-octylphthalate	13.391	149	6695374	105.32	ppm	95
93) Benzo[b]fluoranthene	13.878	252	6178593	103.98	ppm	94
94) Benzo[k]fluoranthene	13.910	252	4322331	91.73	ppm	96
95) Benzo[a]pyrene	14.295	252	5555656	111.29	ppm	93
96) Indeno[1,2,3-cd]pyrene	16.001	276	5820154m	124.44	ppm	
97) Dibenz(a,h)acridine	15.616	279	5449024	128.23	ppm	99
98) Dibenz[a,h]anthracene	16.050	278	4824926	105.57	ppm	91
99) 7,12-Dimethylbenz(a)an...	13.862	256	2939857	125.48	ppm	93
100) Benzo[g,h,i]perylene	16.488	276	5032885	108.04	ppm	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77608.D
Acq On : 23 Feb 2018 10:54 am
Operator : kristis
Sample : ic3416-100
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 13:02:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration



Manual Integration Approval Summary

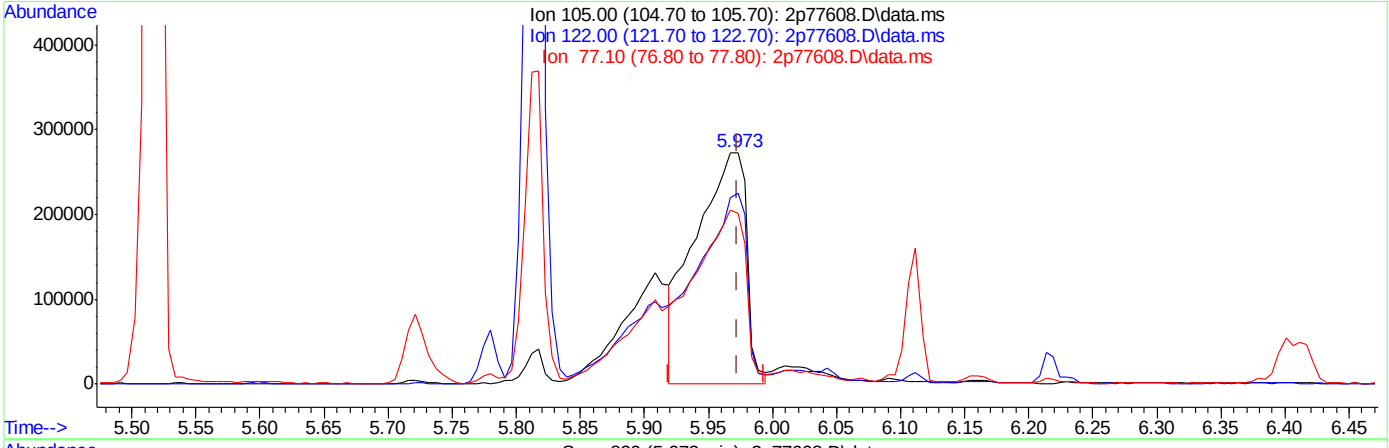
Sample Number:	E2P3416-IC3416	**Method:**	SW846 8270D
Lab FileID:	2P77608.D	**Analyst approved:**	02/28/18 19:00 Kristi Schollenberger
Injection Time:	02/23/18 10:54	**Supervisor approved:**	03/01/18 11:12 Nina Pandya

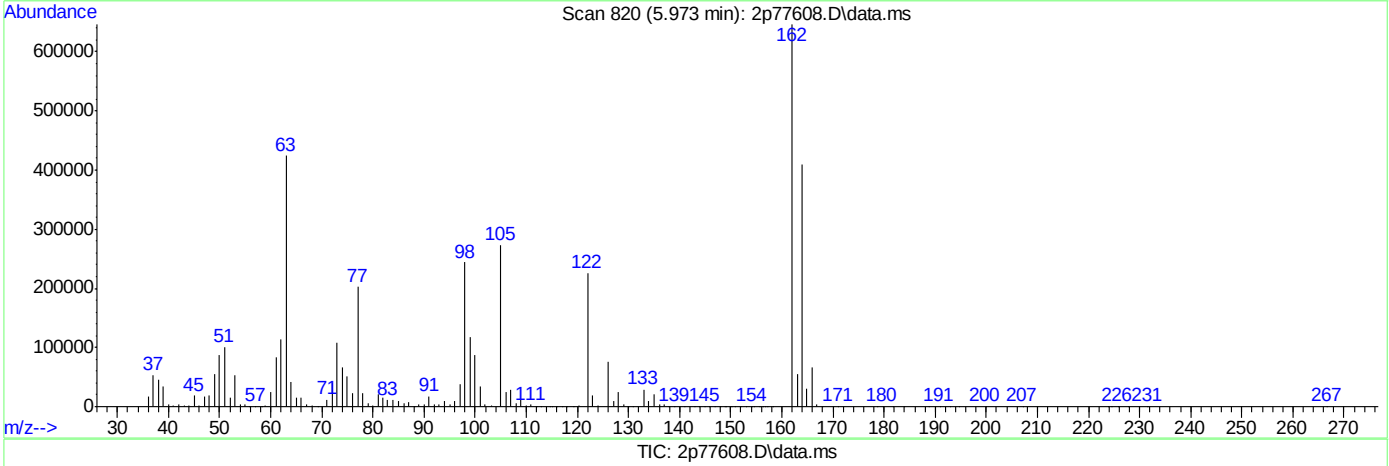
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.97	Split peak
Caprolactam	105-60-2		6.49	Split peak
Indeno(1,2,3-cd)pyrene	193-39-5		16.00	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77608.D
Acq On : 23 Feb 2018 10:54 am
Operator : kristis
Sample : ic3416-100
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 13:00:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77608.D\data.ms

(31) Benzoic acid (t)

5.973min (0.000) 80.01ppm

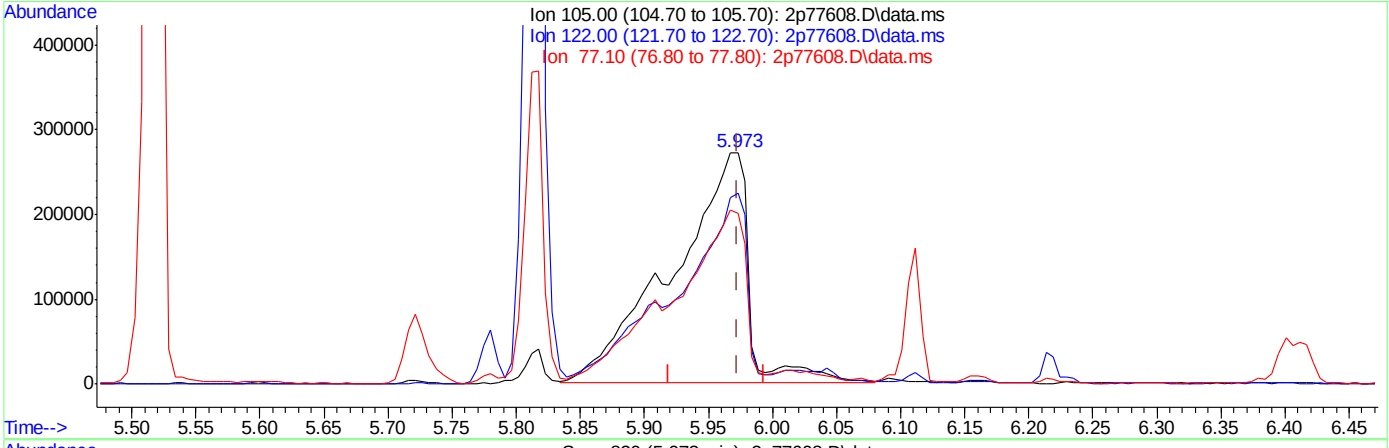
response 752543

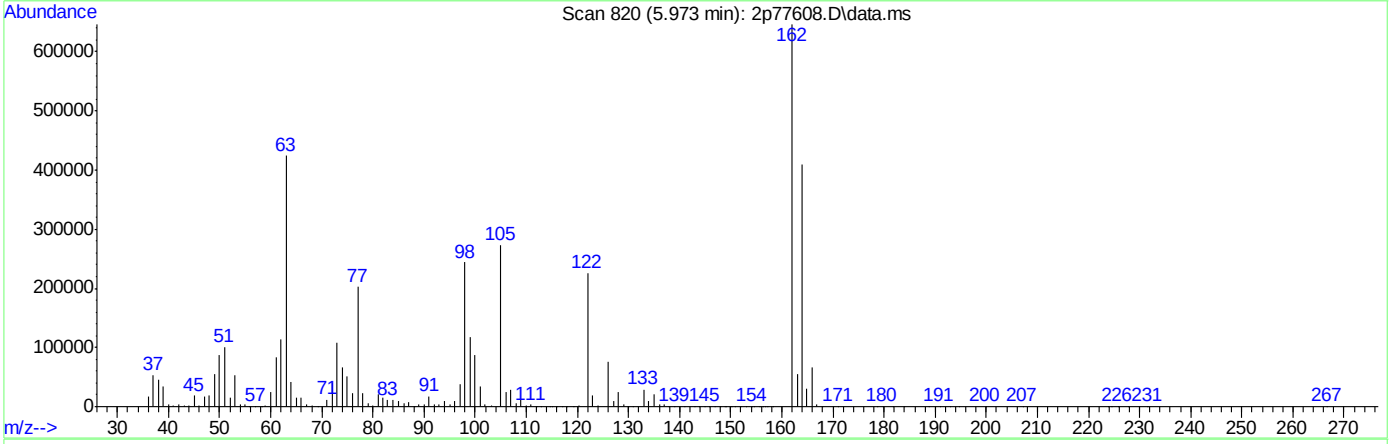
Ion	Exp%	Act%
105.00	100	100
122.00	77.60	83.44
77.10	87.20	72.36
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77608.D
Acq On : 23 Feb 2018 10:54 am
Operator : kristis
Sample : ic3416-100
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 13:00:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77608.D\data.ms

(31) Benzoic acid (t)

5.973min (0.000) 119.58ppm m

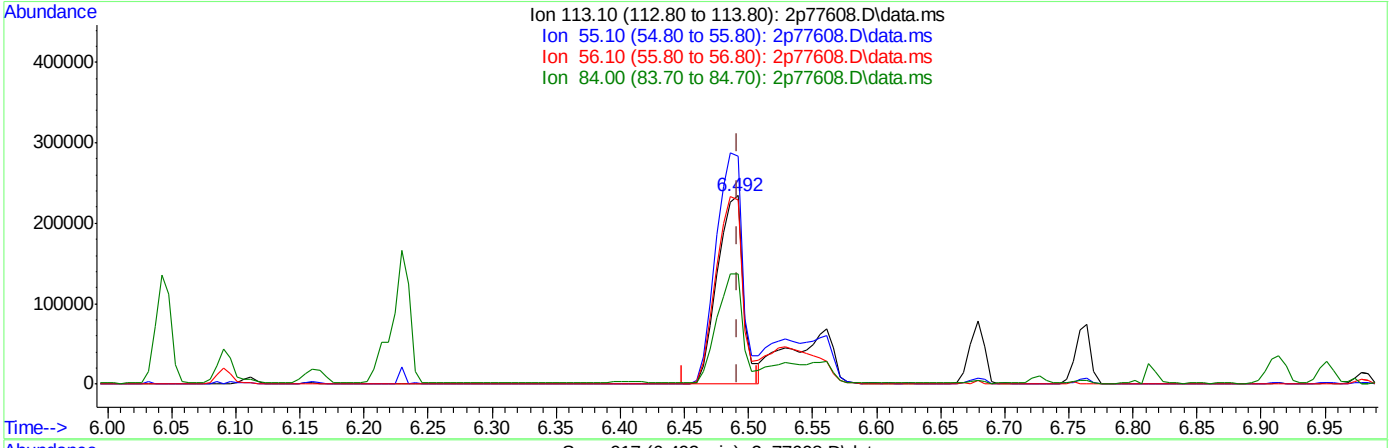
response 1124661

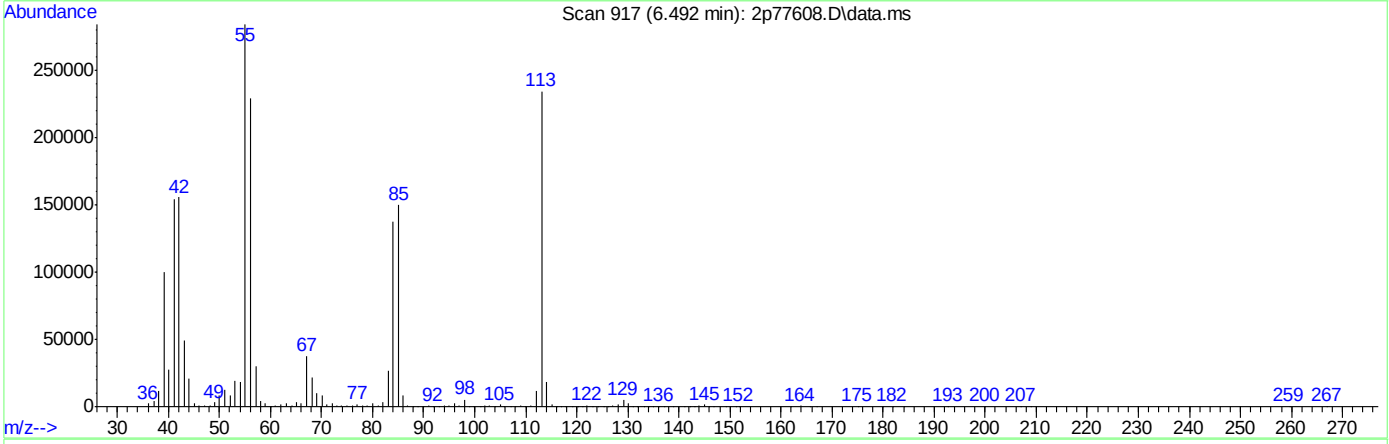
Ion	Exp%	Act%
105.00	100	100
122.00	77.60	82.55
77.10	87.20	73.93
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77608.D
Acq On : 23 Feb 2018 10:54 am
Operator : kristis
Sample : ic3416-100
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 13:00:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77608.D\data.ms

(41) Caprolactam (t)

6.492min (0.000) 93.33ppm

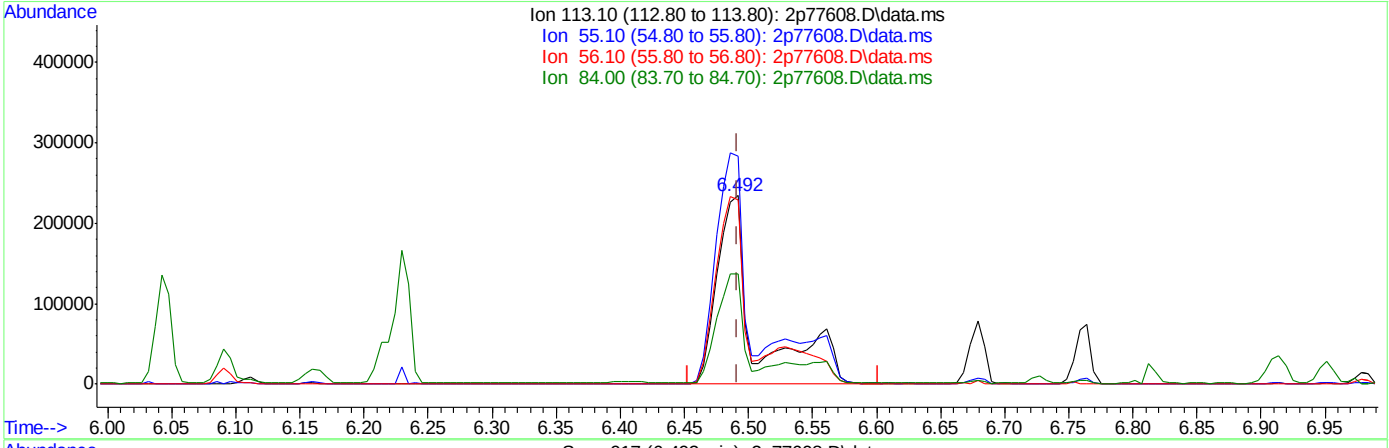
response 325115

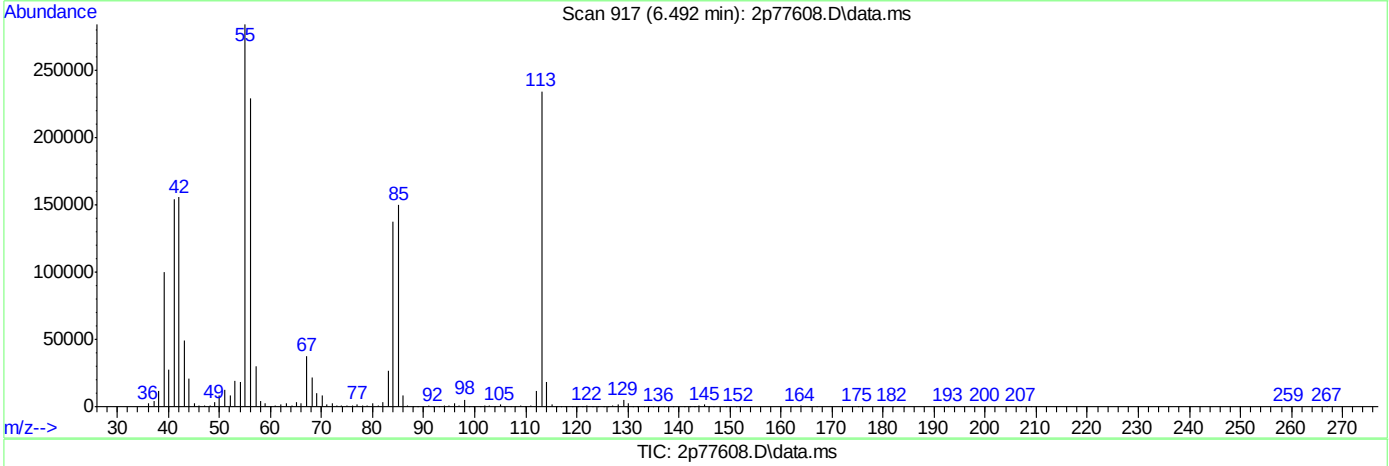
Ion	Exp%	Act%
113.10	100	100
55.10	156.90	120.32#
56.10	127.00	96.70#
84.00	146.70	57.99#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77608.D
Acq On : 23 Feb 2018 10:54 am
Operator : kristis
Sample : ic3416-100
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 13:00:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77608.D\data.ms

(41) Caprolactam (t)

6.492min (0.000) 141.99ppm m

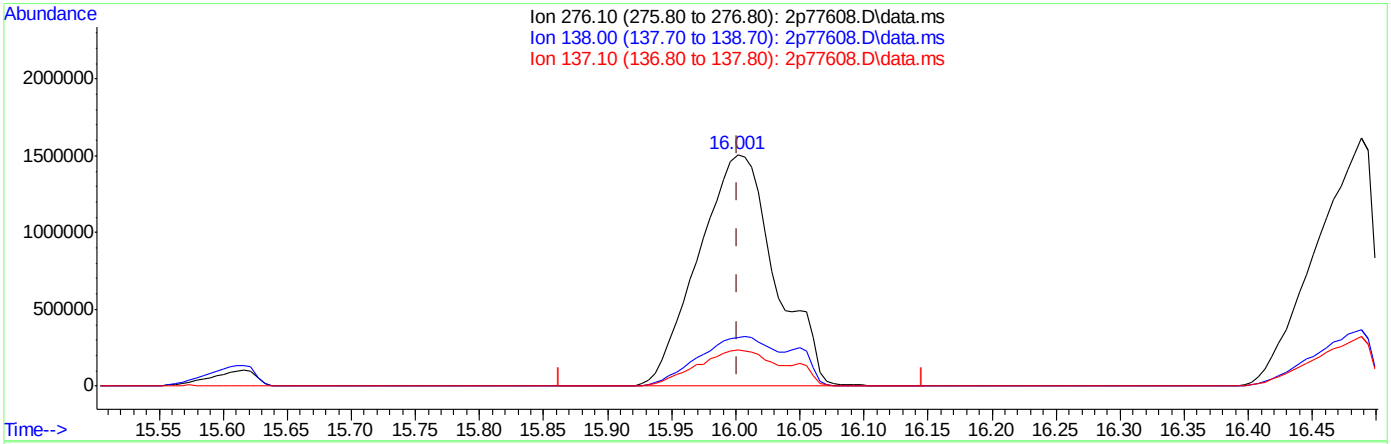
response 494612

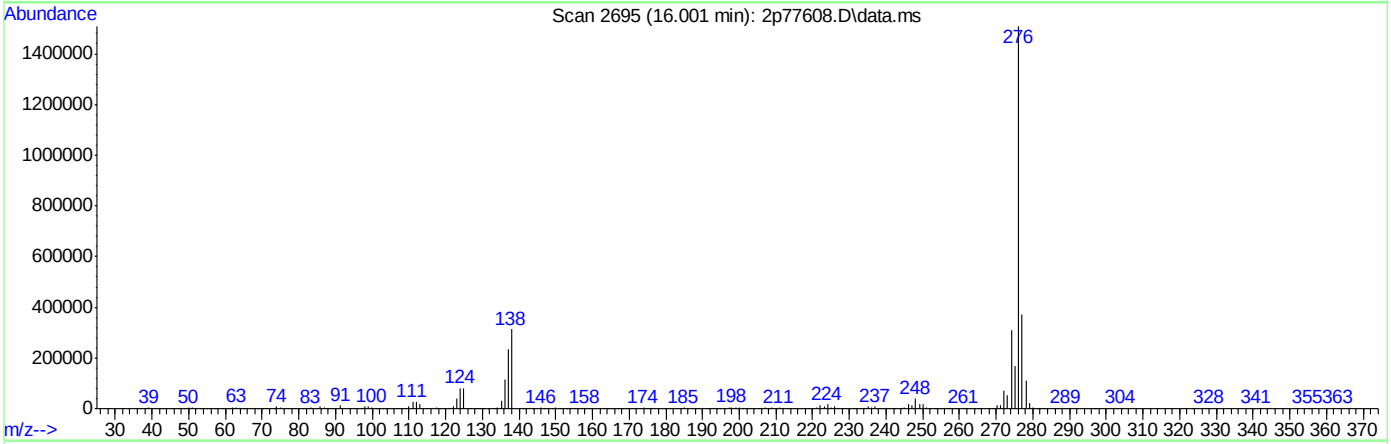
Ion	Exp%	Act%
113.10	100	100
55.10	156.90	121.18#
56.10	127.00	97.81
84.00	146.70	58.65#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77608.D
Acq On : 23 Feb 2018 10:54 am
Operator : kristis
Sample : ic3416-100
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 13:00:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77608.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

16.001min (0.000) 134.82ppm

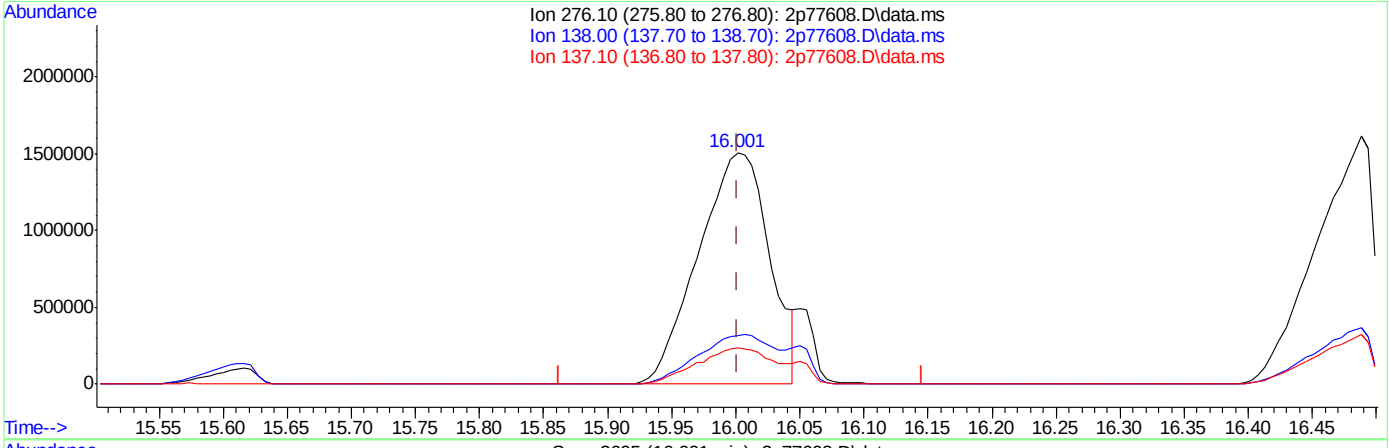
response 6305671

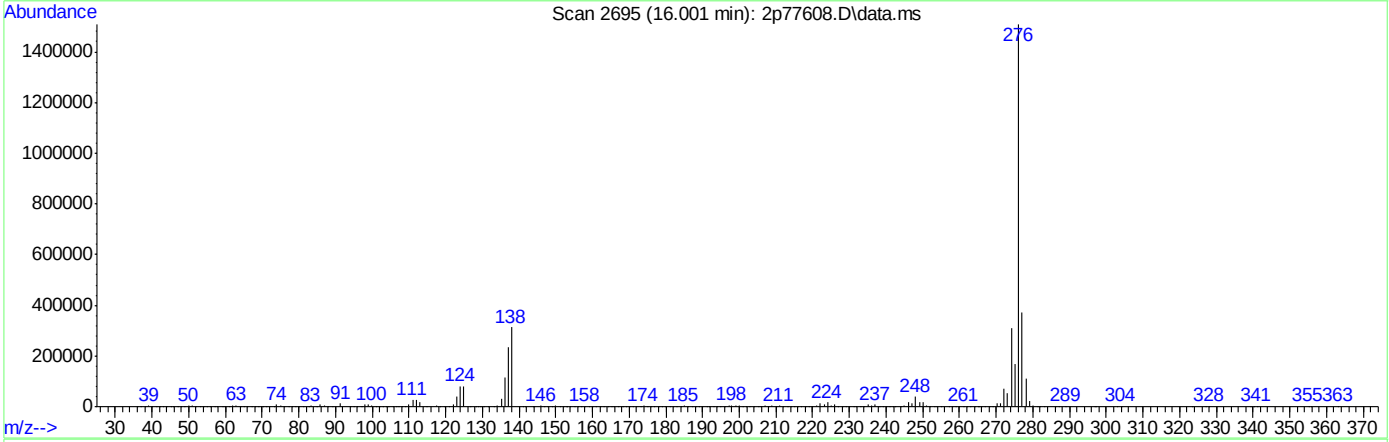
Ion	Exp%	Act%
276.10	100	100
138.00	29.20	20.76
137.10	21.00	15.61
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77608.D
Acq On : 23 Feb 2018 10:54 am
Operator : kristis
Sample : ic3416-100
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 13:00:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77608.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

16.001min (0.000) 124.44ppm m

response 5820154

Ion	Exp%	Act%
276.10	100	100
138.00	29.20	20.78
137.10	21.00	15.63
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/01/18 11:12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:06:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.031	152	629096	40.00	ppm	0.00
24) Naphthalene-d8	6.085	136	2245666	40.00	ppm	0.00
47) Acenaphthene-d10	7.535	164	1169926	40.00	ppm	0.00
69) Phenanthrene-d10	8.904	188	2303796	40.00	ppm	0.00
83) Chrysene-d12	12.322	240	2578588	40.00	ppm	-0.02
91) Perylene-d12	14.349	264	2612132	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	5.031	152	629096	40.00	ppm	0.00
103) Naphthalene-d8a	6.085	136	2245666	40.00	ppm	0.00
105) Acenaphthene-d10a	7.535	164	1169926	40.00	ppm	0.00
108) Chrysene-d12a	12.322	240	2578588	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.904	188	2303796	40.00	ppm	0.00
114) Chrysene-d12b	12.322	240	2578588	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.940	112	119669	5.06	ppm	-0.01
Spiked Amount 50.000	Range 11 - 58		Recovery = 10.12%#			
8) Phenol-d5	4.727	99	151580	5.49	ppm	-0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 10.98%			
25) Nitrobenzene-d5	5.486	82	127352	5.53	ppm	-0.02
Spiked Amount 50.000	Range 19 - 61		Recovery = 11.06%#			
51) 2-Fluorobiphenyl	6.973	172	240488	5.74	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery = 11.48%#			
73) 2,4,6-Tribromophenol	8.219	330	33959	4.84	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery = 9.68%#			
85) Terphenyl-d14	10.835	244	327281	5.50	ppm	-0.01
Spiked Amount 50.000	Range 16 - 65		Recovery = 11.00%#			
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.416	88	31276m	2.67	ppm	
3) Pyridine	2.748	79	105122	4.15	ppm	98
4) N-Nitrosodimethylamine	2.710	74	54138	3.61	ppm	86
6) Indene	5.251	116	175369	5.69	ppm	98
7) Cumene	4.374	105	318979	5.80	ppm	97
9) Phenol	4.737	94	179218	6.02	ppm	97
10) Aniline	4.759	93	184532	5.63	ppm	76
11) bis(2-Chloroethyl)ether	4.812	93	108423	5.92	ppm	95
12) 2-Chlorophenol	4.860	128	133512	6.08	ppm	98
13) Decane	4.903	57	118663	6.51	ppm	98
14) 1,3-Dichlorobenzene	4.989	146	135770	5.36	ppm	100
15) 1,4-Dichlorobenzene	5.048	146	128826	5.52	ppm	95
16) Benzyl alcohol	5.144	108	69277	5.65	ppm	91
17) 1,2-Dichlorobenzene	5.176	146	118281	5.44	ppm	99
18) Acetophenone	5.363	105	154201	5.82	ppm	83
19) 2-Methylphenol	5.235	108	98635	5.83	ppm	95
20) 2,2'-oxybis(1-Chloropr...	5.256	121	31288m	7.24	ppm	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:06:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.358	108	104466	5.75	ppm		95
22) n-Nitroso-di-n-propyla...	5.363	70	77604	5.92	ppm		92
23) Hexachloroethane	5.459	201	52605	5.97	ppm		86
26) Nitrobenzene	5.502	77	125838	5.82	ppm		99
27) Quinoline	6.374	129	203119	5.17	ppm		95
28) Isophorone	5.700	82	209683	5.46	ppm		95
29) 2-Nitrophenol	5.770	139	60976	5.05	ppm		94
30) 2,4-Dimethylphenol	5.802	107	111298	5.56	ppm		95
31) Benzoic acid	5.855	105	63536	4.25	ppm		86
32) bis(2-Chloroethoxy)met...	5.877	93	112772	5.15	ppm		97
33) 2,4-Dichlorophenol	5.968	162	97826	5.20	ppm		97
34) 2,6-Dichlorophenol	6.155	162	84791	4.99	ppm		96
35) 1,3,5-Trichlorobenzene	5.780	180	120319	5.44	ppm		94
36) 1,2,4-Trichlorobenzene	6.037	180	117024	5.38	ppm		99
37) 1,2,3-Trichlorobenzene	6.224	180	102335	5.48	ppm		96
38) Naphthalene	6.101	128	292192	5.23	ppm		99
39) 4-Chloroaniline	6.144	127	129539	5.02	ppm		97
40) 2,3-Dichloroaniline	6.904	161	118601	5.32	ppm		99
41) Caprolactam	6.411	113	33478	6.04	ppm	#	61
42) Hexachlorobutadiene	6.214	225	64180	5.41	ppm		95
43) 4-Chloro-3-methylphenol	6.540	107	100782	5.56	ppm		95
44) 2-Methylnaphthalene	6.674	141	184225	5.02	ppm		98
45) 1-Methylnaphthalene	6.754	141	194094	5.33	ppm		93
46) Dimethylnaphthalene	7.187	156	194019	5.57	ppm		98
48) Hexachlorocyclopentadiene	6.807	237	118227	10.14	ppm		97
49) 2,4,6-Trichlorophenol	6.904	196	72825	6.03	ppm		88
50) 2,4,5-Trichlorophenol	6.936	196	75884	6.06	ppm		89
52) 2-Chloronaphthalene	7.075	162	206399	5.94	ppm		97
53) Biphenyl	7.053	154	276221	6.06	ppm		100
54) 2-Nitroaniline	7.150	65	66685	6.85	ppm		95
55) Dimethylphthalate	7.299	163	235345	5.78	ppm		96
56) Acenaphthylene	7.417	152	306485	5.29	ppm		98
57) 2,6-Dinitrotoluene	7.347	165	51242	6.25	ppm		95
58) 3-Nitroaniline	7.487	138	61581	6.11	ppm		94
59) Acenaphthene	7.561	153	200085	5.66	ppm		98
60) 2,4-Dinitrophenol	7.572	184	28930	7.98	ppm		75
61) 4-Nitrophenol	7.620	109	35009	5.97	ppm		86
62) Dibenzofuran	7.706	168	265199	5.35	ppm		98
63) 2,4-Dinitrotoluene	7.679	165	66900	6.34	ppm		100
64) 2,3,4,6-Tetrachlorophenol	7.807	232	62038	5.57	ppm		89
65) Diethylphthalate	7.888	149	223338	5.30	ppm		93
66) Fluorene	8.000	166	230463	5.63	ppm		96
67) 4-Chlorophenyl-phenyle...	7.995	204	125876	6.37	ppm		93
68) 4-Nitroaniline	8.005	138	60133	6.28	ppm		95
70) 4,6-Dinitro-2-methylph...	8.032	198	26268	4.22	ppm		97
71) n-Nitrosodiphenylamine	8.096	169	168502	5.16	ppm		98
72) 1,2-Diphenylhydrazine	8.134	77	235533	5.65	ppm		91
74) 4-Bromophenyl-phenylether	8.444	248	76930	5.31	ppm		93
75) Hexachlorobenzene	8.519	284	84837	5.28	ppm		95
76) Pentachlorophenol	8.706	266	109238	10.92	ppm		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:06:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

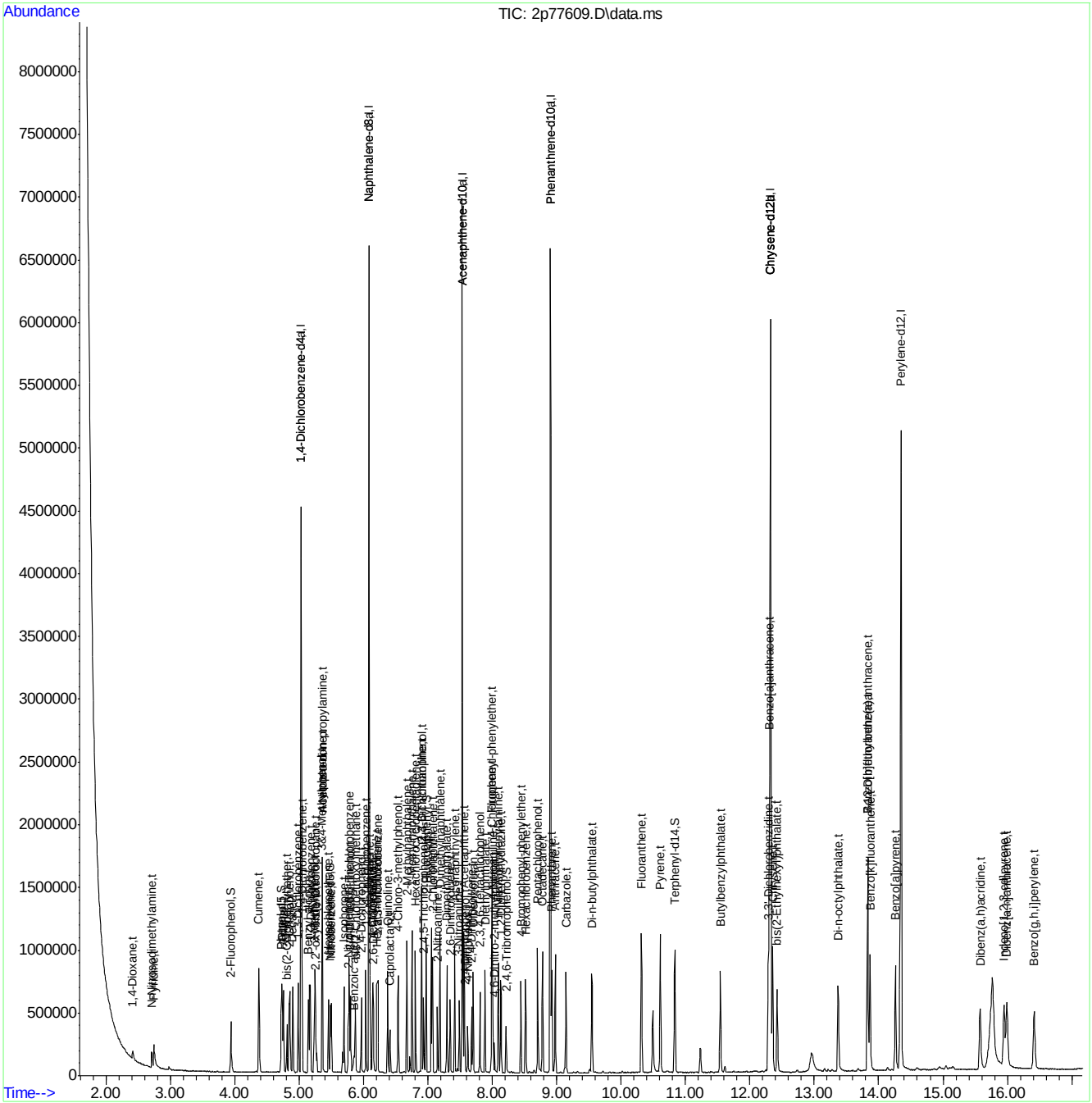
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	8.925	178	325503	5.41	ppm	99
78) Anthracene	8.979	178	333377	5.56	ppm	100
79) Carbazole	9.145	167	322344	5.15	ppm	98
80) Di-n-butylphthalate	9.546	149	407449	5.02	ppm	99
81) Fluoranthene	10.316	202	468940	5.82	ppm	94
82) Octadecane	8.781	43	104408	6.31	ppm	93
84) Pyrene	10.610	202	483214	5.18	ppm	99
86) Butylbenzylphthalate	11.541	149	211288	4.84	ppm	95
87) Benzo[a]anthracene	12.306	228	485939	5.80	ppm	97
88) 3,3'-Dichlorobenzidine	12.284	252	185681	6.42	ppm	92
89) Chrysene	12.354	228	379803	5.61	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.423	149	223663	4.53	ppm	86
92) Di-n-octylphthalate	13.370	149	453659	4.81	ppm	99
93) Benzo[b]fluoranthene	13.830	252	476942m	5.41	ppm	
94) Benzo[k]fluoranthene	13.867	252	456460	6.53	ppm	95
95) Benzo[a]pyrene	14.263	252	420847	5.68	ppm	94
96) Indeno[1,2,3-cd]pyrene	15.948	276	325494m	4.69	ppm	
97) Dibenz(a,h)acridine	15.579	279	328558	5.21	ppm	99
98) Dibenz[a,h]anthracene	15.991	278	353738	5.21	ppm	91
99) 7,12-Dimethylbenz(a)an...	13.830	256	201628	5.80	ppm	94
100) Benzo[g,h,i]perylene	16.413	276	343490	4.97	ppm	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:06:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration



Manual Integration Approval Summary

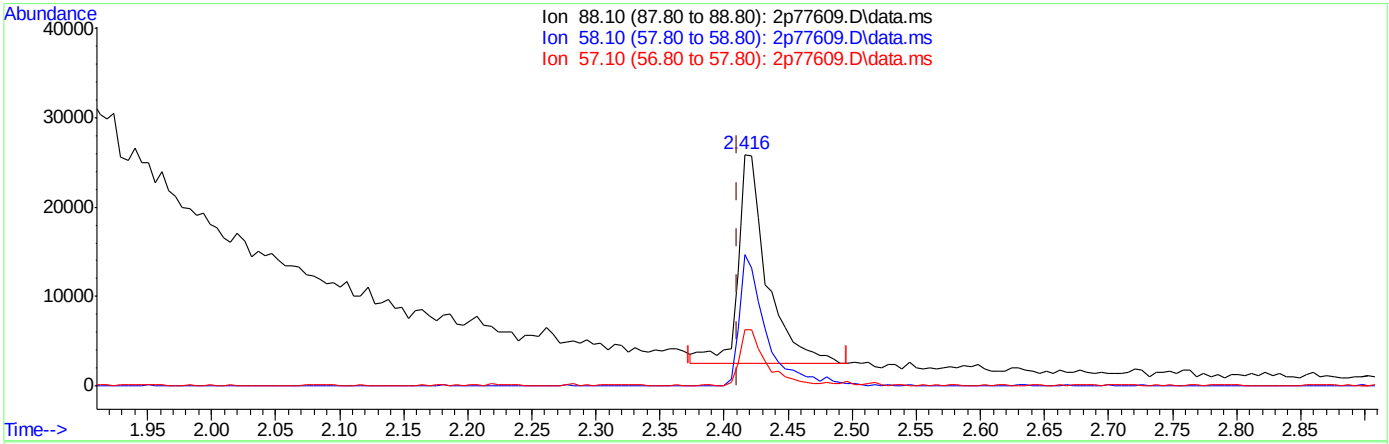
Sample Number:	E2P3416-IC3416	**Method:**	SW846 8270D
Lab FileID:	2P77609.D	**Analyst approved:**	02/28/18 19:00 Kristi Schollenberger
Injection Time:	02/23/18 11:19	**Supervisor approved:**	03/01/18 11:12 Nina Pandya

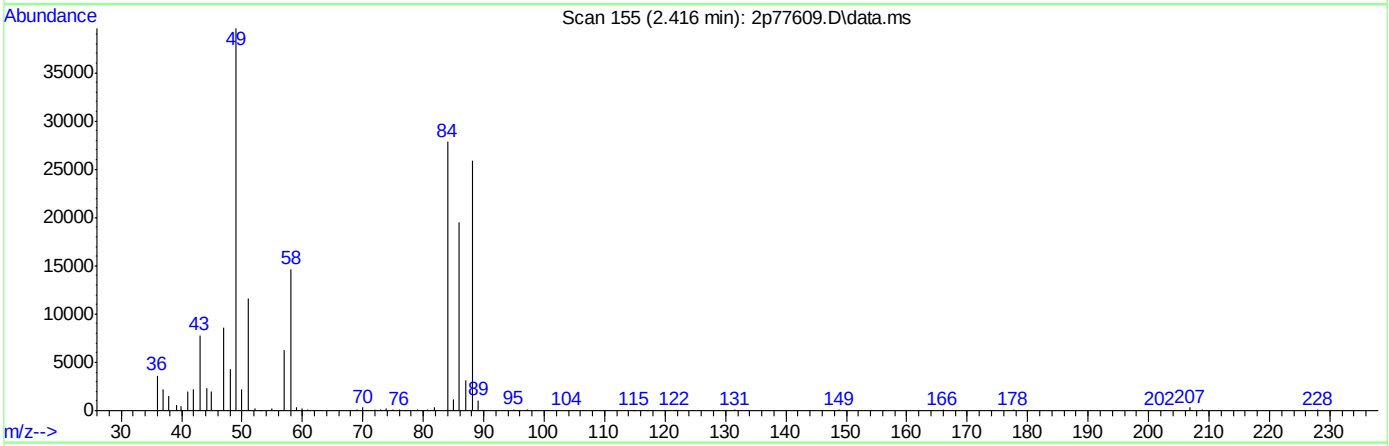
Parameter	CAS	Sig#	R.T. (min.)	Reason
1,4-Dioxane	123-91-1		2.42	Poor instrument integration
2,2'-Oxybis(1-chloropropane)	108-60-1		5.26	Split peak
Benzo(b)fluoranthene	205-99-2		13.83	Overlapping peak
Indeno(1,2,3-cd)pyrene	193-39-5		15.95	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:04:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77609.D\data.ms

(2) 1,4-Dioxane (t)

2.416min (+0.005) 3.20ppm

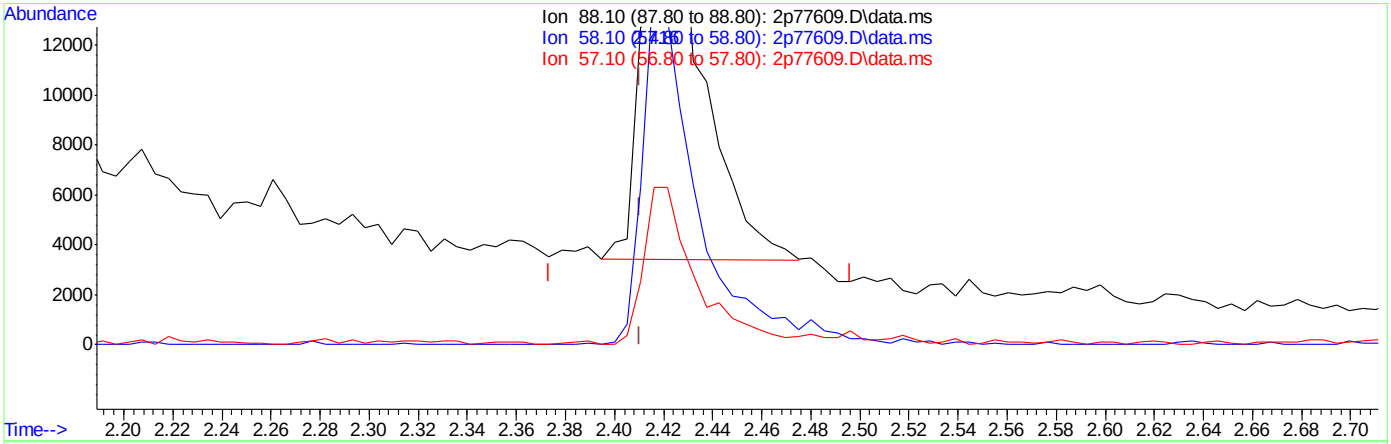
response 37529

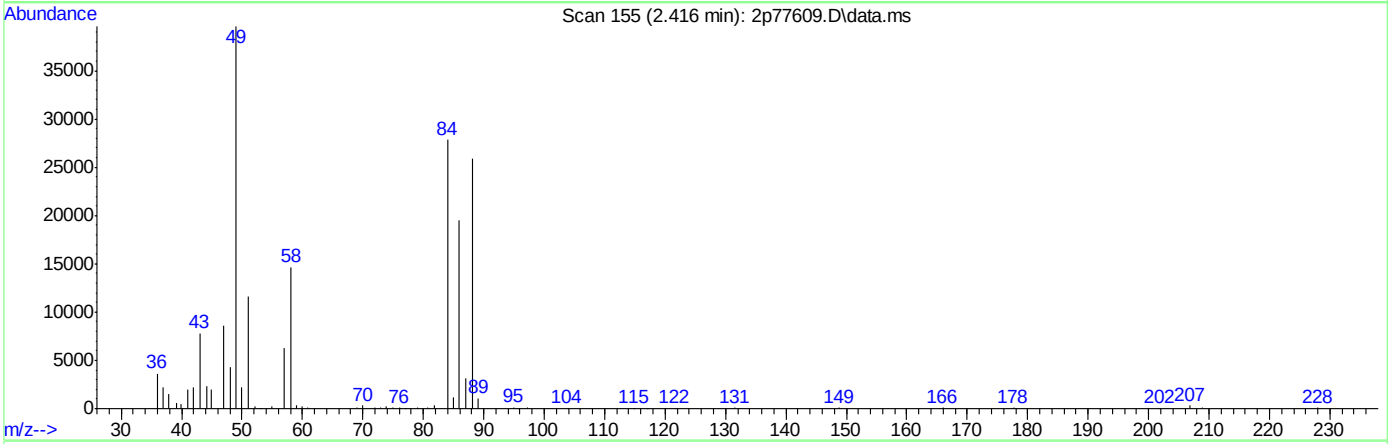
Ion	Exp%	Act%
88.10	100	100
58.10	55.50	63.68
57.10	22.70	26.38
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:04:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77609.D\data.ms

(2) 1,4-Dioxane (t)

2.416min (+0.005) 2.67ppm m

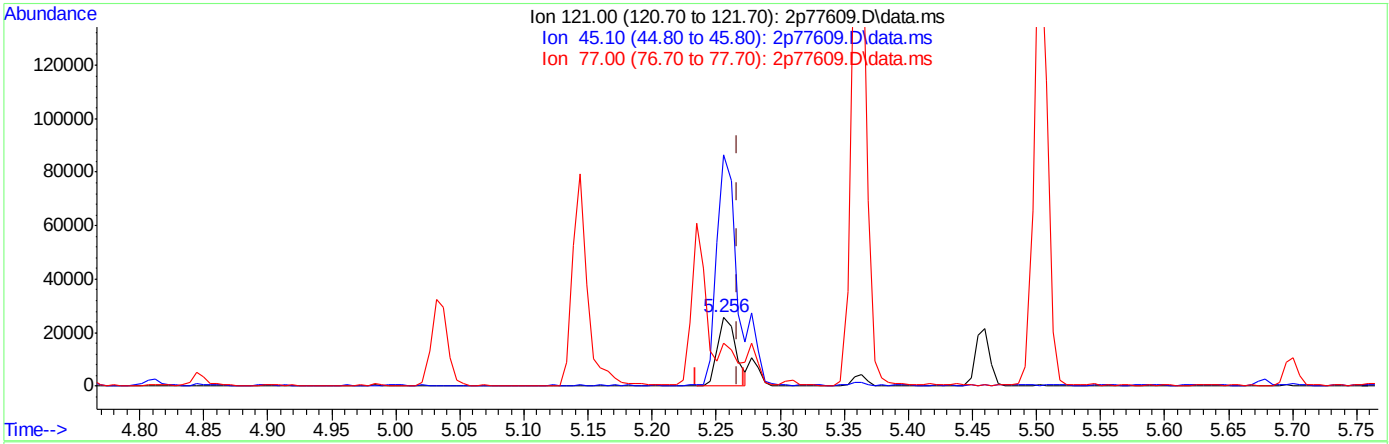
response 31276

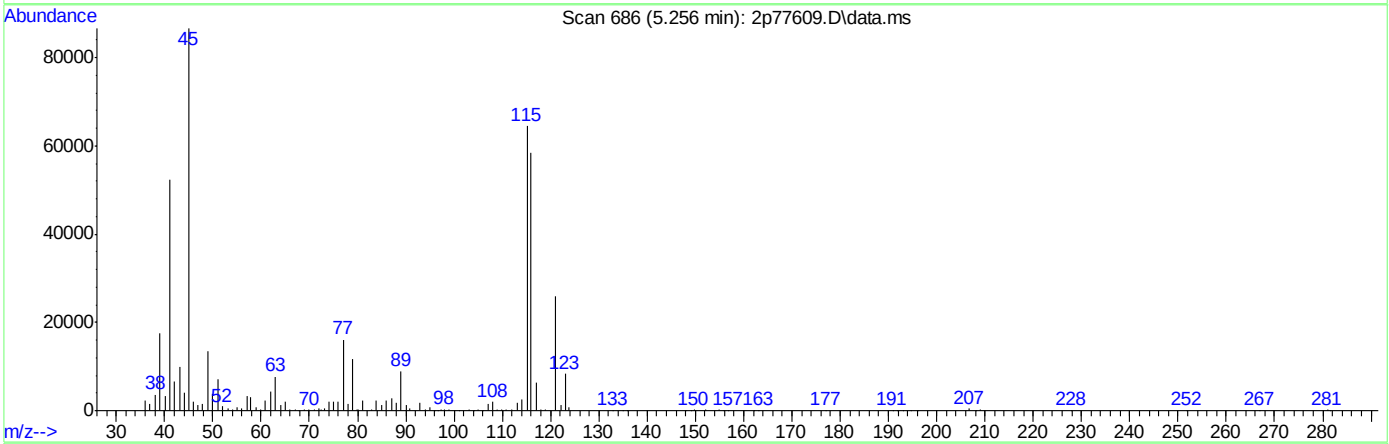
Ion	Exp%	Act%
88.10	100	100
58.10	55.50	56.57
57.10	22.70	24.35
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:04:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77609.D\data.ms

(20) 2,2'-oxybis(1-Chloropropane (t)

5.256min (-0.011) 5.82ppm

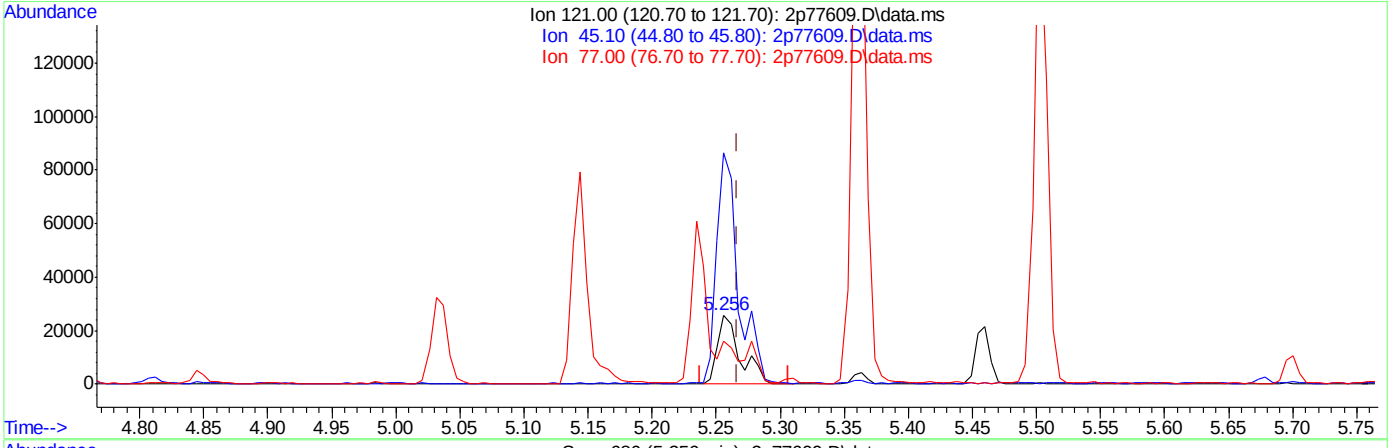
response 25142

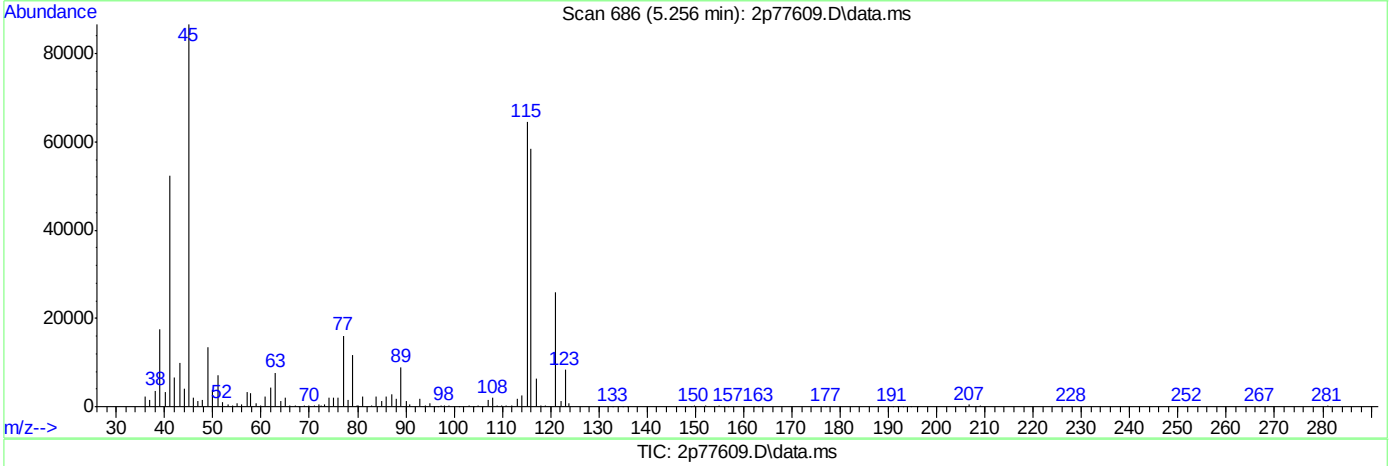
Ion	Exp%	Act%
121.00	100	100
45.10	516.80	334.53#
77.00	395.90	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:04:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77609.D\data.ms

(20) 2,2'-oxybis(1-Chloropropane (t)

5.256min (-0.011) 7.24ppm m

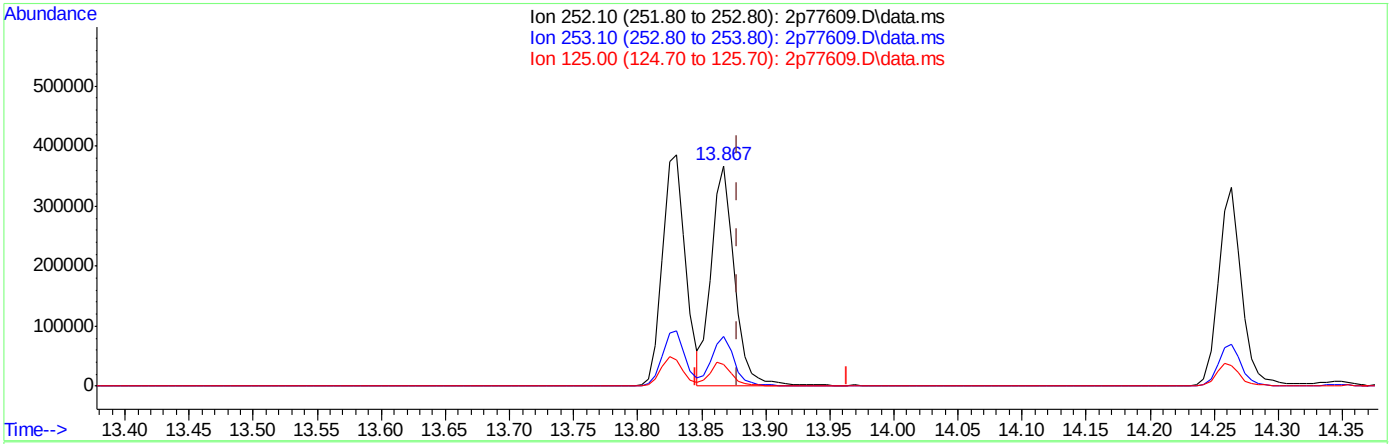
response 31288

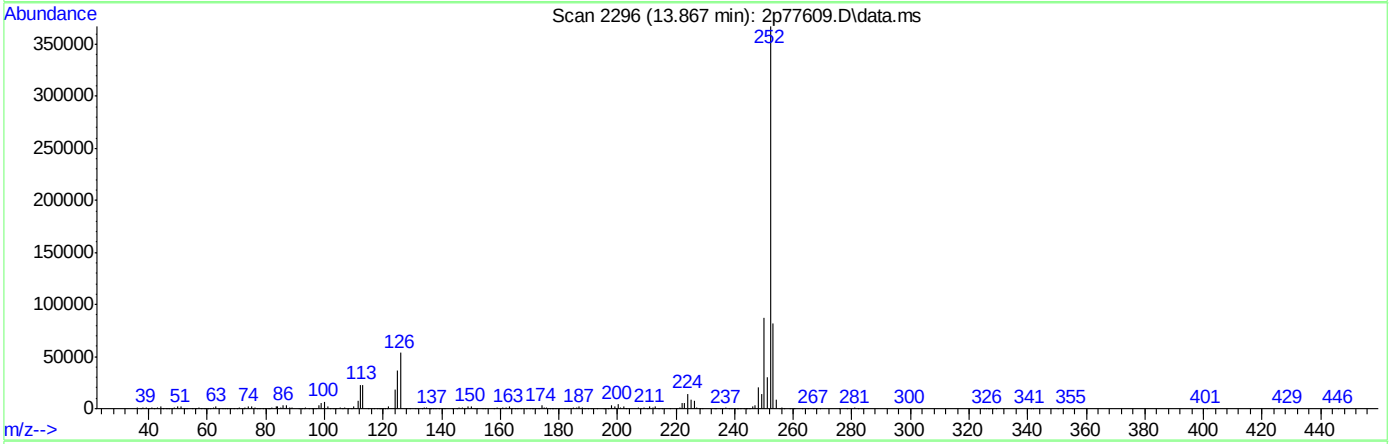
Ion	Exp%	Act%
121.00	100	100
45.10	516.80	334.62#
77.00	395.90	62.18#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:04:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77609.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.867min (-0.011) 5.17ppm

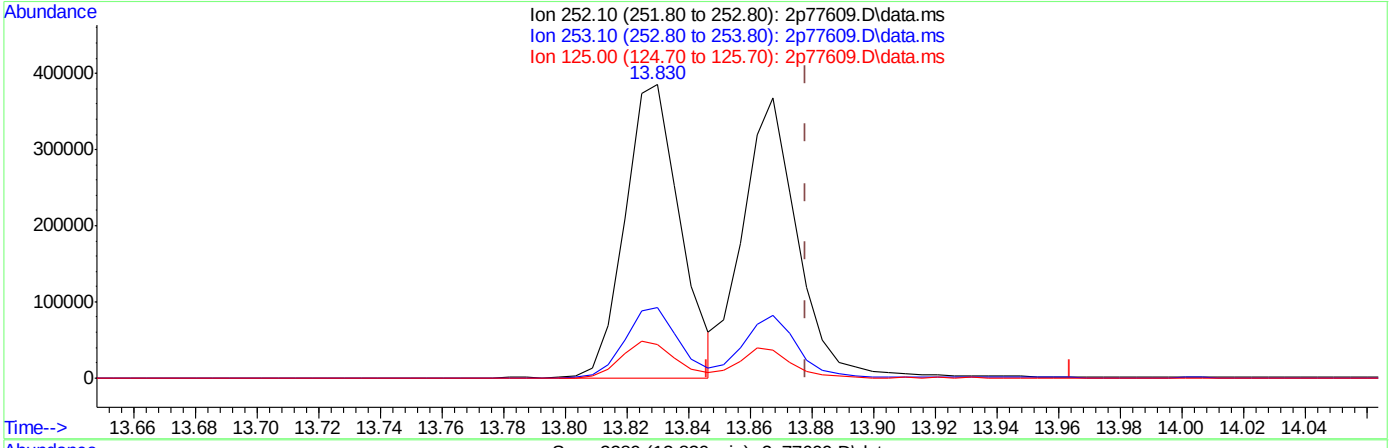
response 456460

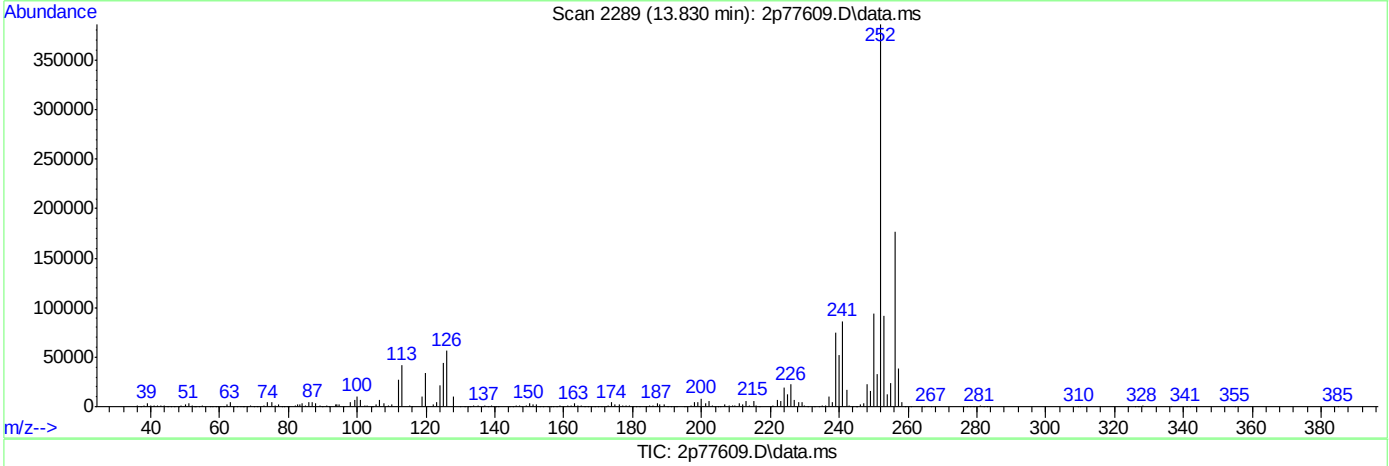
Ion	Exp%	Act%
252.10	100	100
253.10	23.80	22.32
125.00	16.50	9.87
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:04:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77609.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.830min (-0.048) 5.41ppm m

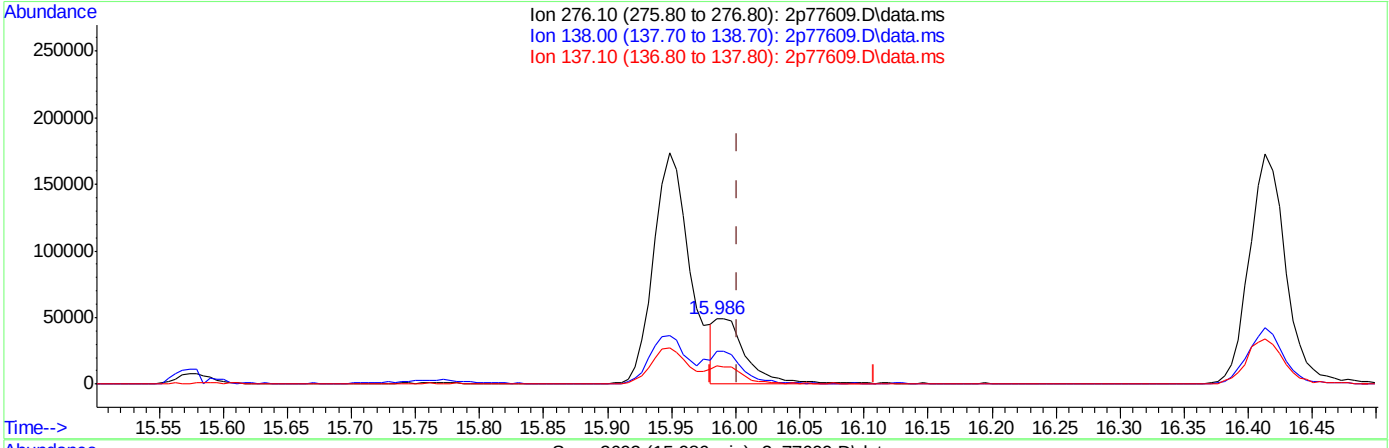
response 476942

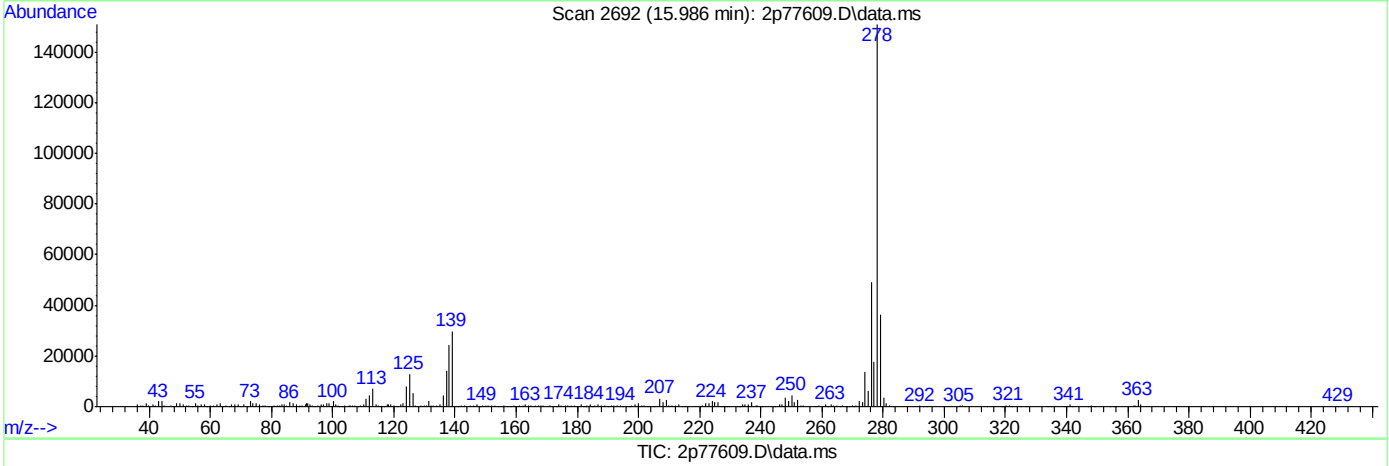
Ion	Exp%	Act%
252.10	100	100
253.10	23.80	23.77
125.00	16.50	11.54
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:04:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77609.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.986min (-0.016) 1.17ppm

response 81420

Ion	Exp%	Act%
276.10	100	100
138.00	29.20	57.96
137.10	21.00	31.27
0.00	0.00	0.00

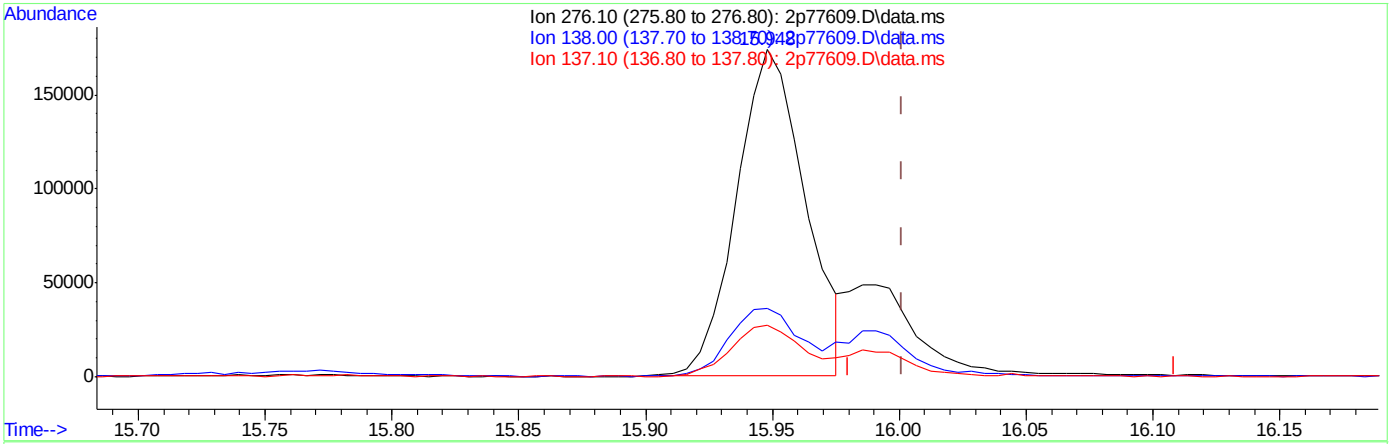
9.6.2.8

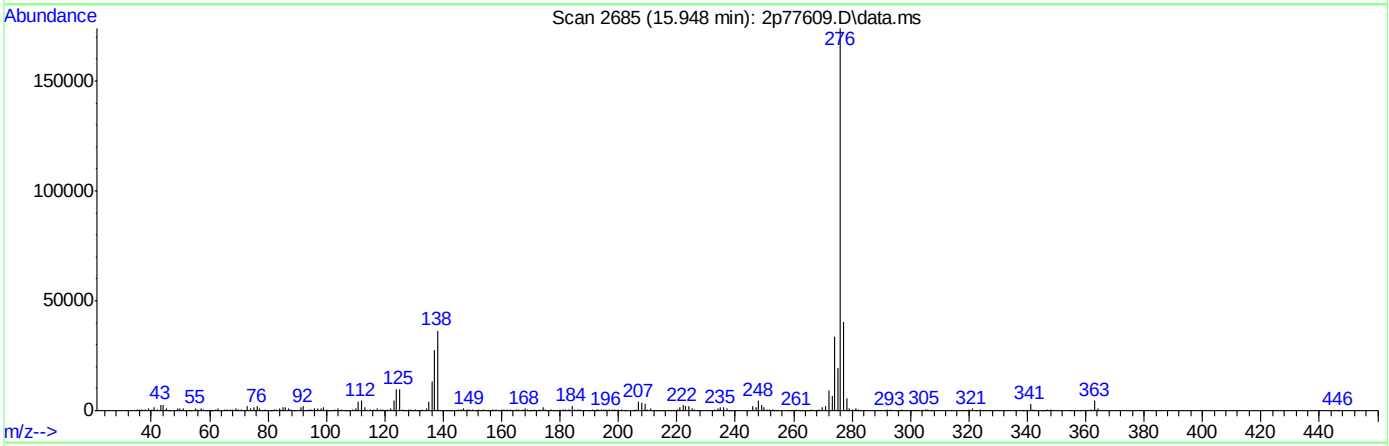
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77609.D
Acq On : 23 Feb 2018 11:19 am
Operator : kristis
Sample : ic3416-5
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 15:04:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77609.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.948min (-0.053) 4.69ppm m

response 325494

Ion	Exp%	Act%
276.10	100	100
138.00	29.20	20.94
137.10	21.00	15.86
0.00	0.00	0.00

9.6.29

9

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/01/18 11:12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77610.D
Acq On : 23 Feb 2018 11:44 am
Operator : kristis
Sample : ic3416-80
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 23 15:07:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.037	152	404473	40.00	ppm	0.00
24) Naphthalene-d8	6.090	136	1483504	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	801184	40.00	ppm	0.00
69) Phenanthrene-d10	8.914	188	1661932	40.00	ppm	0.00
83) Chrysene-d12	12.338	240	1658013	40.00	ppm	0.00
91) Perylene-d12	14.365	264	1870063	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.037	152	404473	40.00	ppm	0.00
103) Naphthalene-d8a	6.090	136	1483504	40.00	ppm	0.00
105) Acenaphthene-d10a	7.540	164	801184	40.00	ppm	0.00
108) Chrysene-d12a	12.338	240	1658013	40.00	ppm	0.00
110) Phenanthrene-d10a	8.914	188	1661932	40.00	ppm	0.00
114) Chrysene-d12b	12.338	240	1658041	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.951	112	1638613	107.72	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 215.44%#			
8) Phenol-d5	4.742	99	1811459	102.10	ppm	0.00
Spiked Amount 50.000	Range 10 - 59		Recovery = 204.20%#			
25) Nitrobenzene-d5	5.502	82	1226350	80.55	ppm	0.00
Spiked Amount 50.000	Range 19 - 61		Recovery = 161.10%#			
51) 2-Fluorobiphenyl	6.984	172	2299283	80.21	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery = 160.42%#			
73) 2,4,6-Tribromophenol	8.230	330	468134	92.52	ppm	0.00
Spiked Amount 50.000	Range 12 - 68		Recovery = 185.04%#			
85) Terphenyl-d14	10.851	244	3702799	96.85	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery = 193.70%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.421	88	491071	65.13	ppm	90
3) Pyridine	2.742	79	1358241	83.30	ppm	98
4) N-Nitrosodimethylamine	2.721	74	766877	79.59	ppm	99
6) Indene	5.256	116	1662812	83.85	ppm	99
7) Cumene	4.379	105	3665738	103.75	ppm	98
9) Phenol	4.759	94	1854177	96.94	ppm	89
10) Aniline	4.769	93	1705186	80.93	ppm	97
11) bis(2-Chloroethyl)ether	4.823	93	1073288	91.21	ppm	92
12) 2-Chlorophenol	4.871	128	1217618	86.22	ppm	95
13) Decane	4.908	57	1037411	88.47	ppm	94
14) 1,3-Dichlorobenzene	4.994	146	1348487	82.78	ppm	99
15) 1,4-Dichlorobenzene	5.053	146	1282677	85.53	ppm	97
16) Benzyl alcohol	5.160	108	757089	96.02	ppm	81
17) 1,2-Dichlorobenzene	5.181	146	1118194	79.98	ppm	100
18) Acetophenone	5.374	105	1457036	85.49	ppm	86
19) 2-Methylphenol	5.251	108	956585	88.01	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.267	121	278639	100.32	ppm #	1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77610.D
Acq On : 23 Feb 2018 11:44 am
Operator : kristis
Sample : ic3416-80
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 23 15:07:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.379	108	1019875	87.29	ppm		100
22) n-Nitroso-di-n-propyla...	5.384	70	659184	78.16	ppm		85
23) Hexachloroethane	5.459	201	537169	94.79	ppm		92
26) Nitrobenzene	5.518	77	1109846	77.69	ppm		90
27) Quinoline	6.401	129	2302352	88.77	ppm		99
28) Isophorone	5.716	82	2231179	87.96	ppm		96
29) 2-Nitrophenol	5.780	139	701905	88.00	ppm		90
30) 2,4-Dimethylphenol	5.812	107	1074348	81.22	ppm		98
31) Benzoic acid	5.962	105	960504m	97.23	ppm		
32) bis(2-Chloroethoxy)met...	5.887	93	1129139	78.03	ppm		97
33) 2,4-Dichlorophenol	5.978	162	1019518	82.08	ppm		98
34) 2,6-Dichlorophenol	6.165	162	902132	80.35	ppm		97
35) 1,3,5-Trichlorobenzene	5.791	180	1218851	83.47	ppm		94
36) 1,2,4-Trichlorobenzene	6.048	180	1159422	80.65	ppm		97
37) 1,2,3-Trichlorobenzene	6.229	180	1013855	82.19	ppm		96
38) Naphthalene	6.112	128	2972270	80.57	ppm		99
39) 4-Chloroaniline	6.155	127	1336949	78.50	ppm		96
40) 2,3-Dichloroaniline	6.909	161	1181752	80.26	ppm		97
41) Caprolactam	6.481	113	418408m	114.36	ppm		
42) Hexachlorobutadiene	6.219	225	669336	85.37	ppm		97
43) 4-Chloro-3-methylphenol	6.561	107	1070901	89.48	ppm		94
44) 2-Methylnaphthalene	6.679	141	1983493	81.81	ppm		98
45) 1-Methylnaphthalene	6.764	141	1959323	81.40	ppm		97
46) Dimethylnaphthalene	7.197	156	1928860	83.87	ppm		93
48) Hexachlorocyclopentadiene	6.818	237	1464926	183.49	ppm		99
49) 2,4,6-Trichlorophenol	6.914	196	771446	93.25	ppm		93
50) 2,4,5-Trichlorophenol	6.951	196	776402	90.50	ppm		91
52) 2-Chloronaphthalene	7.085	162	1893858	79.55	ppm		97
53) Biphenyl	7.064	154	2681213	85.93	ppm		100
54) 2-Nitroaniline	7.171	65	652754	97.86	ppm	#	69
55) Dimethylphthalate	7.315	163	2477642	88.90	ppm		97
56) Acenaphthylene	7.428	152	3198148	80.64	ppm		98
57) 2,6-Dinitrotoluene	7.363	165	582616	103.85	ppm		88
58) 3-Nitroaniline	7.508	138	638203	92.53	ppm		98
59) Acenaphthene	7.572	153	2134005	88.10	ppm		96
60) 2,4-Dinitrophenol	7.593	184	648343	261.11	ppm		88
61) 4-Nitrophenol	7.647	109	385310	96.02	ppm		89
62) Dibenzofuran	7.716	168	2736054	80.64	ppm		98
63) 2,4-Dinitrotoluene	7.700	165	773958	107.09	ppm		88
64) 2,3,4,6-Tetrachlorophenol	7.818	232	804315	105.53	ppm		85
65) Diethylphthalate	7.904	149	2368946	82.04	ppm		92
66) Fluorene	8.011	166	2291255	81.67	ppm		99
67) 4-Chlorophenyl-phenyle...	8.005	204	1379096	101.90	ppm		84
68) 4-Nitroaniline	8.043	138	586637	89.41	ppm		97
70) 4,6-Dinitro-2-methylph...	8.059	198	494936	110.30	ppm		78
71) n-Nitrosodiphenylamine	8.112	169	1738265	73.85	ppm		98
72) 1,2-Diphenylhydrazine	8.150	77	2078259	69.11	ppm		79
74) 4-Bromophenyl-phenylether	8.454	248	956197	91.57	ppm		99
75) Hexachlorobenzene	8.529	284	998900	86.22	ppm		91
76) Pentachlorophenol	8.722	266	1496011	207.33	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77610.D
Acq On : 23 Feb 2018 11:44 am
Operator : kristis
Sample : ic3416-80
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 23 15:07:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

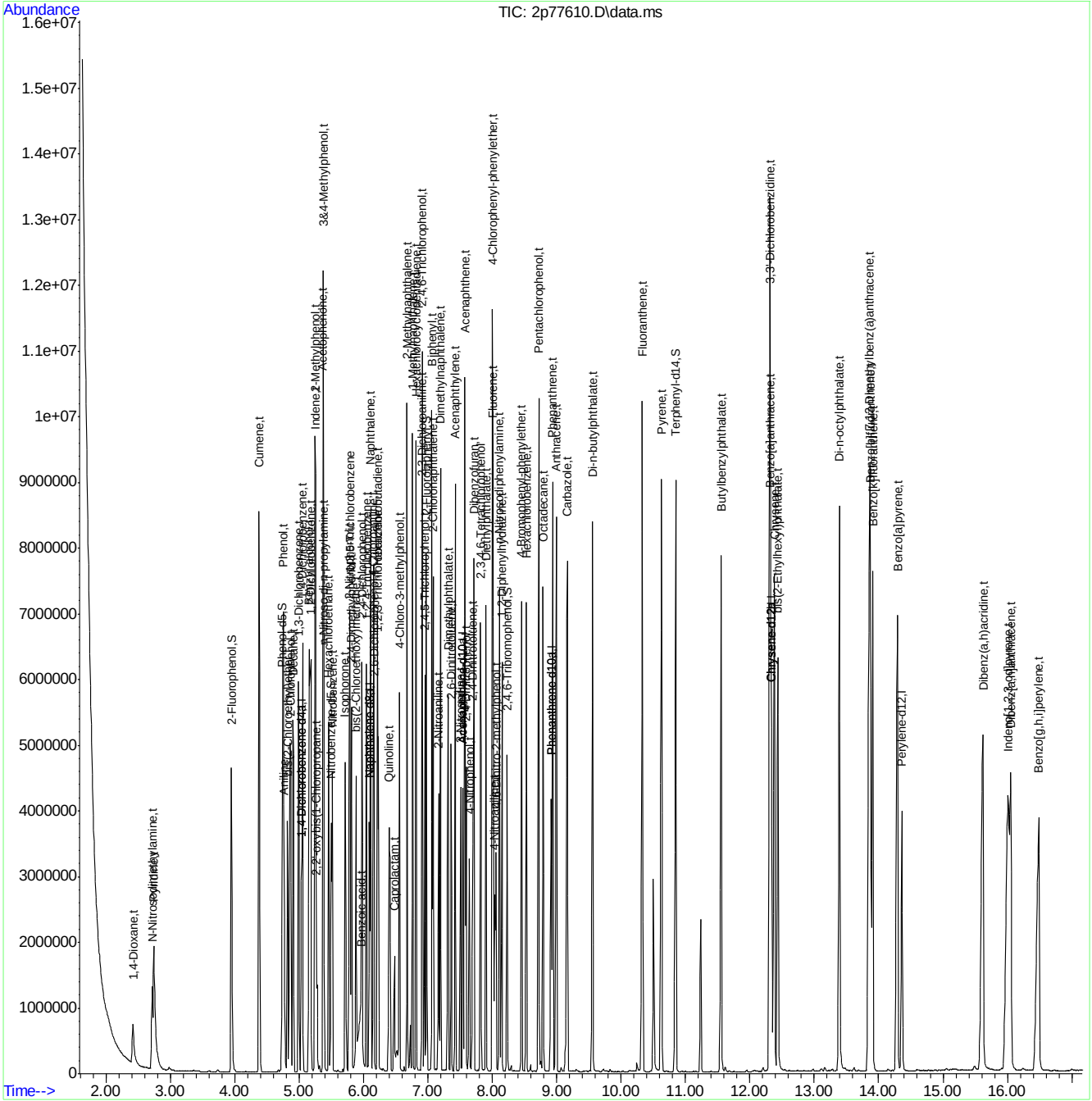
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	8.941	178	3604237	83.03	ppm	99
78) Anthracene	8.995	178	3538091	81.84	ppm	99
79) Carbazole	9.166	167	3565194	79.00	ppm	99
80) Di-n-butylphthalate	9.556	149	4906754	83.79	ppm	99
81) Fluoranthene	10.332	202	5684220	97.73	ppm	94
82) Octadecane	8.791	43	894518	74.91	ppm	85
84) Pyrene	10.631	202	5131948	85.63	ppm	99
86) Butylbenzylphthalate	11.557	149	2445879	87.15	ppm	90
87) Benzo[a]anthracene	12.322	228	4965297	92.14	ppm	99
88) 3,3'-Dichlorobenzidine	12.311	252	2273325	122.24	ppm	95
89) Chrysene	12.386	228	3935037	90.44	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.434	149	2372655	74.77	ppm	88
92) Di-n-octylphthalate	13.391	149	5818293	86.11	ppm	95
93) Benzo[b]fluoranthene	13.873	252	5475260	86.70	ppm	94
94) Benzo[k]fluoranthene	13.910	252	3735487	74.59	ppm	96
95) Benzo[a]pyrene	14.295	252	4727963	89.11	ppm	93
96) Indeno[1,2,3-cd]pyrene	16.007	276	4904522	98.66	ppm	80
97) Dibenz(a,h)acridine	15.622	279	4764164	105.49	ppm	99
98) Dibenz[a,h]anthracene	16.055	278	4185228	86.16	ppm	91
99) 7,12-Dimethylbenz(a)an...	13.862	256	2550208	102.41	ppm	93
100) Benzo[g,h,i]perylene	16.488	276	4365412	88.17	ppm	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77610.D
Acq On : 23 Feb 2018 11:44 am
Operator : kristis
Sample : ic3416-80
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 23 15:07:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration



Manual Integration Approval Summary

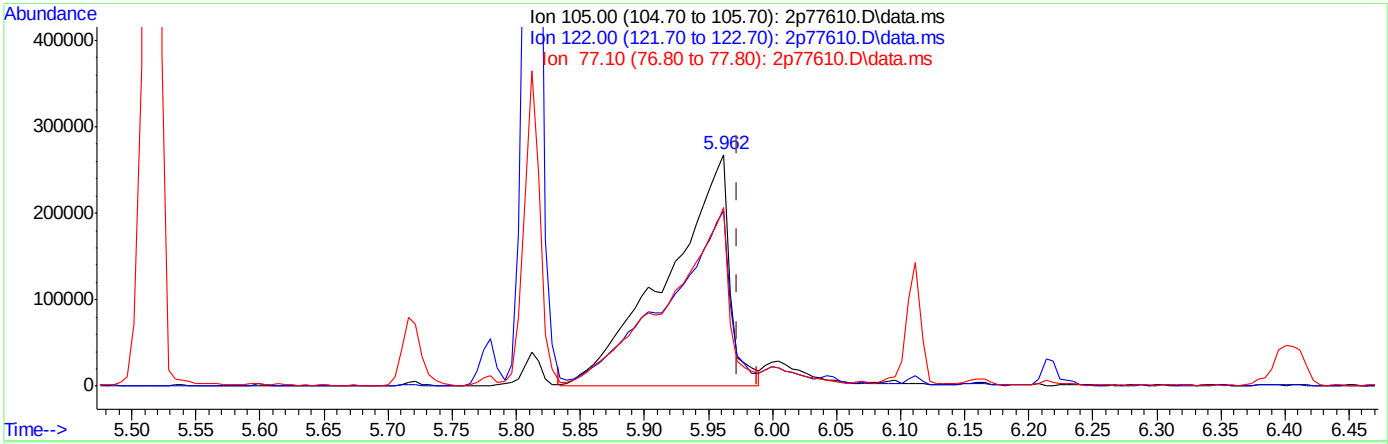
Sample Number:	E2P3416-IC3416	**Method:**	SW846 8270D
Lab FileID:	2P77610.D	**Analyst approved:**	02/28/18 19:00 Kristi Schollenberger
Injection Time:	02/23/18 11:44	**Supervisor approved:**	03/01/18 11:12 Nina Pandya

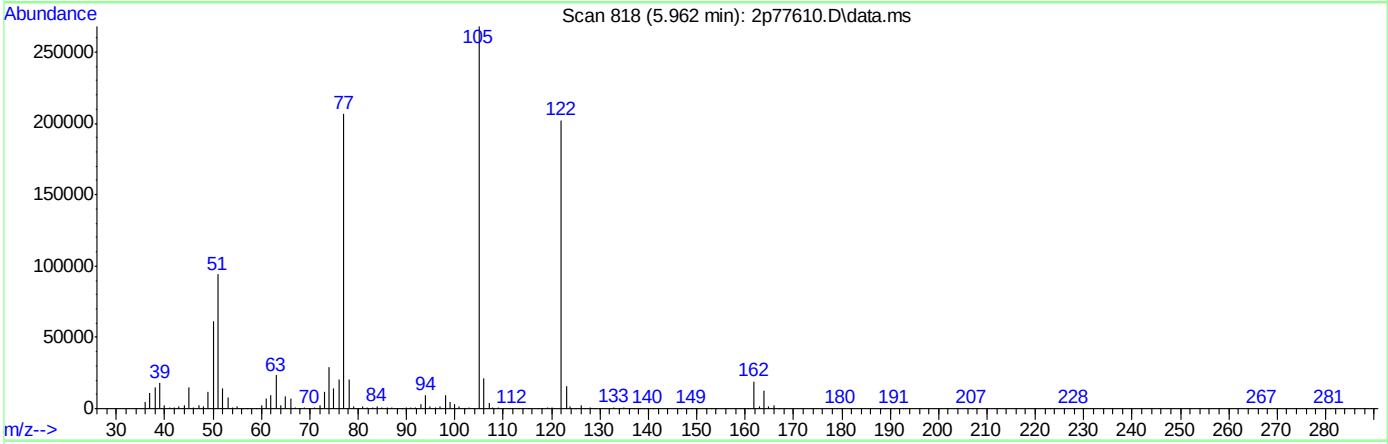
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.96	Split peak
Caprolactam	105-60-2		6.48	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77610.D
Acq On : 23 Feb 2018 11:44 am
Operator : kristis
Sample : ic3416-80
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 23 15:06:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77610.D\data.ms

(31) Benzoic acid (t)

5.962min (-0.011) 91.01ppm

response 899062

Ion	Exp%	Act%
105.00	100	100
122.00	77.60	73.61
77.10	87.20	76.28
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77610.D
Acq On    : 23 Feb 2018  11:44 am
Operator  : kristis
Sample    : ic3416-80
Misc      : op8196,e2p3416,1000,,,1,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Feb 23 15:06:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title  : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration
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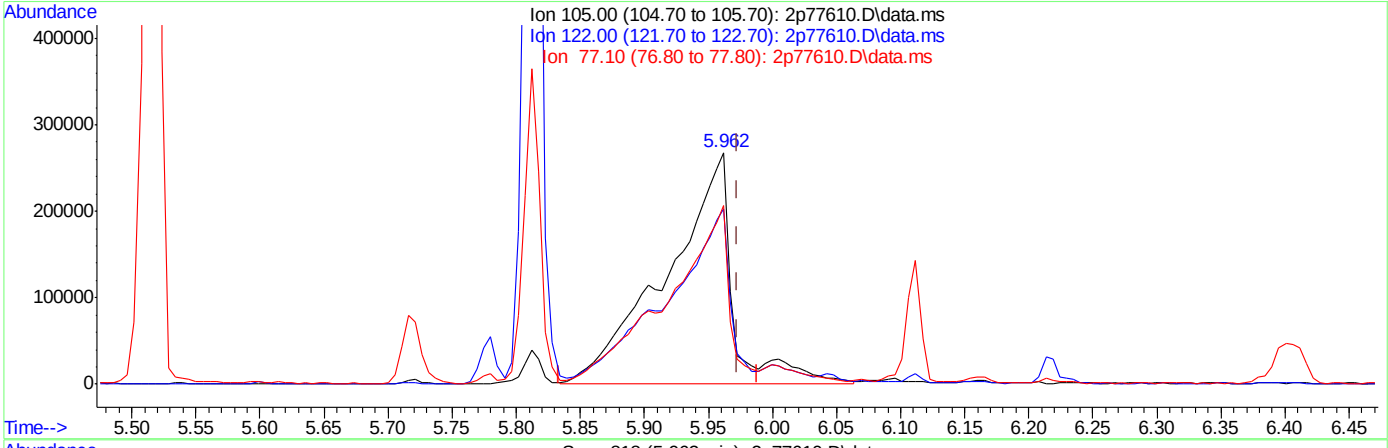
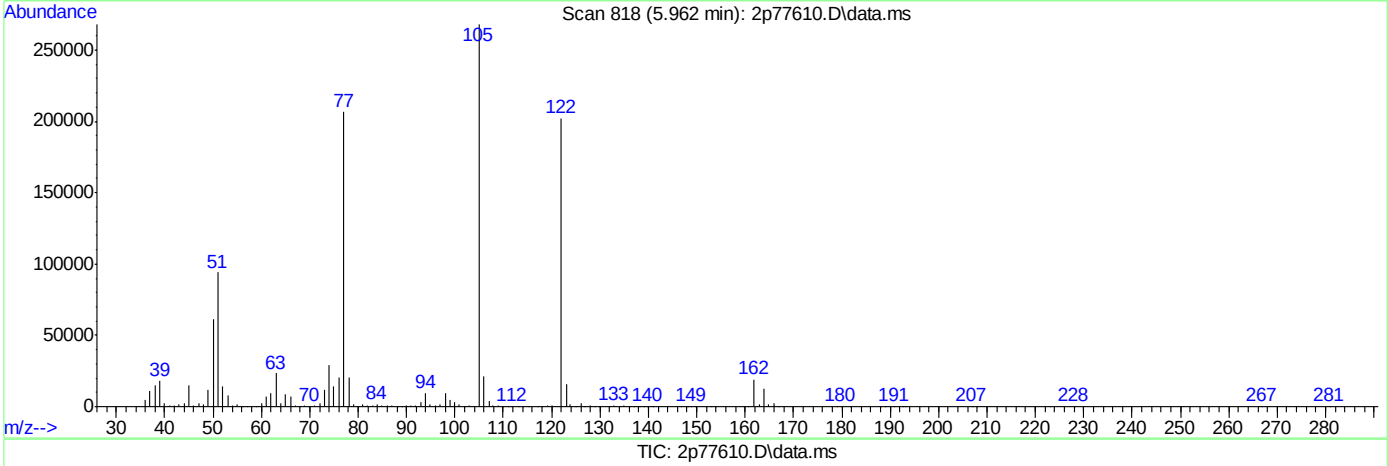




TIC: 2p77610.D\data.ms

(31) Benzoic acid (t)

5.962min (-0.011) 97.23ppm m

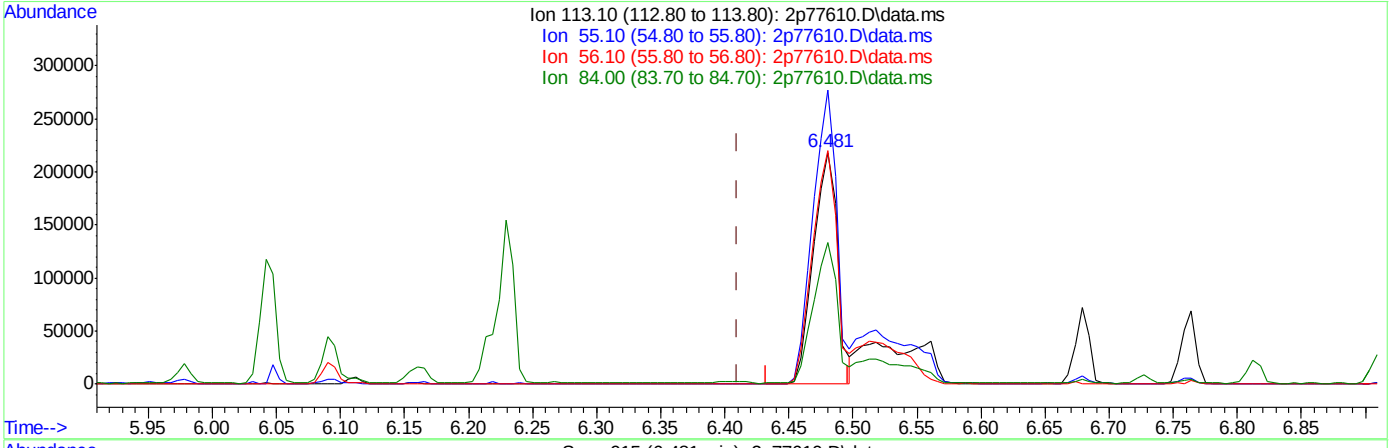
response 960504

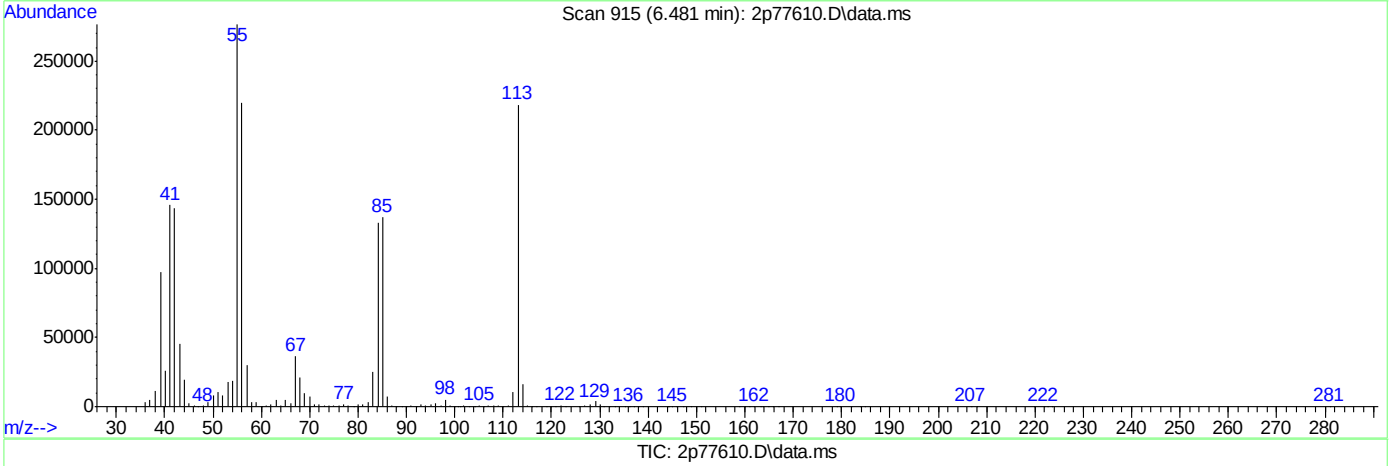
Ion	Exp%	Act%
105.00	100	100
122.00	77.60	75.47
77.10	87.20	77.07
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77610.D
Acq On : 23 Feb 2018 11:44 am
Operator : kristis
Sample : ic3416-80
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 23 15:06:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77610.D\data.ms

(41) Caprolactam (t)

6.481min (+0.071) 76.51ppm

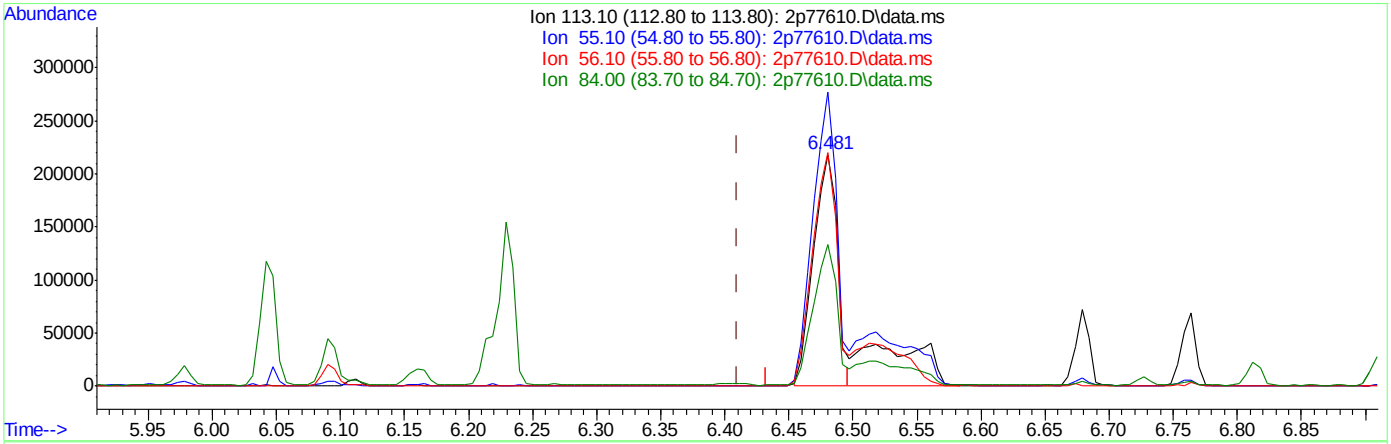
response 279944

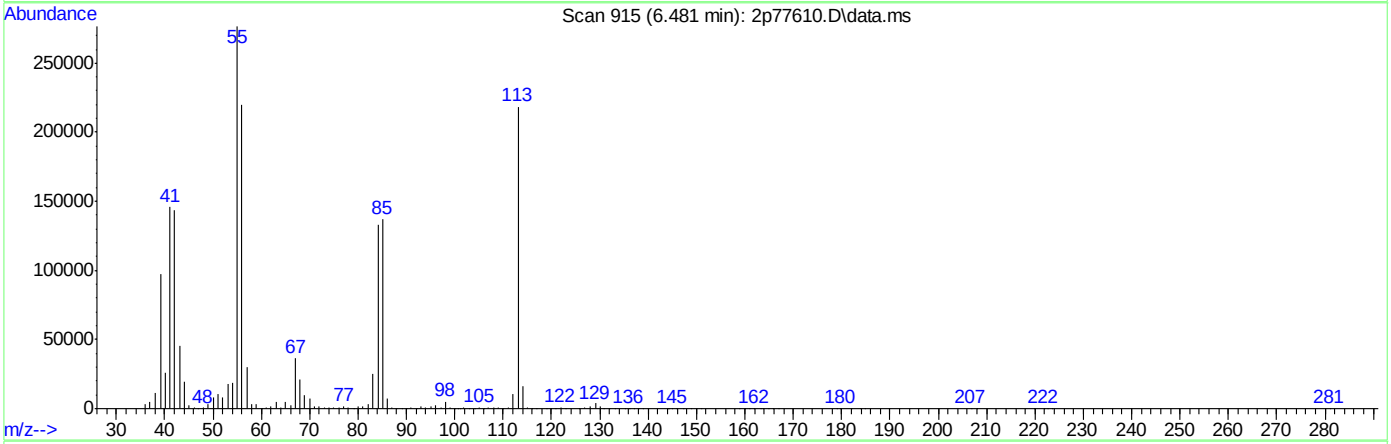
Ion	Exp%	Act%
113.10	100	100
55.10	156.90	126.64#
56.10	127.00	100.13
84.00	146.70	60.48#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77610.D
Acq On : 23 Feb 2018 11:44 am
Operator : kristis
Sample : ic3416-80
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 23 15:06:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77610.D\data.ms

(41) Caprolactam (t)

6.481min (+0.071) 114.36ppm m

response 418408

Ion	Exp%	Act%
113.10	100	100
55.10	156.90	126.74#
56.10	127.00	100.67
84.00	146.70	60.94#

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/01/18 11:12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77611.D
Acq On : 23 Feb 2018 12:05 pm
Operator : kristis
Sample : ic3416-1
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 15:09:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.037	152	674758	40.00	ppm	0.00
24) Naphthalene-d8	6.085	136	2485802	40.00	ppm	0.00
47) Acenaphthene-d10	7.535	164	1324382	40.00	ppm	0.00
69) Phenanthrene-d10	8.904	188	2583943	40.00	ppm	0.00
83) Chrysene-d12	12.322	240	2791921	40.00	ppm	-0.02
91) Perylene-d12	14.354	264	2839045	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.037	152	674758	40.00	ppm	0.00
103) Naphthalene-d8a	6.085	136	2485802	40.00	ppm	# 0.00
105) Acenaphthene-d10a	7.535	164	1324382	40.00	ppm	0.00
108) Chrysene-d12a	12.322	240	2791921	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.904	188	2583943	40.00	ppm	0.00
114) Chrysene-d12b	12.322	240	2791893	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.946	112	25252	1.00	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery =	2.00%#		
8) Phenol-d5	4.726	99	31961	1.08	ppm	-0.02
Spiked Amount 50.000	Range 10 - 59		Recovery =	2.16%#		
25) Nitrobenzene-d5	5.491	82	29348	1.15	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery =	2.30%#		
51) 2-Fluorobiphenyl	6.973	172	57546	1.21	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery =	2.42%#		
73) 2,4,6-Tribromophenol	8.219	330	7008	0.89	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery =	1.78%#		
85) Terphenyl-d14	10.835	244	72698	1.13	ppm	-0.01
Spiked Amount 50.000	Range 16 - 65		Recovery =	2.26%#		
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.427	88	3656m	0.29	ppm	
3) Pyridine	2.764	79	21559	0.79	ppm	96
4) N-Nitrosodimethylamine	2.721	74	11294	0.70	ppm	93
6) Indene	5.251	116	40014	1.21	ppm	96
7) Cumene	4.379	105	65265	1.11	ppm	99
9) Phenol	4.737	94	38285	1.20	ppm	96
10) Aniline	4.759	93	39954	1.14	ppm	96
11) bis(2-Chloroethyl)ether	4.812	93	25218	1.28	ppm	90
12) 2-Chlorophenol	4.860	128	29502	1.25	ppm	98
13) Decane	4.908	57	26771	1.37	ppm	94
14) 1,3-Dichlorobenzene	4.989	146	31488	1.16	ppm	94
15) 1,4-Dichlorobenzene	5.047	146	28163	1.13	ppm	95
16) Benzyl alcohol	5.144	108	13905	1.06	ppm	98
17) 1,2-Dichlorobenzene	5.176	146	26903	1.15	ppm	94
18) Acetophenone	5.363	105	37319	1.31	ppm	82
19) 2-Methylphenol	5.240	108	22392	1.23	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.261	121	7233	1.56	ppm	# 1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77611.D
Acq On : 23 Feb 2018 12:05 pm
Operator : kristis
Sample : ic3416-1
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 15:09:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.363	108	23650	1.21	ppm		89
22) n-Nitroso-di-n-propyla...	5.363	70	18332	1.30	ppm		94
23) Hexachloroethane	5.459	201	11939	1.26	ppm		89
26) Nitrobenzene	5.502	77	28148	1.18	ppm		94
27) Quinoline	6.374	129	47365	1.09	ppm		99
28) Isophorone	5.700	82	48648	1.14	ppm		95
29) 2-Nitrophenol	5.769	139	12491	0.93	ppm		87
30) 2,4-Dimethylphenol	5.802	107	25279	1.14	ppm		91
31) Benzoic acid	5.839	105	9325	0.56	ppm		83
32) bis(2-Chloroethoxy)met...	5.876	93	26014	1.07	ppm		98
33) 2,4-Dichlorophenol	5.967	162	22381	1.08	ppm		94
34) 2,6-Dichlorophenol	6.155	162	19304	1.03	ppm		94
35) 1,3,5-Trichlorobenzene	5.780	180	28178	1.15	ppm		93
36) 1,2,4-Trichlorobenzene	6.042	180	26791	1.11	ppm		95
37) 1,2,3-Trichlorobenzene	6.224	180	24120	1.17	ppm		91
38) Naphthalene	6.101	128	66252	1.07	ppm		98
39) 4-Chloroaniline	6.144	127	30151	1.06	ppm		92
40) 2,3-Dichloroaniline	6.903	161	28576	1.16	ppm		99
41) Caprolactam	6.401	113	7149	1.17	ppm	#	59
42) Hexachlorobutadiene	6.213	225	14209	1.08	ppm		95
43) 4-Chloro-3-methylphenol	6.540	107	21496	1.07	ppm		94
44) 2-Methylnaphthalene	6.673	141	42208	1.04	ppm		97
45) 1-Methylnaphthalene	6.754	141	45473	1.13	ppm		90
46) Dimethylnaphthalene	7.187	156	46892	1.22	ppm		94
48) Hexachlorocyclopentadiene	6.812	237	21050	1.60	ppm		92
49) 2,4,6-Trichlorophenol	6.903	196	15458	1.13	ppm		88
50) 2,4,5-Trichlorophenol	6.935	196	15845	1.12	ppm		84
52) 2-Chloronaphthalene	7.075	162	50268	1.28	ppm		98
53) Biphenyl	7.053	154	66129	1.28	ppm		99
54) 2-Nitroaniline	7.149	65	15414	1.40	ppm		100
55) Dimethylphthalate	7.299	163	59281	1.29	ppm		97
56) Acenaphthylene	7.417	152	76039	1.16	ppm		98
57) 2,6-Dinitrotoluene	7.347	165	11398	1.23	ppm		97
58) 3-Nitroaniline	7.486	138	13830	1.21	ppm		91
59) Acenaphthene	7.561	153	47572	1.19	ppm		94
60) 2,4-Dinitrophenol	7.572	184	2827	0.69	ppm	#	44
61) 4-Nitrophenol	7.620	109	7485	1.13	ppm		93
62) Dibenzofuran	7.706	168	65891	1.17	ppm		97
63) 2,4-Dinitrotoluene	7.679	165	13393	1.12	ppm		91
64) 2,3,4,6-Tetrachlorophenol	7.807	232	12953	1.03	ppm		89
65) Diethylphthalate	7.888	149	53584	1.12	ppm		91
66) Fluorene	8.000	166	53155	1.15	ppm		93
67) 4-Chlorophenyl-phenyle...	7.995	204	29417	1.31	ppm		91
68) 4-Nitroaniline	8.005	138	13827	1.27	ppm		85
70) 4,6-Dinitro-2-methylph...	8.037	198	3201	0.46	ppm		88
71) n-Nitrosodiphenylamine	8.096	169	39680	1.08	ppm		95
72) 1,2-Diphenylhydrazine	8.134	77	55586	1.19	ppm		89
74) 4-Bromophenyl-phenylether	8.449	248	18765	1.16	ppm		88
75) Hexachlorobenzene	8.519	284	20568	1.14	ppm		93
76) Pentachlorophenol	8.711	266	18157	1.62	ppm		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77611.D
Acq On : 23 Feb 2018 12:05 pm
Operator : kristis
Sample : ic3416-1
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 15:09:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

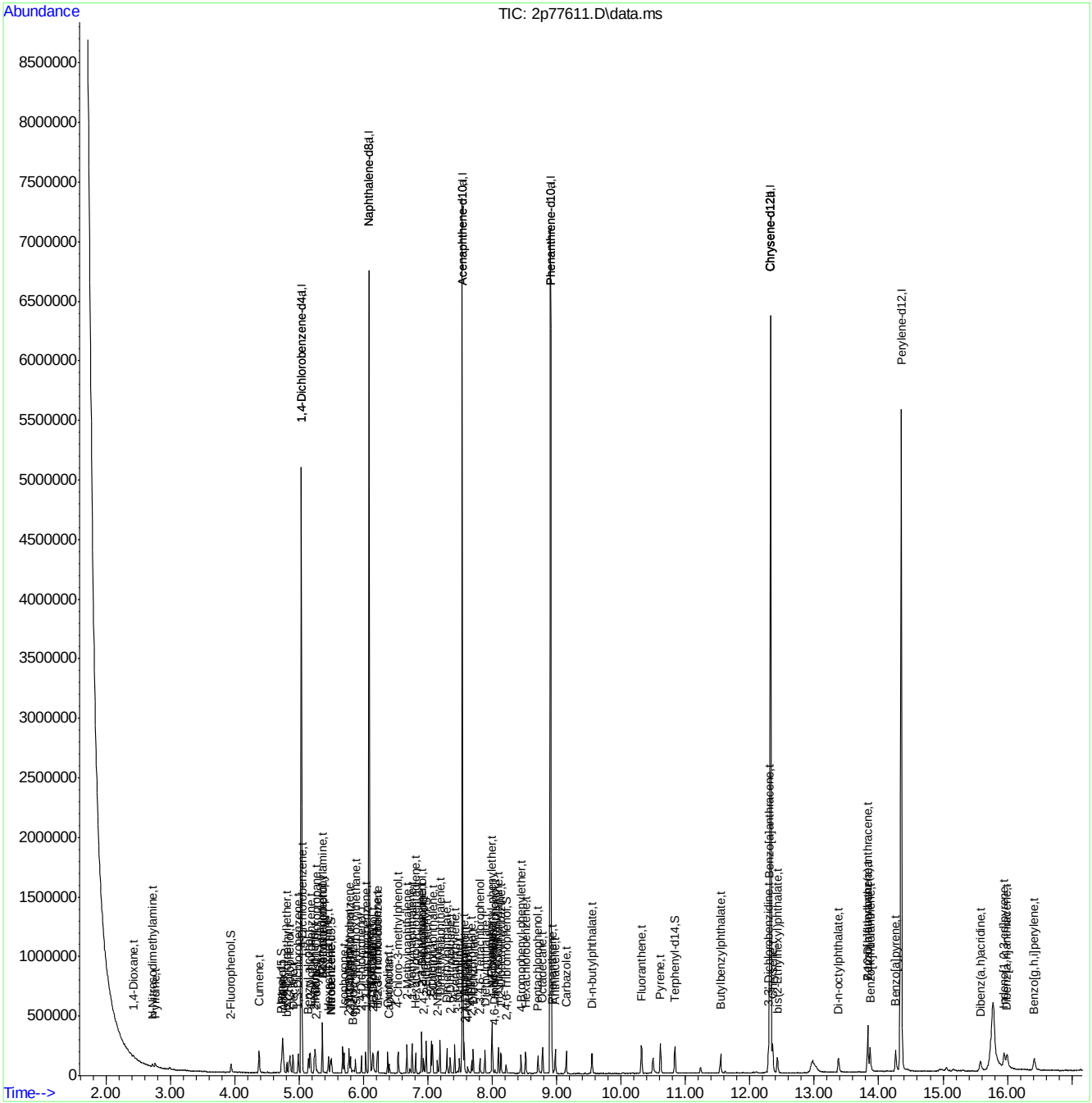
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	8.931	178	76931	1.14	ppm	97
78) Anthracene	8.979	178	77960	1.16	ppm	98
79) Carbazole	9.150	167	73088	1.04	ppm	100
80) Di-n-butylphthalate	9.551	149	89773	0.99	ppm	98
81) Fluoranthene	10.316	202	104129	1.15	ppm	93
82) Octadecane	8.781	43	23509	1.27	ppm	94
84) Pyrene	10.610	202	112620	1.12	ppm	98
86) Butylbenzylphthalate	11.546	149	45995	0.97	ppm	93
87) Benzo[a]anthracene	12.306	228	118924	1.31	ppm	96
88) 3,3'-Dichlorobenzidine	12.289	252	38921	1.24	ppm	97
89) Chrysene	12.354	228	87995	1.20	ppm	97
90) bis(2-Ethylhexyl)phtha...	12.429	149	46929	0.88	ppm	88
92) Di-n-octylphthalate	13.375	149	87087	0.85	ppm	99
93) Benzo[b]fluoranthene	13.830	252	108762m	1.13	ppm	
94) Benzo[k]fluoranthene	13.867	252	111944	1.47	ppm	96
95) Benzo[a]pyrene	14.263	252	95257	1.18	ppm	91
96) Indeno[1,2,3-cd]pyrene	15.948	276	101384	1.34	ppm	94
97) Dibenz(a,h)acridine	15.579	279	65358	0.95	ppm	98
98) Dibenz[a,h]anthracene	15.991	278	84150	1.14	ppm	87
99) 7,12-Dimethylbenz(a)an...	13.830	256	42842	1.13	ppm	95
100) Benzo[g,h,i]perylene	16.419	276	82316	1.10	ppm	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77611.D
Acq On : 23 Feb 2018 12:05 pm
Operator : kristis
Sample : ic3416-1
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 15:09:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration



Manual Integration Approval Summary

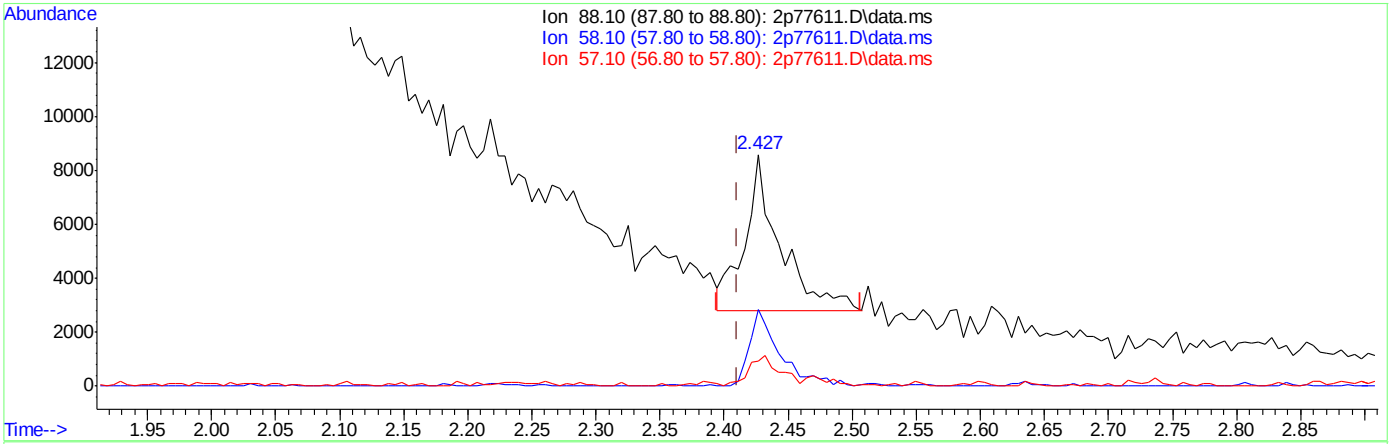
Sample Number:	E2P3416-IC3416	**Method:**	SW846 8270D
Lab FileID:	2P77611.D	**Analyst approved:**	02/28/18 19:00 Kristi Schollenberger
Injection Time:	02/23/18 12:05	**Supervisor approved:**	03/01/18 11:12 Nina Pandya

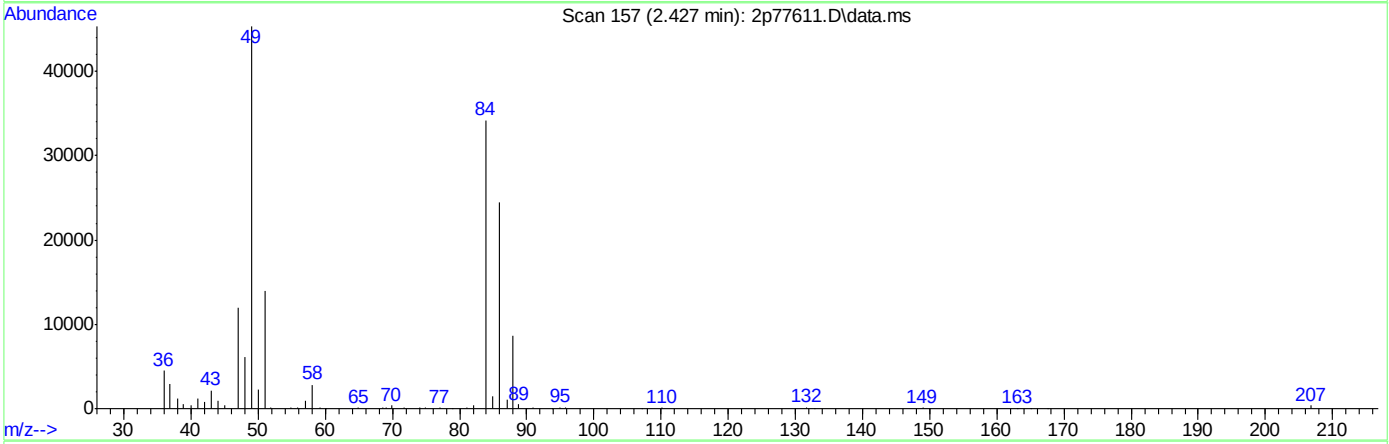
Parameter	CAS	Sig#	R.T. (min.)	Reason
1,4-Dioxane	123-91-1		2.43	Poor instrument integration
Benzo(b)fluoranthene	205-99-2		13.83	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77611.D
Acq On : 23 Feb 2018 12:05 pm
Operator : kristis
Sample : ic3416-1
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 15:07:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77611.D\data.ms

(2) 1,4-Dioxane (t)

2.427min (+0.016) 0.89ppm

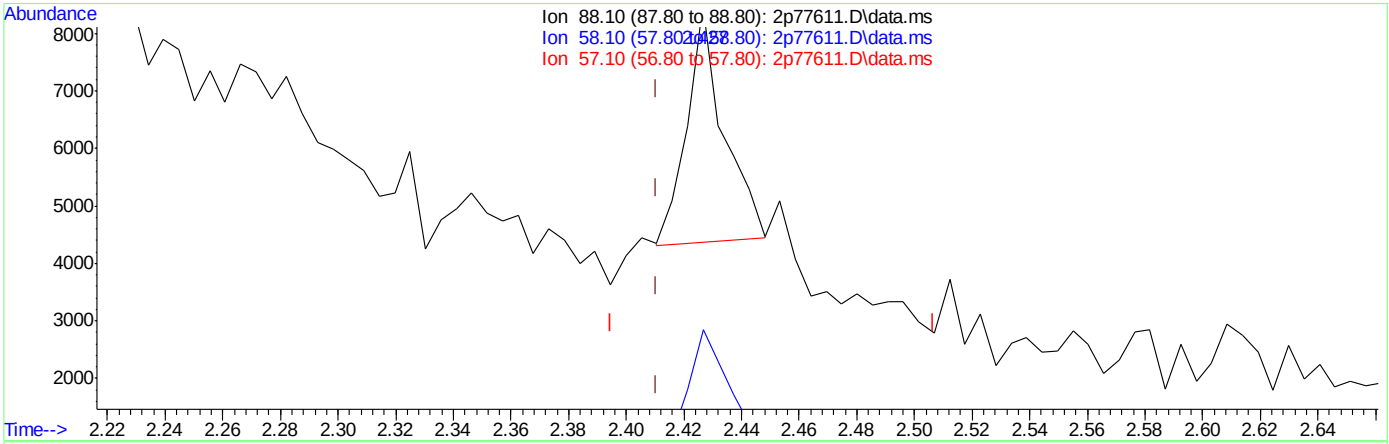
response 11209

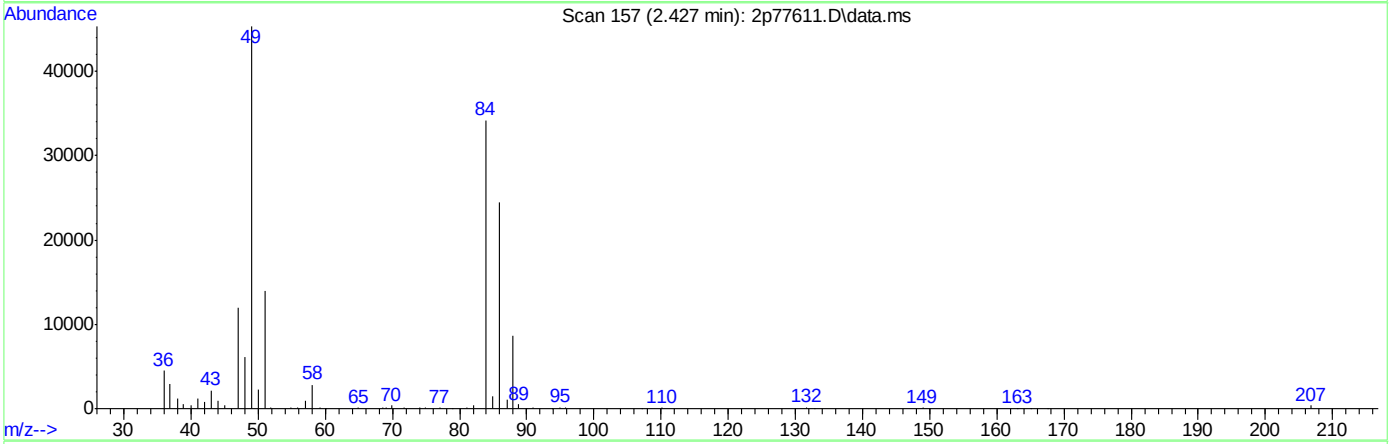
Ion	Exp%	Act%
88.10	100	100
58.10	55.50	48.30
57.10	22.70	14.89
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77611.D
Acq On : 23 Feb 2018 12:05 pm
Operator : kristis
Sample : ic3416-1
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 15:07:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77611.D\data.ms

(2) 1,4-Dioxane (t)

2.427min (+0.016) 0.29ppm m

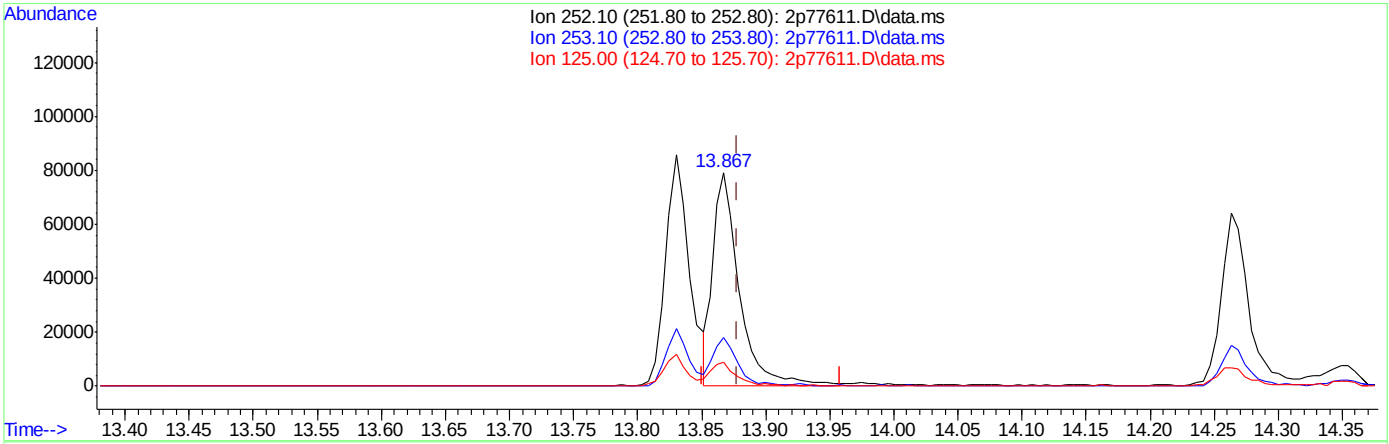
response 3656

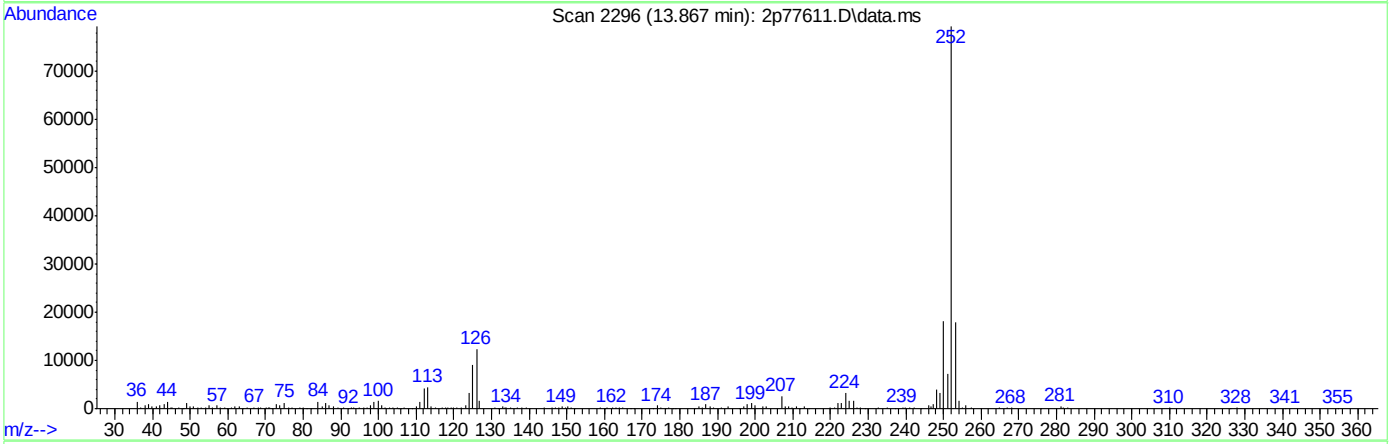
Ion	Exp%	Act%
88.10	100	100
58.10	55.50	33.20
57.10	22.70	11.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77611.D
Acq On : 23 Feb 2018 12:05 pm
Operator : kristis
Sample : ic3416-1
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 15:07:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77611.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.867min (-0.011) 1.17ppm

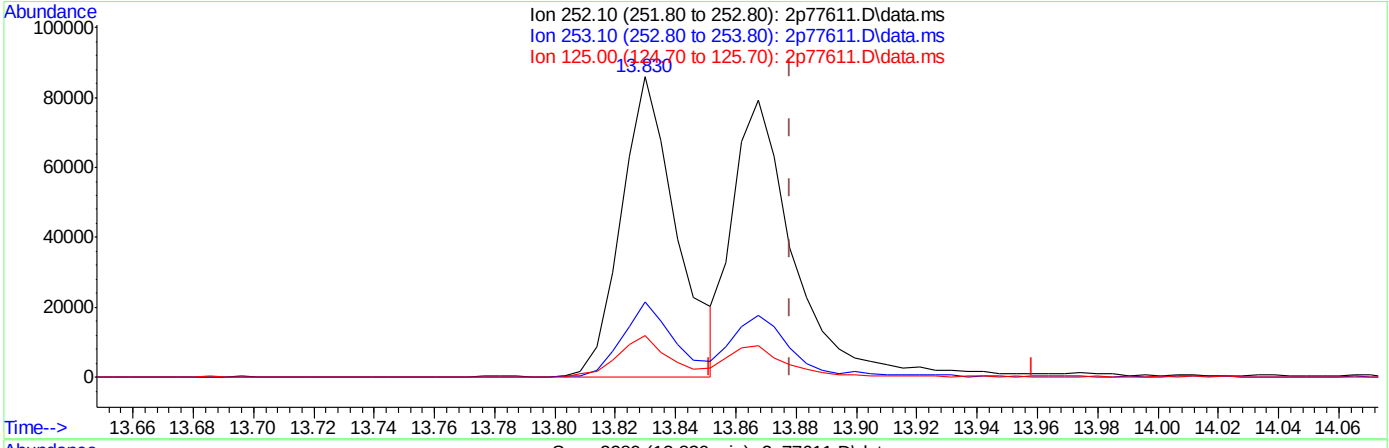
response 111944

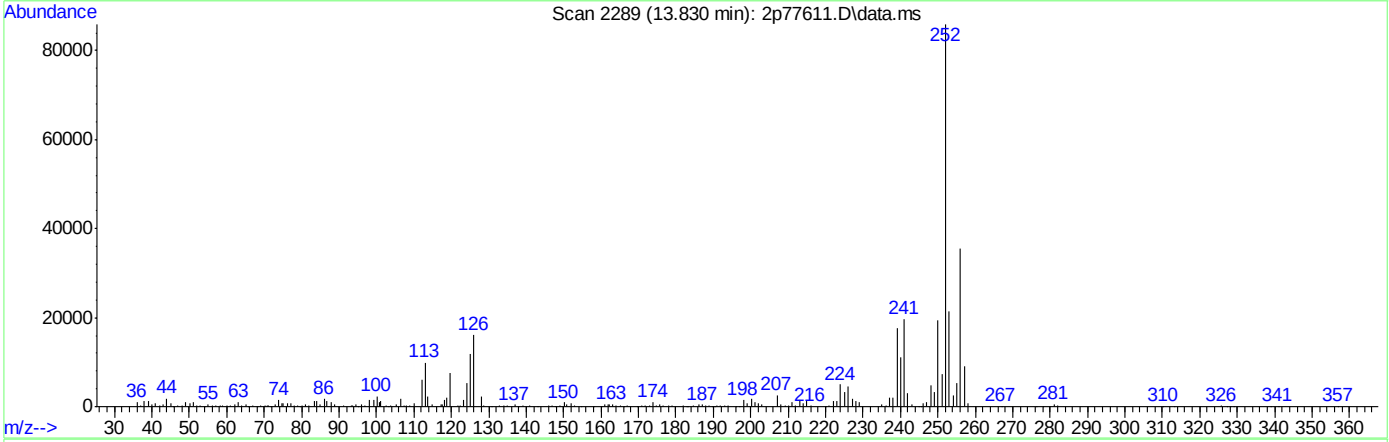
Ion	Exp%	Act%
252.10	100	100
253.10	23.80	22.41
125.00	16.50	11.03
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77611.D
Acq On : 23 Feb 2018 12:05 pm
Operator : kristis
Sample : ic3416-1
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 15:07:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77611.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.830min (-0.048) 1.13ppm m

response 108762

Ion	Exp%	Act%
252.10	100	100
253.10	23.80	24.92
125.00	16.50	13.87
0.00	0.00	0.00

9.6.4.5

9

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/01/18 11:12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77612.D
Acq On : 23 Feb 2018 12:27 pm
Operator : kristis
Sample : icc3416-50
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 23 15:10:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.037	152	446895	40.00	ppm	0.00
24) Naphthalene-d8	6.090	136	1598578	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	852144	40.00	ppm	0.00
69) Phenanthrene-d10	8.909	188	1747630	40.00	ppm	0.00
83) Chrysene-d12	12.337	240	1819693	40.00	ppm	0.00
91) Perylene-d12	14.359	264	1996324	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.037	152	446895	40.00	ppm	0.00
103) Naphthalene-d8a	6.090	136	1598578	40.00	ppm	0.00
105) Acenaphthene-d10a	7.540	164	852144	40.00	ppm	0.00
108) Chrysene-d12a	12.337	240	1819693	40.00	ppm	0.00
110) Phenanthrene-d10a	8.909	188	1747630	40.00	ppm	0.00
114) Chrysene-d12b	12.337	240	1819739	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.945	112	1076340	64.04	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 128.08%#			
8) Phenol-d5	4.737	99	1236573	63.08	ppm	-0.01
Spiked Amount 50.000	Range 10 - 59		Recovery = 126.16%#			
25) Nitrobenzene-d5	5.497	82	849365	51.77	ppm	0.00
Spiked Amount 50.000	Range 19 - 61		Recovery = 103.54%#			
51) 2-Fluorobiphenyl	6.978	172	1576028	51.69	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery = 103.38%#			
73) 2,4,6-Tribromophenol	8.224	330	282469	53.09	ppm	0.00
Spiked Amount 50.000	Range 12 - 68		Recovery = 106.18%#			
85) Terphenyl-d14	10.845	244	2492623	59.41	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery = 118.82%#			
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.416	88	328593	39.44	ppm	93
3) Pyridine	2.737	79	902118	50.08	ppm	98
4) N-Nitrosodimethylamine	2.715	74	503172	47.27	ppm	97
6) Indene	5.251	116	1167742	53.30	ppm	99
7) Cumene	4.379	105	2542773	65.14	ppm	99
9) Phenol	4.748	94	1285429	60.82	ppm	98
10) Aniline	4.764	93	1158366	49.76	ppm	97
11) bis(2-Chloroethyl)ether	4.817	93	759722	58.43	ppm	96
12) 2-Chlorophenol	4.865	128	869567	55.73	ppm	99
13) Decane	4.908	57	746486	57.61	ppm	95
14) 1,3-Dichlorobenzene	4.994	146	922893	51.28	ppm	98
15) 1,4-Dichlorobenzene	5.053	146	883368	53.31	ppm	97
16) Benzyl alcohol	5.154	108	516470	59.29	ppm	84
17) 1,2-Dichlorobenzene	5.181	146	793777	51.39	ppm	99
18) Acetophenone	5.374	105	1009828	53.63	ppm	80
19) 2-Methylphenol	5.245	108	671961	55.95	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.261	121	195103	63.58	ppm #	1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77612.D
Acq On : 23 Feb 2018 12:27 pm
Operator : kristis
Sample : icc3416-50
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 23 15:10:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.374	108	724143	56.09	ppm		98
22) n-Nitroso-di-n-propyla...	5.379	70	478652	51.37	ppm		84
23) Hexachloroethane	5.459	201	365292	58.34	ppm		94
26) Nitrobenzene	5.513	77	775972	50.41	ppm		93
27) Quinoline	6.395	129	1534034	54.89	ppm		98
28) Isophorone	5.711	82	1508091	55.17	ppm		96
29) 2-Nitrophenol	5.775	139	464932	54.09	ppm		94
30) 2,4-Dimethylphenol	5.807	107	729135	51.15	ppm		99
31) Benzoic acid	5.930	105	613069m	57.59	ppm		
32) bis(2-Chloroethoxy)met...	5.882	93	763990	48.99	ppm		97
33) 2,4-Dichlorophenol	5.973	162	694308	51.87	ppm		98
34) 2,6-Dichlorophenol	6.160	162	611528	50.55	ppm		98
35) 1,3,5-Trichlorobenzene	5.785	180	841357	53.47	ppm		96
36) 1,2,4-Trichlorobenzene	6.042	180	811040	52.36	ppm		98
37) 1,2,3-Trichlorobenzene	6.229	180	693304	52.16	ppm		96
38) Naphthalene	6.112	128	2060593	51.84	ppm		100
39) 4-Chloroaniline	6.154	127	897192	48.89	ppm		95
40) 2,3-Dichloroaniline	6.909	161	806077	50.81	ppm		97
41) Caprolactam	6.465	113	250211	63.46	ppm	#	61
42) Hexachlorobutadiene	6.213	225	457809	54.18	ppm		98
43) 4-Chloro-3-methylphenol	6.550	107	750818	58.22	ppm		98
44) 2-Methylnaphthalene	6.679	141	1353876	51.82	ppm		98
45) 1-Methylnaphthalene	6.759	141	1344767	51.84	ppm		98
46) Dimethylnaphthalene	7.192	156	1321757	53.33	ppm		95
48) Hexachlorocyclopentadiene	6.812	237	978178	115.20	ppm		98
49) 2,4,6-Trichlorophenol	6.914	196	528180	60.03	ppm		93
50) 2,4,5-Trichlorophenol	6.946	196	522473	57.26	ppm		89
52) 2-Chloronaphthalene	7.080	162	1321149	52.18	ppm		98
53) Biphenyl	7.064	154	1841693	55.49	ppm		99
54) 2-Nitroaniline	7.165	65	441326	62.21	ppm	#	71
55) Dimethylphthalate	7.310	163	1655061	55.83	ppm		98
56) Acenaphthylene	7.422	152	2133405	50.58	ppm		97
57) 2,6-Dinitrotoluene	7.358	165	380221	63.72	ppm		93
58) 3-Nitroaniline	7.502	138	435524	59.37	ppm		99
59) Acenaphthene	7.566	153	1457257	56.56	ppm		95
60) 2,4-Dinitrophenol	7.588	184	393320	148.93	ppm		82
61) 4-Nitrophenol	7.636	109	257633	60.36	ppm		86
62) Dibenzofuran	7.711	168	1864648	51.67	ppm		99
63) 2,4-Dinitrotoluene	7.695	165	512457	66.67	ppm		87
64) 2,3,4,6-Tetrachlorophenol	7.818	232	505108	62.31	ppm		82
65) Diethylphthalate	7.898	149	1604342	52.24	ppm		93
66) Fluorene	8.010	166	1592078	53.36	ppm		99
67) 4-Chlorophenyl-phenyle...	8.000	204	923205	64.13	ppm		90
68) 4-Nitroaniline	8.032	138	390770	56.00	ppm		96
70) 4,6-Dinitro-2-methylph...	8.053	198	306344	64.93	ppm		79
71) n-Nitrosodiphenylamine	8.107	169	1170171	47.28	ppm		98
72) 1,2-Diphenylhydrazine	8.144	77	1464390	46.31	ppm		86
74) 4-Bromophenyl-phenylether	8.454	248	621017	56.56	ppm		94
75) Hexachlorobenzene	8.529	284	645116	52.95	ppm		87
76) Pentachlorophenol	8.722	266	947128	124.82	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77612.D
Acq On : 23 Feb 2018 12:27 pm
Operator : kristis
Sample : icc3416-50
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 23 15:10:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

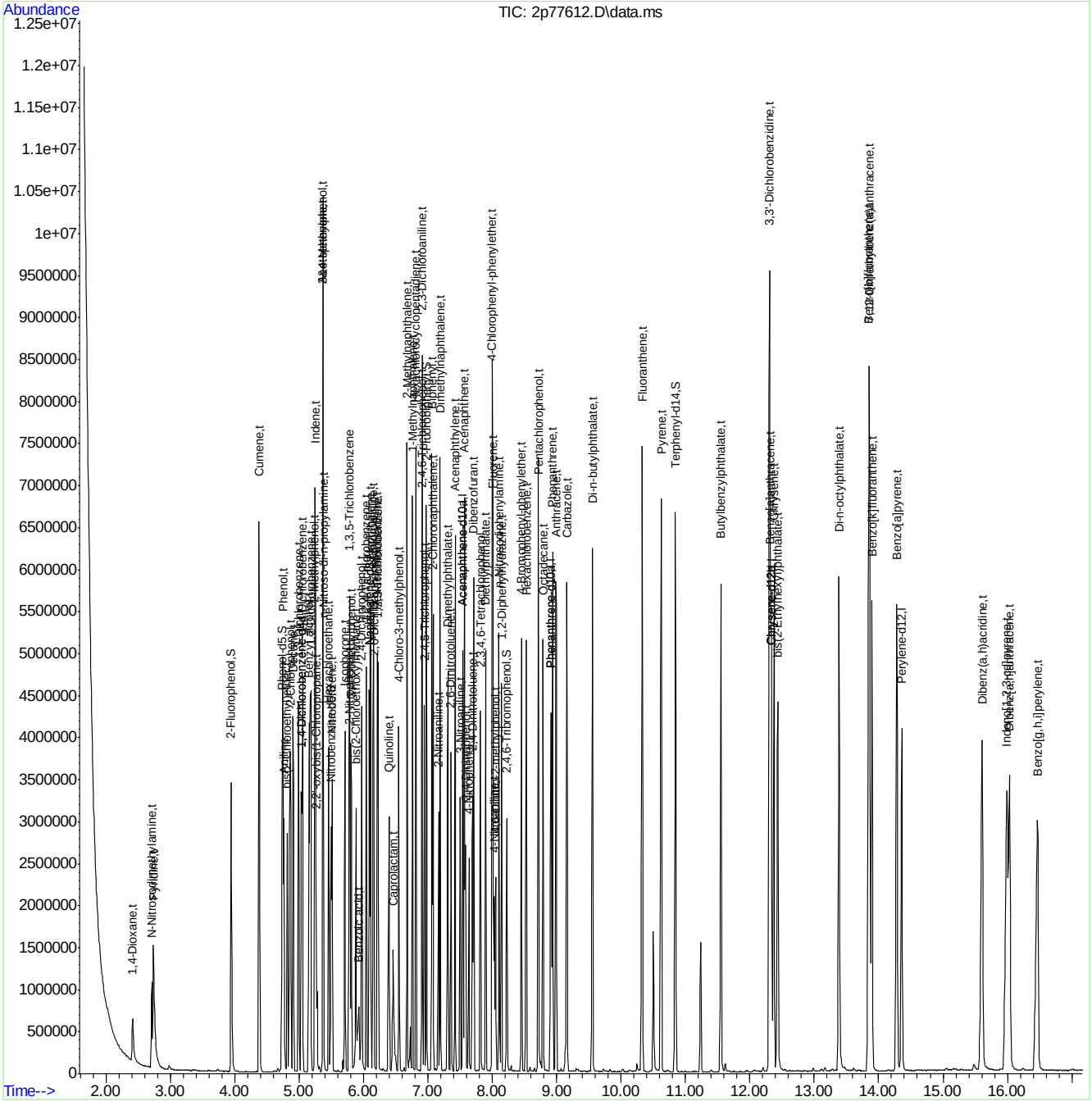
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	8.936	178	2418586	52.98	ppm	99
78) Anthracene	8.989	178	2378361	52.32	ppm	98
79) Carbazole	9.160	167	2375098	50.05	ppm	99
80) Di-n-butylphthalate	9.556	149	3261474	52.96	ppm	99
81) Fluoranthene	10.332	202	3762753	61.52	ppm	93
82) Octadecane	8.786	43	652861	51.99	ppm	92
84) Pyrene	10.626	202	3521731	53.54	ppm	99
86) Butylbenzylphthalate	11.551	149	1622668	52.68	ppm	95
87) Benzo[a]anthracene	12.316	228	3348565	56.62	ppm	98
88) 3,3'-Dichlorobenzidine	12.305	252	1539175	75.41	ppm	95
89) Chrysene	12.375	228	2677241	56.06	ppm	100
90) bis(2-Ethylhexyl)phtha...	12.434	149	1616091	46.40	ppm	87
92) Di-n-octylphthalate	13.386	149	3807814	52.79	ppm	96
93) Benzo[b]fluoranthene	13.851	252	3743193m	55.52	ppm	
94) Benzo[k]fluoranthene	13.899	252	2676932	50.07	ppm	93
95) Benzo[a]pyrene	14.284	252	3115858	55.01	ppm	94
96) Indeno[1,2,3-cd]pyrene	15.991	276	3265787	61.54	ppm	81
97) Dibenz(a,h)acridine	15.611	279	3102233	64.34	ppm	99
98) Dibenz[a,h]anthracene	16.033	278	2815013	54.28	ppm	90
99) 7,12-Dimethylbenz(a)an...	13.857	256	1663760	62.59	ppm	93
100) Benzo[g,h,i]perylene	16.467	276	2900435	54.88	ppm	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77612.D
Acq On : 23 Feb 2018 12:27 pm
Operator : kristis
Sample : icc3416-50
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 23 15:10:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration



Manual Integration Approval Summary

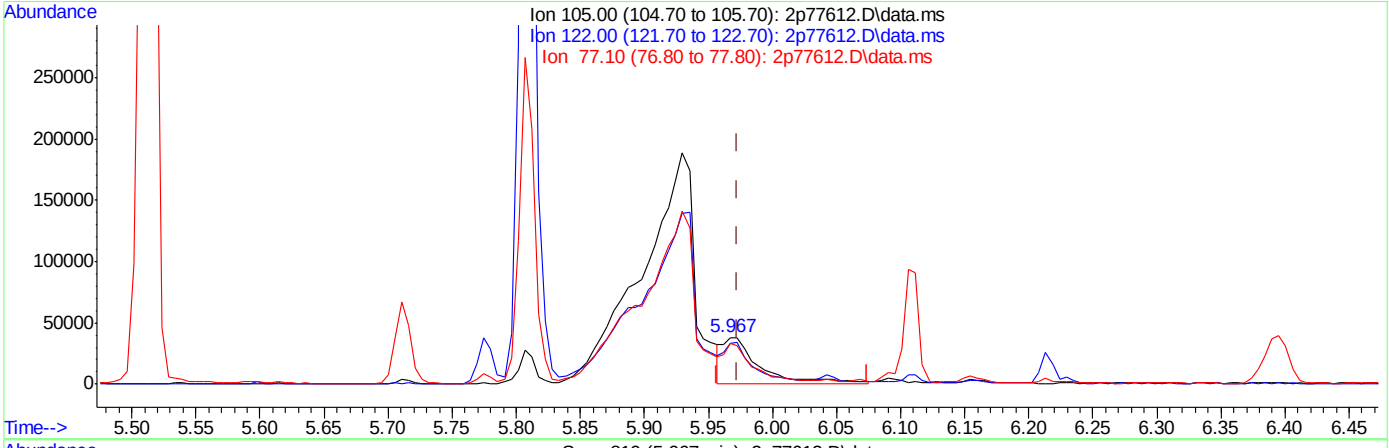
Sample Number:	E2P3416-ICC3416	**Method:**	SW846 8270D
Lab FileID:	2P77612.D	**Analyst approved:**	02/28/18 19:00 Kristi Schollenberger
Injection Time:	02/23/18 12:27	**Supervisor approved:**	03/01/18 11:12 Nina Pandya

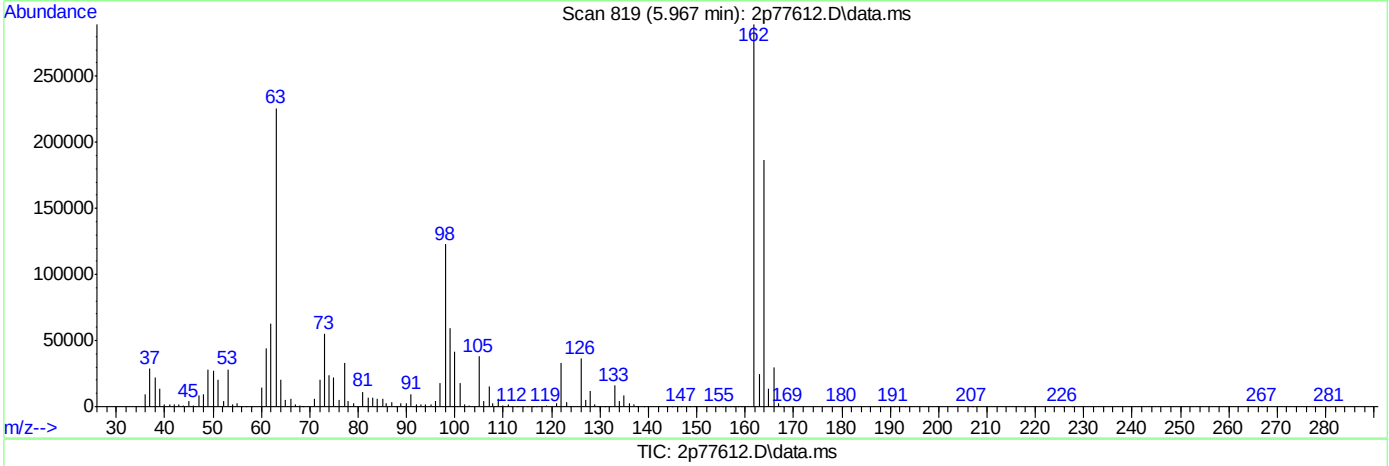
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.93	Split peak
Benzo(b)fluoranthene	205-99-2		13.85	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77612.D
Acq On : 23 Feb 2018 12:27 pm
Operator : kristis
Sample : icc3416-50
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 23 15:09:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77612.D\data.ms

(31) Benzoic acid (t)

5.967min (-0.005) 7.07ppm

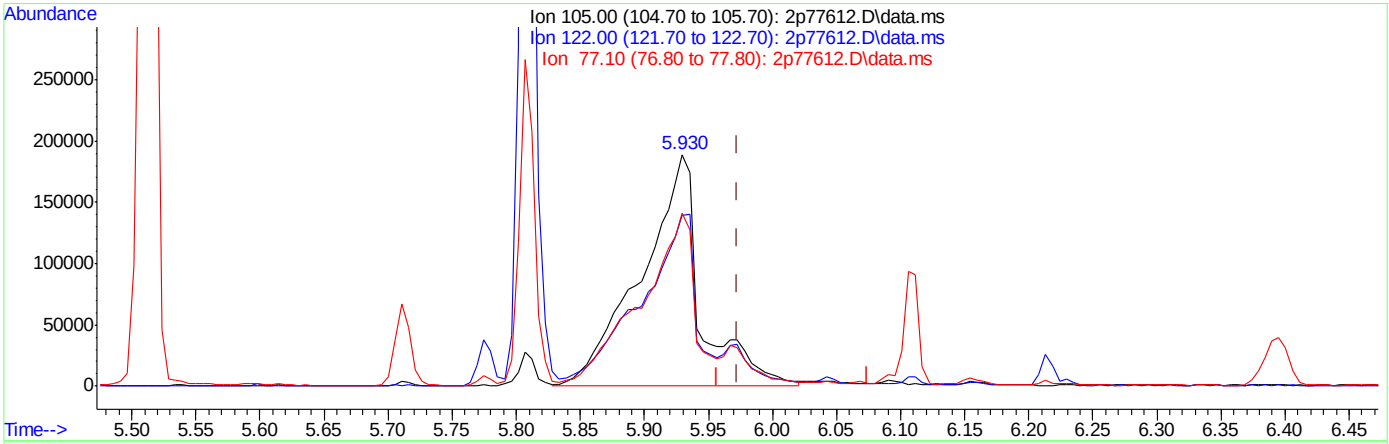
response 75291

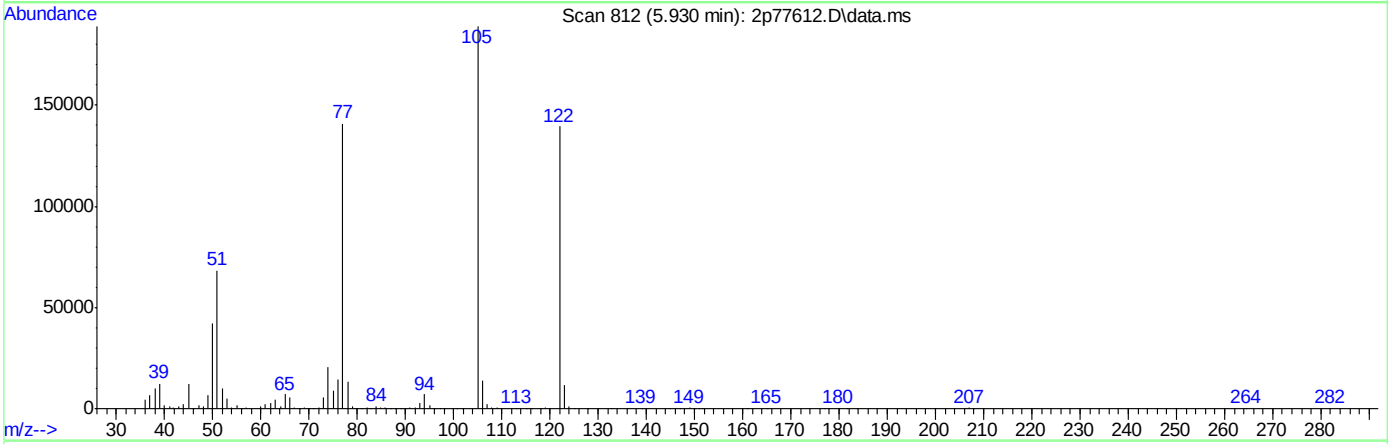
Ion	Exp%	Act%
105.00	100	100
122.00	77.60	100.37
77.10	87.20	100.90
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77612.D
Acq On : 23 Feb 2018 12:27 pm
Operator : kristis
Sample : icc3416-50
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 23 15:09:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77612.D\data.ms

(31) Benzoic acid (t)

5.930min (-0.043) 57.59ppm m

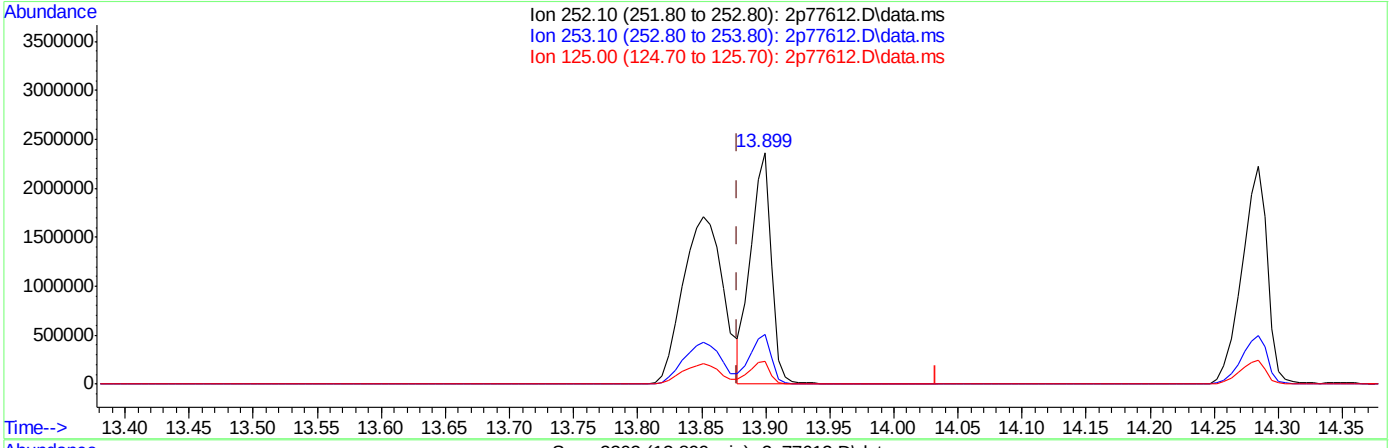
response 613069

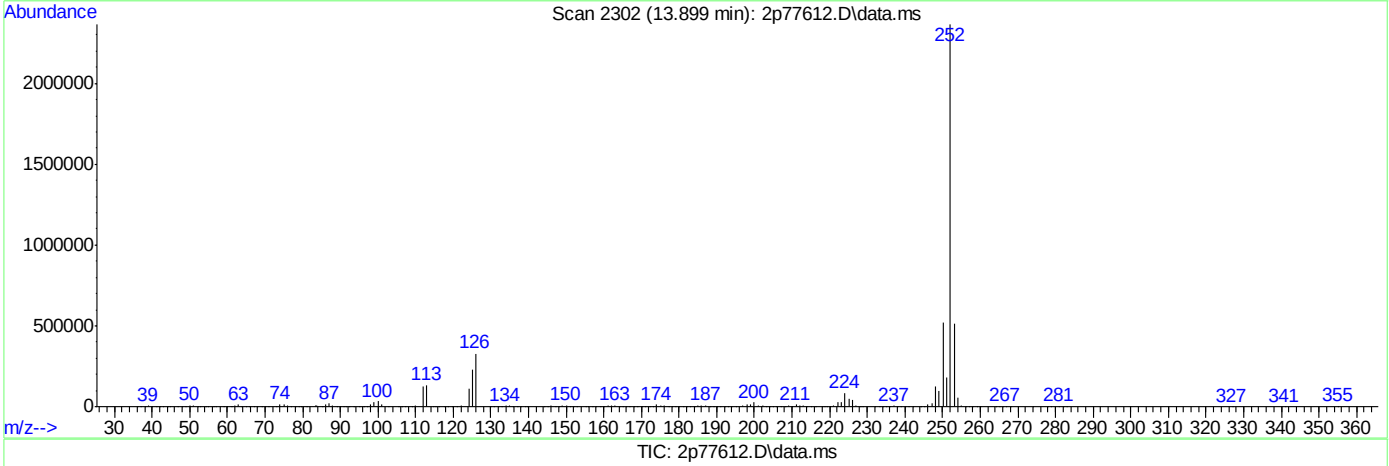
Ion	Exp%	Act%
105.00	100	100
122.00	77.60	73.89
77.10	87.20	74.60
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77612.D
Acq On : 23 Feb 2018 12:27 pm
Operator : kristis
Sample : icc3416-50
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 23 15:09:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77612.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.899min (+0.021) 39.71ppm

response 2676932

Ion	Exp%	Act%
252.10	100	100
253.10	23.80	21.57
125.00	16.50	9.46
0.00	0.00	0.00

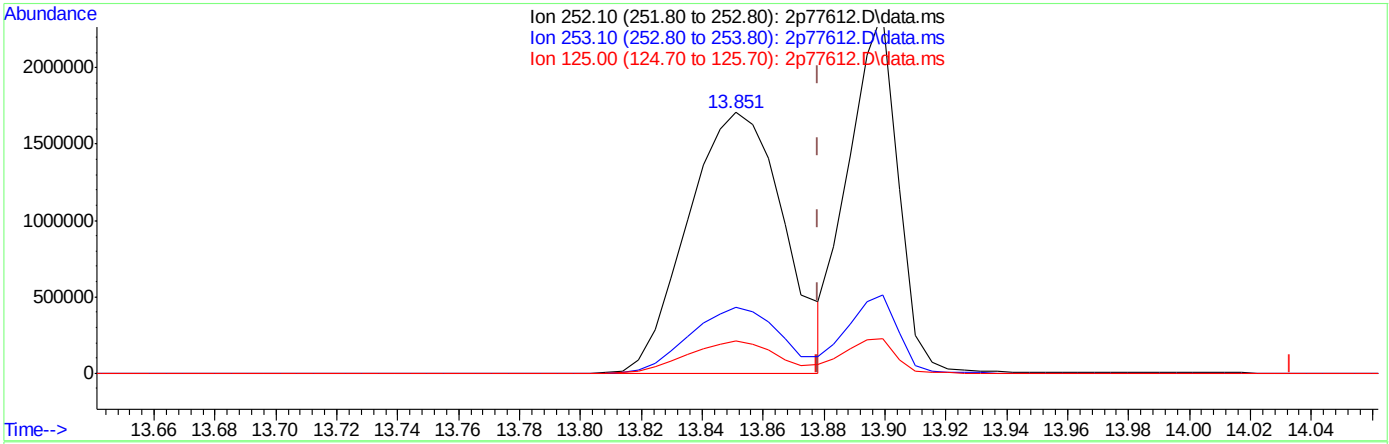
9.6.5.4

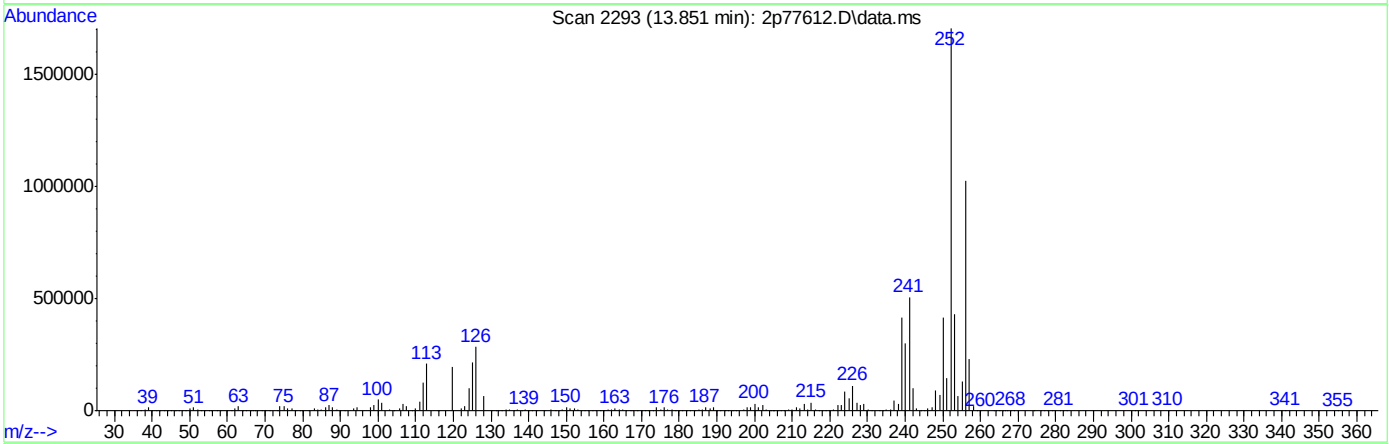
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77612.D
Acq On : 23 Feb 2018 12:27 pm
Operator : kristis
Sample : icc3416-50
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 23 15:09:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77612.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.851min (-0.027) 55.52ppm m

response 3743193

Ion	Exp%	Act%
252.10	100	100
253.10	23.80	25.23
125.00	16.50	12.49
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/01/18 11:12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77613.D
Acq On : 23 Feb 2018 12:48 pm
Operator : kristis
Sample : ic3416-2
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 15:12:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.037	152	672238	40.00	ppm	0.00
24) Naphthalene-d8	6.090	136	2483058	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	1305879	40.00	ppm	0.00
69) Phenanthrene-d10	8.909	188	2569192	40.00	ppm	0.00
83) Chrysene-d12	12.327	240	2792667	40.00	ppm	-0.01
91) Perylene-d12	14.359	264	2799151	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.037	152	672238	40.00	ppm	0.00
103) Naphthalene-d8a	6.090	136	2483058	40.00	ppm	0.00
105) Acenaphthene-d10a	7.540	164	1305879	40.00	ppm	0.00
108) Chrysene-d12a	12.327	240	2792667	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.909	188	2569192	40.00	ppm	0.00
114) Chrysene-d12b	12.327	240	2792667	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.940	112	50767	2.01	ppm	-0.01
Spiked Amount 50.000	Range 11 - 58		Recovery =	4.02%#		
8) Phenol-d5	4.726	99	64754	2.20	ppm	-0.02
Spiked Amount 50.000	Range 10 - 59		Recovery =	4.40%#		
25) Nitrobenzene-d5	5.491	82	58316	2.29	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery =	4.58%#		
51) 2-Fluorobiphenyl	6.973	172	111888	2.39	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery =	4.78%#		
73) 2,4,6-Tribromophenol	8.219	330	13084	1.67	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery =	3.34%#		
85) Terphenyl-d14	10.840	244	140886	2.19	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery =	4.38%#		
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.427	88	9687m	0.77	ppm	
3) Pyridine	2.758	79	39783	1.47	ppm	94
4) N-Nitrosodimethylamine	2.721	74	22079	1.38	ppm	94
6) Indene	5.251	116	79282	2.41	ppm	99
7) Cumene	4.379	105	129689	2.21	ppm	99
9) Phenol	4.737	94	74779	2.35	ppm	97
10) Aniline	4.764	93	82675	2.36	ppm	95
11) bis(2-Chloroethyl)ether	4.812	93	47689	2.44	ppm	97
12) 2-Chlorophenol	4.860	128	57495	2.45	ppm	97
13) Decane	4.908	57	53375	2.74	ppm	92
14) 1,3-Dichlorobenzene	4.989	146	61548	2.27	ppm	96
15) 1,4-Dichlorobenzene	5.047	146	57833	2.32	ppm	98
16) Benzyl alcohol	5.144	108	29168	2.23	ppm	94
17) 1,2-Dichlorobenzene	5.176	146	53066	2.28	ppm	98
18) Acetophenone	5.363	105	70064	2.47	ppm	73
19) 2-Methylphenol	5.240	108	43040	2.38	ppm	91
20) 2,2'-oxybis(1-Chloropr...	5.261	121	13731	2.97	ppm #	1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77613.D
Acq On : 23 Feb 2018 12:48 pm
Operator : kristis
Sample : ic3416-2
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 15:12:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.363	108	48839	2.51	ppm		99
22) n-Nitroso-di-n-propyla...	5.363	70	35308	2.52	ppm		96
23) Hexachloroethane	5.459	201	23661	2.51	ppm		91
26) Nitrobenzene	5.507	77	55555	2.32	ppm		91
27) Quinoline	6.374	129	92198	2.12	ppm		98
28) Isophorone	5.700	82	94362	2.22	ppm		97
29) 2-Nitrophenol	5.769	139	25641	1.92	ppm		90
30) 2,4-Dimethylphenol	5.802	107	47823	2.16	ppm		95
31) Benzoic acid	5.844	105	22257	1.35	ppm		80
32) bis(2-Chloroethoxy)met...	5.876	93	50695	2.09	ppm		98
33) 2,4-Dichlorophenol	5.967	162	43523	2.09	ppm		97
34) 2,6-Dichlorophenol	6.155	162	39226	2.09	ppm		97
35) 1,3,5-Trichlorobenzene	5.780	180	56346	2.31	ppm		95
36) 1,2,4-Trichlorobenzene	6.042	180	53060	2.21	ppm		99
37) 1,2,3-Trichlorobenzene	6.224	180	46083	2.23	ppm		94
38) Naphthalene	6.106	128	130636	2.12	ppm		98
39) 4-Chloroaniline	6.144	127	57633	2.02	ppm		98
40) 2,3-Dichloroaniline	6.903	161	53589	2.17	ppm		99
41) Caprolactam	6.406	113	13630	2.23	ppm	#	57
42) Hexachlorobutadiene	6.213	225	28510	2.17	ppm		95
43) 4-Chloro-3-methylphenol	6.540	107	43584	2.18	ppm		98
44) 2-Methylnaphthalene	6.673	141	84122	2.07	ppm		94
45) 1-Methylnaphthalene	6.754	141	87966	2.18	ppm		93
46) Dimethylnaphthalene	7.187	156	89494	2.32	ppm		97
48) Hexachlorocyclopentadiene	6.812	237	42384	3.26	ppm		99
49) 2,4,6-Trichlorophenol	6.903	196	31510	2.34	ppm		94
50) 2,4,5-Trichlorophenol	6.935	196	33300	2.38	ppm		79
52) 2-Chloronaphthalene	7.075	162	96418	2.48	ppm		97
53) Biphenyl	7.059	154	123489	2.43	ppm		98
54) 2-Nitroaniline	7.155	65	29352	2.70	ppm		80
55) Dimethylphthalate	7.299	163	108733	2.39	ppm		98
56) Acenaphthylene	7.417	152	139141	2.15	ppm		98
57) 2,6-Dinitrotoluene	7.347	165	21382	2.34	ppm		96
58) 3-Nitroaniline	7.486	138	27089	2.41	ppm		87
59) Acenaphthene	7.561	153	88047	2.23	ppm		98
60) 2,4-Dinitrophenol	7.572	184	6298	1.56	ppm	#	1
61) 4-Nitrophenol	7.625	109	13044	1.99	ppm	#	73
62) Dibenzofuran	7.706	168	123669	2.24	ppm		99
63) 2,4-Dinitrotoluene	7.684	165	27576	2.34	ppm		86
64) 2,3,4,6-Tetrachlorophenol	7.813	232	24130	1.94	ppm		81
65) Diethylphthalate	7.888	149	102357	2.17	ppm		94
66) Fluorene	8.000	166	102956	2.25	ppm		91
67) 4-Chlorophenyl-phenyle...	7.995	204	55400	2.51	ppm		94
68) 4-Nitroaniline	8.005	138	27191	2.54	ppm		91
70) 4,6-Dinitro-2-methylph...	8.037	198	7298	1.05	ppm		85
71) n-Nitrosodiphenylamine	8.096	169	75216	2.07	ppm		97
72) 1,2-Diphenylhydrazine	8.139	77	110326	2.37	ppm		89
74) 4-Bromophenyl-phenylether	8.449	248	34051	2.11	ppm		99
75) Hexachlorobenzene	8.524	284	38035	2.12	ppm		90
76) Pentachlorophenol	8.711	266	32227	2.89	ppm		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77613.D
Acq On : 23 Feb 2018 12:48 pm
Operator : kristis
Sample : ic3416-2
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 15:12:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

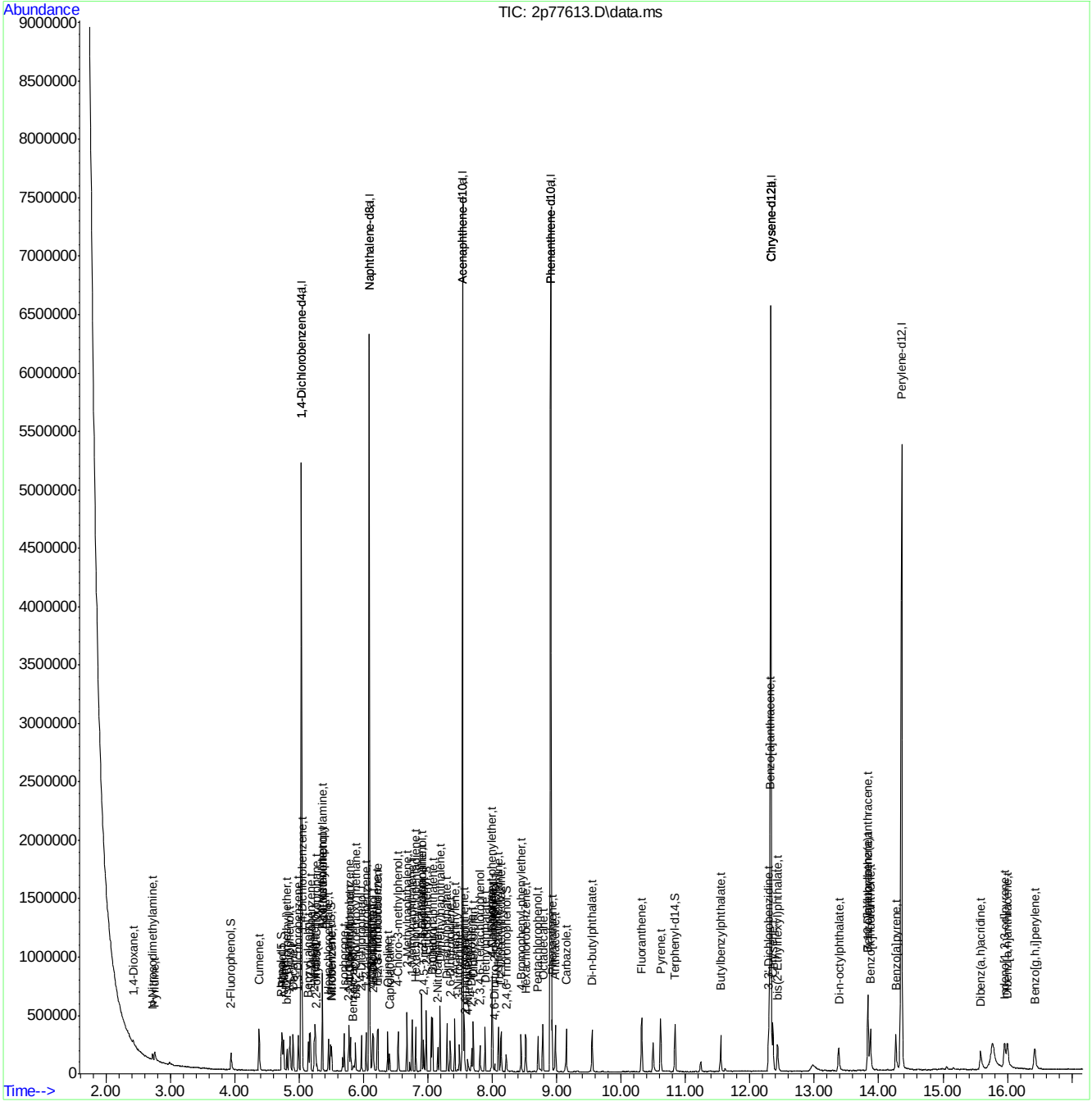
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	8.931	178	143707	2.14	ppm	97
78) Anthracene	8.984	178	147540	2.21	ppm	98
79) Carbazole	9.150	167	140028	2.01	ppm	99
80) Di-n-butylphthalate	9.551	149	166355	1.84	ppm	99
81) Fluoranthene	10.321	202	195797	2.18	ppm	95
82) Octadecane	8.786	43	44322	2.40	ppm	93
84) Pyrene	10.615	202	211565	2.10	ppm	98
86) Butylbenzylphthalate	11.546	149	87171	1.84	ppm	96
87) Benzo[a]anthracene	12.311	228	203029	2.24	ppm	94
88) 3,3'-Dichlorobenzidine	12.289	252	74111	2.37	ppm	87
89) Chrysene	12.359	228	159785	2.18	ppm	98
90) bis(2-Ethylhexyl)phtha...	12.429	149	82853	1.55	ppm	90
92) Di-n-octylphthalate	13.381	149	151553	1.50	ppm	96
93) Benzo[b]fluoranthene	13.830	252	183697m	1.94	ppm	
94) Benzo[k]fluoranthene	13.873	252	203125	2.71	ppm	93
95) Benzo[a]pyrene	14.268	252	167228	2.11	ppm	92
96) Indeno[1,2,3-cd]pyrene	15.959	276	139834	1.88	ppm	82
97) Dibenz(a,h)acridine	15.584	279	121279	1.79	ppm	98
98) Dibenz[a,h]anthracene	16.001	278	154217	2.12	ppm	91
99) 7,12-Dimethylbenz(a)an...	13.835	256	74401	2.00	ppm	97
100) Benzo[g,h,i]perylene	16.424	276	150190	2.03	ppm	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77613.D
Acq On : 23 Feb 2018 12:48 pm
Operator : kristis
Sample : ic3416-2
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 15:12:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration



Manual Integration Approval Summary

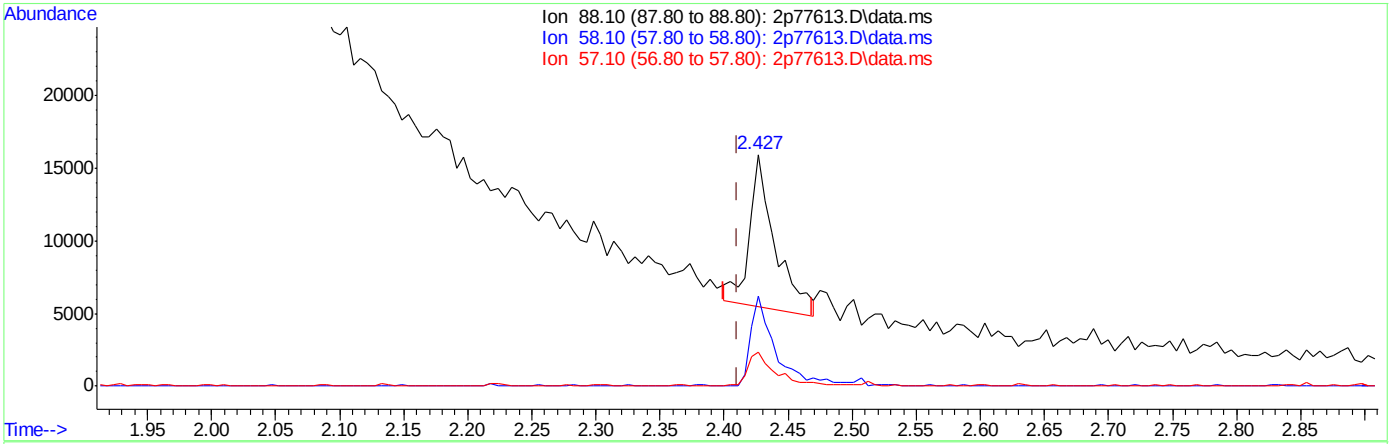
Sample Number:	E2P3416-IC3416	**Method:**	SW846 8270D
Lab FileID:	2P77613.D	**Analyst approved:**	02/28/18 19:00 Kristi Schollenberger
Injection Time:	02/23/18 12:48	**Supervisor approved:**	03/01/18 11:12 Nina Pandya

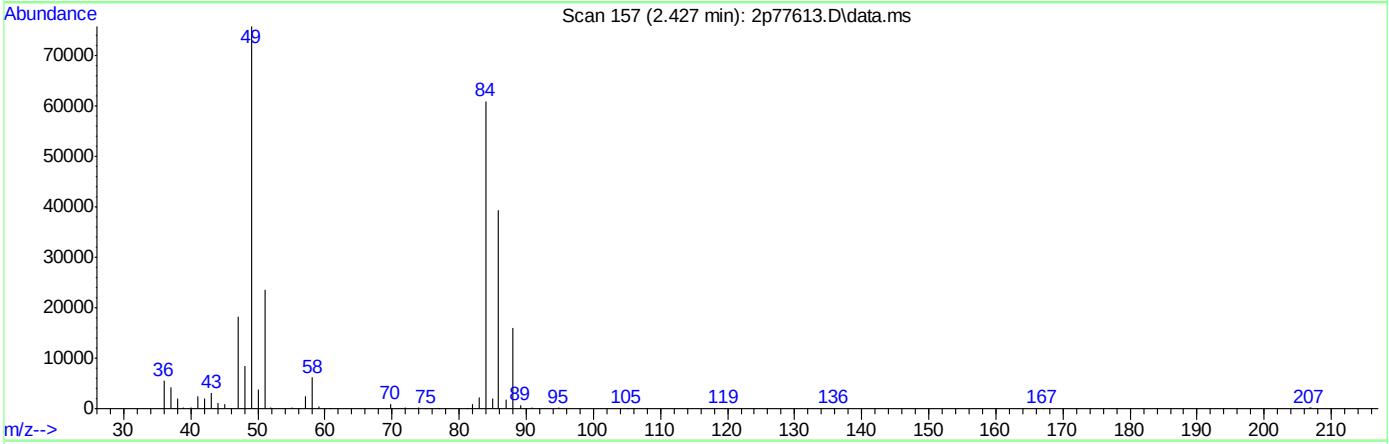
Parameter	CAS	Sig#	R.T. (min.)	Reason
1,4-Dioxane	123-91-1		2.43	Poor instrument integration
Benzo(b)fluoranthene	205-99-2		13.83	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77613.D
Acq On : 23 Feb 2018 12:48 pm
Operator : kristis
Sample : ic3416-2
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 15:11:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77613.D\data.ms

(2) 1,4-Dioxane (t)

2.427min (+0.016) 1.17ppm

response 14601

Ion	Exp%	Act%
88.10	100	100
58.10	55.50	62.36
57.10	22.70	23.84
0.00	0.00	0.00

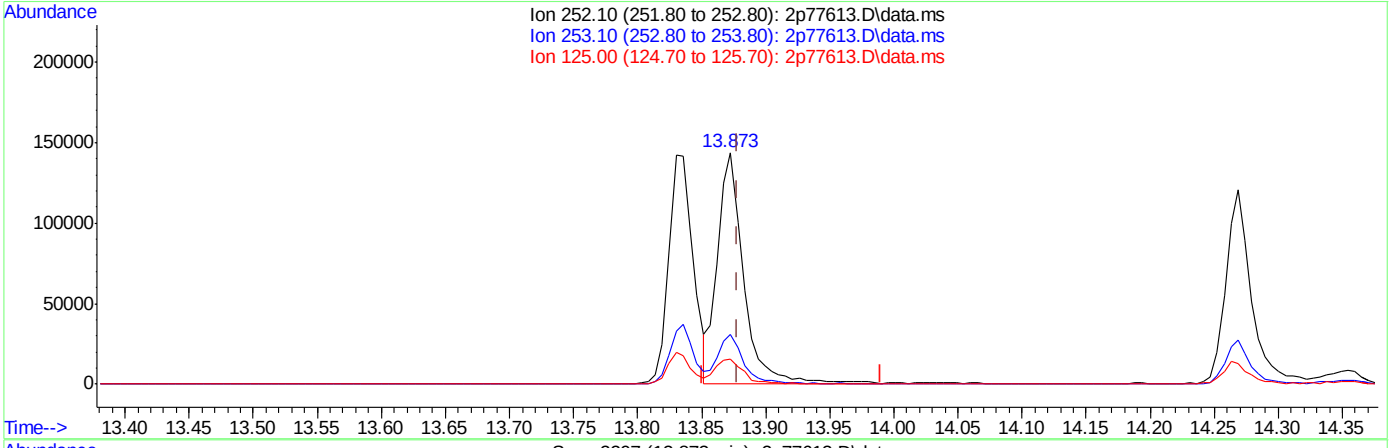
9.6.6.2

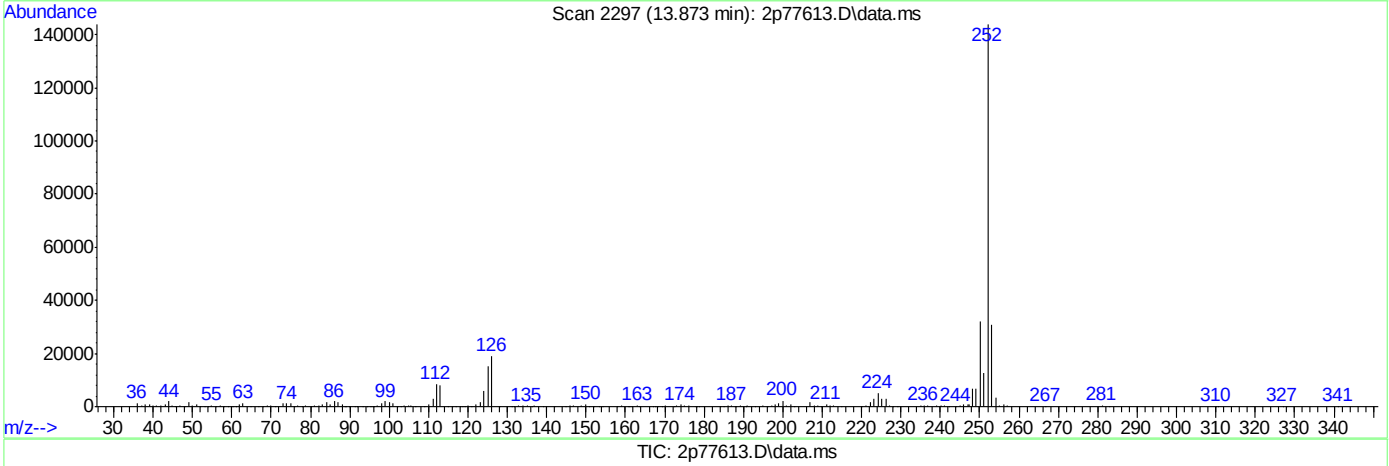
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77613.D
Acq On : 23 Feb 2018 12:48 pm
Operator : kristis
Sample : ic3416-2
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 15:11:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77613.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.873min (-0.005) 2.15ppm

response 203125

Ion	Exp%	Act%
252.10	100	100
253.10	23.80	20.67
125.00	16.50	10.57
0.00	0.00	0.00

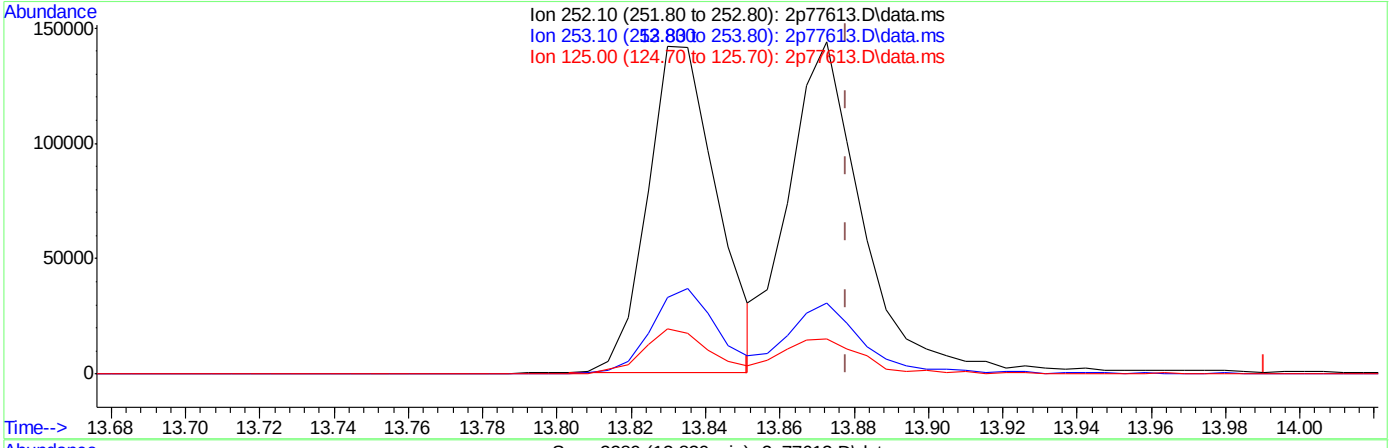
9.6.6.3

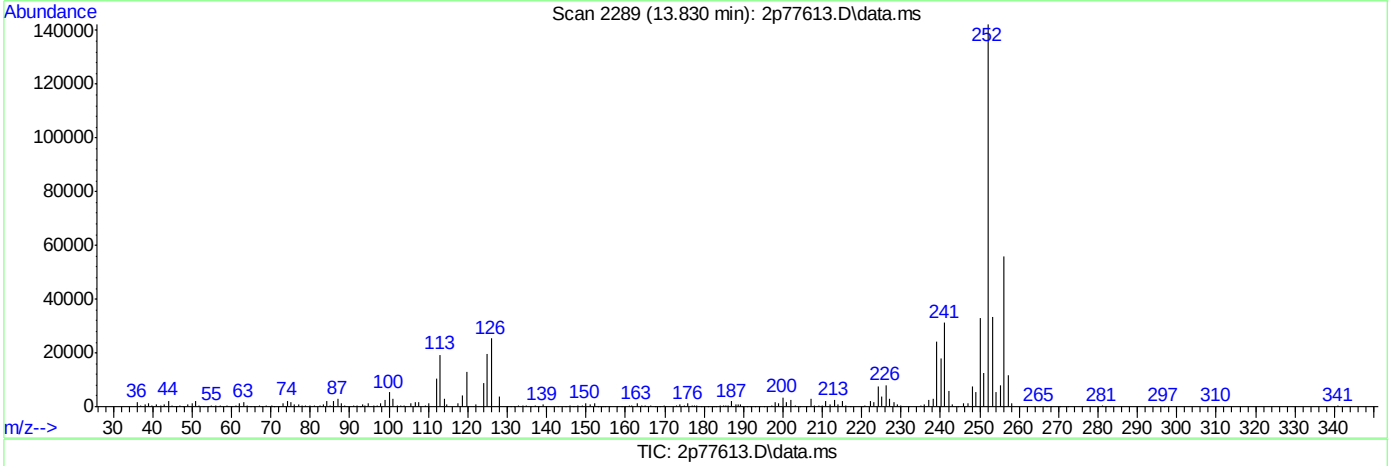
6

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77613.D
Acq On : 23 Feb 2018 12:48 pm
Operator : kristis
Sample : ic3416-2
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 15:11:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77613.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.830min (-0.048) 1.94ppm m

response 183697

Ion	Exp%	Act%
252.10	100	100
253.10	23.80	23.39
125.00	16.50	13.88
0.00	0.00	0.00

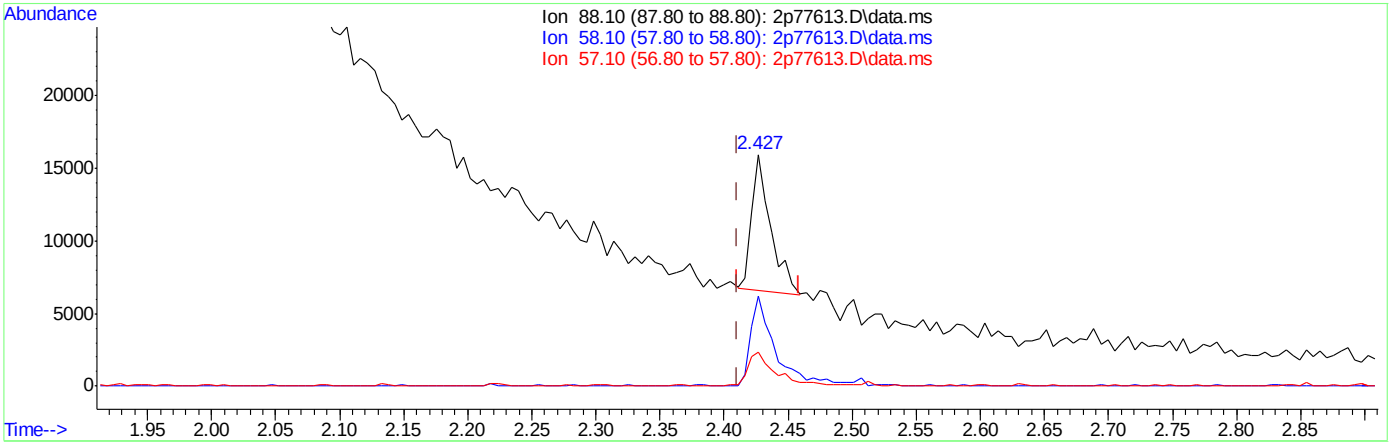
9.6.6.4

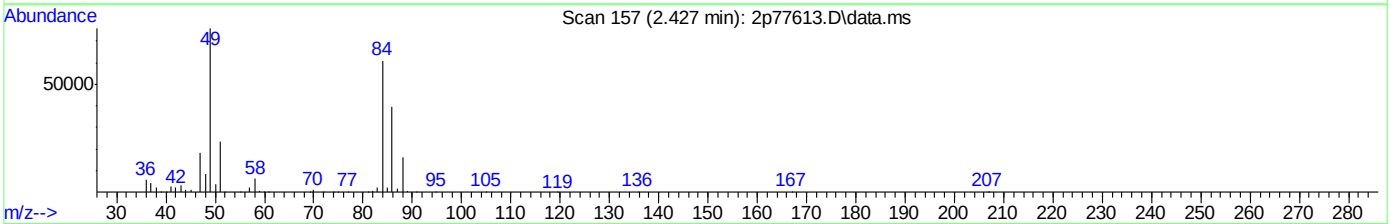
6

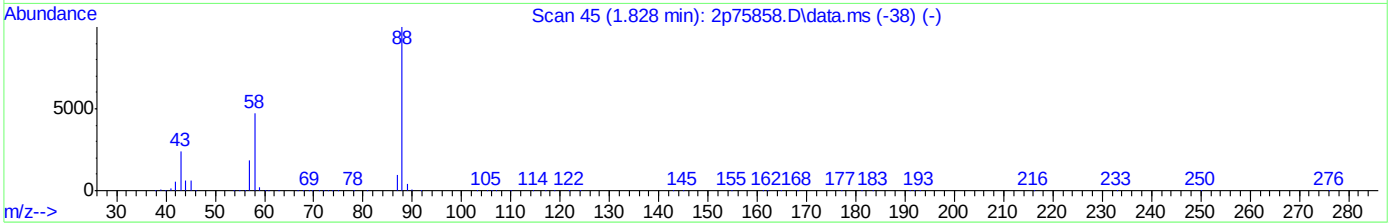
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77613.D
Acq On : 23 Feb 2018 12:48 pm
Operator : kristis
Sample : ic3416-2
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 15:12:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration







TIC: 2p77613.D\data.ms

(2) 1,4-Dioxane (t)

2.427min (+0.016) 0.77ppm m

response 9687

Ion	Exp%	Act%
88.10	100	100
58.10	55.50	38.69
57.10	22.70	14.79
0.00	0.00	0.00

2P77614.D

Manual Integrations APPROVED (compounds with "m" flag)

Nina Pandya 03/01/18 11:12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77614.D
Acq On : 23 Feb 2018 1:09 pm
Operator : kristis
Sample : ic3416-25
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 23 15:13:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.037	152	513385	40.00	ppm	0.00
24) Naphthalene-d8	6.090	136	1863718	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	989352	40.00	ppm	0.00
69) Phenanthrene-d10	8.909	188	2006216	40.00	ppm	0.00
83) Chrysene-d12	12.332	240	2188909	40.00	ppm	0.00
91) Perylene-d12	14.359	264	2303638	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.037	152	513385	40.00	ppm	0.00
103) Naphthalene-d8a	6.090	136	1863718	40.00	ppm	0.00
105) Acenaphthene-d10a	7.540	164	989352	40.00	ppm	0.00
108) Chrysene-d12a	12.332	240	2188909	40.00	ppm	0.00
110) Phenanthrene-d10a	8.909	188	2006216	40.00	ppm	0.00
114) Chrysene-d12b	12.332	240	2188909	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.946	112	577447	29.91	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 59.82%#			
8) Phenol-d5	4.732	99	706931	31.39	ppm	-0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 62.78%#			
25) Nitrobenzene-d5	5.491	82	510298	26.68	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery = 53.36%			
51) 2-Fluorobiphenyl	6.978	172	948721	26.80	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery = 53.60%			
73) 2,4,6-Tribromophenol	8.224	330	148717	24.35	ppm	0.00
Spiked Amount 50.000	Range 12 - 68		Recovery = 48.70%			
85) Terphenyl-d14	10.840	244	1441101	28.55	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery = 57.10%			
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.427	88	163861	17.12	ppm	93
3) Pyridine	2.747	79	482950	23.34	ppm	98
4) N-Nitrosodimethylamine	2.721	74	264607	21.64	ppm	97
6) Indene	5.251	116	696463	27.67	ppm	100
7) Cumene	4.379	105	1421684	31.70	ppm	100
9) Phenol	4.743	94	751814	30.97	ppm	98
10) Aniline	4.764	93	742113	27.75	ppm	87
11) bis(2-Chloroethyl)ether	4.817	93	448796	30.05	ppm	95
12) 2-Chlorophenol	4.866	128	530374	29.59	ppm	97
13) Decane	4.908	57	462775	31.09	ppm	95
14) 1,3-Dichlorobenzene	4.994	146	546609	26.44	ppm	97
15) 1,4-Dichlorobenzene	5.053	146	512597	26.93	ppm	98
16) Benzyl alcohol	5.149	108	294837	29.46	ppm	90
17) 1,2-Dichlorobenzene	5.181	146	466799	26.31	ppm	98
18) Acetophenone	5.368	105	613427	28.36	ppm	78
19) 2-Methylphenol	5.245	108	398355	28.87	ppm	92
20) 2,2'-oxybis(1-Chloropr...	5.261	121	115900	32.88	ppm #	1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77614.D
Acq On : 23 Feb 2018 1:09 pm
Operator : kristis
Sample : ic3416-25
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 23 15:13:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.368	108	425755	28.71	ppm		99
22) n-Nitroso-di-n-propyla...	5.374	70	298635	27.90	ppm		87
23) Hexachloroethane	5.459	201	209987	29.19	ppm		96
26) Nitrobenzene	5.507	77	472350	26.32	ppm		97
27) Quinoline	6.385	129	881134	27.04	ppm		98
28) Isophorone	5.705	82	872049	27.37	ppm		98
29) 2-Nitrophenol	5.775	139	270159	26.96	ppm		98
30) 2,4-Dimethylphenol	5.807	107	441069	26.54	ppm		98
31) Benzoic acid	5.909	105	323967	26.10	ppm		89
32) bis(2-Chloroethoxy)met...	5.882	93	454806	25.02	ppm		97
33) 2,4-Dichlorophenol	5.973	162	403506	25.86	ppm		97
34) 2,6-Dichlorophenol	6.160	162	352601	25.00	ppm		96
35) 1,3,5-Trichlorobenzene	5.785	180	485568	26.47	ppm		95
36) 1,2,4-Trichlorobenzene	6.042	180	467880	25.91	ppm		99
37) 1,2,3-Trichlorobenzene	6.229	180	406045	26.20	ppm		96
38) Naphthalene	6.106	128	1197188	25.83	ppm		99
39) 4-Chloroaniline	6.149	127	536609	25.08	ppm		96
40) 2,3-Dichloroaniline	6.909	161	483188	26.12	ppm		97
41) Caprolactam	6.443	113	142420	30.98	ppm	#	63
42) Hexachlorobutadiene	6.213	225	261876	26.59	ppm		98
43) 4-Chloro-3-methylphenol	6.545	107	439616	29.24	ppm		98
44) 2-Methylnaphthalene	6.679	141	798762	26.22	ppm		98
45) 1-Methylnaphthalene	6.759	141	796544	26.34	ppm		98
46) Dimethylnaphthalene	7.192	156	777758	26.92	ppm		97
48) Hexachlorocyclopentadiene	6.812	237	558811	56.68	ppm		98
49) 2,4,6-Trichlorophenol	6.909	196	303199	29.68	ppm		93
50) 2,4,5-Trichlorophenol	6.941	196	309016	29.17	ppm		90
52) 2-Chloronaphthalene	7.080	162	797983	27.14	ppm		97
53) Biphenyl	7.058	154	1074785	27.89	ppm		98
54) 2-Nitroaniline	7.160	65	264177	32.07	ppm		80
55) Dimethylphthalate	7.305	163	960697	27.91	ppm		97
56) Acenaphthylene	7.422	152	1266443	25.86	ppm		99
57) 2,6-Dinitrotoluene	7.353	165	223050	32.20	ppm		95
58) 3-Nitroaniline	7.497	138	249817	29.33	ppm		100
59) Acenaphthene	7.567	153	834037	27.88	ppm		98
60) 2,4-Dinitrophenol	7.583	184	192340	62.73	ppm		86
61) 4-Nitrophenol	7.631	109	144204	29.10	ppm		90
62) Dibenzofuran	7.711	168	1097523	26.19	ppm		99
63) 2,4-Dinitrotoluene	7.690	165	288471	32.32	ppm		88
64) 2,3,4,6-Tetrachlorophenol	7.813	232	271308	28.83	ppm		88
65) Diethylphthalate	7.893	149	937032	26.28	ppm		95
66) Fluorene	8.005	166	948337	27.37	ppm		99
67) 4-Chlorophenyl-phenyle...	8.000	204	534074	31.96	ppm		89
68) 4-Nitroaniline	8.021	138	235879	29.11	ppm		92
70) 4,6-Dinitro-2-methylph...	8.043	198	161380	29.79	ppm		84
71) n-Nitrosodiphenylamine	8.101	169	685524	24.13	ppm		98
72) 1,2-Diphenylhydrazine	8.144	77	909404	25.05	ppm		81
74) 4-Bromophenyl-phenylether	8.449	248	340324	27.00	ppm		95
75) Hexachlorobenzene	8.524	284	365993	26.17	ppm		93
76) Pentachlorophenol	8.717	266	504820	57.96	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77614.D
Acq On : 23 Feb 2018 1:09 pm
Operator : kristis
Sample : ic3416-25
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 23 15:13:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	8.936	178	1382766	26.39	ppm	98
78) Anthracene	8.989	178	1399150	26.81	ppm	100
79) Carbazole	9.155	167	1356702	24.90	ppm	100
80) Di-n-butylphthalate	9.556	149	1865170	26.39	ppm	100
81) Fluoranthene	10.326	202	2138022	30.45	ppm	94
82) Octadecane	8.786	43	420062	29.14	ppm	94
84) Pyrene	10.621	202	2076730	26.25	ppm	99
86) Butylbenzylphthalate	11.551	149	928412	25.06	ppm	96
87) Benzo[a]anthracene	12.311	228	1955926	27.49	ppm	98
88) 3,3'-Dichlorobenzidine	12.300	252	829723	33.80	ppm	95
89) Chrysene	12.370	228	1552695	27.03	ppm	100
90) bis(2-Ethylhexyl)phtha...	12.434	149	946983	22.60	ppm	88
92) Di-n-octylphthalate	13.381	149	2082106	25.02	ppm	97
93) Benzo[b]fluoranthene	13.846	252	2132680m	27.41	ppm	
94) Benzo[k]fluoranthene	13.889	252	1681261	27.25	ppm	93
95) Benzo[a]pyrene	14.279	252	1785244	27.31	ppm	93
96) Indeno[1,2,3-cd]pyrene	15.980	276	1742193m	28.45	ppm	
97) Dibenz(a,h)acridine	15.600	279	1668270	29.99	ppm	98
98) Dibenz[a,h]anthracene	16.017	278	1640978	27.42	ppm	91
99) 7,12-Dimethylbenz(a)an...	13.846	256	937470	30.56	ppm	94
100) Benzo[g,h,i]perylene	16.451	276	1624851	26.64	ppm	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

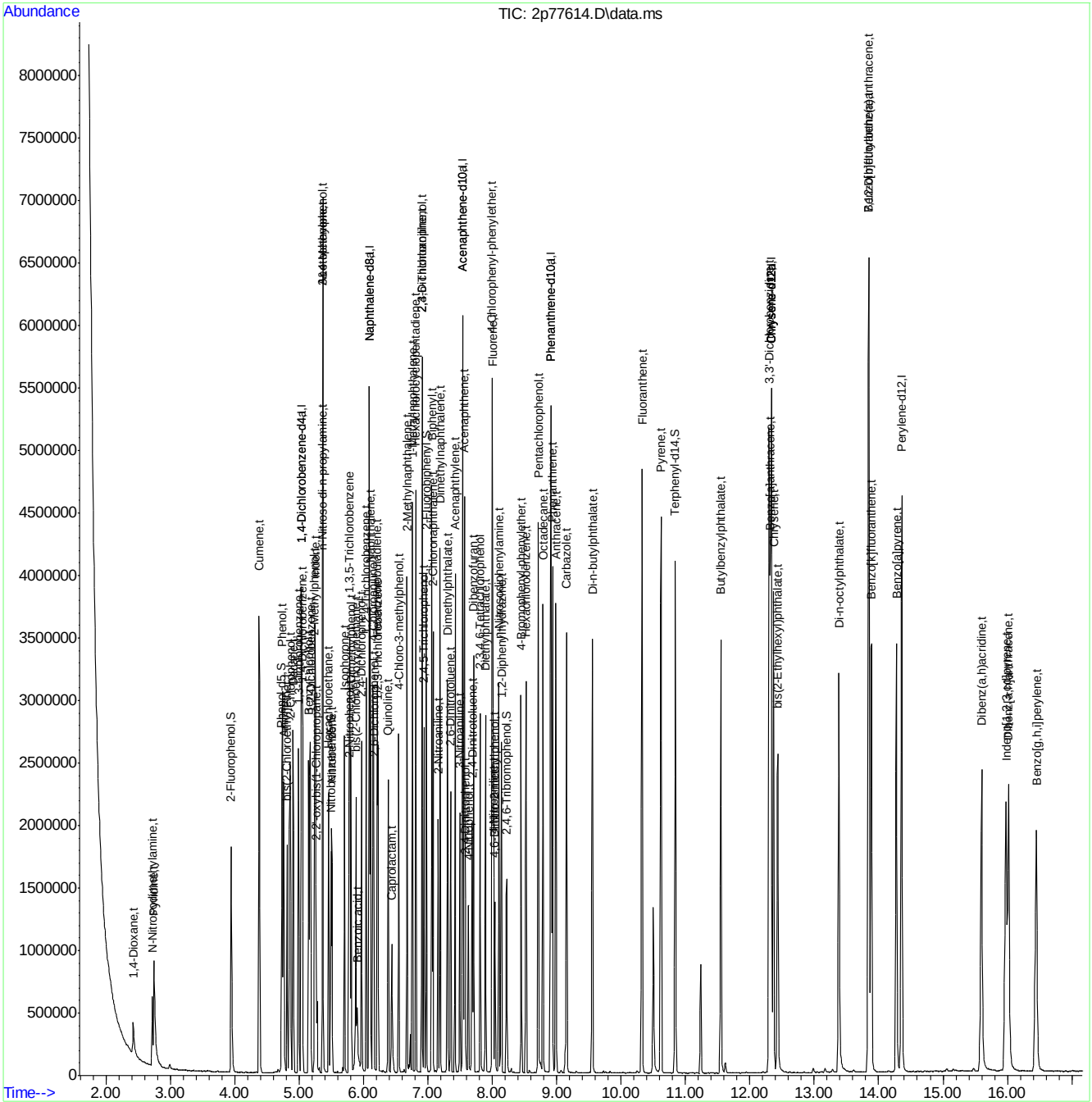
9.6.7

6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77614.D
Acq On : 23 Feb 2018 1:09 pm
Operator : kristis
Sample : ic3416-25
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 23 15:13:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration



Manual Integration Approval Summary

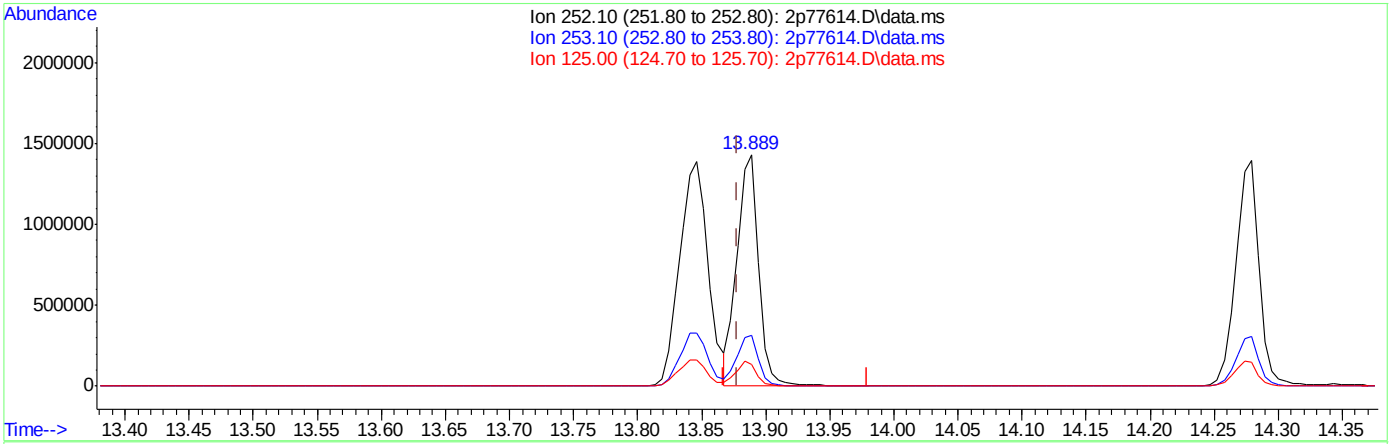
Sample Number: E2P3416-IC3416 **Method:** SW846 8270D
Lab FileID: 2P77614.D **Analyst approved:** 02/28/18 19:00 Kristi Schollenberger
Injection Time: 02/23/18 13:09 **Supervisor approved:** 03/01/18 11:12 Nina Pandya

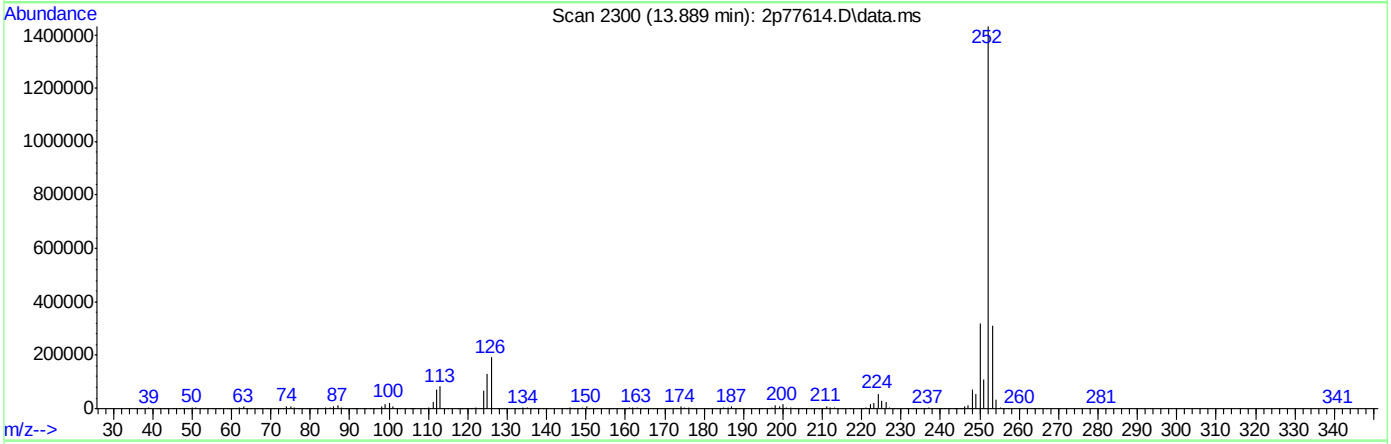
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzo(b)fluoranthene	205-99-2		13.85	Overlapping peak
Indeno(1,2,3-cd)pyrene	193-39-5		15.98	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77614.D
Acq On : 23 Feb 2018 1:09 pm
Operator : kristis
Sample : ic3416-25
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 23 15:12:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77614.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.889min (+0.011) 21.61ppm

response 1681261

Ion	Exp%	Act%
252.10	100	100
253.10	23.80	21.66
125.00	16.50	9.00
0.00	0.00	0.00

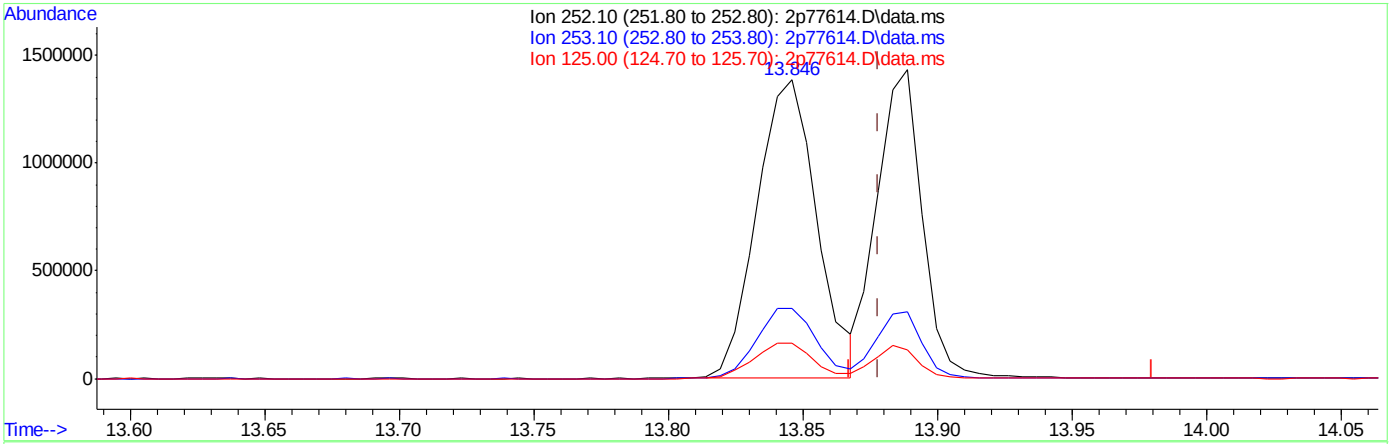
9.6.7.2

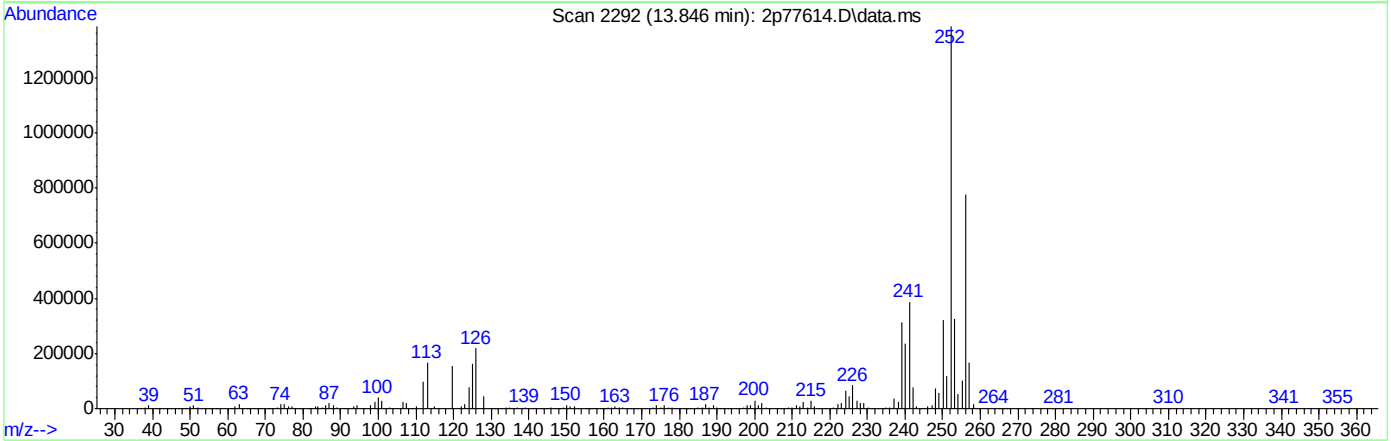
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77614.D
Acq On : 23 Feb 2018 1:09 pm
Operator : kristis
Sample : ic3416-25
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 23 15:12:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77614.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.846min (-0.032) 27.41ppm m

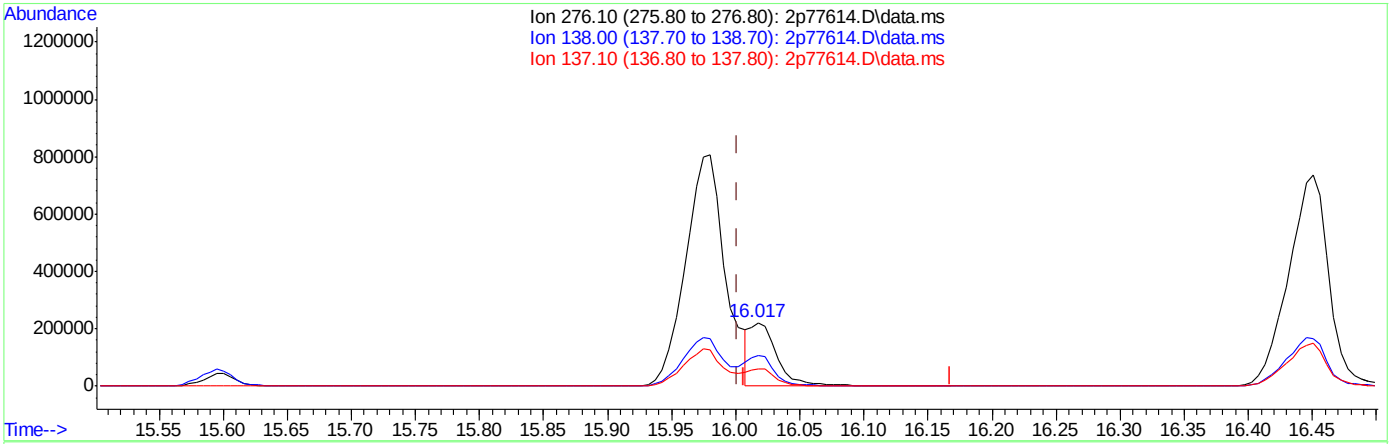
response 2132680

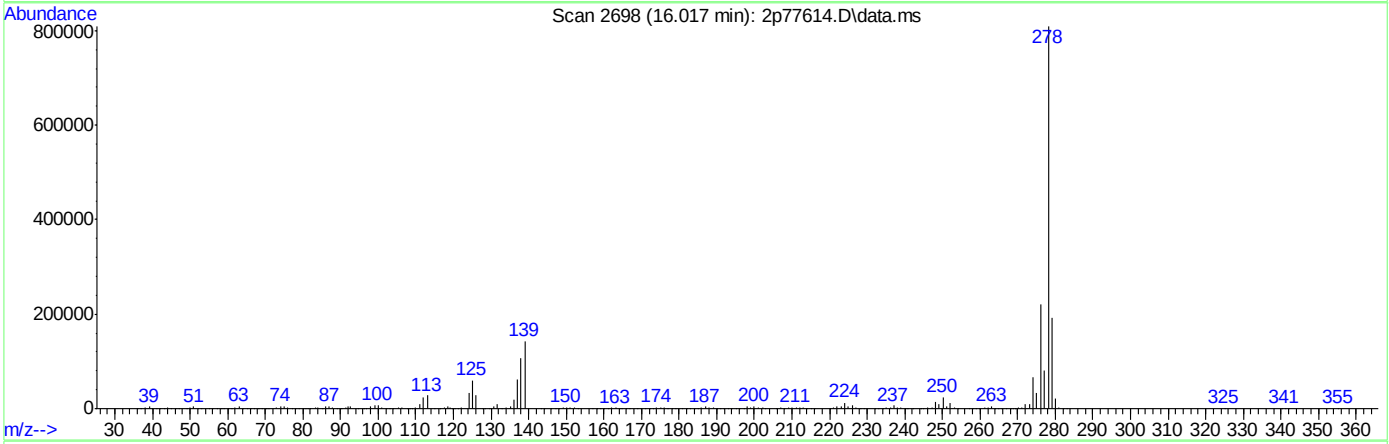
Ion	Exp%	Act%
252.10	100	100
253.10	23.80	23.60
125.00	16.50	11.73
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77614.D
Acq On : 23 Feb 2018 1:09 pm
Operator : kristis
Sample : ic3416-25
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 23 15:12:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77614.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

16.017min (+0.016) 5.38ppm

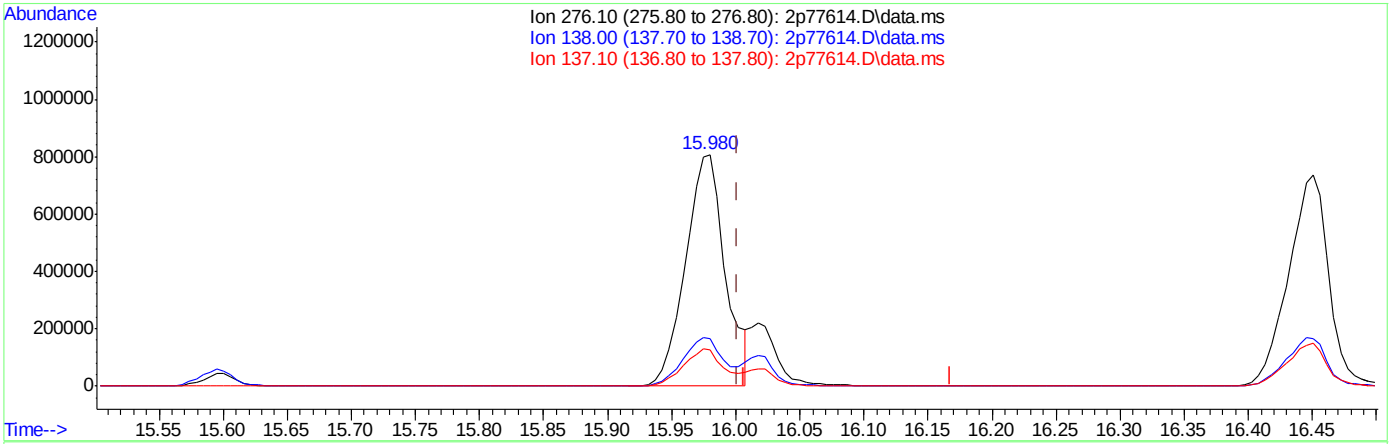
response 329572

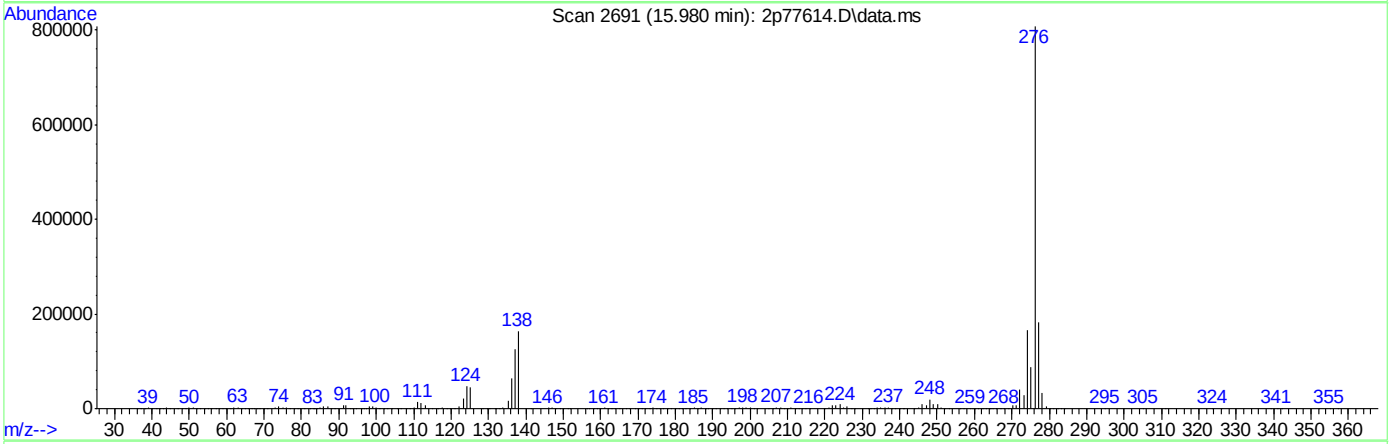
Ion	Exp%	Act%
276.10	100	100
138.00	29.20	54.38
137.10	21.00	30.14
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77614.D
Acq On : 23 Feb 2018 1:09 pm
Operator : kristis
Sample : ic3416-25
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 23 15:12:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77614.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.980min (-0.021) 28.45ppm m

response 1742193

Ion	Exp%	Act%
276.10	100	100
138.00	29.20	20.30
137.10	21.00	15.46
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya 03/01/18 11:12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77615.D
Acq On : 23 Feb 2018 1:31 pm
Operator : kristis
Sample : ic3416-10
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 23 15:15:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.037	152	629951	40.00	ppm	0.00
24) Naphthalene-d8	6.090	136	2245409	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	1176975	40.00	ppm	0.00
69) Phenanthrene-d10	8.909	188	2338897	40.00	ppm	0.00
83) Chrysene-d12	12.332	240	2648314	40.00	ppm	0.00
91) Perylene-d12	14.359	264	2674063	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.037	152	629951	40.00	ppm	0.00
103) Naphthalene-d8a	6.090	136	2245409	40.00	ppm	0.00
105) Acenaphthene-d10a	7.540	164	1176975	40.00	ppm	0.00
108) Chrysene-d12a	12.332	240	2648314	40.00	ppm	0.00
110) Phenanthrene-d10a	8.909	188	2338897	40.00	ppm	0.00
114) Chrysene-d12b	12.332	240	2648314	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.946	112	258629	10.92	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 21.84%			
8) Phenol-d5	4.726	99	331835	12.01	ppm	-0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 24.02%			
25) Nitrobenzene-d5	5.491	82	253584	11.00	ppm	-0.01
Spiked Amount 50.000	Range 19 - 61		Recovery = 22.00%			
51) 2-Fluorobiphenyl	6.973	172	478105	11.35	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery = 22.70%			
73) 2,4,6-Tribromophenol	8.219	330	65841	9.25	ppm	-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery = 18.50%			
85) Terphenyl-d14	10.840	244	669018	10.96	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery = 21.92%			
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.421	88	70478	6.00	ppm	86
3) Pyridine	2.748	79	220307	8.68	ppm	99
4) N-Nitrosodimethylamine	2.721	74	117020	7.80	ppm	100
6) Indene	5.251	116	351094	11.37	ppm	99
7) Cumene	4.379	105	667344	12.13	ppm	98
9) Phenol	4.743	94	361320	12.13	ppm	98
10) Aniline	4.764	93	366537	11.17	ppm	73
11) bis(2-Chloroethyl)ether	4.812	93	222663	12.15	ppm	99
12) 2-Chlorophenol	4.866	128	263923	12.00	ppm	95
13) Decane	4.908	57	237543	13.01	ppm	95
14) 1,3-Dichlorobenzene	4.994	146	272662	10.75	ppm	99
15) 1,4-Dichlorobenzene	5.053	146	251208	10.75	ppm	98
16) Benzyl alcohol	5.149	108	143321	11.67	ppm	87
17) 1,2-Dichlorobenzene	5.181	146	234780	10.78	ppm	99
18) Acetophenone	5.368	105	314578	11.85	ppm	88
19) 2-Methylphenol	5.240	108	197979	11.69	ppm	95
20) 2,2'-oxybis(1-Chloropr...	5.261	121	59646	13.79	ppm #	3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77615.D
Acq On : 23 Feb 2018 1:31 pm
Operator : kristis
Sample : ic3416-10
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 23 15:15:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.363	108	211447	11.62	ppm		97
22) n-Nitroso-di-n-propyla...	5.368	70	153114	11.66	ppm		89
23) Hexachloroethane	5.459	201	104255	11.81	ppm		94
26) Nitrobenzene	5.507	77	233904	10.82	ppm		93
27) Quinoline	6.379	129	418786	10.67	ppm		98
28) Isophorone	5.700	82	422849	11.01	ppm		99
29) 2-Nitrophenol	5.769	139	126035	10.44	ppm		89
30) 2,4-Dimethylphenol	5.802	107	219172	10.95	ppm		94
31) Benzoic acid	5.882	105	131952	8.82	ppm		90
32) bis(2-Chloroethoxy)met...	5.876	93	227952	10.41	ppm		96
33) 2,4-Dichlorophenol	5.967	162	197531	10.51	ppm		98
34) 2,6-Dichlorophenol	6.155	162	171871	10.11	ppm		98
35) 1,3,5-Trichlorobenzene	5.786	180	240933	10.90	ppm		96
36) 1,2,4-Trichlorobenzene	6.042	180	232017	10.66	ppm		99
37) 1,2,3-Trichlorobenzene	6.224	180	201951	10.82	ppm		97
38) Naphthalene	6.106	128	580920	10.40	ppm		99
39) 4-Chloroaniline	6.144	127	260556	10.11	ppm		99
40) 2,3-Dichloroaniline	6.903	161	234990	10.54	ppm		97
41) Caprolactam	6.422	113	65034	11.74	ppm	#	64
42) Hexachlorobutadiene	6.213	225	127017	10.70	ppm		97
43) 4-Chloro-3-methylphenol	6.540	107	206577	11.40	ppm		95
44) 2-Methylnaphthalene	6.673	141	381004	10.38	ppm		97
45) 1-Methylnaphthalene	6.759	141	390665	10.72	ppm		97
46) Dimethylnaphthalene	7.187	156	389108	11.18	ppm		98
48) Hexachlorocyclopentadiene	6.812	237	253743	21.64	ppm		98
49) 2,4,6-Trichlorophenol	6.909	196	146037	12.02	ppm		91
50) 2,4,5-Trichlorophenol	6.935	196	148317	11.77	ppm		91
52) 2-Chloronaphthalene	7.075	162	404306	11.56	ppm		100
53) Biphenyl	7.059	154	535800	11.69	ppm		100
54) 2-Nitroaniline	7.155	65	130376	13.31	ppm		86
55) Dimethylphthalate	7.305	163	473959	11.58	ppm		98
56) Acenaphthylene	7.417	152	611473	10.50	ppm		98
57) 2,6-Dinitrotoluene	7.353	165	105490	12.80	ppm		88
58) 3-Nitroaniline	7.492	138	120066	11.85	ppm		93
59) Acenaphthene	7.567	153	395137	11.10	ppm		98
60) 2,4-Dinitrophenol	7.577	184	67160	18.41	ppm		89
61) 4-Nitrophenol	7.625	109	68320	11.59	ppm		90
62) Dibenzofuran	7.706	168	539616	10.83	ppm		98
63) 2,4-Dinitrotoluene	7.684	165	132621	12.49	ppm		98
64) 2,3,4,6-Tetrachlorophenol	7.813	232	119575	10.68	ppm		87
65) Diethylphthalate	7.893	149	450792	10.63	ppm		95
66) Fluorene	8.005	166	460486	11.17	ppm		98
67) 4-Chlorophenyl-phenyle...	8.000	204	252745	12.71	ppm		89
68) 4-Nitroaniline	8.011	138	118704	12.32	ppm		95
70) 4,6-Dinitro-2-methylph...	8.043	198	64579	10.23	ppm		80
71) n-Nitrosodiphenylamine	8.101	169	324951	9.81	ppm		97
72) 1,2-Diphenylhydrazine	8.139	77	462519	10.93	ppm		90
74) 4-Bromophenyl-phenylether	8.449	248	158313	10.77	ppm		95
75) Hexachlorobenzene	8.524	284	169117	10.37	ppm		90
76) Pentachlorophenol	8.711	266	209779	20.66	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77615.D
Acq On : 23 Feb 2018 1:31 pm
Operator : kristis
Sample : ic3416-10
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 23 15:15:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration

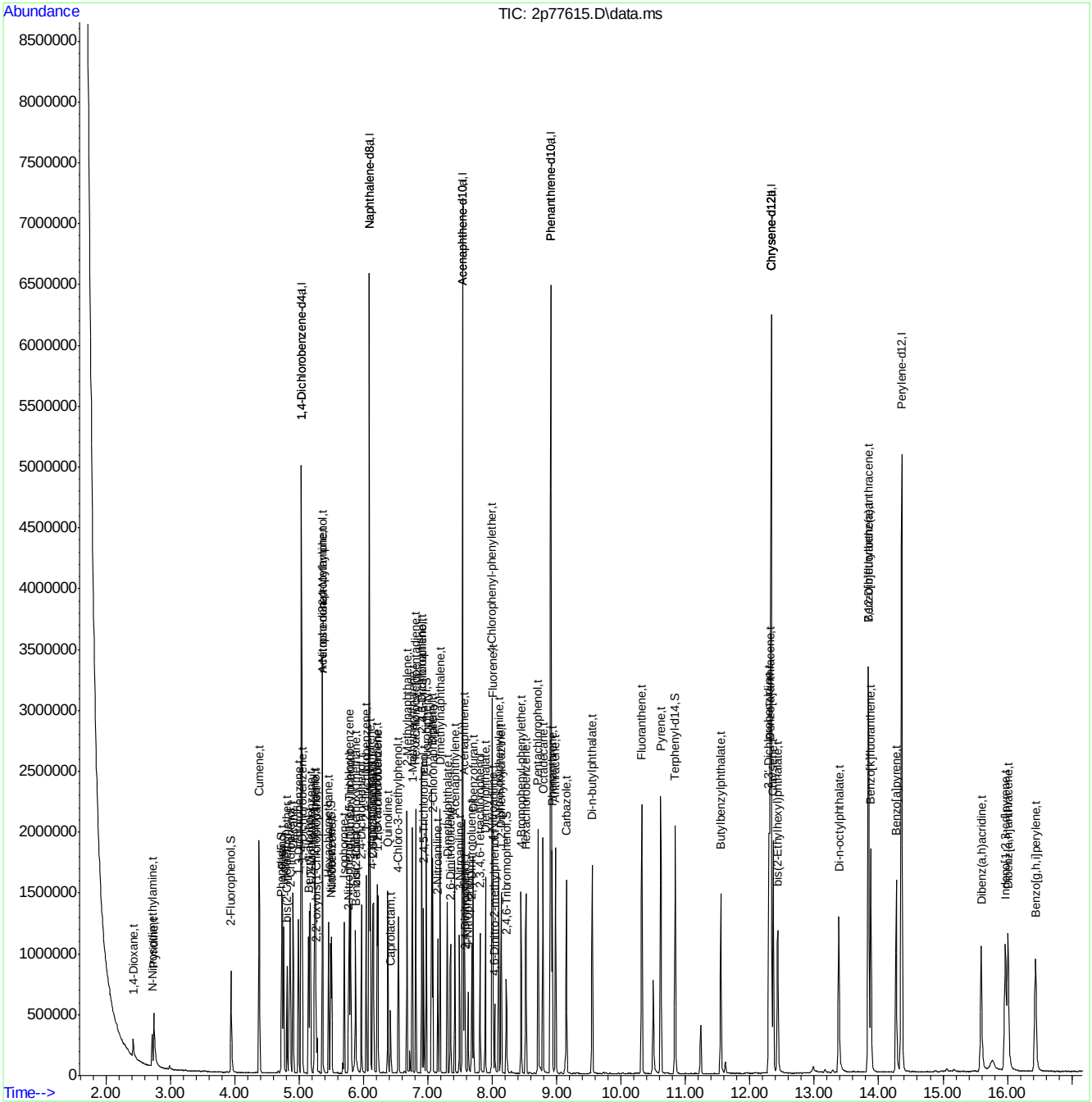
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	8.931	178	641853	10.51	ppm	99
78) Anthracene	8.984	178	658373	10.82	ppm	100
79) Carbazole	9.150	167	637923	10.04	ppm	99
80) Di-n-butylphthalate	9.551	149	846089	10.27	ppm	99
81) Fluoranthene	10.321	202	965700	11.80	ppm	95
82) Octadecane	8.786	43	210803	12.54	ppm	97
84) Pyrene	10.615	202	994543	10.39	ppm	99
86) Butylbenzylphthalate	11.551	149	415378	9.27	ppm	97
87) Benzo[a]anthracene	12.311	228	938068	10.90	ppm	97
88) 3,3'-Dichlorobenzidine	12.295	252	374173	12.60	ppm	90
89) Chrysene	12.364	228	734853	10.57	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.434	149	439794	8.68	ppm	90
92) Di-n-octylphthalate	13.381	149	887100	9.18	ppm	97
93) Benzo[b]fluoranthene	13.841	252	973872m	10.78	ppm	
94) Benzo[k]fluoranthene	13.878	252	835936	11.67	ppm	94
95) Benzo[a]pyrene	14.274	252	808758	10.66	ppm	94
96) Indeno[1,2,3-cd]pyrene	15.969	276	739952m	10.41	ppm	
97) Dibenz(a,h)acridine	15.595	279	697516	10.80	ppm	100
98) Dibenz[a,h]anthracene	16.007	278	750619	10.81	ppm	91
99) 7,12-Dimethylbenz(a)an...	13.841	256	394290	11.07	ppm	98
100) Benzo[g,h,i]perylene	16.440	276	733035	10.35	ppm	87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77615.D
Acq On : 23 Feb 2018 1:31 pm
Operator : kristis
Sample : ic3416-10
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 23 15:15:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration



Manual Integration Approval Summary

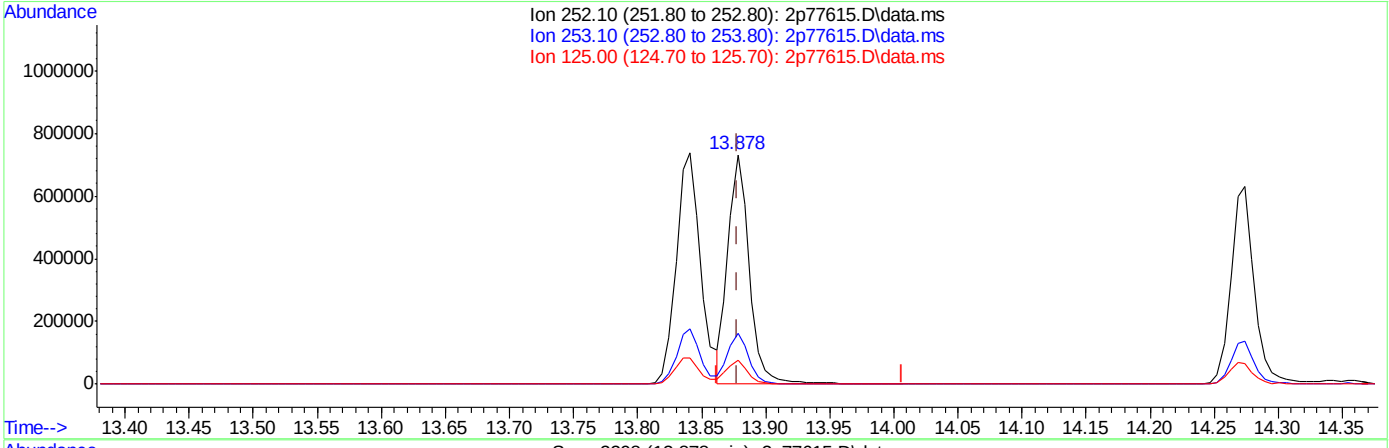
Sample Number:	E2P3416-IC3416	**Method:**	SW846 8270D
Lab FileID:	2P77615.D	**Analyst approved:**	02/28/18 19:00 Kristi Schollenberger
Injection Time:	02/23/18 13:31	**Supervisor approved:**	03/01/18 11:12 Nina Pandya

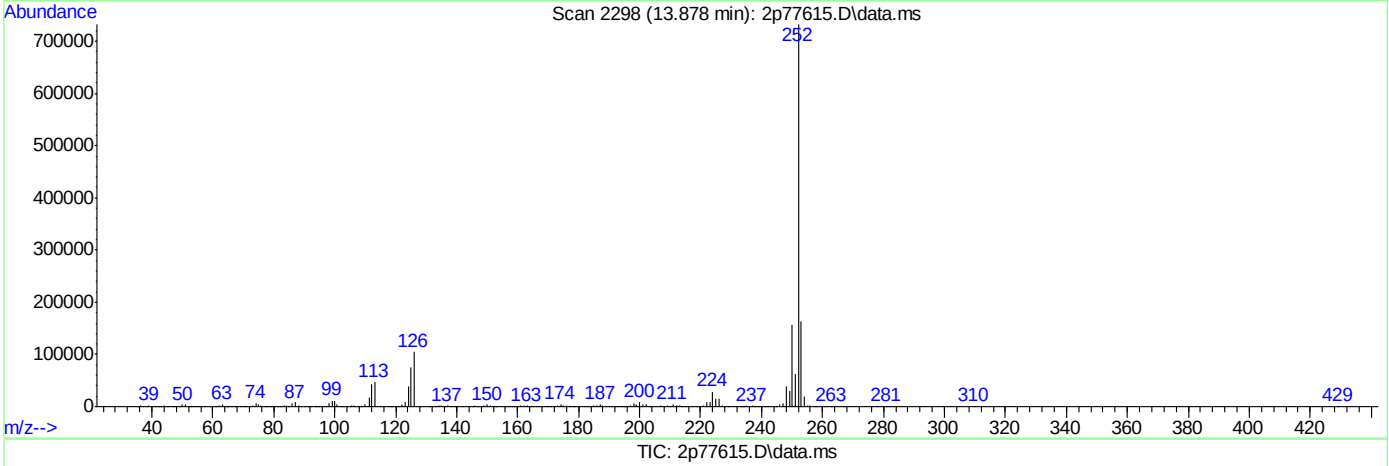
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzo(b)fluoranthene	205-99-2		13.84	Overlapping peak
Indeno(1,2,3-cd)pyrene	193-39-5		15.97	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77615.D
Acq On : 23 Feb 2018 1:31 pm
Operator : kristis
Sample : ic3416-10
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 23 15:14:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77615.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.878min (+0.000) 9.26ppm

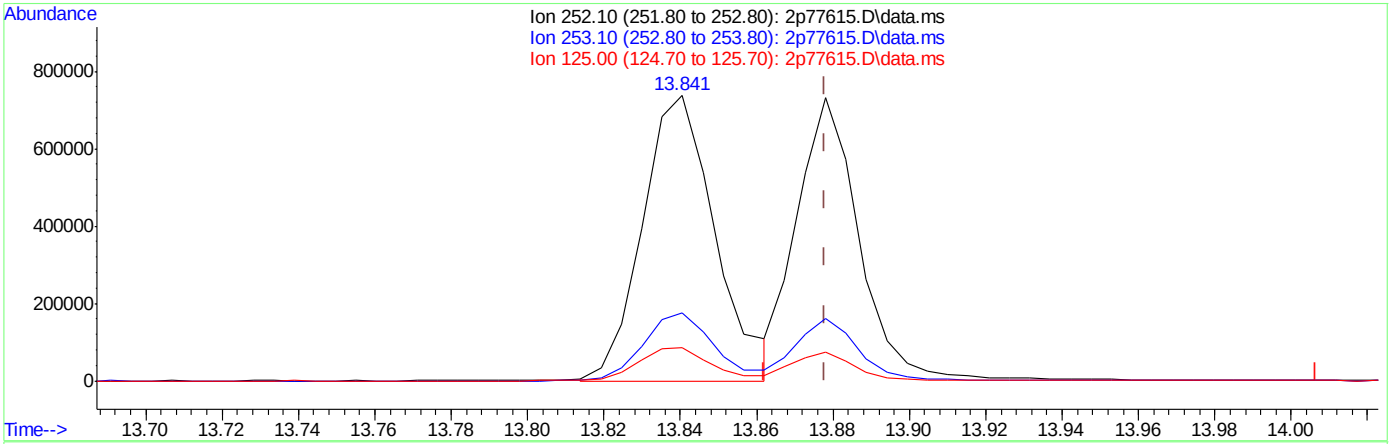
response 835936

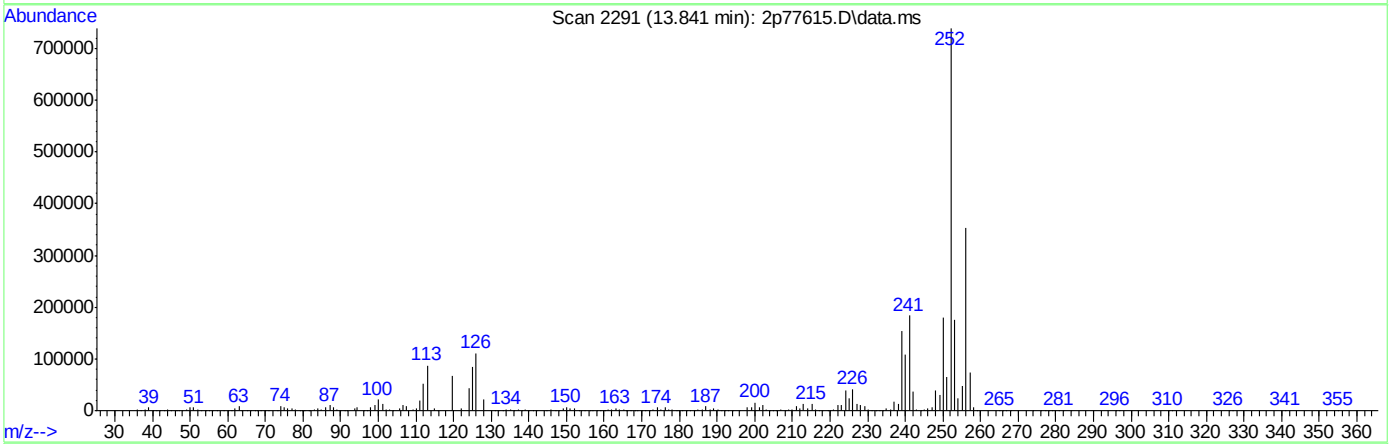
Ion	Exp%	Act%
252.10	100	100
253.10	23.80	21.99
125.00	16.50	10.05
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77615.D
Acq On : 23 Feb 2018 1:31 pm
Operator : kristis
Sample : ic3416-10
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 23 15:14:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77615.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.841min (-0.037) 10.78ppm m

response 973872

Ion	Exp%	Act%
252.10	100	100
253.10	23.80	23.76
125.00	16.50	11.50
0.00	0.00	0.00

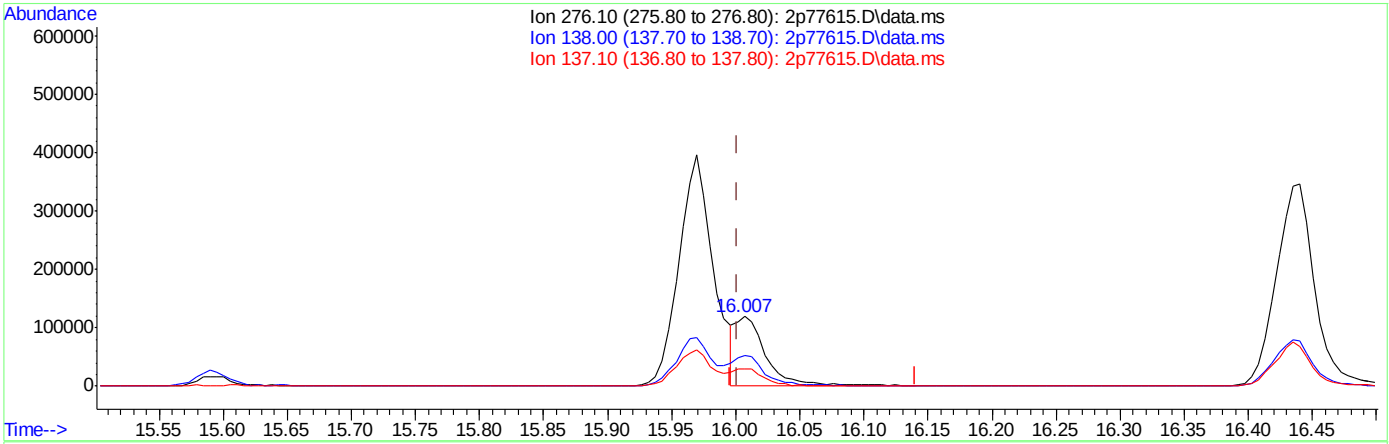
9.6.83

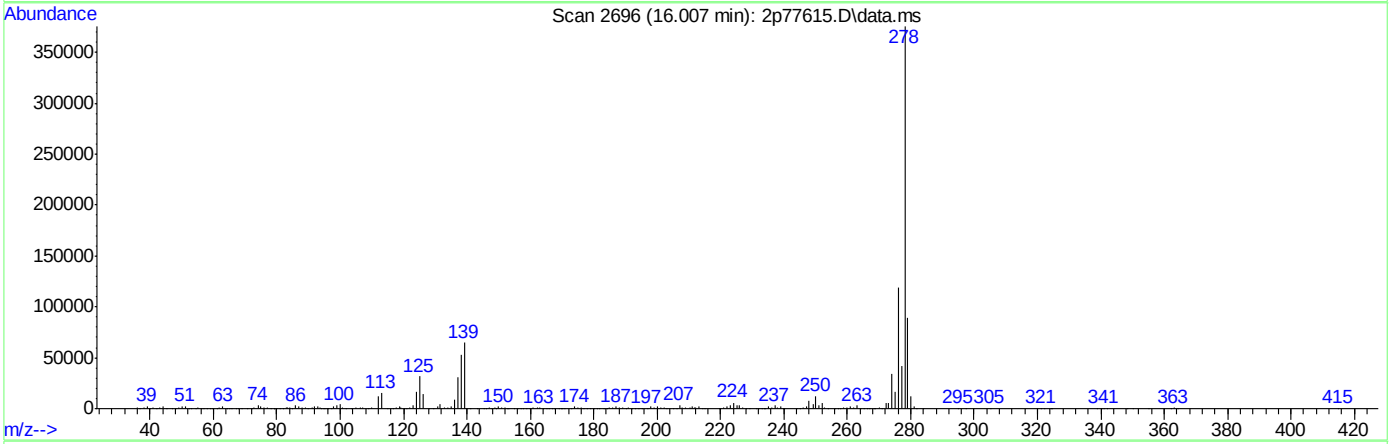
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77615.D
Acq On : 23 Feb 2018 1:31 pm
Operator : kristis
Sample : ic3416-10
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 23 15:14:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77615.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

16.007min (+0.005) 2.71ppm

response 192552

Ion	Exp%	Act%
276.10	100	100
138.00	29.20	49.29
137.10	21.00	27.70
0.00	0.00	0.00

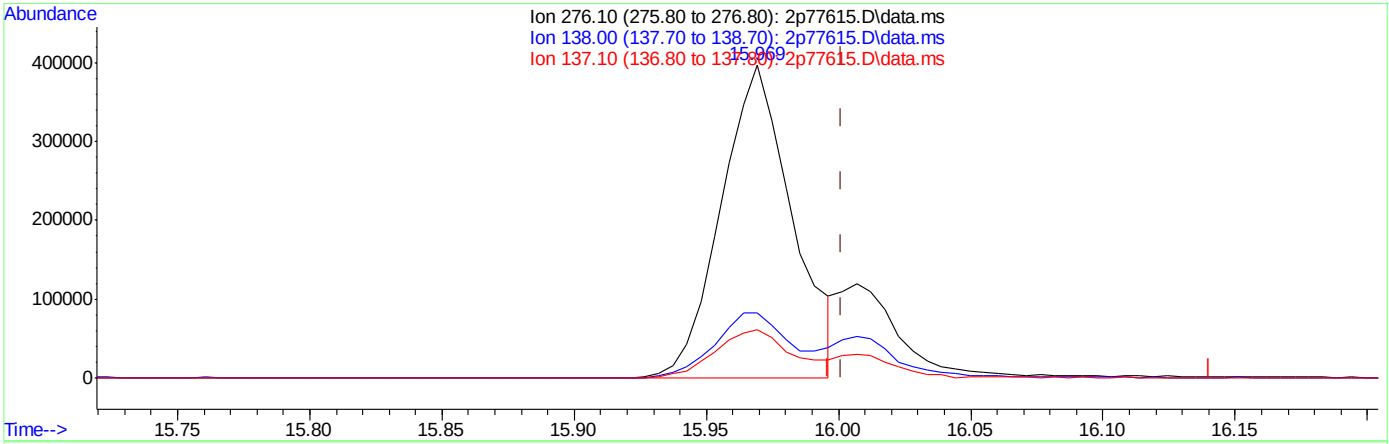
9.6.8.4

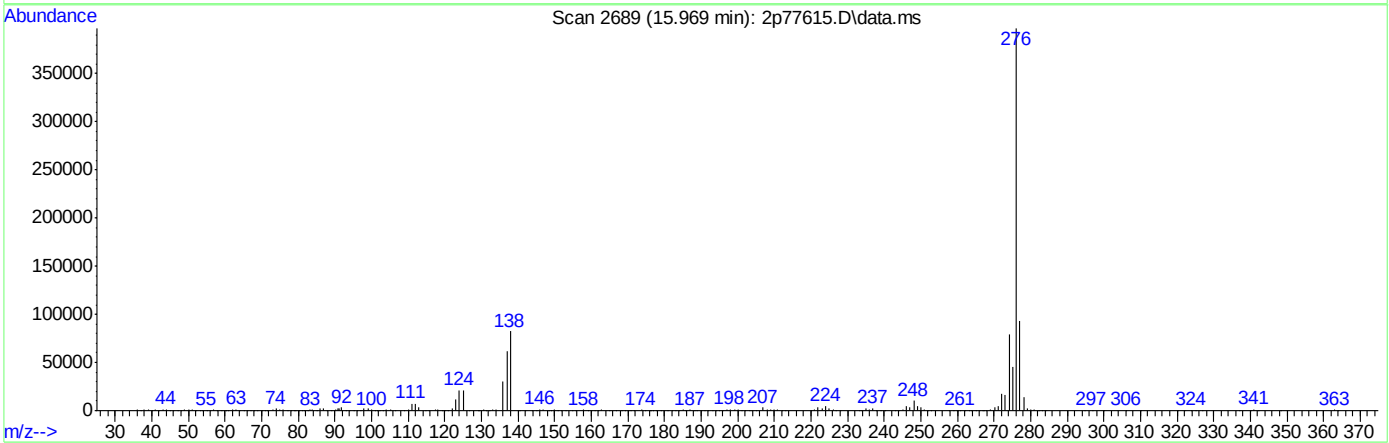
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77615.D
Acq On : 23 Feb 2018 1:31 pm
Operator : kristis
Sample : ic3416-10
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 23 15:14:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 13:00:22 2018
Response via : Initial Calibration





TIC: 2p77615.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.969min (-0.032) 10.41ppm m

response 739952

Ion	Exp%	Act%
276.10	100	100
138.00	29.20	20.81
137.10	21.00	15.42
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77616.D
Acq On : 23 Feb 2018 4:15 pm
Operator : kristis
Sample : icv3416-50
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 23 17:21:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 15:20:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.037	152	509238	40.00	ppm	0.00
24) Naphthalene-d8	6.090	136	1822503	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	936603	40.00	ppm	0.00
69) Phenanthrene-d10	8.914	188	1621551	40.00	ppm	0.00
83) Chrysene-d12	12.332	240	1791280	40.00	ppm	0.00
91) Perylene-d12	14.365	264	1737147	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.037	152	509238	40.00	ppm	0.00
103) Naphthalene-d8a	6.090	136	1822503	40.00	ppm	0.00
105) Acenaphthene-d10a	7.540	164	936603	40.00	ppm	0.00
108) Chrysene-d12a	12.332	240	1791280	40.00	ppm	0.00
110) Phenanthrene-d10a	8.914	188	1621551	40.00	ppm	0.00
114) Chrysene-d12b	12.332	240	1791280	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.951	112	985428	44.42	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 88.84%#			
8) Phenol-d5	4.732	99	1117537	42.00	ppm	0.00
Spiked Amount 50.000	Range 10 - 59		Recovery = 84.00%#			
25) Nitrobenzene-d5	5.491	82	977094	48.60	ppm	0.00
Spiked Amount 50.000	Range 19 - 61		Recovery = 97.20%#			
51) 2-Fluorobiphenyl	6.978	172	1665071	45.35	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery = 90.70%#			
73) 2,4,6-Tribromophenol	8.230	330	218014	44.37	ppm	0.00
Spiked Amount 50.000	Range 12 - 68		Recovery = 88.74%#			
85) Terphenyl-d14	10.851	244	1974659	41.69	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery = 83.38%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#			

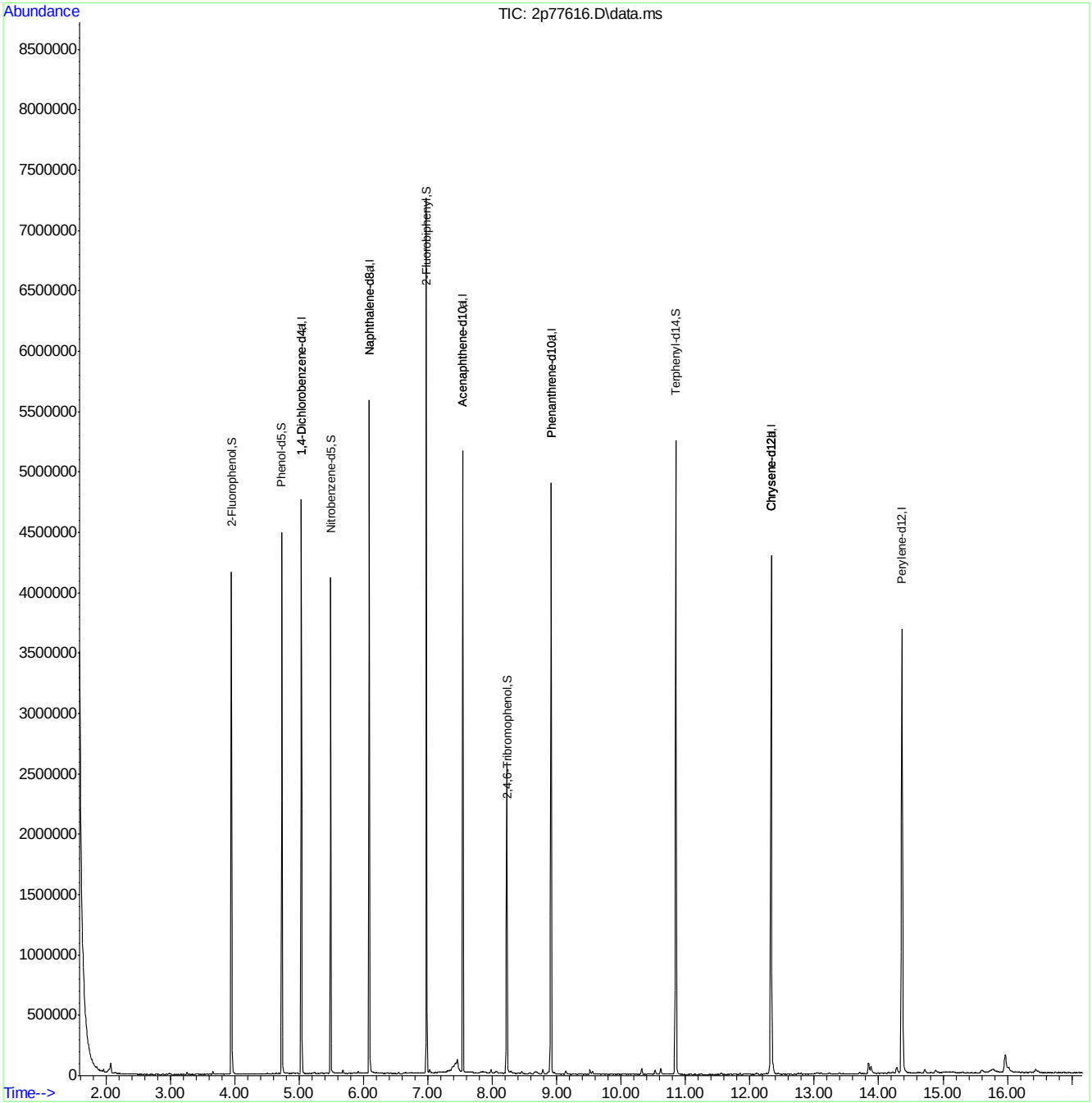
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3416\
Data File : 2p77616.D
Acq On : 23 Feb 2018 4:15 pm
Operator : kristis
Sample : icv3416-50
Misc : op8196,e2p3416,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 23 17:21:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Feb 23 15:20:32 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77626.D
Acq On : 23 Feb 2018 8:07 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 28 14:46:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 10:42:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.042	152	537767	40.00	ppm	0.00
24) Naphthalene-d8	6.090	136	1714387	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	866292	40.00	ppm	0.00
69) Phenanthrene-d10	8.914	188	1852533	40.00	ppm	0.00
83) Chrysene-d12	12.337	240	1632735	40.00	ppm	0.00
91) Perylene-d12	14.365	264	1784223	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.042	152	537767	40.00	ppm	0.00
103) Naphthalene-d8a	6.090	136	1714387	40.00	ppm	0.00
105) Acenaphthene-d10a	7.540	164	866292	40.00	ppm	0.00
108) Chrysene-d12a	12.337	240	1632735	40.00	ppm	0.00
110) Phenanthrene-d10a	8.914	188	1852533	40.00	ppm	0.00
114) Chrysene-d12b	12.337	240	1632093	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						Qvalue
4) N-Nitrosodimethylamine	2.721	74	393935	36.81	ppm	97
11) bis(2-Chloroethyl)ether	4.817	93	978378	52.60	ppm	95
14) 1,3-Dichlorobenzene	4.994	146	1128676	48.70	ppm	99
15) 1,4-Dichlorobenzene	5.053	146	949958	43.66	ppm	98
17) 1,2-Dichlorobenzene	5.181	146	896750	45.40	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.261	121	240373	47.65	ppm	90
22) n-Nitroso-di-n-propyla...	5.368	70	547165	43.45	ppm	95
23) Hexachloroethane	5.464	201	380678	42.22	ppm	88
26) Nitrobenzene	5.513	77	785162	44.45	ppm	98
28) Isophorone	5.705	82	1446998	44.69	ppm	99
32) bis(2-Chloroethoxy)met...	5.882	93	879394	51.95	ppm	99
36) 1,2,4-Trichlorobenzene	6.042	180	853484	48.66	ppm	98
38) Naphthalene	6.112	128	2060372	46.70	ppm	99
42) Hexachlorobutadiene	6.213	225	458699	47.28	ppm	99
48) Hexachlorocyclopentadiene	6.818	237	482266	54.14	ppm	96
52) 2-Chloronaphthalene	7.080	162	1538506	53.38	ppm	100
55) Dimethylphthalate	7.310	163	1702956	49.00	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77626.D
Acq On : 23 Feb 2018 8:07 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 28 14:46:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 10:42:37 2018
Response via : Initial Calibration

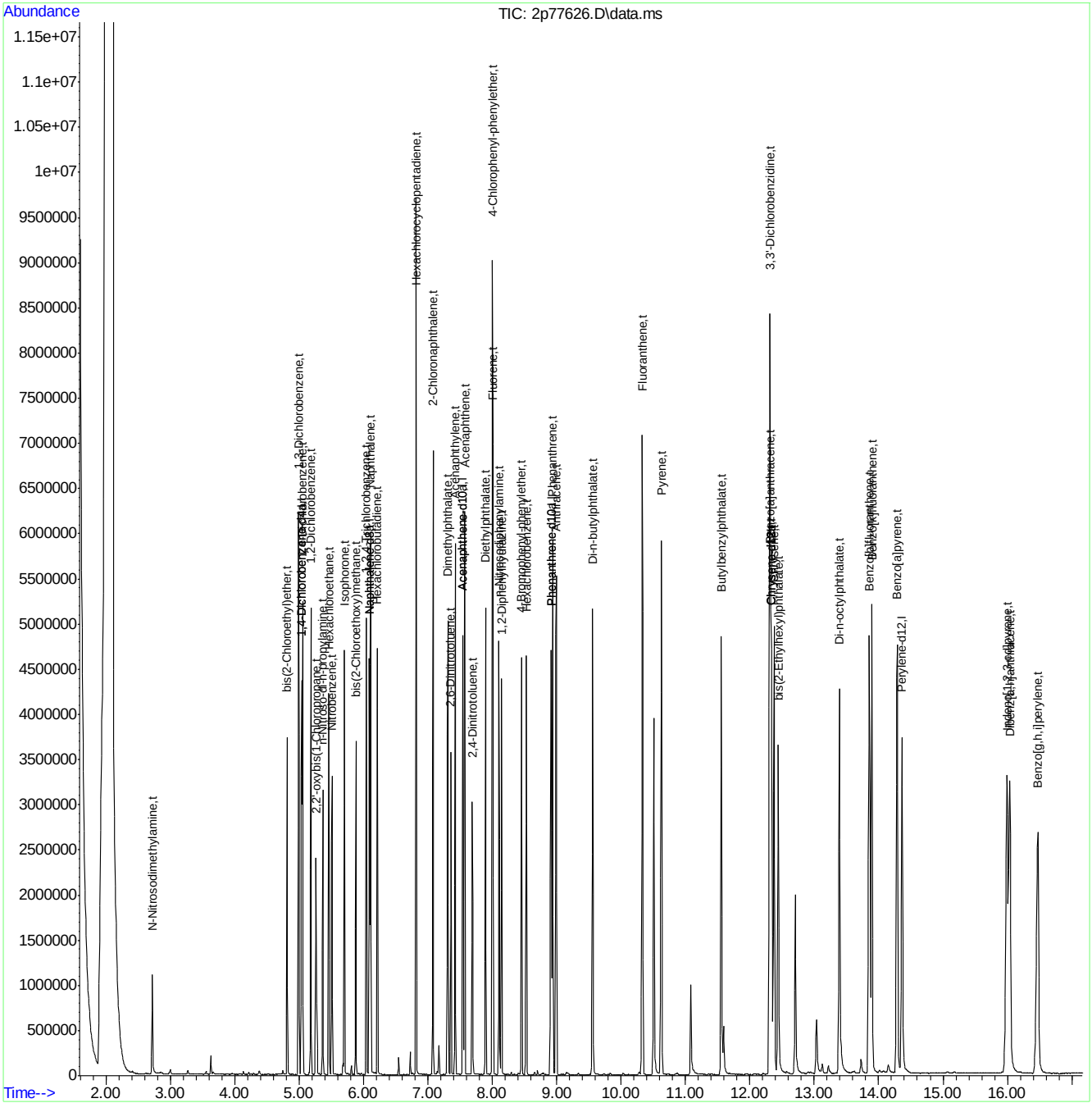
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56)	Acenaphthylene	7.422	152	2033950	45.35	ppm	99
57)	2,6-Dinitrotoluene	7.358	165	342591	44.86	ppm	97
59)	Acenaphthene	7.572	153	1364187	46.51	ppm	94
63)	2,4-Dinitrotoluene	7.690	165	427415	43.41	ppm	91
65)	Diethylphthalate	7.898	149	1579242	47.92	ppm	99
66)	Fluorene	8.010	166	1480858	44.98	ppm	99
67)	4-Chlorophenyl-phenyle...	8.005	204	837062	45.01	ppm	95
71)	n-Nitrosodiphenylamine	8.107	169	1004666	38.93	ppm	98
72)	1,2-Diphenylhydrazine	8.144	77	1394072	40.51	ppm	99
74)	4-Bromophenyl-phenylether	8.454	248	528829	41.13	ppm	91
75)	Hexachlorobenzene	8.529	284	564784	40.94	ppm	95
77)	Phenanthrene	8.941	178	2330283	45.23	ppm	100
78)	Anthracene	8.995	178	2191299	42.32	ppm	99
80)	Di-n-butylphthalate	9.562	149	2888549	43.64	ppm	100
81)	Fluoranthene	10.332	202	3238693	42.38	ppm	99
84)	Pyrene	10.626	202	2892784	46.16	ppm	99
86)	Butylbenzylphthalate	11.557	149	1393591	50.31	ppm	99
87)	Benzo[a]anthracene	12.321	228	2788356	45.69	ppm	99
88)	3,3'-Dichlorobenzidine	12.311	252	1444316	58.28	ppm	98
89)	Chrysene	12.380	228	2233393	46.70	ppm	100
90)	bis(2-Ethylhexyl)phtha...	12.439	149	1348130	48.47	ppm	98
92)	Di-n-octylphthalate	13.391	149	2990162	48.42	ppm	99
93)	Benzo[b]fluoranthene	13.857	252	2911340	44.97	ppm	93
94)	Benzo[k]fluoranthene	13.894	252	2595682	47.03	ppm	98
95)	Benzo[a]pyrene	14.290	252	2631877	46.96	ppm	99
96)	Indeno[1,2,3-cd]pyrene	15.996	276	2870380	53.16	ppm	98
98)	Dibenz[a,h]anthracene	16.039	278	2484356	49.63	ppm	99
100)	Benzo[g,h,i]perylene	16.472	276	2600595	51.92	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77626.D
Acq On : 23 Feb 2018 8:07 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 28 14:46:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 10:42:37 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77627.D
Acq On : 23 Feb 2018 8:29 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 28 14:47:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 10:42:36 2018
Response via : Initial Calibration

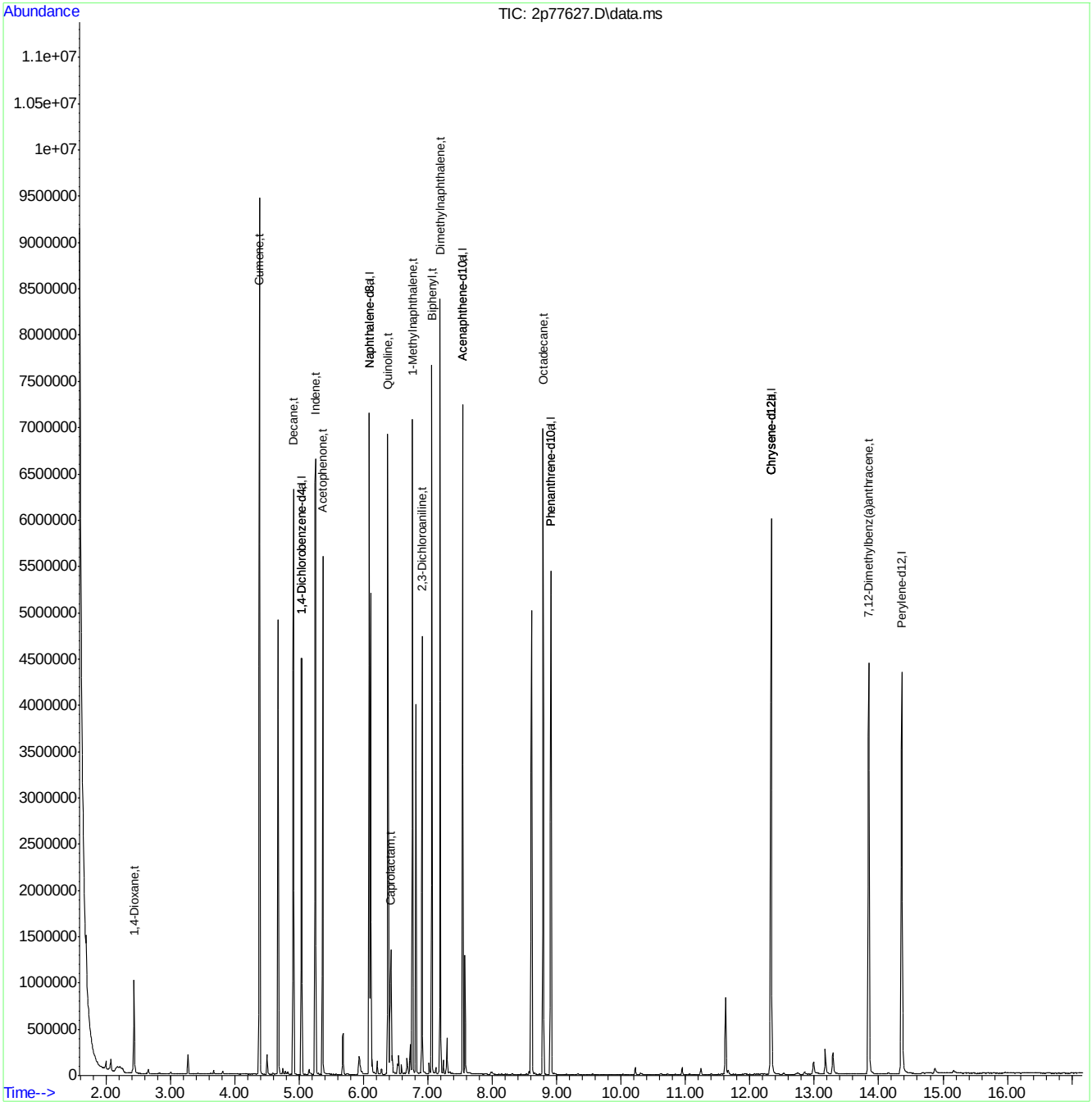
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.042	152	584517	40.00	ppm	0.00
24) Naphthalene-d8	6.090	136	2402856	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	1219359	40.00	ppm	0.00
69) Phenanthrene-d10	8.909	188	1989408	40.00	ppm	0.00
83) Chrysene-d12	12.332	240	2740169	40.00	ppm	0.00
91) Perylene-d12	14.359	264	2118586	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.042	152	584517	40.00	ppm	0.00
103) Naphthalene-d8a	6.090	136	2402856	40.00	ppm	# 0.00
105) Acenaphthene-d10a	7.540	164	1219359	40.00	ppm	0.00
108) Chrysene-d12a	12.332	240	2740169	40.00	ppm	0.00
110) Phenanthrene-d10a	8.909	188	1989408	40.00	ppm	0.00
114) Chrysene-d12b	12.332	240	2740169	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.437	88	390697	46.47	ppm	99
6) Indene	5.256	116	1738868	54.46	ppm	98
7) Cumene	4.384	105	2834779	45.74	ppm	99
13) Decane	4.914	57	960343	45.82	ppm	96
18) Acetophenone	5.368	105	1294223	45.74	ppm	81
27) Quinoline	6.379	129	1850897	40.79	ppm	98
40) 2,3-Dichloroaniline	6.909	161	818807	32.61	ppm	97
41) Caprolactam	6.427	113	260785	35.13	ppm	98
45) 1-Methylnaphthalene	6.759	141	1445999	35.10	ppm	98
46) Dimethylnaphthalene	7.192	156	1507227	36.69	ppm	99
53) Biphenyl	7.064	154	2109372	38.51	ppm	100
82) Octadecane	8.791	43	791583	49.12	ppm	96
99) 7,12-Dimethylbenz(a)an...	13.846	256	1139948	34.36	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77627.D
Acq On : 23 Feb 2018 8:29 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 28 14:47:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 10:42:36 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77628.D
Acq On : 23 Feb 2018 8:50 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 26 11:12:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 10:42:36 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.037	152	563007	40.00	ppm	0.00
24) Naphthalene-d8	6.091	136	1803838	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	1095071	40.00	ppm	0.00
69) Phenanthrene-d10	8.909	188	2008353	40.00	ppm	0.00
83) Chrysene-d12	12.332	240	2425907	40.00	ppm	0.00
91) Perylene-d12	14.360	264	2470537	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.037	152	563007	40.00	ppm	0.00
103) Naphthalene-d8a	6.091	136	1803838	40.00	ppm	0.00
105) Acenaphthene-d10a	7.540	164	1095071	40.00	ppm	0.00
108) Chrysene-d12a	12.332	240	2425907	40.00	ppm	0.00
110) Phenanthrene-d10a	8.909	188	2008353	40.00	ppm	0.00
114) Chrysene-d12b	12.332	240	2425900	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						Qvalue
9) Phenol	4.748	94	1289448	40.29	ppm	97
12) 2-Chlorophenol	4.866	128	1020760	44.63	ppm	100
19) 2-Methylphenol	5.245	108	788065	45.42	ppm	98
21) 3&4-Methylphenol	5.368	108	823885	44.04	ppm	98
29) 2-Nitrophenol	5.775	139	487437	48.58	ppm	95
30) 2,4-Dimethylphenol	5.807	107	832159	48.59	ppm	98
31) Benzoic acid	5.919	105	538520	42.43	ppm	98
33) 2,4-Dichlorophenol	5.973	162	672746	42.80	ppm	98
34) 2,6-Dichlorophenol	6.160	162	650551	47.12	ppm	98
43) 4-Chloro-3-methylphenol	6.545	107	749562	45.92	ppm	91
49) 2,4,6-Trichlorophenol	6.909	196	564605	42.54	ppm	98
50) 2,4,5-Trichlorophenol	6.936	196	545282	40.13	ppm	96
60) 2,4-Dinitrophenol	7.577	184	155836	36.17	ppm	71
61) 4-Nitrophenol	7.631	109	271701	42.93	ppm	96
64) 2,3,4,6-Tetrachlorophenol	7.813	232	480310	40.05	ppm	93
70) 4,6-Dinitro-2-methylph...	8.043	198	309881	44.22	ppm	91
76) Pentachlorophenol	8.717	266	499480	53.01	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77628.D
Acq On : 23 Feb 2018 8:50 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 26 11:12:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 10:42:36 2018
Response via : Initial Calibration

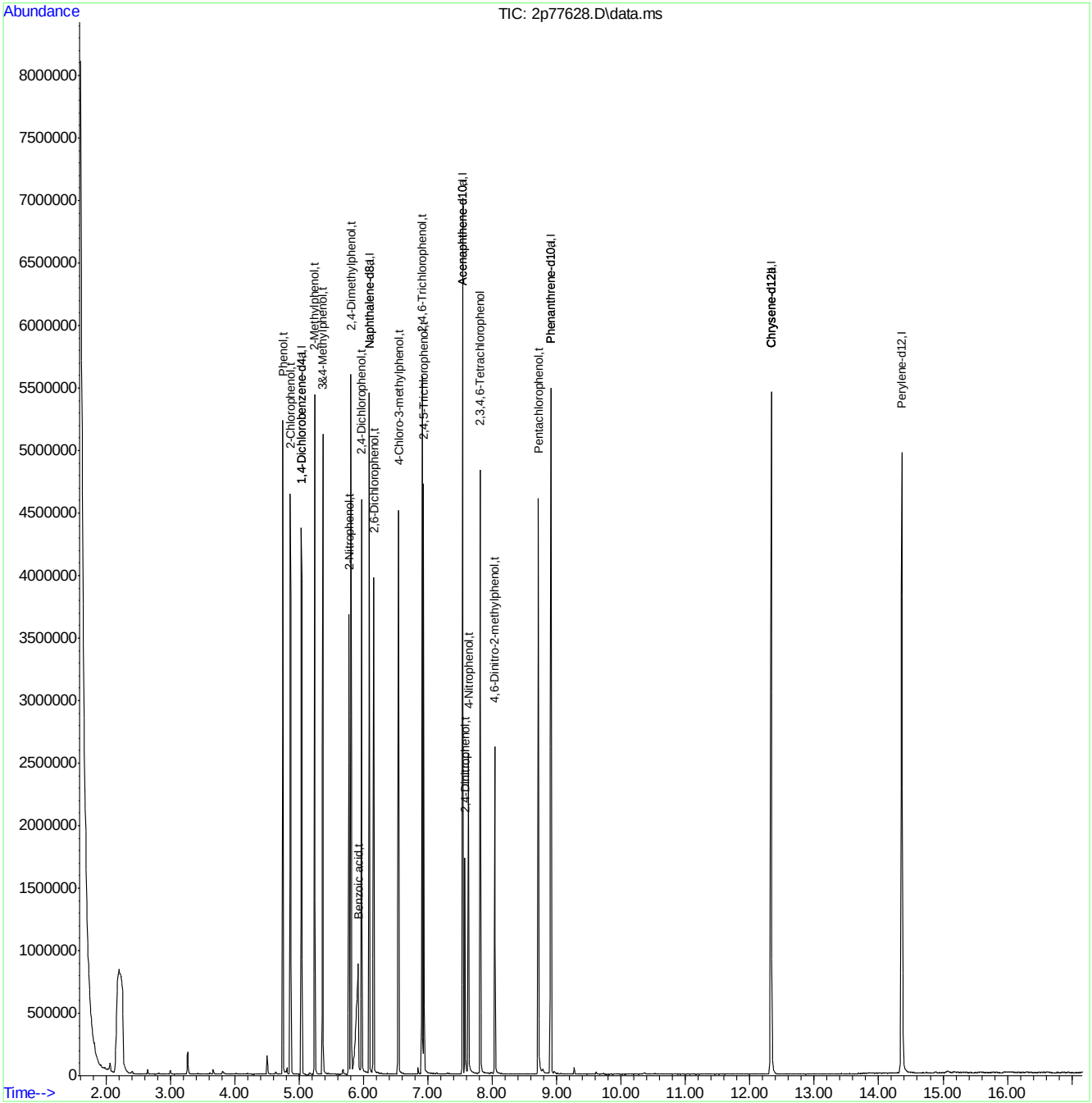
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77628.D
Acq On : 23 Feb 2018 8:50 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 26 11:12:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 10:42:36 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77629.D
Acq On : 23 Feb 2018 9:11 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 26 11:18:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 09:58:56 2018
Response via : Initial Calibration

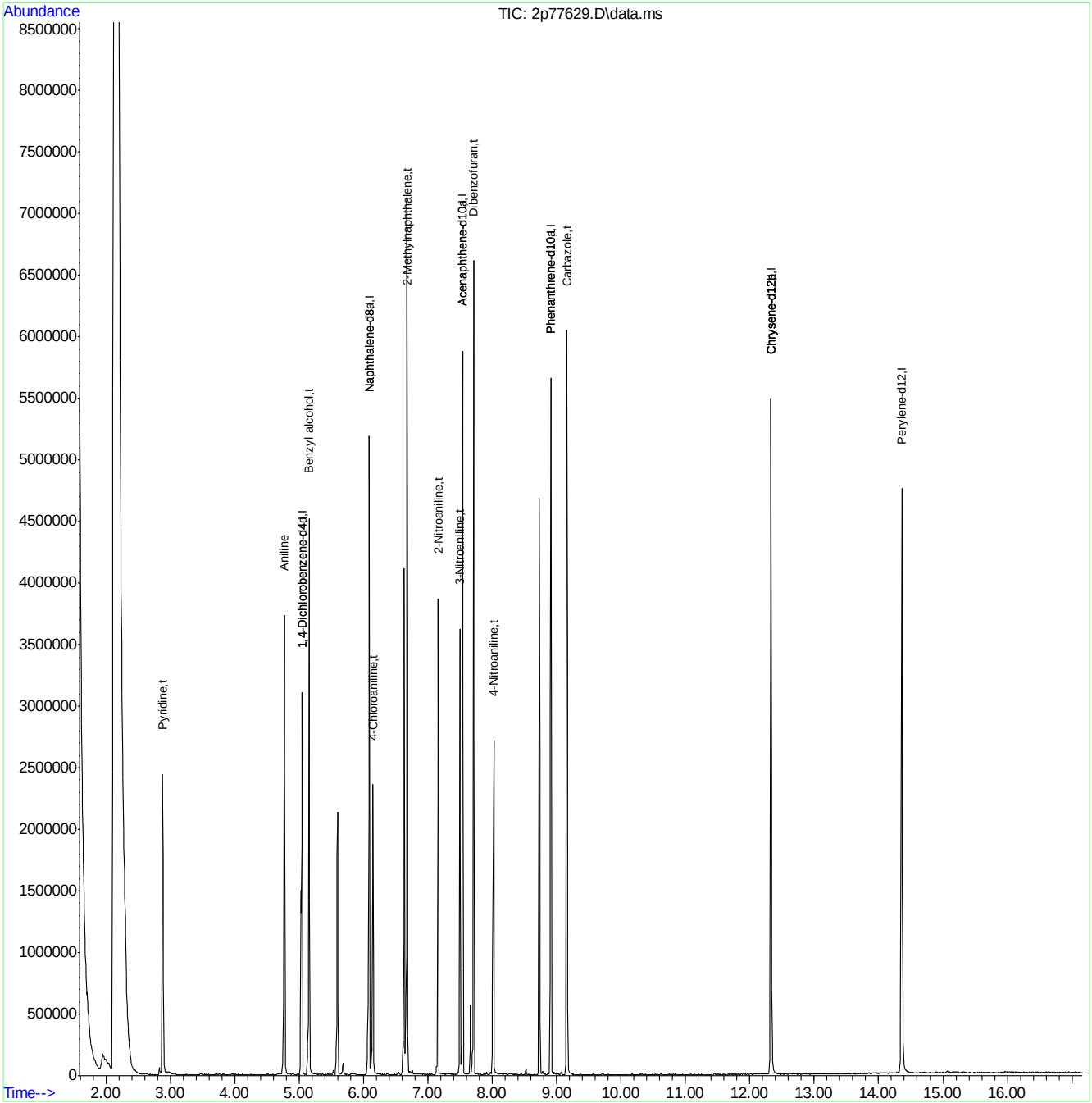
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.047	152	567345	40.00	ppm	0.01
24) Naphthalene-d8	6.090	136	2141651	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	995253	40.00	ppm	0.00
69) Phenanthrene-d10	8.909	188	2045009	40.00	ppm	0.00
83) Chrysene-d12	12.327	240	2392154	40.00	ppm	-0.01
91) Perylene-d12	14.359	264	2360863	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.047	152	567345	40.00	ppm	0.01
103) Naphthalene-d8a	6.090	136	2141651	40.00	ppm	0.00
105) Acenaphthene-d10a	7.540	164	995253	40.00	ppm	0.00
108) Chrysene-d12a	12.327	240	2392154	40.00	ppm	0.00
110) Phenanthrene-d10a	8.909	188	2045009	40.00	ppm	0.00
114) Chrysene-d12b	12.327	240	2391942	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						Qvalue
3) Pyridine	2.881	79	805479	38.96	ppm	99
10) Aniline	4.774	93	1198126	37.55	ppm	99
16) Benzyl alcohol	5.160	108	578989	45.55	ppm	99
39) 4-Chloroaniline	6.149	127	578541	23.56	ppm	98
44) 2-Methylnaphthalene	6.679	141	1423759	39.56	ppm	96
54) 2-Nitroaniline	7.160	65	503292	46.77	ppm	92
58) 3-Nitroaniline	7.497	138	451551	44.37	ppm	93
62) Dibenzofuran	7.711	168	2130942	47.53	ppm	100
68) 4-Nitroaniline	8.021	138	452369	46.60	ppm	98
79) Carbazole	9.160	167	2495288	44.81	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77629.D
Acq On : 23 Feb 2018 9:11 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 26 11:18:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 09:58:56 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77630a.D
Acq On : 23 Feb 2018 9:33 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 28 14:49:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 10:42:36 2018
Response via : Initial Calibration

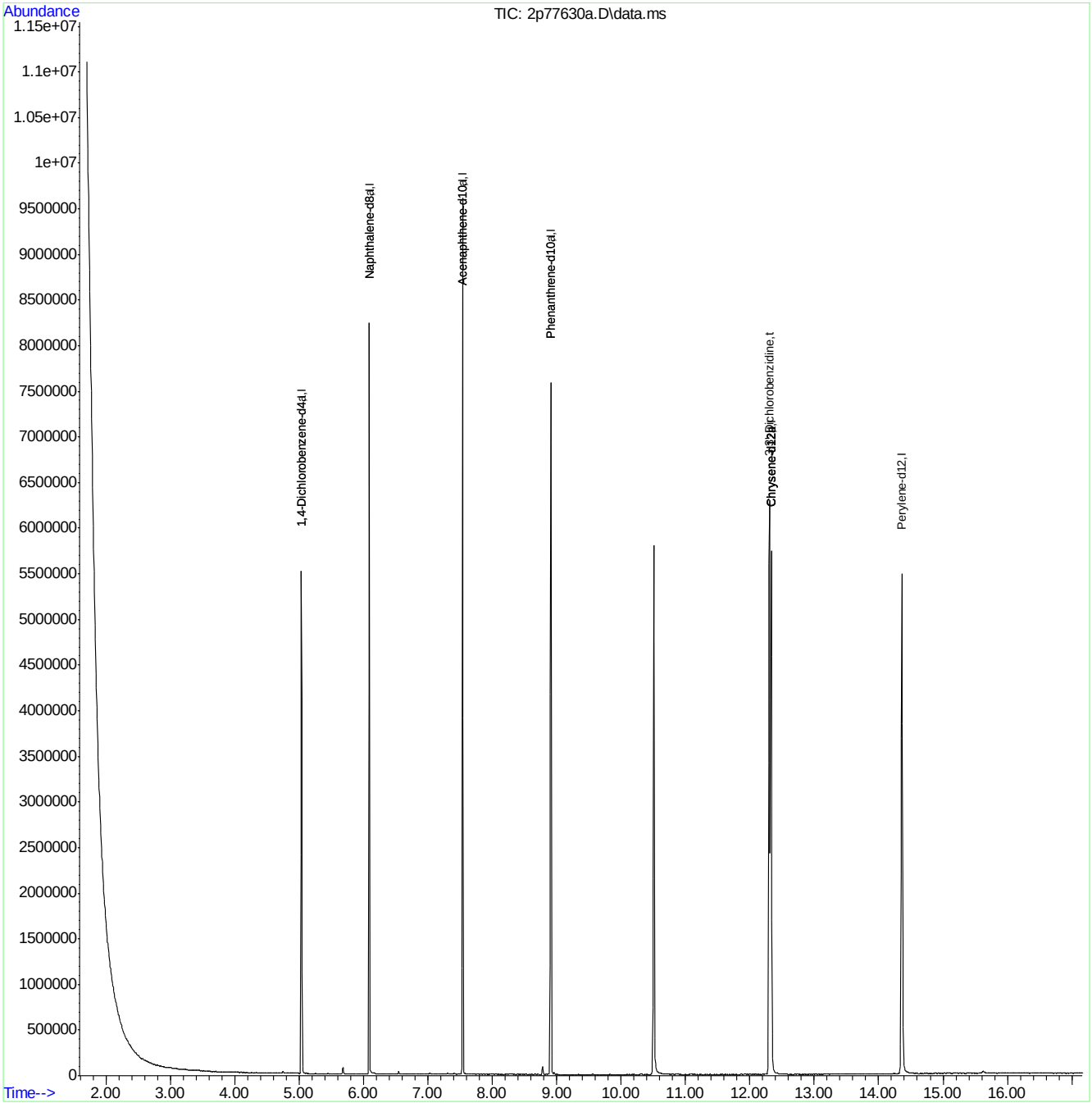
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.037	152	720997	40.00	ppm	0.00
24) Naphthalene-d8	6.090	136	2727068	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	1643744	40.00	ppm	0.00
69) Phenanthrene-d10	8.909	188	2808073	40.00	ppm	0.00
83) Chrysene-d12	12.332	240	2621457	40.00	ppm	0.00
91) Perylene-d12	14.365	264	2621322	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.037	152	720997	40.00	ppm	0.00
103) Naphthalene-d8a	6.090	136	2727068	40.00	ppm	0.00
105) Acenaphthene-d10a	7.540	164	1643744	40.00	ppm	0.00
108) Chrysene-d12a	12.332	240	2621457	40.00	ppm	0.00
110) Phenanthrene-d10a	8.909	188	2808073	40.00	ppm	0.00
114) Chrysene-d12b	12.332	240	2621457	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						Qvalue
88) 3,3'-Dichlorobenzidine	12.305	252	1680261	42.23	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3417\
Data File : 2p77630a.D
Acq On : 23 Feb 2018 9:33 pm
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3417,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 28 14:49:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 10:42:36 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3418\
Data File : 2p77635.D
Acq On : 26 Feb 2018 11:30 am
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3418,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 14:56:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 09:58:56 2018
Response via : Initial Calibration

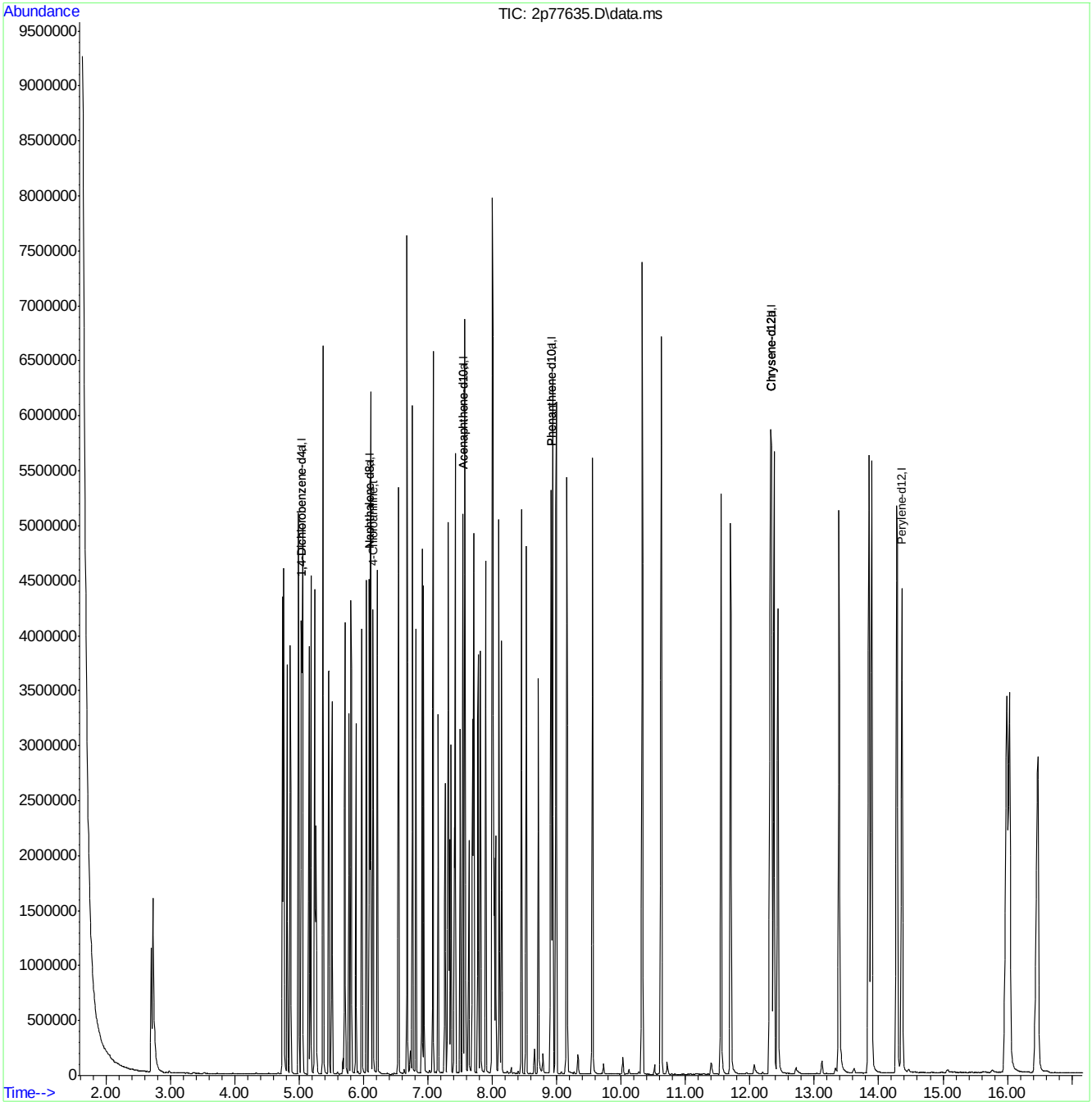
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.037	152	545189	40.00	ppm	0.00
24) Naphthalene-d8	6.096	136	1792659	40.00	ppm	0.00
47) Acenaphthene-d10	7.545	164	1022251	40.00	ppm	0.00
69) Phenanthrene-d10	8.914	188	2095272	40.00	ppm	0.00
83) Chrysene-d12	12.338	240	2208178	40.00	ppm	0.00
91) Perylene-d12	14.365	264	2170232	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	5.037	152	545189	40.00	ppm	0.00
103) Naphthalene-d8a	6.096	136	1792659	40.00	ppm	0.00
105) Acenaphthene-d10a	7.545	164	1022251	40.00	ppm	0.00
108) Chrysene-d12a	12.338	240	2208178	40.00	ppm	0.00
110) Phenanthrene-d10a	8.914	188	2095272	40.00	ppm	0.00
114) Chrysene-d12b	12.338	240	2208178	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						Qvalue
39) 4-Chloroaniline	6.149	127	899828	43.78	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3418\
Data File : 2p77635.D
Acq On : 26 Feb 2018 11:30 am
Operator : robertl1
Sample : ICV3416-50
Misc : op8196,e2p3418,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 14:56:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Feb 26 09:58:56 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77711.D
Acq On : 9 Mar 2018 9:30 am
Operator : seanb1
Sample : ic3422-100
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 09 15:07:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 14:57:27 2018
Response via : Initial Calibration

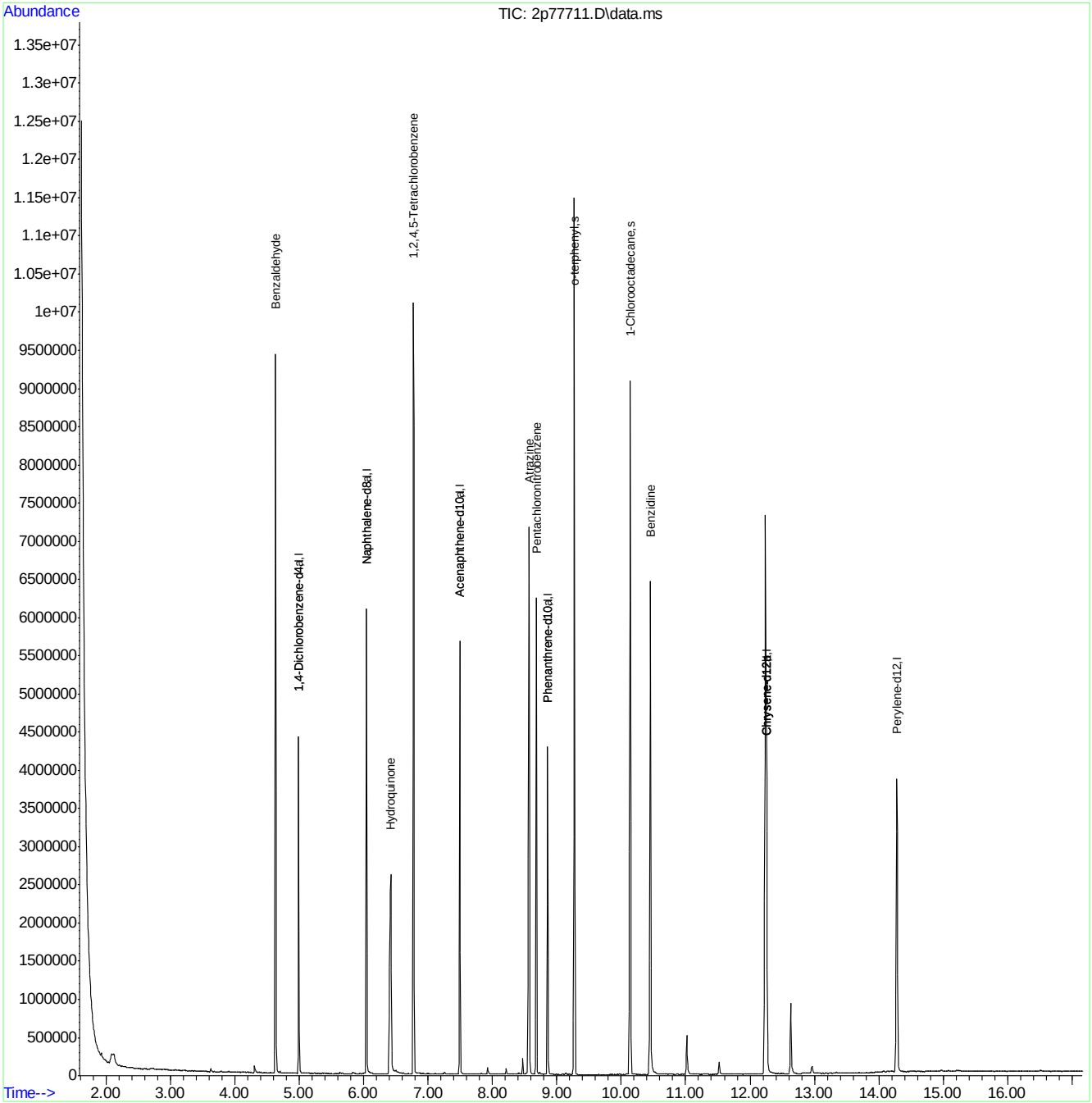
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.994	152	501593	40.00	ppm	-0.04
24) Naphthalene-d8	6.048	136	2094317	40.00	ppm	-0.04
47) Acenaphthene-d10	7.497	164	964586	40.00	ppm	-0.04
69) Phenanthrene-d10	8.861	188	1605941	40.00	ppm	-0.05
83) Chrysene-d12	12.258	240	1566542	40.00	ppm	-0.08
91) Perylene-d12	14.279	264	1772755	40.00	ppm	-0.08
101) 1,4-Dichlorobenzene-d4a	4.994	152	501593	40.00	ppm	0.00
103) Naphthalene-d8a	6.048	136	2094317	40.00	ppm	0.00
105) Acenaphthene-d10a	7.497	164	964586	40.00	ppm	0.00
108) Chrysene-d12a	12.258	240	1566542	40.00	ppm	0.00
110) Phenanthrene-d10a	8.861	188	1605941	40.00	ppm	0.00
114) Chrysene-d12b	12.258	240	1566542	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	10.139	57	1281192	103.65	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	207.30%#		
112) o-terphenyl	9.273	230	2357198	95.74	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	191.48%#		
Target Compounds						Qvalue
102) Benzaldehyde	4.636	105	1496611	102.47	ppm	98
104) Hydroquinone	6.427	110	1661080	101.80	ppm	98
106) Atrazine	8.572	215	523036	94.82	ppm	97
107) 1,2,4,5-Tetrachloroben...	6.775	216	1511846	91.57	ppm	98
109) Benzidine	10.455	184	3047717	90.80	ppm	99
113) Pentachloronitrobenzene	8.685	295	163562	102.39	ppm	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77711.D
Acq On : 9 Mar 2018 9:30 am
Operator : seanb1
Sample : ic3422-100
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 09 15:07:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 14:57:27 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77712.D
Acq On : 9 Mar 2018 9:52 am
Operator : seanb1
Sample : ic3422-80
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 15:08:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration

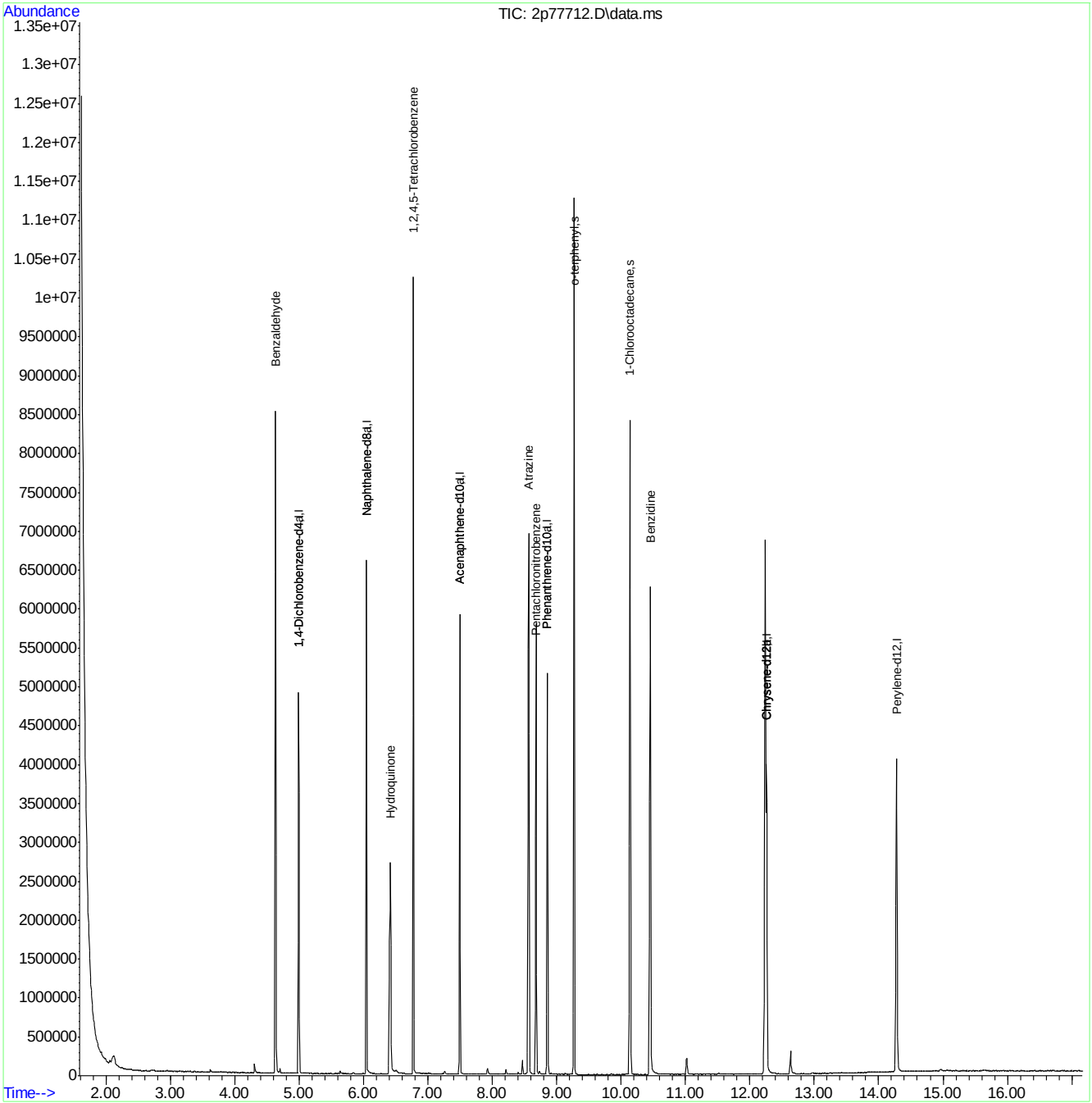
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.994	152	569558	40.00	ppm	0.00
24) Naphthalene-d8	6.048	136	2284208	40.00	ppm	0.00
47) Acenaphthene-d10	7.492	164	1063772	40.00	ppm	0.00
69) Phenanthrene-d10	8.856	188	1763098	40.00	ppm	0.00
83) Chrysene-d12	12.257	240	1664970	40.00	ppm	0.00
91) Perylene-d12	14.279	264	1901915	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.994	152	569558	40.00	ppm	0.00
103) Naphthalene-d8a	6.048	136	2284208	40.00	ppm	0.00
105) Acenaphthene-d10a	7.492	164	1063772	40.00	ppm	0.00
108) Chrysene-d12a	12.257	240	1664970	40.00	ppm	0.00
110) Phenanthrene-d10a	8.856	188	1763098	40.00	ppm	0.00
114) Chrysene-d12b	12.257	240	1664970	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	10.139	57	1114331	82.11	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	164.22%#		
112) o-terphenyl	9.273	230	2146866	79.43	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	158.86%#		
Target Compounds						Qvalue
102) Benzaldehyde	4.636	105	1344961	81.10	ppm	98
104) Hydroquinone	6.422	110	1448808	81.41	ppm	97
106) Atrazine	8.567	215	466653	76.71	ppm	98
107) 1,2,4,5-Tetrachloroben...	6.775	216	1434140	78.76	ppm	98
109) Benzidine	10.455	184	2875029	80.59	ppm	100
113) Pentachloronitrobenzene	8.685	295	145727	83.09	ppm	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77712.D
Acq On : 9 Mar 2018 9:52 am
Operator : seanb1
Sample : ic3422-80
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 15:08:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77713.D
Acq On : 9 Mar 2018 10:13 am
Operator : seanb1
Sample : icc3422-50
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 15:08:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration

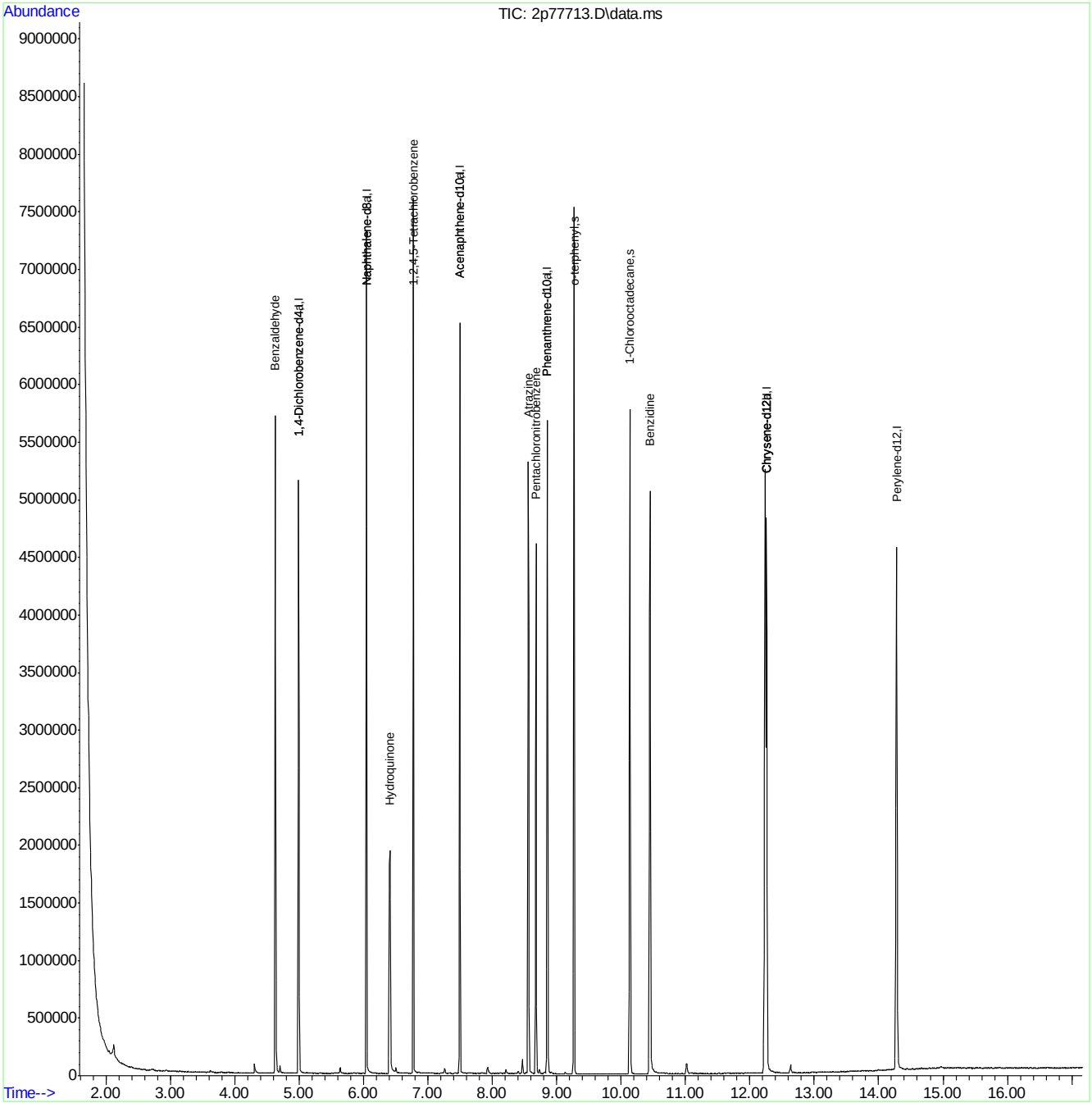
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.994	152	621223	40.00	ppm	0.00
24) Naphthalene-d8	6.048	136	2459896	40.00	ppm	0.00
47) Acenaphthene-d10	7.497	164	1143475	40.00	ppm	0.00
69) Phenanthrene-d10	8.856	188	1977367	40.00	ppm	0.00
83) Chrysene-d12	12.257	240	1978167	40.00	ppm	0.00
91) Perylene-d12	14.279	264	2116545	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.994	152	621223	40.00	ppm	0.00
103) Naphthalene-d8a	6.048	136	2459896	40.00	ppm	0.00
105) Acenaphthene-d10a	7.497	164	1143475	40.00	ppm	0.00
108) Chrysene-d12a	12.257	240	1978167	40.00	ppm	0.00
110) Phenanthrene-d10a	8.856	188	1977367	40.00	ppm	0.00
114) Chrysene-d12b	12.257	240	1978207	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	10.139	57	761013	50.00	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	100.00%#		
112) o-terphenyl	9.273	230	1515699	50.00	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	100.00%#		
Target Compounds						Qvalue
102) Benzaldehyde	4.630	105	904471	50.00	ppm	100
104) Hydroquinone	6.411	110	958293	50.00	ppm	100
106) Atrazine	8.561	215	326961	50.00	ppm	100
107) 1,2,4,5-Tetrachloroben...	6.775	216	978659	50.00	ppm	100
109) Benzidine	10.450	184	2103541	49.63	ppm	100
113) Pentachloronitrobenzene	8.679	295	98345	50.00	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77713.D
Acq On : 9 Mar 2018 10:13 am
Operator : seanb1
Sample : icc3422-50
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 15:08:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77714.D
Acq On : 9 Mar 2018 10:34 am
Operator : seanb1
Sample : ic3422-25
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 15:09:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration

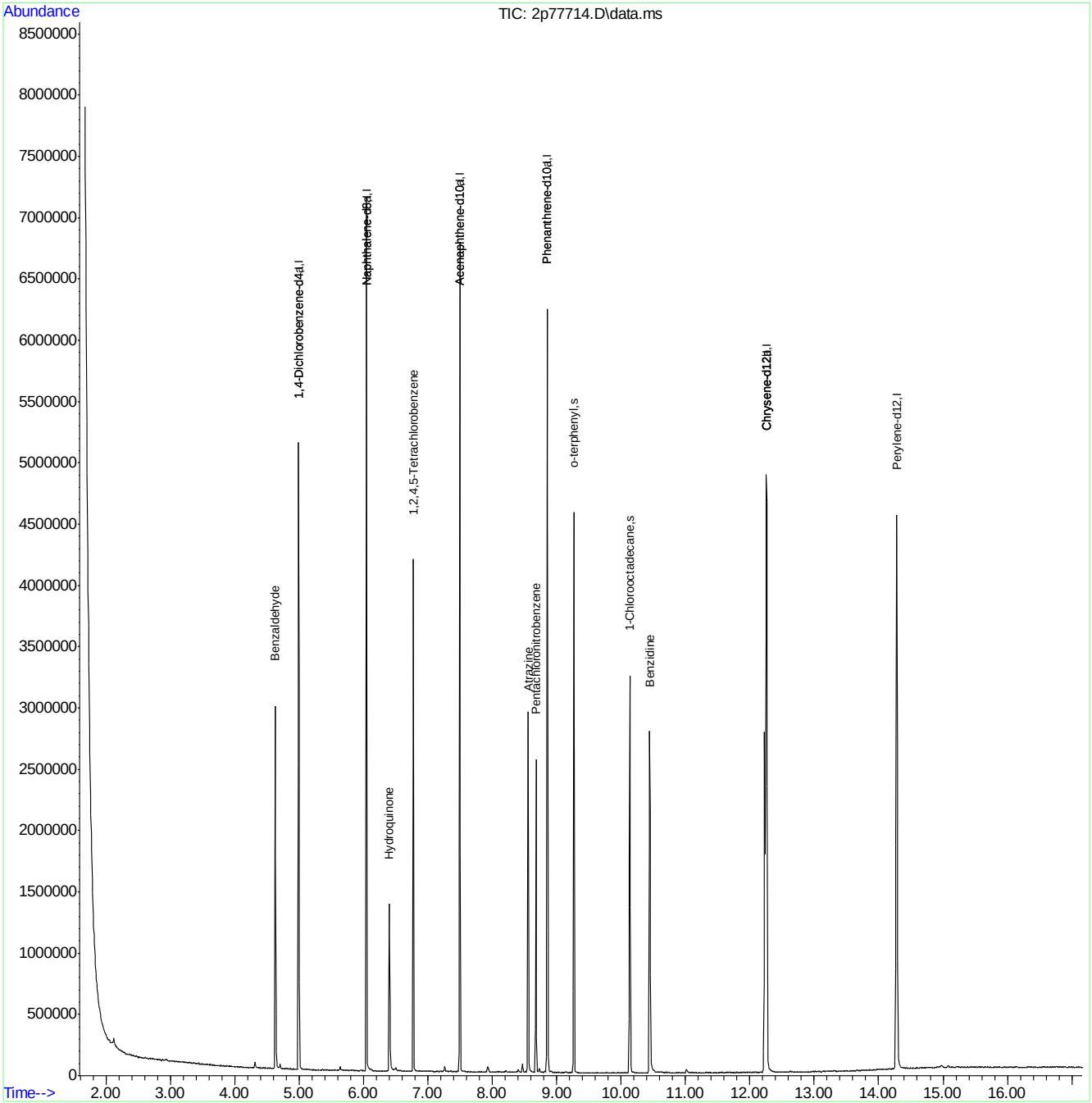
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.994	152	626579	40.00	ppm	0.00
24) Naphthalene-d8	6.048	136	2472875	40.00	ppm	0.00
47) Acenaphthene-d10	7.497	164	1204527	40.00	ppm	0.00
69) Phenanthrene-d10	8.856	188	2103955	40.00	ppm	0.00
83) Chrysene-d12	12.257	240	2189096	40.00	ppm	0.00
91) Perylene-d12	14.285	264	2232028	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.994	152	626579	40.00	ppm	0.00
103) Naphthalene-d8a	6.048	136	2472875	40.00	ppm	0.00
105) Acenaphthene-d10a	7.497	164	1204527	40.00	ppm	0.00
108) Chrysene-d12a	12.257	240	2189096	40.00	ppm	0.00
110) Phenanthrene-d10a	8.856	188	2103955	40.00	ppm	0.00
114) Chrysene-d12b	12.257	240	2189096	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	10.134	57	414983	25.62	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	51.24%		
112) o-terphenyl	9.268	230	853458	26.46	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	52.92%		
Target Compounds						Qvalue
102) Benzaldehyde	4.630	105	453115	24.83	ppm	98
104) Hydroquinone	6.401	110	481155	24.97	ppm	97
106) Atrazine	8.562	215	172590	25.06	ppm	88
107) 1,2,4,5-Tetrachloroben...	6.775	216	532662	25.83	ppm	100
109) Benzidine	10.444	184	1136847	24.24	ppm	99
113) Pentachloronitrobenzene	8.679	295	51900	24.80	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77714.D
Acq On : 9 Mar 2018 10:34 am
Operator : seanb1
Sample : ic3422-25
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 15:09:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77715.D
Acq On : 9 Mar 2018 10:56 am
Operator : seanb1
Sample : ic3422-10
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 15:09:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration

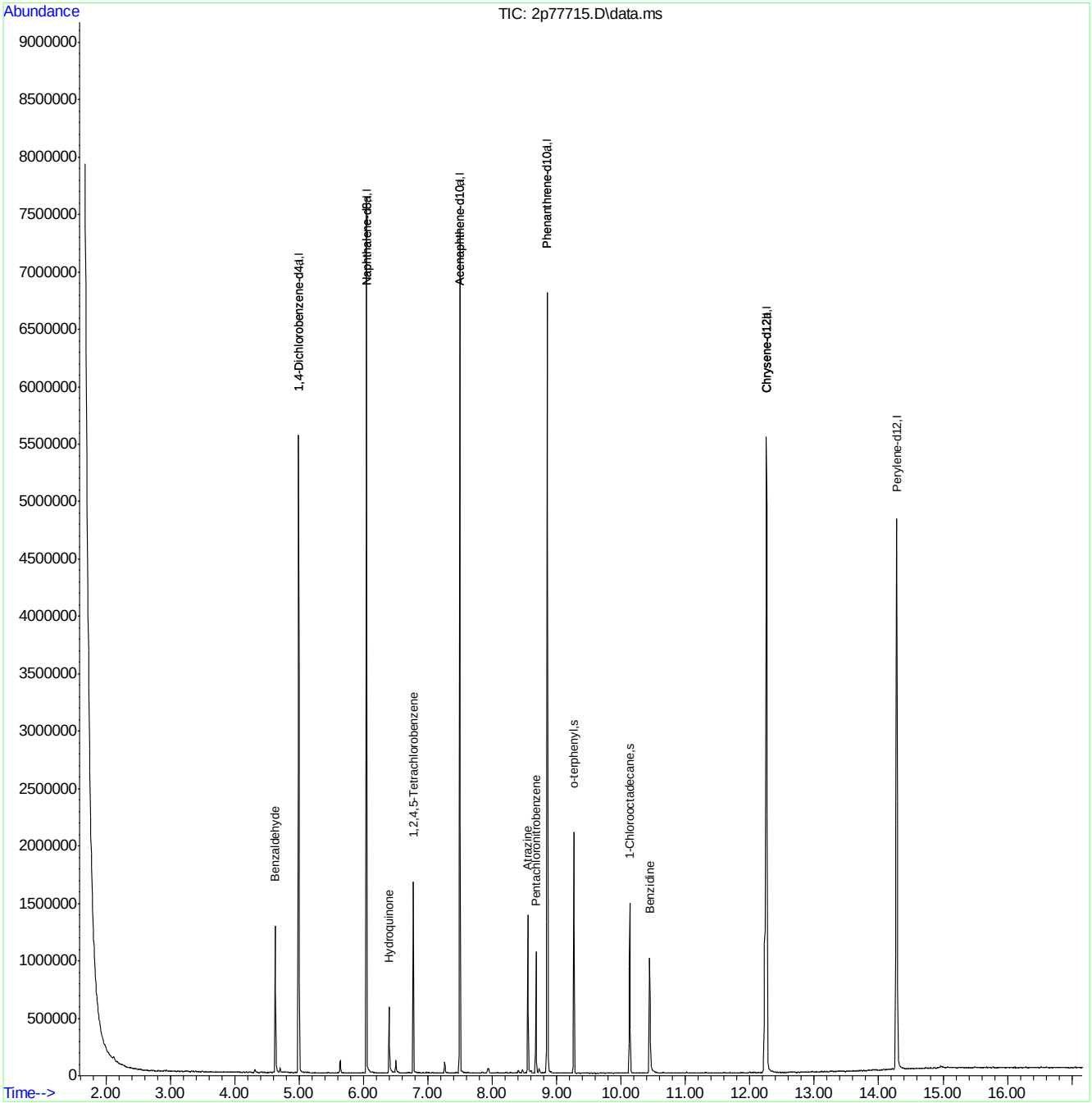
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.994	152	674664	40.00	ppm	0.00
24) Naphthalene-d8	6.048	136	2603202	40.00	ppm	0.00
47) Acenaphthene-d10	7.497	164	1274014	40.00	ppm	0.00
69) Phenanthrene-d10	8.856	188	2362785	40.00	ppm	0.00
83) Chrysene-d12	12.257	240	2419559	40.00	ppm	0.00
91) Perylene-d12	14.284	264	2351200	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.994	152	674664	40.00	ppm	0.00
103) Naphthalene-d8a	6.048	136	2603202	40.00	ppm	0.00
105) Acenaphthene-d10a	7.497	164	1274014	40.00	ppm	0.00
108) Chrysene-d12a	12.257	240	2419559	40.00	ppm	0.00
110) Phenanthrene-d10a	8.856	188	2362785	40.00	ppm	0.00
114) Chrysene-d12b	12.257	240	2419559	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	10.134	57	172614	9.49	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	18.98%#		
112) o-terphenyl	9.267	230	359301	9.92	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	19.84%#		
Target Compounds						Qvalue
102) Benzaldehyde	4.630	105	195475	9.95	ppm	97
104) Hydroquinone	6.401	110	186172	9.18	ppm	99
106) Atrazine	8.556	215	72549	9.96	ppm	94
107) 1,2,4,5-Tetrachloroben...	6.775	216	235795	10.81	ppm	96
109) Benzidine	10.444	184	437451	8.44	ppm	99
113) Pentachloronitrobenzene	8.679	295	21042	8.95	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77715.D
Acq On : 9 Mar 2018 10:56 am
Operator : seanb1
Sample : ic3422-10
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 15:09:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77716.D
Acq On : 9 Mar 2018 11:17 am
Operator : seanb1
Sample : ic3422-5
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 09 15:10:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.994	152	668028	40.00	ppm	0.00
24) Naphthalene-d8	6.048	136	2547763	40.00	ppm	0.00
47) Acenaphthene-d10	7.497	164	1269163	40.00	ppm	0.00
69) Phenanthrene-d10	8.856	188	2378056	40.00	ppm	0.00
83) Chrysene-d12	12.257	240	2468652	40.00	ppm	0.00
91) Perylene-d12	14.279	264	2349104	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.994	152	668028	40.00	ppm	0.00
103) Naphthalene-d8a	6.048	136	2547763	40.00	ppm	0.00
105) Acenaphthene-d10a	7.497	164	1269163	40.00	ppm	0.00
108) Chrysene-d12a	12.257	240	2468652	40.00	ppm	0.00
110) Phenanthrene-d10a	8.856	188	2378056	40.00	ppm	0.00
114) Chrysene-d12b	12.257	240	2468652	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	10.134	57	91051	4.97	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	9.94%#		
112) o-terphenyl	9.267	230	210130	5.76	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	11.52%#		
Target Compounds						Qvalue
102) Benzaldehyde	4.630	105	102736	5.28	ppm	97
104) Hydroquinone	6.401	110	94901	4.78	ppm	97
106) Atrazine	8.556	215	36098	4.97	ppm	94
107) 1,2,4,5-Tetrachloroben...	6.775	216	131836	6.07	ppm	97
109) Benzidine	10.444	184	213131	4.03	ppm	98
113) Pentachloronitrobenzene	8.679	295	10270	4.34	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

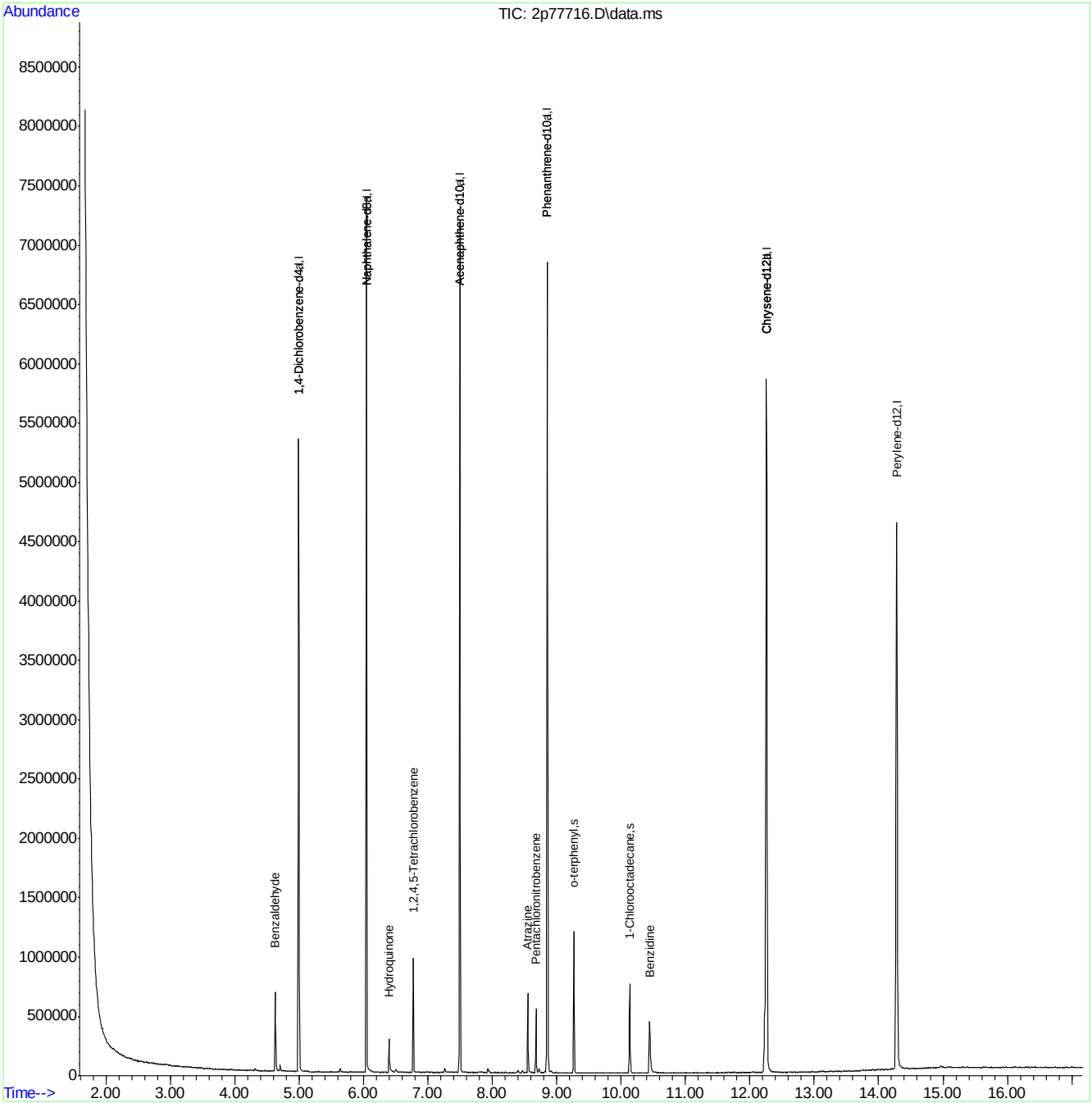
9.6.21

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77716.D
Acq On : 9 Mar 2018 11:17 am
Operator : seanb1
Sample : ic3422-5
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 09 15:10:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration



JC62879

9.6.21
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77717.D
Acq On : 9 Mar 2018 11:39 am
Operator : seanb1
Sample : ic3422-2
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 09 15:11:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration

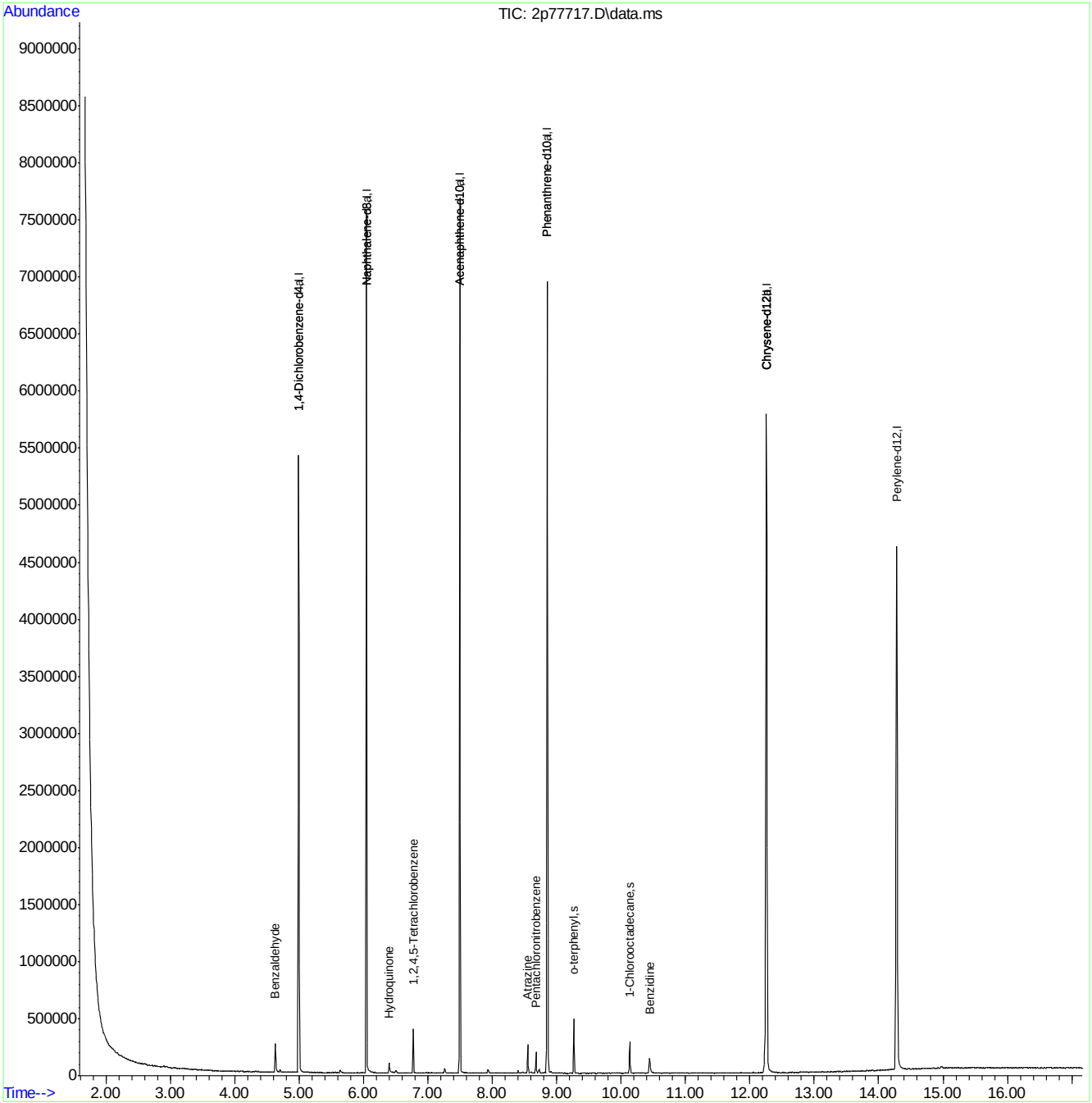
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.994	152	684499	40.00	ppm	0.00
24) Naphthalene-d8	6.048	136	2587924	40.00	ppm	0.00
47) Acenaphthene-d10	7.497	164	1295251	40.00	ppm	0.00
69) Phenanthrene-d10	8.856	188	2420351	40.00	ppm	0.00
83) Chrysene-d12	12.257	240	2474275	40.00	ppm	0.00
91) Perylene-d12	14.284	264	2325274	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.994	152	684499	40.00	ppm	0.00
103) Naphthalene-d8a	6.048	136	2587924	40.00	ppm	0.00
105) Acenaphthene-d10a	7.497	164	1295251	40.00	ppm	0.00
108) Chrysene-d12a	12.257	240	2474275	40.00	ppm	0.00
110) Phenanthrene-d10a	8.856	188	2420351	40.00	ppm	0.00
114) Chrysene-d12b	12.257	240	2474275	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	10.134	57	34516	1.85	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	3.70%#		
112) o-terphenyl	9.267	230	85530	2.31	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	4.62%#		
Target Compounds						Qvalue
102) Benzaldehyde	4.630	105	44623	2.24	ppm	97
104) Hydroquinone	6.401	110	30638	1.52	ppm	97
106) Atrazine	8.551	215	13616	1.84	ppm	93
107) 1,2,4,5-Tetrachloroben...	6.775	216	55769	2.52	ppm	97
109) Benzidine	10.444	184	62365	1.18	ppm	98
113) Pentachloronitrobenzene	8.679	295	3757	1.56	ppm	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77717.D
Acq On : 9 Mar 2018 11:39 am
Operator : seanb1
Sample : ic3422-2
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 09 15:11:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77718.D
Acq On : 9 Mar 2018 12:00 pm
Operator : seanb1
Sample : ic3422-1
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 09 15:11:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration

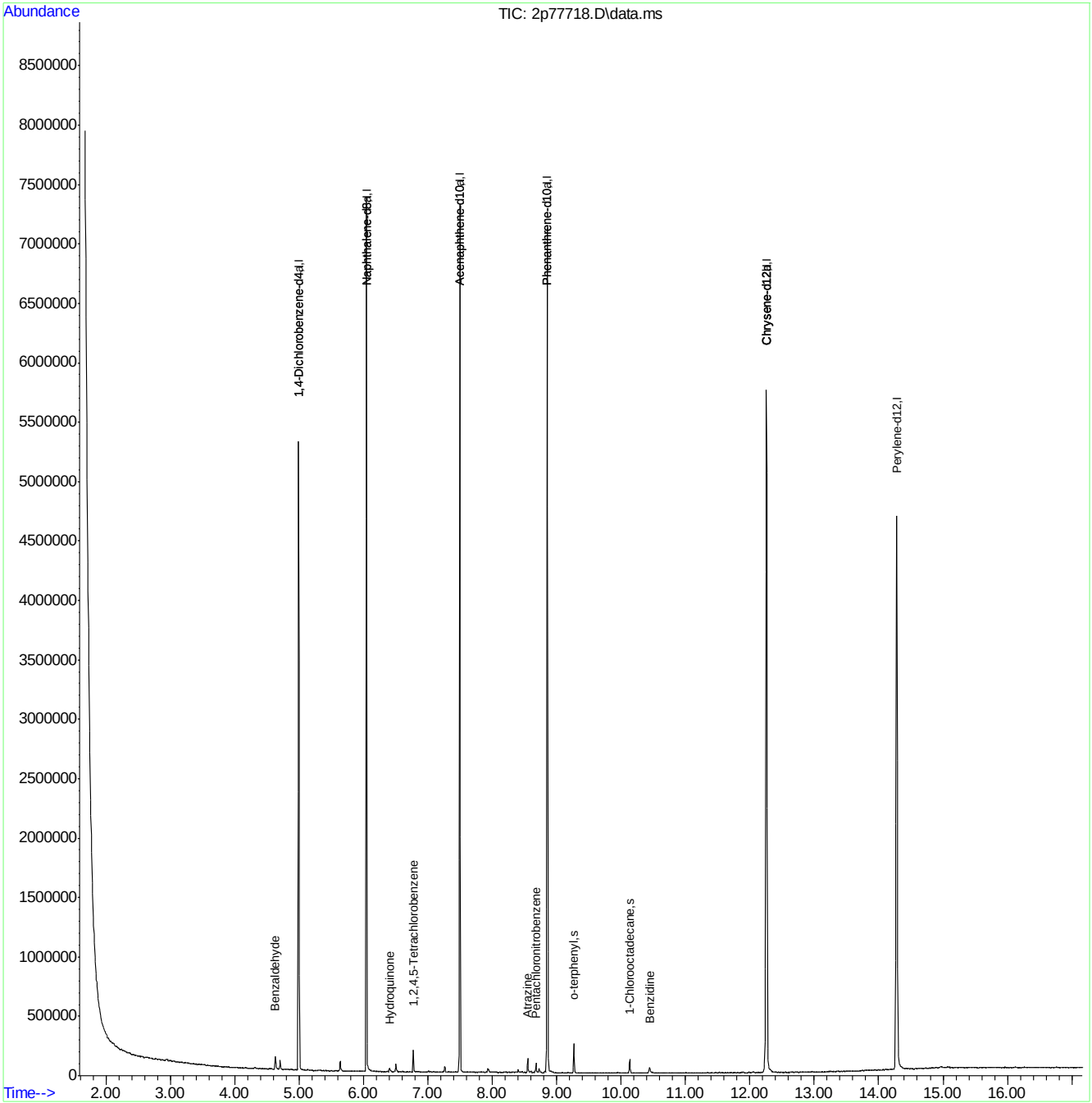
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.994	152	653949	40.00	ppm	0.00
24) Naphthalene-d8	6.048	136	2549160	40.00	ppm	0.00
47) Acenaphthene-d10	7.497	164	1289824	40.00	ppm	0.00
69) Phenanthrene-d10	8.856	188	2454440	40.00	ppm	0.00
83) Chrysene-d12	12.257	240	2510452	40.00	ppm	0.00
91) Perylene-d12	14.285	264	2380086	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.994	152	653949	40.00	ppm	0.00
103) Naphthalene-d8a	6.048	136	2549160	40.00	ppm	0.00
105) Acenaphthene-d10a	7.497	164	1289824	40.00	ppm	0.00
108) Chrysene-d12a	12.257	240	2510452	40.00	ppm	0.00
110) Phenanthrene-d10a	8.856	188	2454440	40.00	ppm	0.00
114) Chrysene-d12b	12.257	240	2507117	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	10.134	57	14458	0.77	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	1.54%#		
112) o-terphenyl	9.268	230	41612	1.11	ppm	0.00
Spiked Amount 50.000	Range 20 - 70		Recovery =	2.22%#		
Target Compounds						Qvalue
102) Benzaldehyde	4.630	105	20353	1.07	ppm	93
104) Hydroquinone	6.406	110	10415	0.52	ppm	95
106) Atrazine	8.556	215	5816	0.79	ppm #	59
107) 1,2,4,5-Tetrachloroben...	6.775	216	25893	1.17	ppm	97
109) Benzidine	10.444	184	22295	0.41	ppm	94
113) Pentachloronitrobenzene	8.679	295	1504	0.62	ppm	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77718.D
Acq On : 9 Mar 2018 12:00 pm
Operator : seanb1
Sample : ic3422-1
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 09 15:11:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:07:05 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77719.D
Acq On : 9 Mar 2018 12:21 pm
Operator : seanb1
Sample : icv3422-50
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 09 15:29:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:17:06 2018
Response via : Initial Calibration

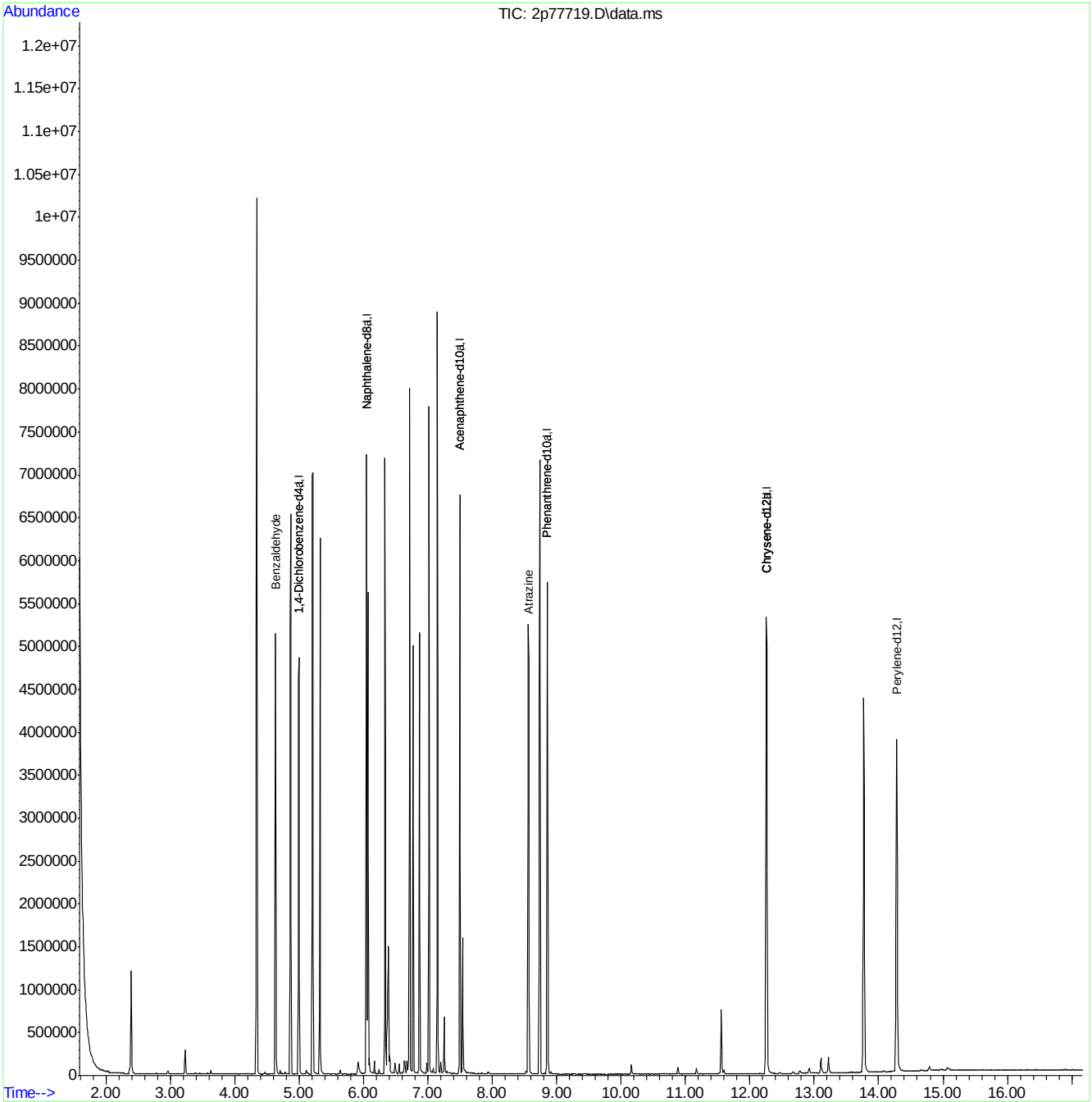
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.999	152	623925	40.00	ppm		0.00
24) Naphthalene-d8	6.048	136	2530687	40.00	ppm		0.00
47) Acenaphthene-d10	7.497	164	1113886	40.00	ppm		0.00
69) Phenanthrene-d10	8.856	188	1985874	40.00	ppm		0.00
83) Chrysene-d12	12.257	240	2343193	40.00	ppm		0.00
91) Perylene-d12	14.285	264	1953330	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.999	152	623925	40.00	ppm		0.00
103) Naphthalene-d8a	6.048	136	2530687	40.00	ppm	#	0.00
105) Acenaphthene-d10a	7.497	164	1113886	40.00	ppm		0.00
108) Chrysene-d12a	12.257	240	2343193	40.00	ppm		0.00
110) Phenanthrene-d10a	8.856	188	1985874	40.00	ppm		0.00
114) Chrysene-d12b	12.257	240	2343193	40.00	ppm		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	0.000	112	0	0.00	ppm		
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#			
8) Phenol-d5	0.000	99	0d	0.00	ppm		
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm		
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm		
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm		
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#			
85) Terphenyl-d14	0.000	244	0d	0.00	ppm		
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#			
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#			
112) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#			
Target Compounds							Qvalue
102) Benzaldehyde	4.636	105	823549	43.84	ppm		97
106) Atrazine	8.567	215	353081	58.29	ppm		87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77719.D
Acq On : 9 Mar 2018 12:21 pm
Operator : seanb1
Sample : icv3422-50
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 09 15:29:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:17:06 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77720.D
Acq On : 9 Mar 2018 12:43 pm
Operator : seanb1
Sample : icv3422-50
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 09 15:30:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:17:06 2018
Response via : Initial Calibration

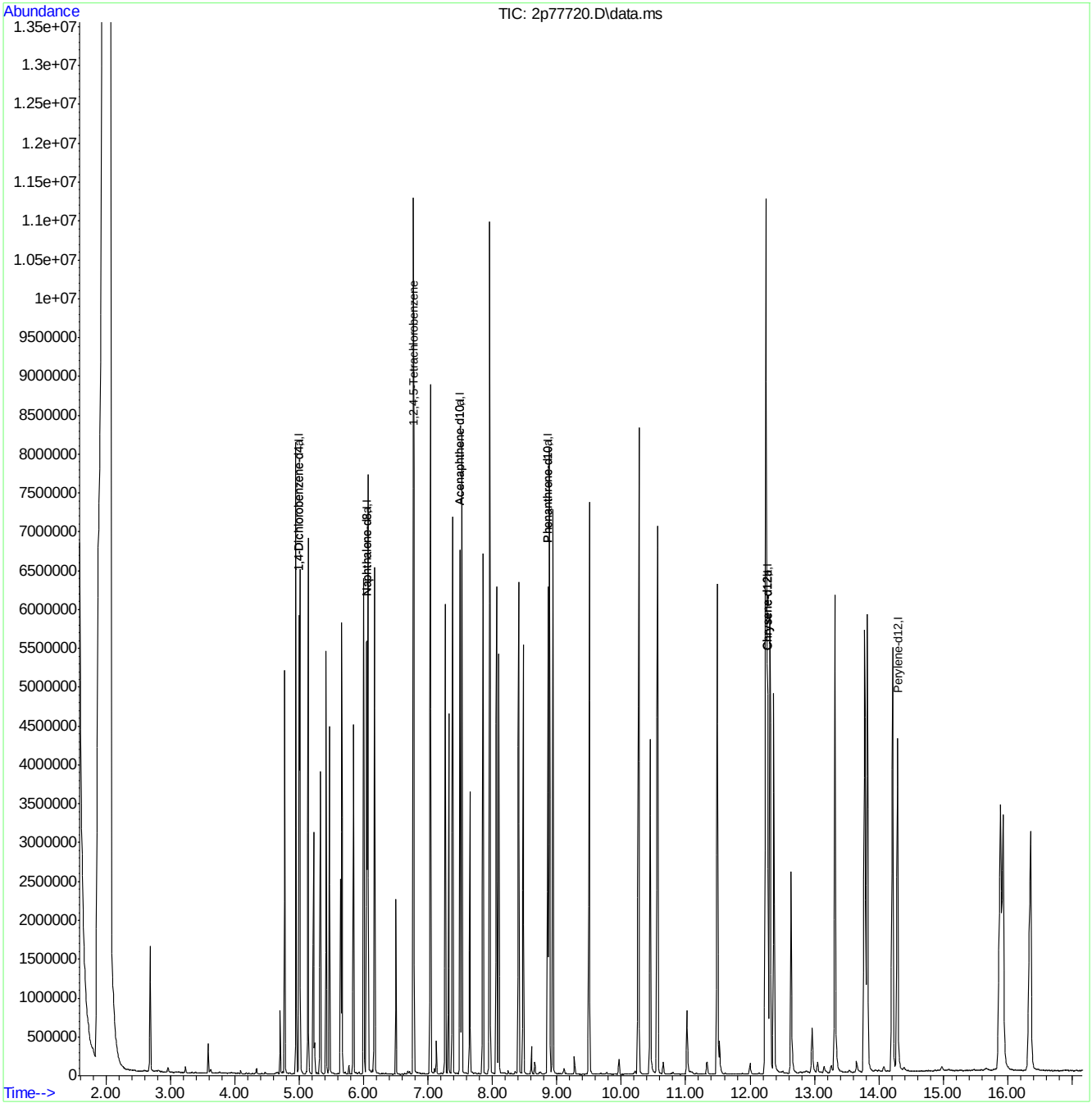
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.999	152	708133	40.00	ppm	0.00
24) Naphthalene-d8	6.053	136	2313097	40.00	ppm	0.00
47) Acenaphthene-d10	7.497	164	1145511	40.00	ppm	0.00
69) Phenanthrene-d10	8.861	188	2366162	40.00	ppm	0.00
83) Chrysene-d12	12.274	240	1905758	40.00	ppm	0.02
91) Perylene-d12	14.290	264	2059000	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.999	152	708133	40.00	ppm	0.00
103) Naphthalene-d8a	6.053	136	2313097	40.00	ppm	0.00
105) Acenaphthene-d10a	7.497	164	1145511	40.00	ppm	0.00
108) Chrysene-d12a	12.274	240	1905758	40.00	ppm	0.02
110) Phenanthrene-d10a	8.861	188	2366162	40.00	ppm	0.00
114) Chrysene-d12b	12.274	240	1905758	40.00	ppm	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						Qvalue
107) 1,2,4,5-Tetrachloroben...	6.780	216	1200003	56.54	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77720.D
Acq On : 9 Mar 2018 12:43 pm
Operator : seanb1
Sample : icv3422-50
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 09 15:30:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:17:06 2018
Response via : Initial Calibration



JC62879

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77722.D
Acq On : 9 Mar 2018 1:26 pm
Operator : seanb1
Sample : icv3422-50
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 15:31:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:17:06 2018
Response via : Initial Calibration

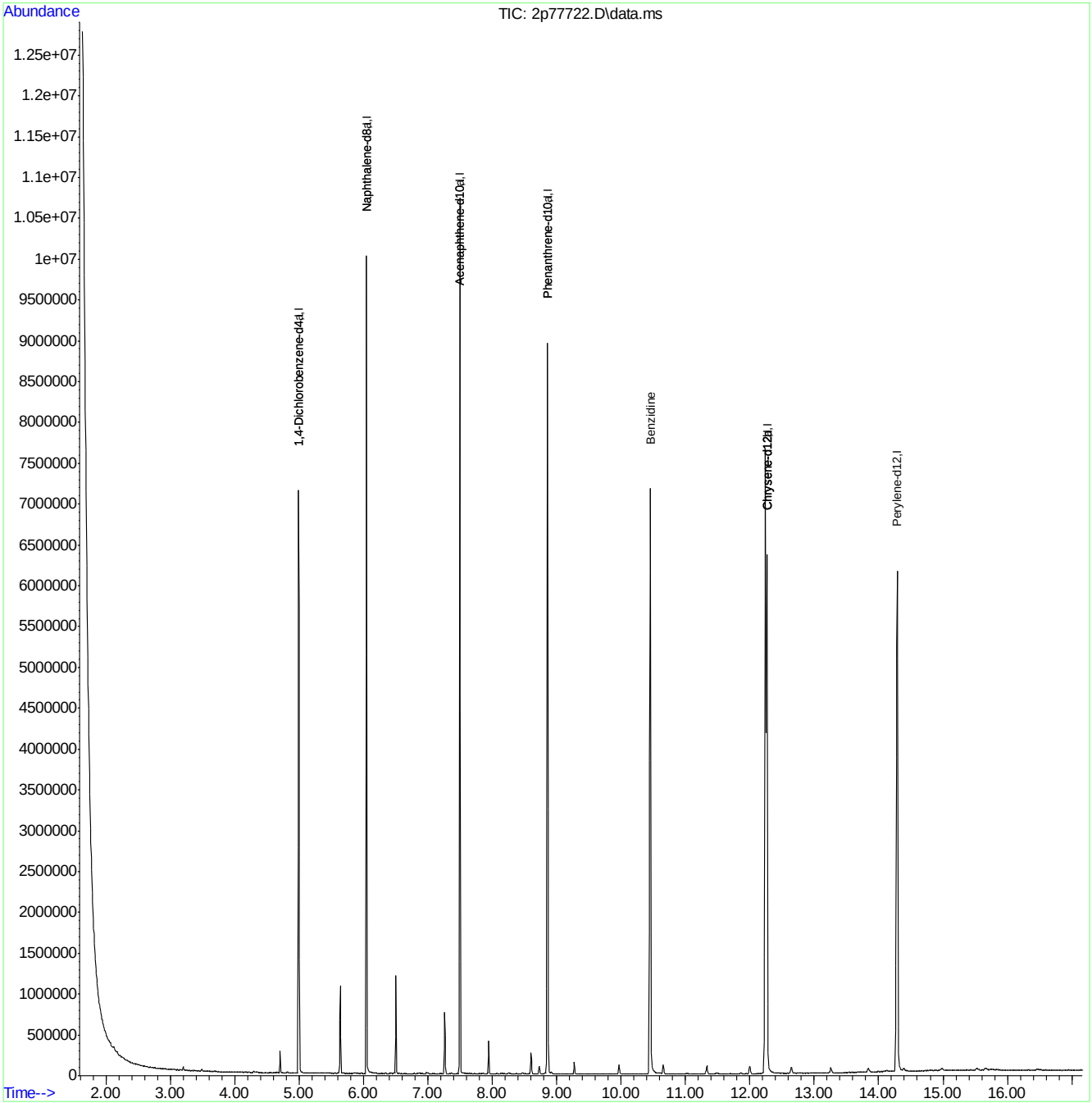
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.994	152	948944	40.00	ppm	0.00
24) Naphthalene-d8	6.048	136	3440701	40.00	ppm	0.00
47) Acenaphthene-d10	7.497	164	1881031	40.00	ppm	0.00
69) Phenanthrene-d10	8.861	188	3235123	40.00	ppm	0.00
83) Chrysene-d12	12.268	240	3013729	40.00	ppm	0.01
91) Perylene-d12	14.290	264	2968868	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.994	152	948944	40.00	ppm	0.00
103) Naphthalene-d8a	6.048	136	3440701	40.00	ppm	0.00
105) Acenaphthene-d10a	7.497	164	1881031	40.00	ppm	0.00
108) Chrysene-d12a	12.268	240	3013729	40.00	ppm	0.01
110) Phenanthrene-d10a	8.861	188	3235123	40.00	ppm	0.00
114) Chrysene-d12b	12.268	240	3013707	40.00	ppm	0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						Qvalue
109) Benzidine	10.455	184	3279474	58.13	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77722.D
Acq On : 9 Mar 2018 1:26 pm
Operator : seanb1
Sample : icv3422-50
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 15:31:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:17:06 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77723.D
Acq On : 9 Mar 2018 1:47 pm
Operator : seanb1
Sample : icv3422-50
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 09 15:32:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:17:06 2018
Response via : Initial Calibration

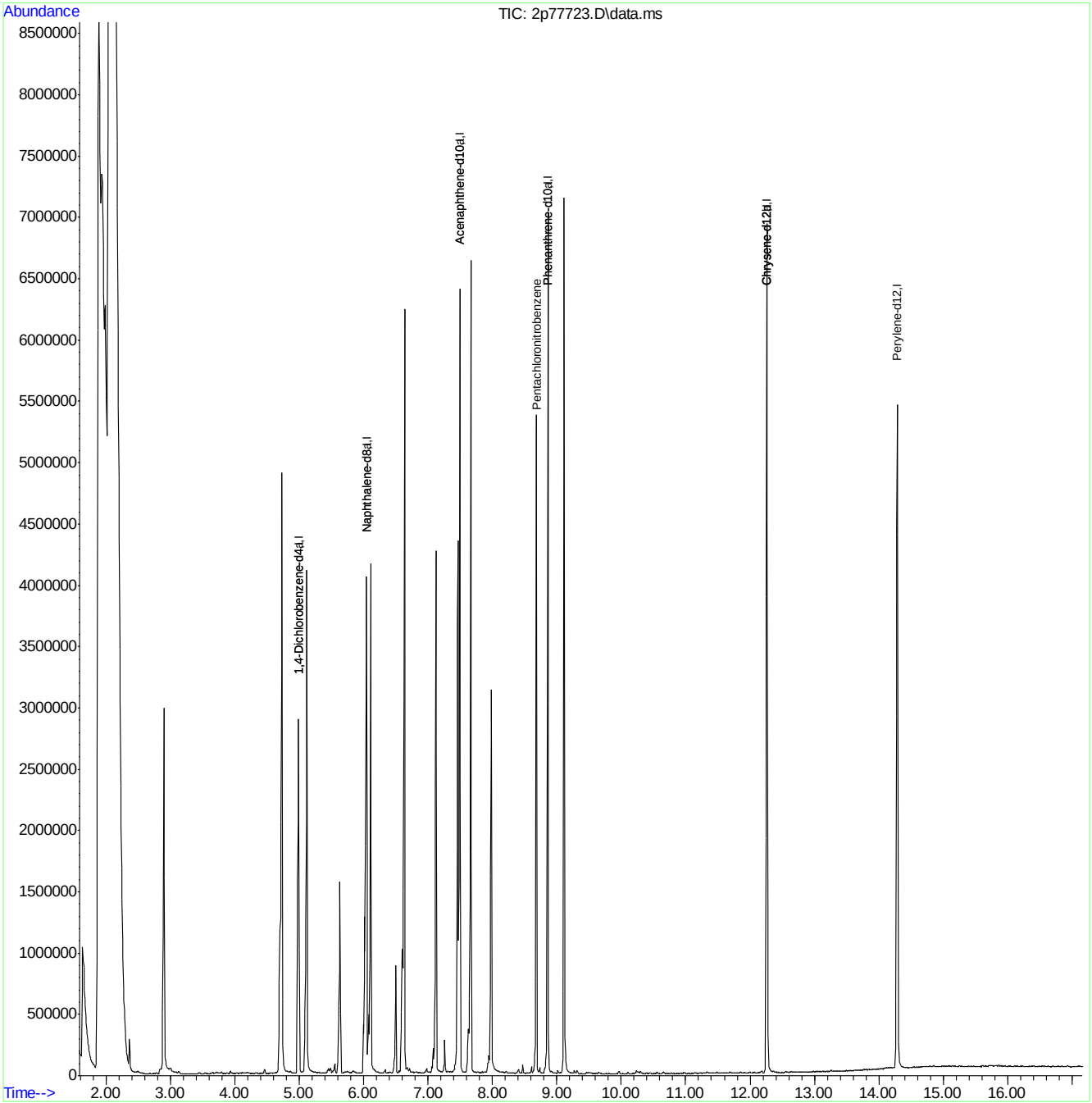
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.994	152	736064	40.00	ppm	0.00
24) Naphthalene-d8	6.048	136	2956156	40.00	ppm	0.00
47) Acenaphthene-d10	7.497	164	1531563	40.00	ppm	0.00
69) Phenanthrene-d10	8.861	188	2728267	40.00	ppm	0.00
83) Chrysene-d12	12.263	240	3105666	40.00	ppm	0.00
91) Perylene-d12	14.285	264	2624007	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.994	152	736064	40.00	ppm	0.00
103) Naphthalene-d8a	6.048	136	2956156	40.00	ppm	0.00
105) Acenaphthene-d10a	7.497	164	1531563	40.00	ppm	0.00
108) Chrysene-d12a	12.263	240	3105666	40.00	ppm	0.00
110) Phenanthrene-d10a	8.861	188	2728267	40.00	ppm	0.00
114) Chrysene-d12b	12.263	240	3105666	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						Qvalue
113) Pentachloronitrobenzene	8.685	295	156131	63.80	ppm	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3422\
Data File : 2p77723.D
Acq On : 9 Mar 2018 1:47 pm
Operator : seanb1
Sample : icv3422-50
Misc : op8196,e2p3422,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 09 15:32:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 09 15:17:06 2018
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Kristi Schollenberger
03/30/18 15:20

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78128.D
Acq On : 28 Mar 2018 3:12 pm
Operator : johnb1
Sample : cc3416-50
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 29 11:57:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.951	152	654625	40.00	ppm		-0.02
24) Naphthalene-d8	6.005	136	2300380	40.00	ppm		-0.02
47) Acenaphthene-d10	7.454	164	1167307	40.00	ppm		-0.02
69) Phenanthrene-d10	8.813	188	2365889	40.00	ppm		-0.02
83) Chrysene-d12	12.220	240	2270648	40.00	ppm		-0.02
91) Perylene-d12	14.247	264	2465129	40.00	ppm		-0.01
101) 1,4-Dichlorobenzene-d4a	4.951	152	654625	40.00	ppm		-0.02
103) Naphthalene-d8a	6.005	136	2300380	40.00	ppm		-0.02
105) Acenaphthene-d10a	7.454	164	1167307	40.00	ppm		-0.02
108) Chrysene-d12a	12.220	240	2270648	40.00	ppm		-0.02
110) Phenanthrene-d10a	8.813	188	2365889	40.00	ppm		-0.02
114) Chrysene-d12b	12.220	240	2270648	40.00	ppm		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	3.897	112	1592576	55.84	ppm		0.00
Spiked Amount 50.000	Range 11 - 58		Recovery = 111.68%#				
8) Phenol-d5	4.700	99	1595925	46.66	ppm		0.02
Spiked Amount 50.000	Range 10 - 59		Recovery = 93.32%#				
25) Nitrobenzene-d5	5.411	82	1175736	46.33	ppm		-0.02
Spiked Amount 50.000	Range 19 - 61		Recovery = 92.66%#				
51) 2-Fluorobiphenyl	6.893	172	2029518	44.35	ppm		-0.02
Spiked Amount 50.000	Range 21 - 58		Recovery = 88.70%#				
73) 2,4,6-Tribromophenol	8.139	330	366954	51.19	ppm		-0.01
Spiked Amount 50.000	Range 12 - 68		Recovery = 102.38%#				
85) Terphenyl-d14	10.728	244	3105713	51.73	ppm		-0.03
Spiked Amount 50.000	Range 16 - 65		Recovery = 103.46%#				
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm		
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#				
112) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000	Range 20 - 70		Recovery = 0.00%#				
Target Compounds							Qvalue
2) 1,4-Dioxane	2.293	88	562657	58.72	ppm		97
3) Pyridine	2.630	79	1520581	63.74	ppm		95
4) N-Nitrosodimethylamine	2.608	74	869829	66.76	ppm		84
6) Indene	5.165	116	1711501	47.86	ppm		98
7) Cumene	4.282	105	3534587	50.93	ppm		97
9) Phenol	4.710	94	1606195	43.16	ppm		86
10) Aniline	4.684	93	1728178	46.94	ppm		77
11) bis(2-Chloroethyl)ether	4.732	93	1078652	47.64	ppm		94
12) 2-Chlorophenol	4.796	128	1178266	44.31	ppm		98
13) Decane	4.817	57	1068076	45.50	ppm		96
14) 1,3-Dichlorobenzene	4.903	146	1315121	46.61	ppm		99
15) 1,4-Dichlorobenzene	4.962	146	1234243	46.60	ppm		100
16) Benzyl alcohol	5.079	108	629690	42.94	ppm		89
17) 1,2-Dichlorobenzene	5.090	146	1080797	44.95	ppm		99
18) Acetophenone	5.288	105	1398175	44.12	ppm	#	51
19) 2-Methylphenol	5.197	108	910352	45.13	ppm		93
20) 2,2'-oxybis(1-Chloropr...	5.176	121	276009	44.95	ppm	#	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78128.D
Acq On : 28 Mar 2018 3:12 pm
Operator : johnb1
Sample : cc3416-50
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 29 11:57:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21)	3&4-Methylphenol	5.320	108	976480	44.89	ppm		100
22)	n-Nitroso-di-n-propyla...	5.293	70	679360	44.32	ppm		97
23)	Hexachloroethane	5.368	201	467366	42.58	ppm		93
26)	Nitrobenzene	5.432	77	1041690	43.95	ppm		93
27)	Quinoline	6.320	129	2148040	49.45	ppm		97
28)	Isophorone	5.625	82	1953263	44.96	ppm		98
29)	2-Nitrophenol	5.694	139	630825	49.30	ppm		78
30)	2,4-Dimethylphenol	5.748	107	911048	41.71	ppm		98
31)	Benzoic acid	5.898	105	811941	50.17	ppm		95
32)	bis(2-Chloroethoxy)met...	5.801	93	1075890	47.37	ppm		100
33)	2,4-Dichlorophenol	5.908	162	936110	46.70	ppm		97
34)	2,6-Dichlorophenol	6.085	162	803760	45.65	ppm		99
35)	1,3,5-Trichlorobenzene	5.700	180	1092606	44.49	ppm		99
36)	1,2,4-Trichlorobenzene	5.957	180	1035500	44.00	ppm		100
37)	1,2,3-Trichlorobenzene	6.144	180	896604	43.70	ppm		99
38)	Naphthalene	6.021	128	2758597	46.59	ppm		99
39)	4-Chloroaniline	6.074	127	1174246	44.52	ppm		99
40)	2,3-Dichloroaniline	6.828	161	1095229	45.56	ppm		100
41)	Caprolactam	6.390	113	364117m	51.24	ppm		
42)	Hexachlorobutadiene	6.122	225	538232	41.35	ppm		99
43)	4-Chloro-3-methylphenol	6.502	107	940916	45.20	ppm		95
44)	2-Methylnaphthalene	6.593	141	1751288	45.30	ppm		98
45)	1-Methylnaphthalene	6.673	141	1738464	44.08	ppm		97
46)	Dimethylnaphthalene	7.106	156	1701794	43.27	ppm		99
48)	Hexachlorocyclopentadiene	6.721	237	1067442	88.93	ppm		100
49)	2,4,6-Trichlorophenol	6.839	196	635213	44.90	ppm		99
50)	2,4,5-Trichlorophenol	6.887	196	665722	45.96	ppm		98
52)	2-Chloronaphthalene	6.994	162	1686455	43.43	ppm		100
53)	Biphenyl	6.978	154	2372856	45.25	ppm		99
54)	2-Nitroaniline	7.090	65	597756	47.36	ppm		99
55)	Dimethylphthalate	7.224	163	1996100	42.62	ppm		99
56)	Acenaphthylene	7.337	152	2816552	46.60	ppm		99
57)	2,6-Dinitrotoluene	7.283	165	519188	50.45	ppm		81
58)	3-Nitroaniline	7.433	138	592307	49.62	ppm		95
59)	Acenaphthene	7.481	153	1853259	46.89	ppm		98
60)	2,4-Dinitrophenol	7.513	184	545375	101.72	ppm	#	69
61)	4-Nitrophenol	7.609	109	270652	40.12	ppm		89
62)	Dibenzofuran	7.625	168	2406876	45.77	ppm		98
63)	2,4-Dinitrotoluene	7.615	165	656960	49.51	ppm		77
64)	2,3,4,6-Tetrachlorophenol	7.743	232	640172	50.08	ppm		98
65)	Diethylphthalate	7.813	149	1974212	44.46	ppm		97
66)	Fluorene	7.920	166	1988448	44.82	ppm		100
67)	4-Chlorophenyl-phenyle...	7.909	204	1099515	43.88	ppm		99
68)	4-Nitroaniline	7.957	138	518149	45.50	ppm		91
70)	4,6-Dinitro-2-methylph...	7.973	198	435319	52.11	ppm		95
71)	n-Nitrosodiphenylamine	8.021	169	1408733	42.74	ppm		99
72)	1,2-Diphenylhydrazine	8.053	77	1855503	42.22	ppm		96
74)	4-Bromophenyl-phenylether	8.358	248	782543	47.65	ppm		99
75)	Hexachlorobenzene	8.433	284	816940	46.37	ppm		98
76)	Pentachlorophenol	8.636	266	979174	88.22	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78128.D
Acq On : 28 Mar 2018 3:12 pm
Operator : johnb1
Sample : cc3416-50
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 29 11:57:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	8.839	178	3019172	45.89	ppm	100
78) Anthracene	8.893	178	3005841	45.46	ppm	99
79) Carbazole	9.069	167	3071396	47.67	ppm	98
80) Di-n-butylphthalate	9.449	149	3992557	47.23	ppm	98
81) Fluoranthene	10.219	202	4615105	47.28	ppm	97
82) Octadecane	8.684	43	824924	43.04	ppm	92
84) Pyrene	10.514	202	4413314	50.64	ppm	99
86) Butylbenzylphthalate	11.434	149	1952447	50.68	ppm	98
87) Benzo[a]anthracene	12.204	228	3840665	45.25	ppm	99
88) 3,3'-Dichlorobenzidine	12.193	252	1641720	47.64	ppm	99
89) Chrysene	12.263	228	3194622	48.03	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.305	149	1925330	49.78	ppm	99
92) Di-n-octylphthalate	13.257	149	4379498	51.33	ppm	99
93) Benzo[b]fluoranthene	13.744	252	3942147	44.07	ppm	99
94) Benzo[k]fluoranthene	13.782	252	3211865	42.12	ppm	96
95) Benzo[a]pyrene	14.172	252	3633329	46.92	ppm	98
96) Indeno[1,2,3-cd]pyrene	15.835	276	3634006m	48.71	ppm	
97) Dibenz(a,h)acridine	15.461	279	3208466	47.59	ppm	99
98) Dibenz[a,h]anthracene	15.873	278	3128533	45.24	ppm	96
99) 7,12-Dimethylbenz(a)an...	13.739	256	1814721	47.01	ppm	99
100) Benzo[g,h,i]perylene	16.295	276	3234162	46.73	ppm	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

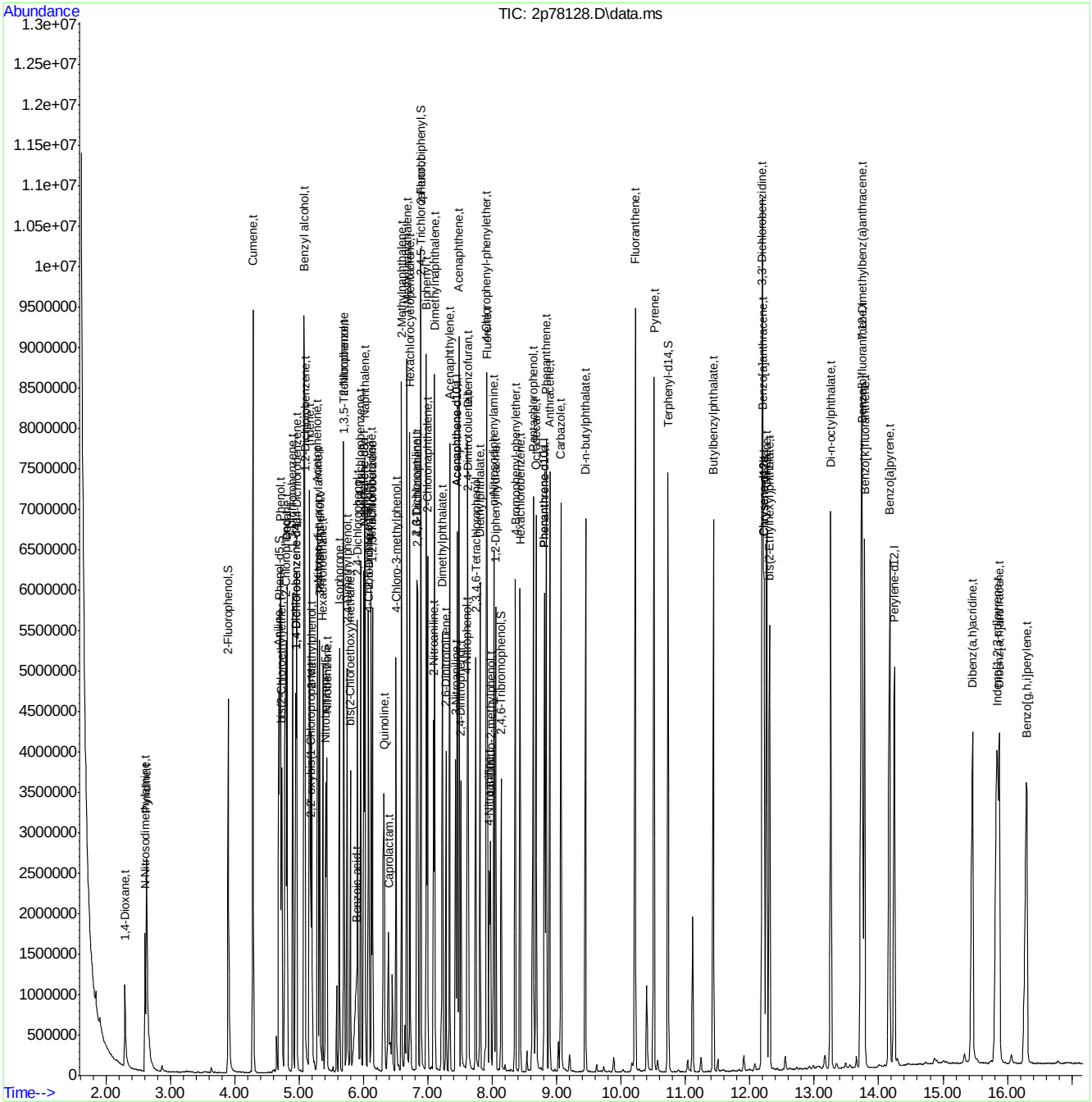
9.6.28

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78128.D
Acq On : 28 Mar 2018 3:12 pm
Operator : johnb1
Sample : cc3416-50
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 29 11:57:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



SGS JC62879

Manual Integration Approval Summary

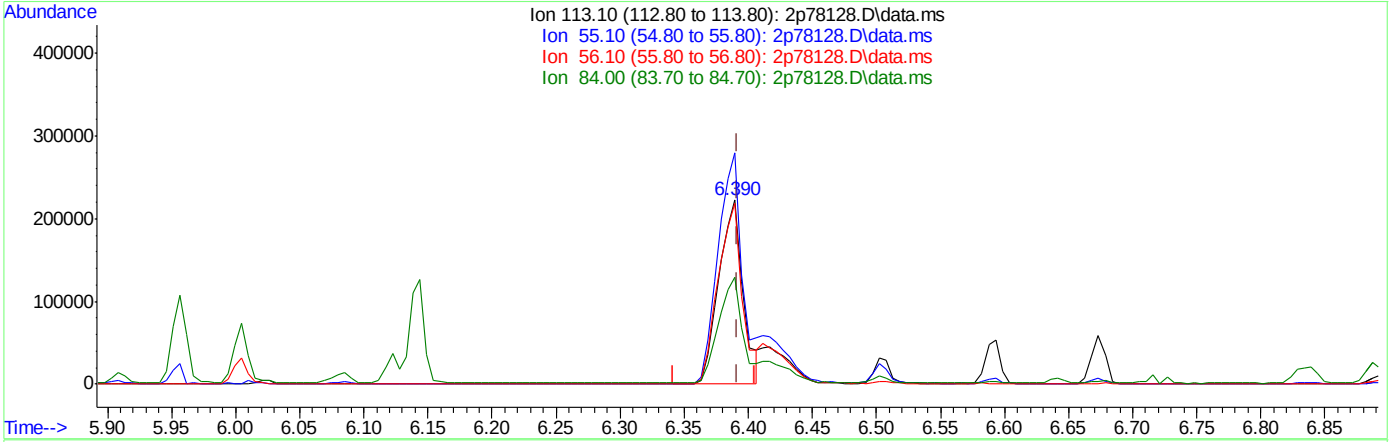
Sample Number:	E2P3440-CC3416	**Method:**	SW846 8270D
Lab FileID:	2P78128.D	**Analyst approved:**	03/29/18 12:16 Dipa Patel
Injection Time:	03/28/18 15:12	**Supervisor approved:**	03/30/18 15:20 Kristi Schollenberger

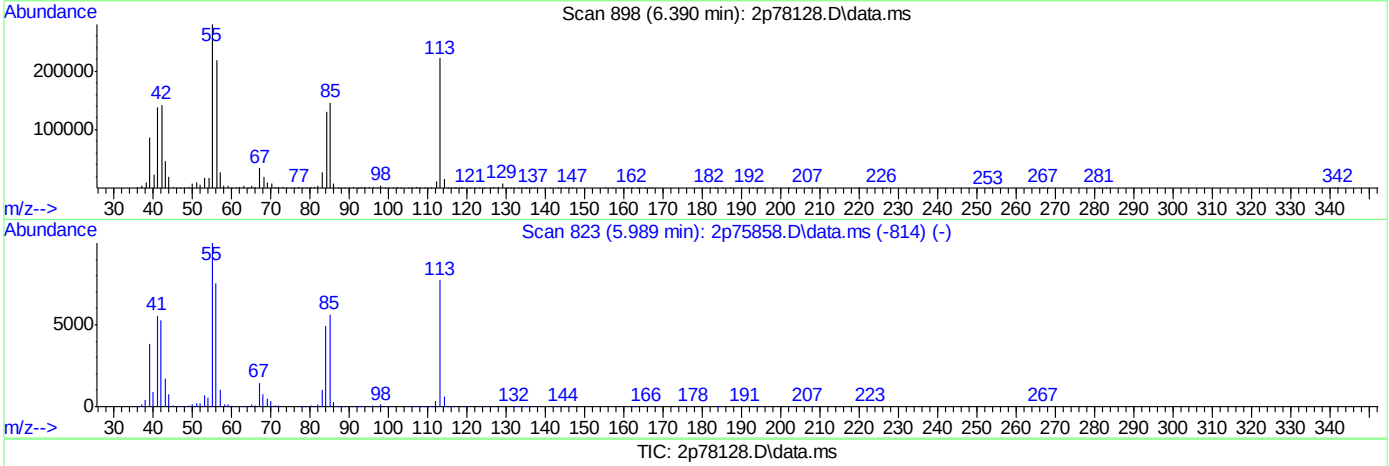
Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		6.39	Poor instrument integration
Indeno(1,2,3-cd)pyrene	193-39-5		15.84	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78128.D
Acq On : 28 Mar 2018 3:12 pm
Operator : johnb1
Sample : cc3416-50
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 15:28:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration





TIC: 2p78128.D\data.ms

(41) Caprolactam (t)

6.390min (-0.002) 40.86ppm

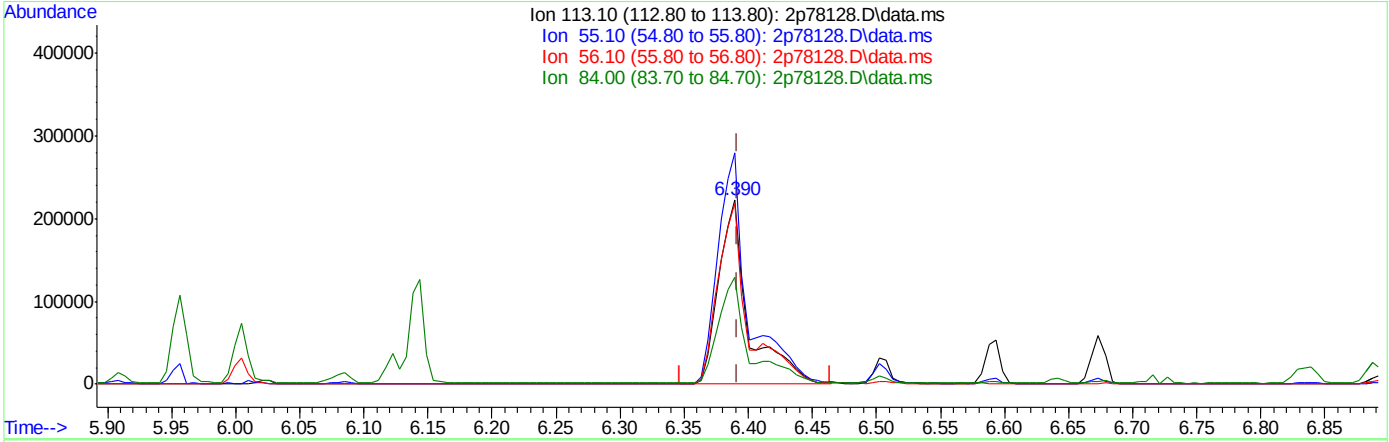
response 290325

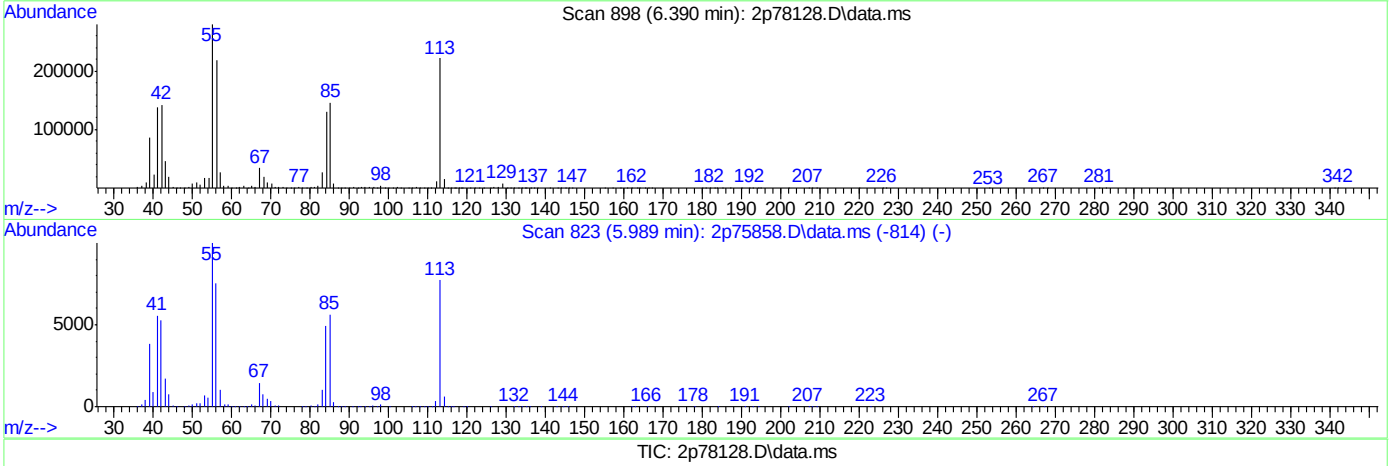
Ion	Exp%	Act%
113.10	100	100
55.10	125.60	124.67
56.10	102.50	98.06
84.00	59.80	57.72

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78128.D
Acq On : 28 Mar 2018 3:12 pm
Operator : johnb1
Sample : cc3416-50
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 15:28:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration





TIC: 2p78128.D\data.ms

(41) Caprolactam (t)

6.390min (-0.002) 51.24ppm m

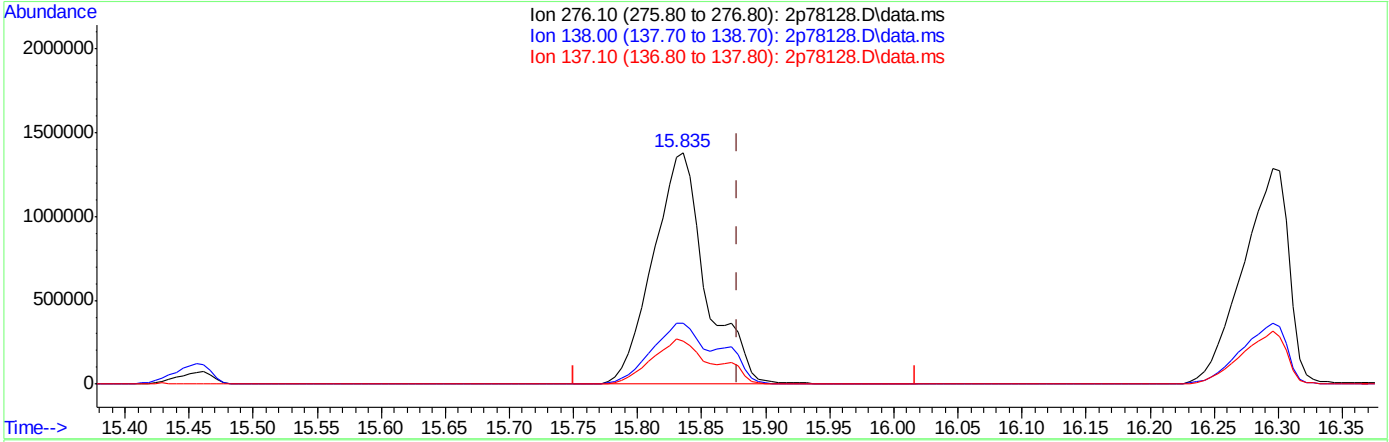
response 364117

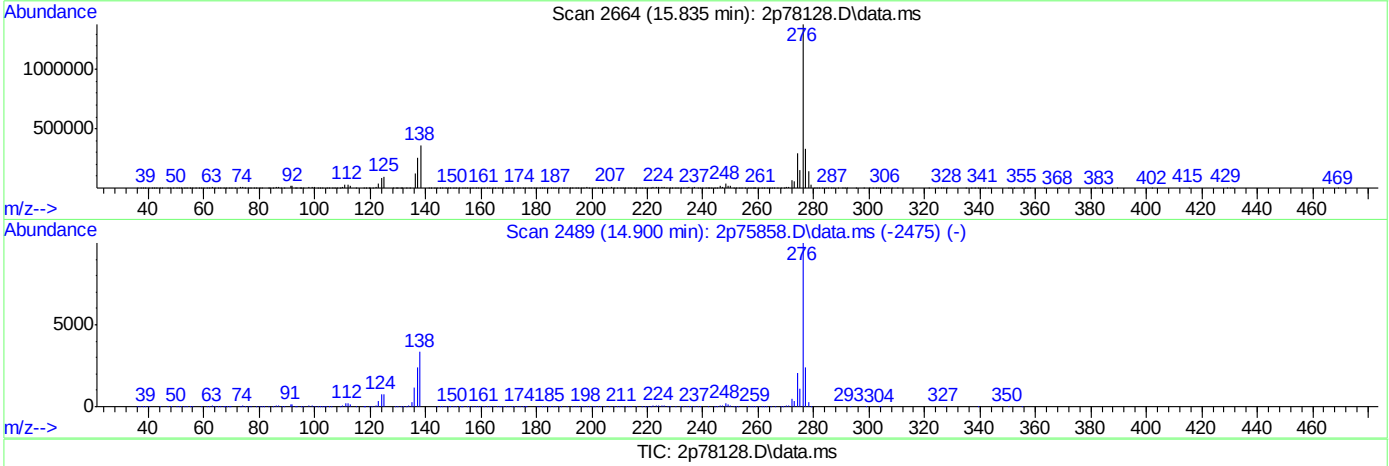
Ion	Exp%	Act%
113.10	100	100
55.10	125.60	125.97
56.10	102.50	98.45
84.00	59.80	58.40

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78128.D
Acq On : 28 Mar 2018 3:12 pm
Operator : johnb1
Sample : cc3416-50
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 15:28:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration





TIC: 2p78128.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.835min (-0.043) 53.55ppm

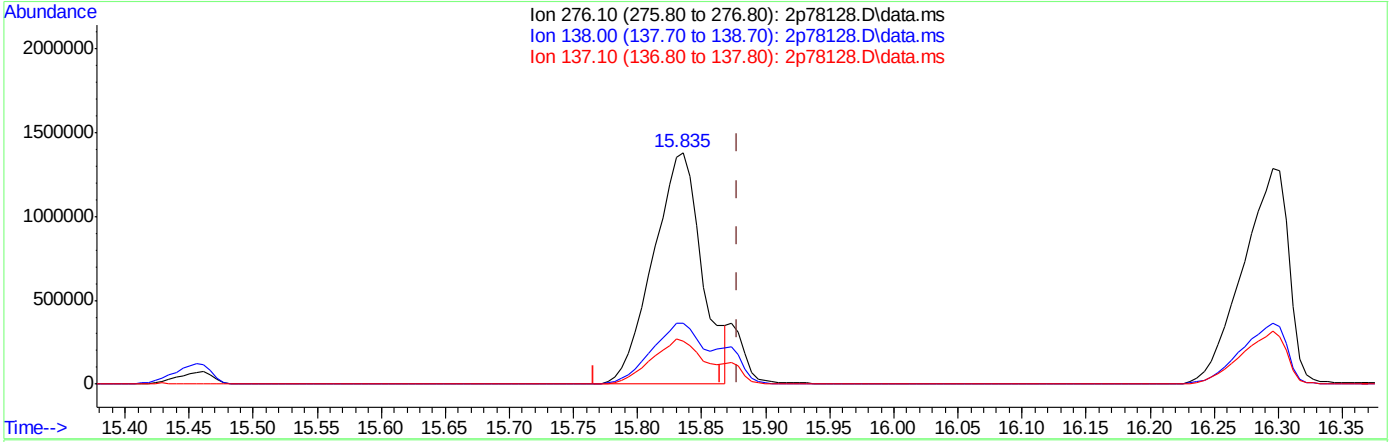
response 3995127

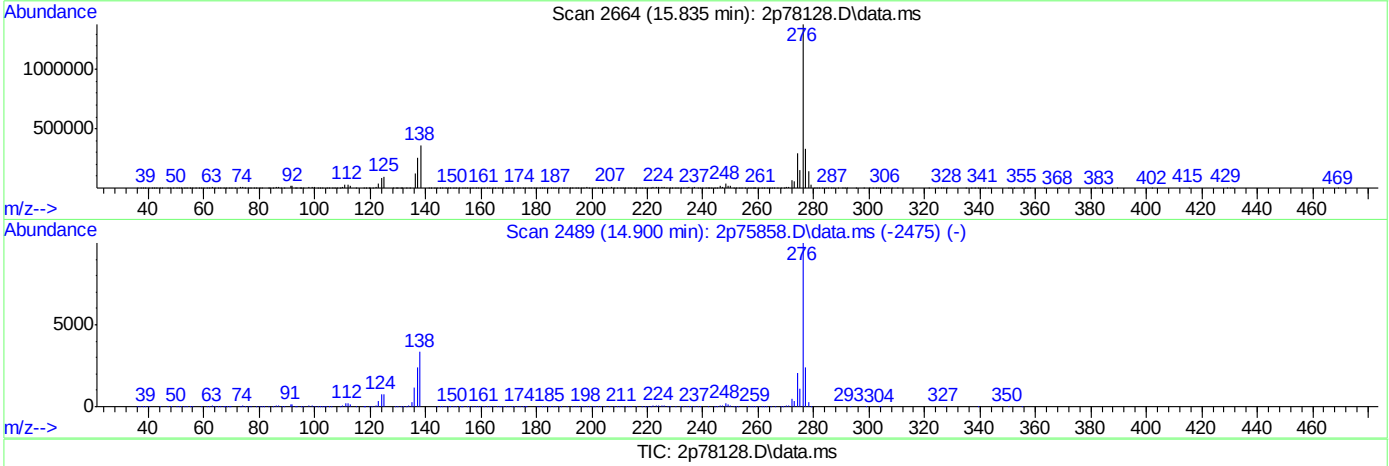
Ion	Exp%	Act%
276.10	100	100
138.00	17.60	26.15
137.10	13.50	18.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78128.D
Acq On : 28 Mar 2018 3:12 pm
Operator : johnb1
Sample : cc3416-50
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 15:28:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration





TIC: 2p78128.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.835min (-0.043) 48.71ppm m

response 3634006

Ion	Exp%	Act%
276.10	100	100
138.00	17.60	26.19
137.10	13.50	18.58
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78129.D
Acq On : 28 Mar 2018 3:33 pm
Operator : johnb1
Sample : cc3422-50
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 29 11:58:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration

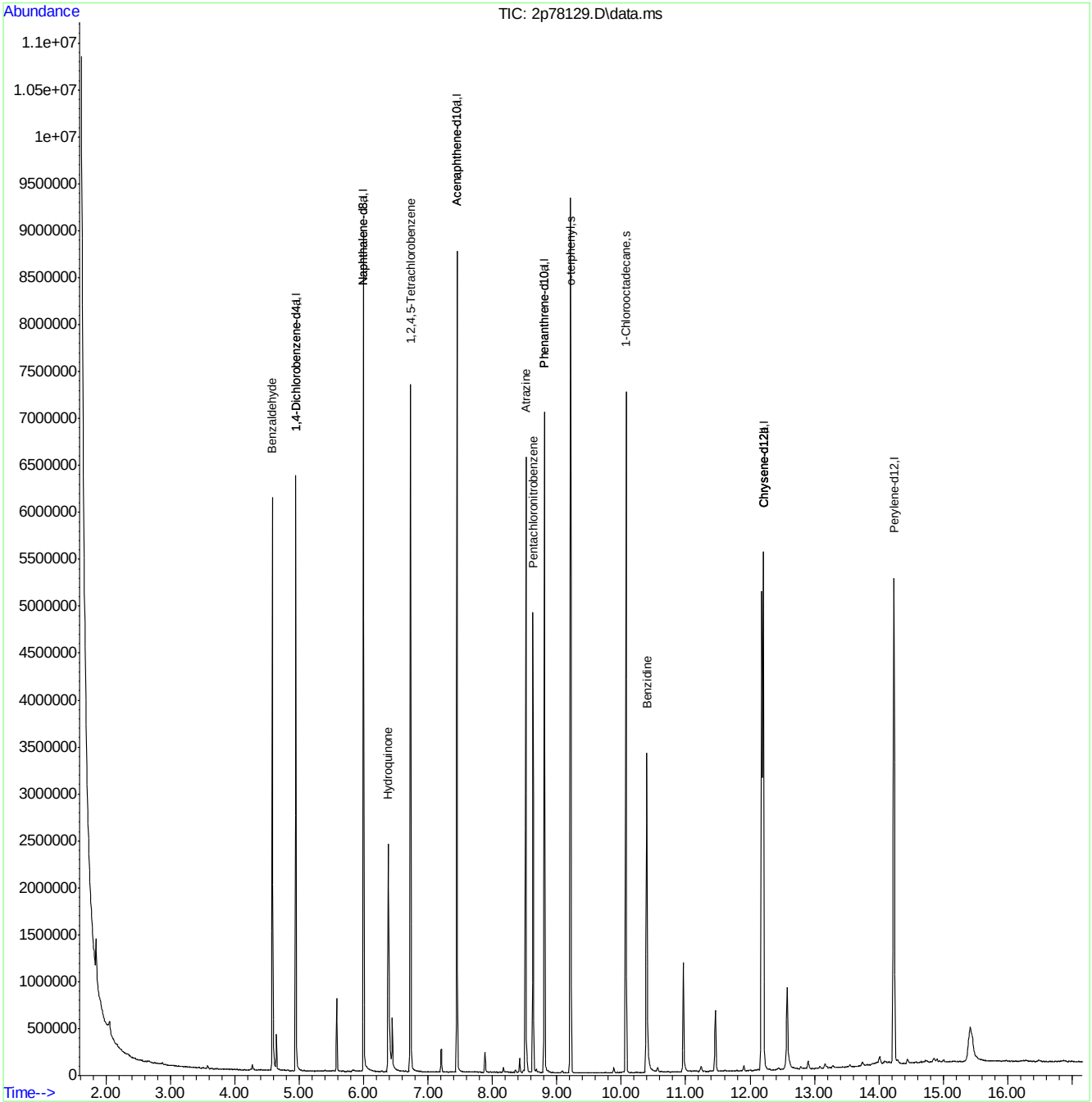
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.946	152	839821	40.00	ppm	-0.03
24) Naphthalene-d8	6.000	136	3285400	40.00	ppm	-0.02
47) Acenaphthene-d10	7.449	164	1480290	40.00	ppm	-0.02
69) Phenanthrene-d10	8.808	188	2501082	40.00	ppm	-0.02
83) Chrysene-d12	12.209	240	2557980	40.00	ppm	-0.03
91) Perylene-d12	14.236	264	2672757	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.946	152	839821	40.00	ppm	-0.03
103) Naphthalene-d8a	6.000	136	3285400	40.00	ppm	-0.02
105) Acenaphthene-d10a	7.449	164	1480290	40.00	ppm	-0.02
108) Chrysene-d12a	12.209	240	2557980	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.808	188	2501082	40.00	ppm	-0.02
114) Chrysene-d12b	12.209	240	2557980	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000	Range 11 - 58		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000	Range 10 - 59		Recovery =	0.00%#		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000	Range 19 - 61		Recovery =	0.00%#		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 21 - 58		Recovery =	0.00%#		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000	Range 12 - 68		Recovery =	0.00%#		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000	Range 16 - 65		Recovery =	0.00%#		
111) 1-Chlorooctadecane	10.075	57	1003117	53.97	ppm	-0.03
Spiked Amount 50.000	Range 20 - 70		Recovery =	107.94%#		
112) o-terphenyl	9.214	230	1953931	48.46	ppm	-0.03
Spiked Amount 50.000	Range 20 - 70		Recovery =	96.92%#		
Target Compounds						Qvalue
102) Benzaldehyde	4.587	105	1163331	46.01	ppm	94
104) Hydroquinone	6.385	110	1339005	58.18	ppm	90
106) Atrazine	8.519	215	438160	54.43	ppm	88
107) 1,2,4,5-Tetrachloroben...	6.732	216	1299693	47.39	ppm	97
109) Benzidine	10.396	184	1760824	36.77	ppm	99
113) Pentachloronitrobenzene	8.631	295	145046	64.65	ppm	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3440\
Data File : 2p78129.D
Acq On : 28 Mar 2018 3:33 pm
Operator : johnb1
Sample : cc3422-50
Misc : op8196,e2p3440,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 29 11:58:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3416.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 22:54:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174931.D
Acq On : 13 Mar 2018 11:11 pm
Operator : chriss2
Sample : ic7441-100
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 14 09:28:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration

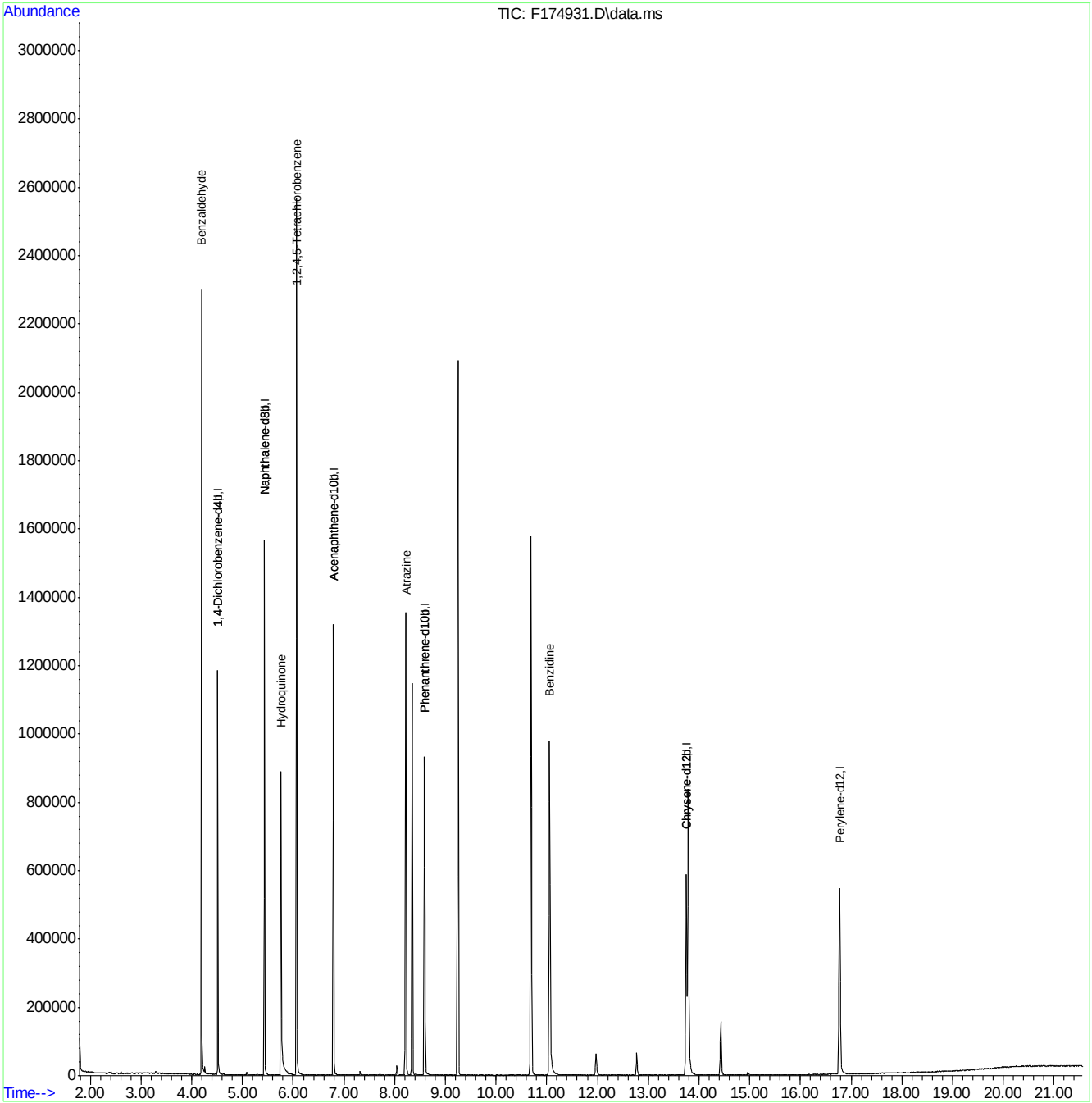
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	138978	40.00	ppm	0.02
24) Naphthalene-d8	5.431	136	510065	40.00	ppm	0.02
47) Acenaphthene-d10	6.793	164	240446	40.00	ppm	-0.06
69) Phenanthrene-d10	8.588	188	430467	40.00	ppm	-0.09
83) Chrysene-d12	13.748	240	345556	40.00	ppm	-0.12
91) Perylene-d12	16.778	264	340321	40.00	ppm	-0.13
101) 1,4-Dichlorobenzene-d4b	4.512	152	138978	40.00	ppm	-0.05
103) Phenanthrene-d10b	8.588	188	430467	40.00	ppm	-0.09
105) Chrysene-d12b	13.748	240	345556	40.00	ppm	-0.12
107) Naphthalene-d8b	5.431	136	510065	40.00	ppm	-0.05
109) Acenaphthene-d10b	6.793	164	240446	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.191	105	372852	93.26	ppm	96
104) Atrazine	8.225	200	206157	95.27	ppm	96
106) Benzidine	11.056	184	627246	94.93	ppm	99
108) Hydroquinone	5.756	110	473260	109.98	ppm	98
110) 1,2,4,5-Tetrachloroben...	6.066	216	329850	108.54	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174931.D
Acq On : 13 Mar 2018 11:11 pm
Operator : chriss2
Sample : ic7441-100
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 14 09:28:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174932.D
Acq On : 13 Mar 2018 11:39 pm
Operator : chriss2
Sample : ic7441-80
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 14 09:28:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration

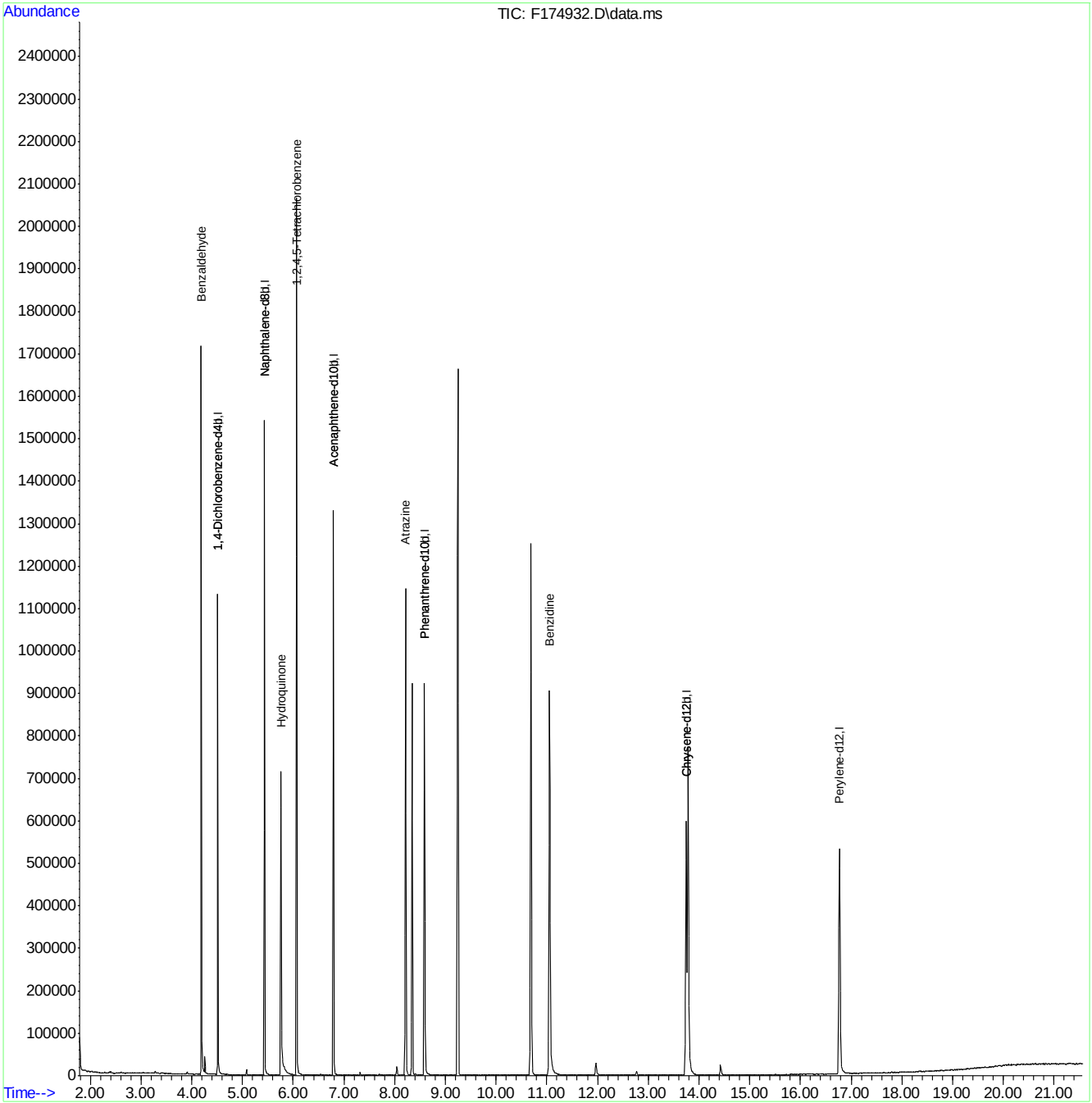
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	130191	40.00	ppm	0.02
24) Naphthalene-d8	5.430	136	490777	40.00	ppm	0.02
47) Acenaphthene-d10	6.793	164	231946	40.00	ppm	-0.06
69) Phenanthrene-d10	8.588	188	418986	40.00	ppm	-0.09
83) Chrysene-d12	13.748	240	333820	40.00	ppm	-0.12
91) Perylene-d12	16.772	264	333485	40.00	ppm	-0.13
101) 1,4-Dichlorobenzene-d4b	4.512	152	130191	40.00	ppm	-0.05
103) Phenanthrene-d10b	8.588	188	418986	40.00	ppm	-0.09
105) Chrysene-d12b	13.748	240	333820	40.00	ppm	-0.12
107) Naphthalene-d8b	5.430	136	490777	40.00	ppm	-0.05
109) Acenaphthene-d10b	6.793	164	231946	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.186	105	296292	79.11	ppm	93
104) Atrazine	8.219	200	160221	76.07	ppm	93
106) Benzidine	11.056	184	555354	87.01	ppm	98
108) Hydroquinone	5.756	110	354104	85.53	ppm	99
110) 1,2,4,5-Tetrachloroben...	6.066	216	261728	89.28	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174932.D
Acq On : 13 Mar 2018 11:39 pm
Operator : chriss2
Sample : ic7441-80
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 14 09:28:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174933.D
Acq On : 14 Mar 2018 12:07 am
Operator : chriss2
Sample : icc7441-50
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 14 09:27:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 14 09:26:47 2018
Response via : Initial Calibration

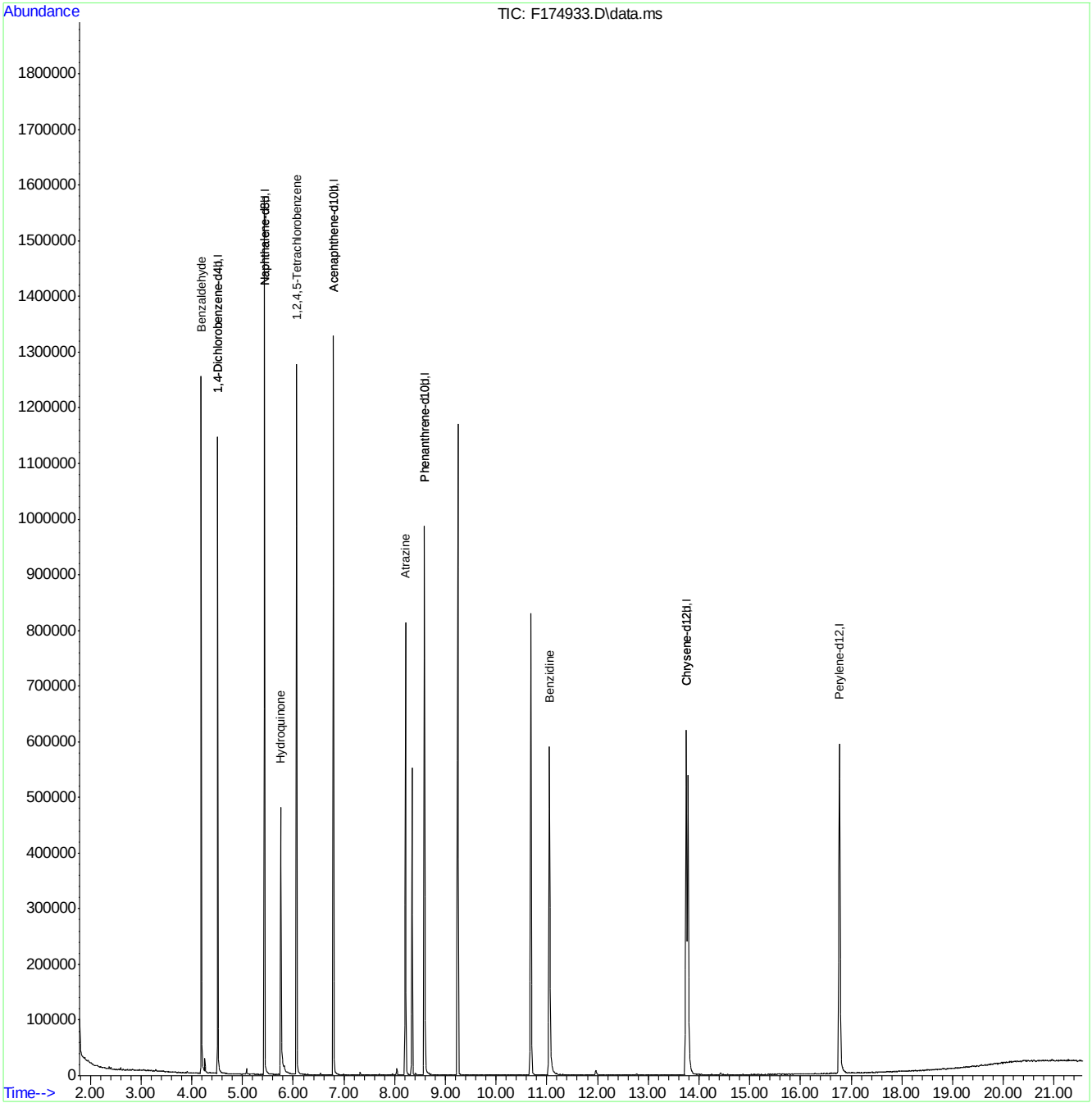
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	133736	40.00	ppm	0.00
24) Naphthalene-d8	5.431	136	503970	40.00	ppm	0.00
47) Acenaphthene-d10	6.793	164	239291	40.00	ppm	0.00
69) Phenanthrene-d10	8.588	188	428259	40.00	ppm	0.00
83) Chrysene-d12	13.748	240	356393	40.00	ppm	0.00
91) Perylene-d12	16.772	264	353604	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.512	152	133736	40.00	ppm	0.00
103) Phenanthrene-d10b	8.588	188	428259	40.00	ppm	0.00
105) Chrysene-d12b	13.748	240	356393	40.00	ppm	0.00
107) Naphthalene-d8b	5.431	136	503970	40.00	ppm	0.00
109) Acenaphthene-d10b	6.793	164	239291	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.186	105	189944	49.37	ppm	94
104) Atrazine	8.214	200	100458	46.66	ppm	87
106) Benzidine	11.051	184	365074	53.57	ppm	98
108) Hydroquinone	5.751	110	222852	52.42	ppm	97
110) 1,2,4,5-Tetrachloroben...	6.066	216	173050	57.22	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174933.D
Acq On : 14 Mar 2018 12:07 am
Operator : chriss2
Sample : icc7441-50
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 14 09:27:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 14 09:26:47 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174934.D
Acq On : 14 Mar 2018 12:36 am
Operator : chriss2
Sample : ic7441-25
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 14 09:29:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration

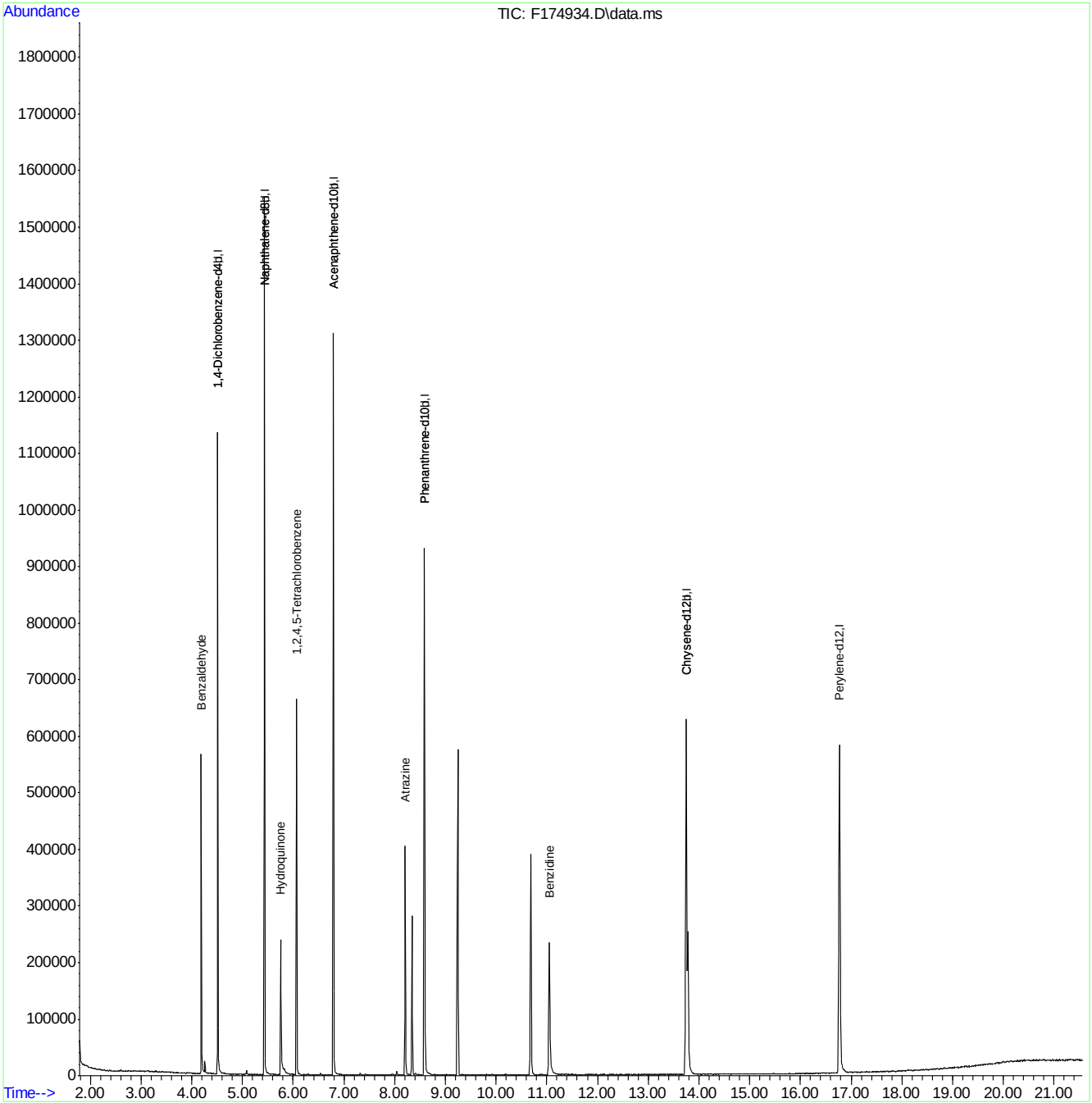
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	129759	40.00	ppm	0.02
24) Naphthalene-d8	5.430	136	491816	40.00	ppm	0.02
47) Acenaphthene-d10	6.793	164	232152	40.00	ppm	-0.06
69) Phenanthrene-d10	8.588	188	425221	40.00	ppm	-0.09
83) Chrysene-d12	13.748	240	351208	40.00	ppm	-0.12
91) Perylene-d12	16.772	264	352057	40.00	ppm	-0.13
101) 1,4-Dichlorobenzene-d4b	4.512	152	129759	40.00	ppm	-0.05
103) Phenanthrene-d10b	8.588	188	425221	40.00	ppm	-0.09
105) Chrysene-d12b	13.748	240	351208	40.00	ppm	-0.12
107) Naphthalene-d8b	5.430	136	491816	40.00	ppm	-0.05
109) Acenaphthene-d10b	6.793	164	232152	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.186	105	92450	24.77	ppm	91
104) Atrazine	8.208	200	48727	22.80	ppm	87
106) Benzidine	11.050	184	161226	24.01	ppm	97
108) Hydroquinone	5.751	110	104041	25.08	ppm	98
110) 1,2,4,5-Tetrachloroben...	6.066	216	90736	30.93	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174934.D
Acq On : 14 Mar 2018 12:36 am
Operator : chriss2
Sample : ic7441-25
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 14 09:29:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174935.D
Acq On : 14 Mar 2018 1:04 am
Operator : chriss2
Sample : ic7441-10
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 14 09:30:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration

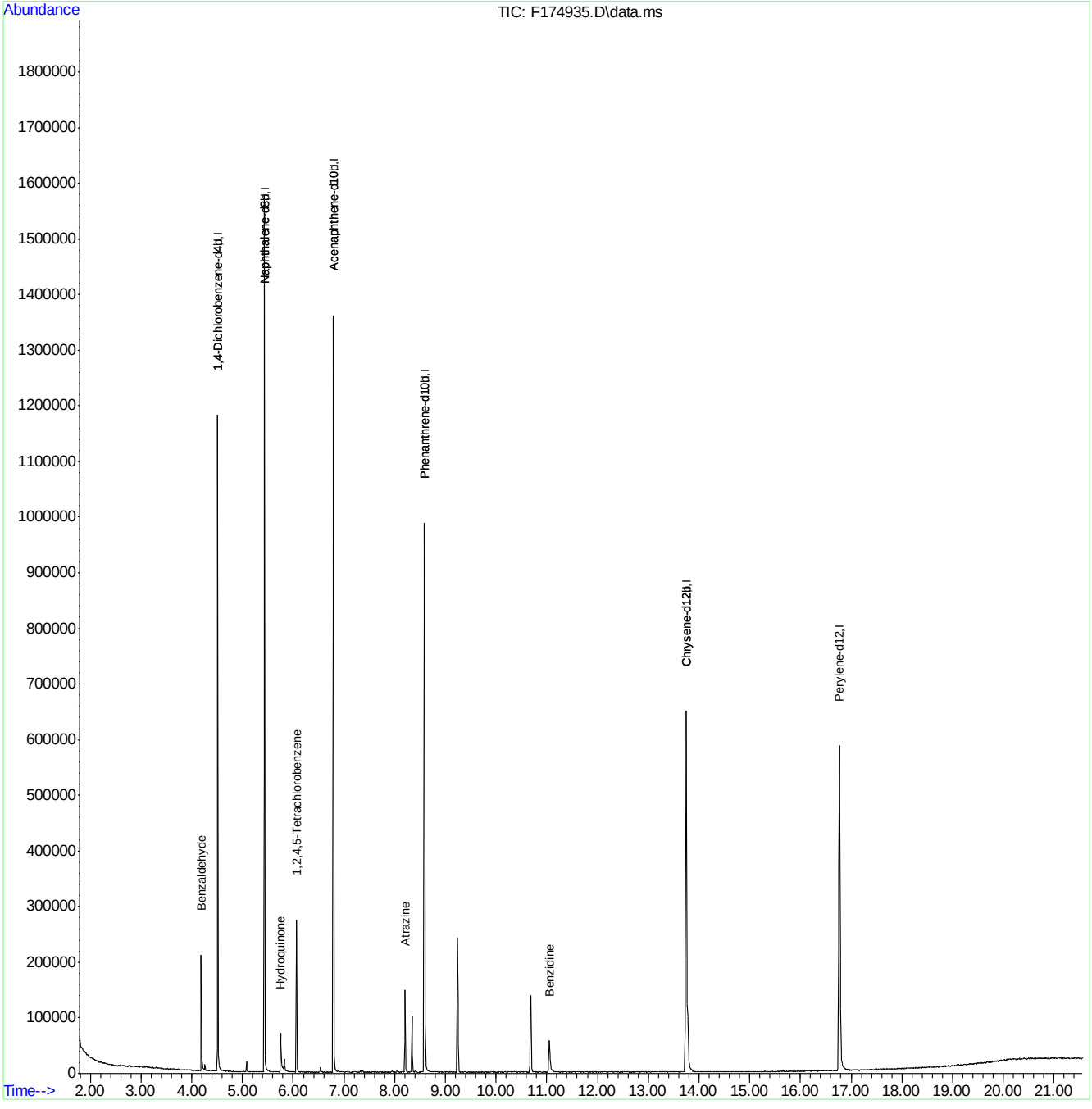
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	135135	40.00	ppm	0.02
24) Naphthalene-d8	5.430	136	508109	40.00	ppm	0.02
47) Acenaphthene-d10	6.793	164	242930	40.00	ppm	-0.06
69) Phenanthrene-d10	8.588	188	438925	40.00	ppm	-0.09
83) Chrysene-d12	13.748	240	365163	40.00	ppm	-0.12
91) Perylene-d12	16.772	264	363076	40.00	ppm	-0.13
101) 1,4-Dichlorobenzene-d4b	4.512	152	135135	40.00	ppm	-0.05
103) Phenanthrene-d10b	8.588	188	438925	40.00	ppm	-0.09
105) Chrysene-d12b	13.748	240	365163	40.00	ppm	-0.12
107) Naphthalene-d8b	5.430	136	508109	40.00	ppm	-0.05
109) Acenaphthene-d10b	6.793	164	242930	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.186	105	38486	9.90	ppm	92
104) Atrazine	8.208	200	18150	8.23	ppm	93
106) Benzidine	11.050	184	45297	6.49	ppm	97
108) Hydroquinone	5.751	110	37396	8.72	ppm	98
110) 1,2,4,5-Tetrachloroben...	6.066	216	38191	12.44	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174935.D
Acq On : 14 Mar 2018 1:04 am
Operator : chriss2
Sample : ic7441-10
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 14 09:30:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174936.D
Acq On : 14 Mar 2018 1:32 am
Operator : chriss2
Sample : ic7441-5
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 14 09:30:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration

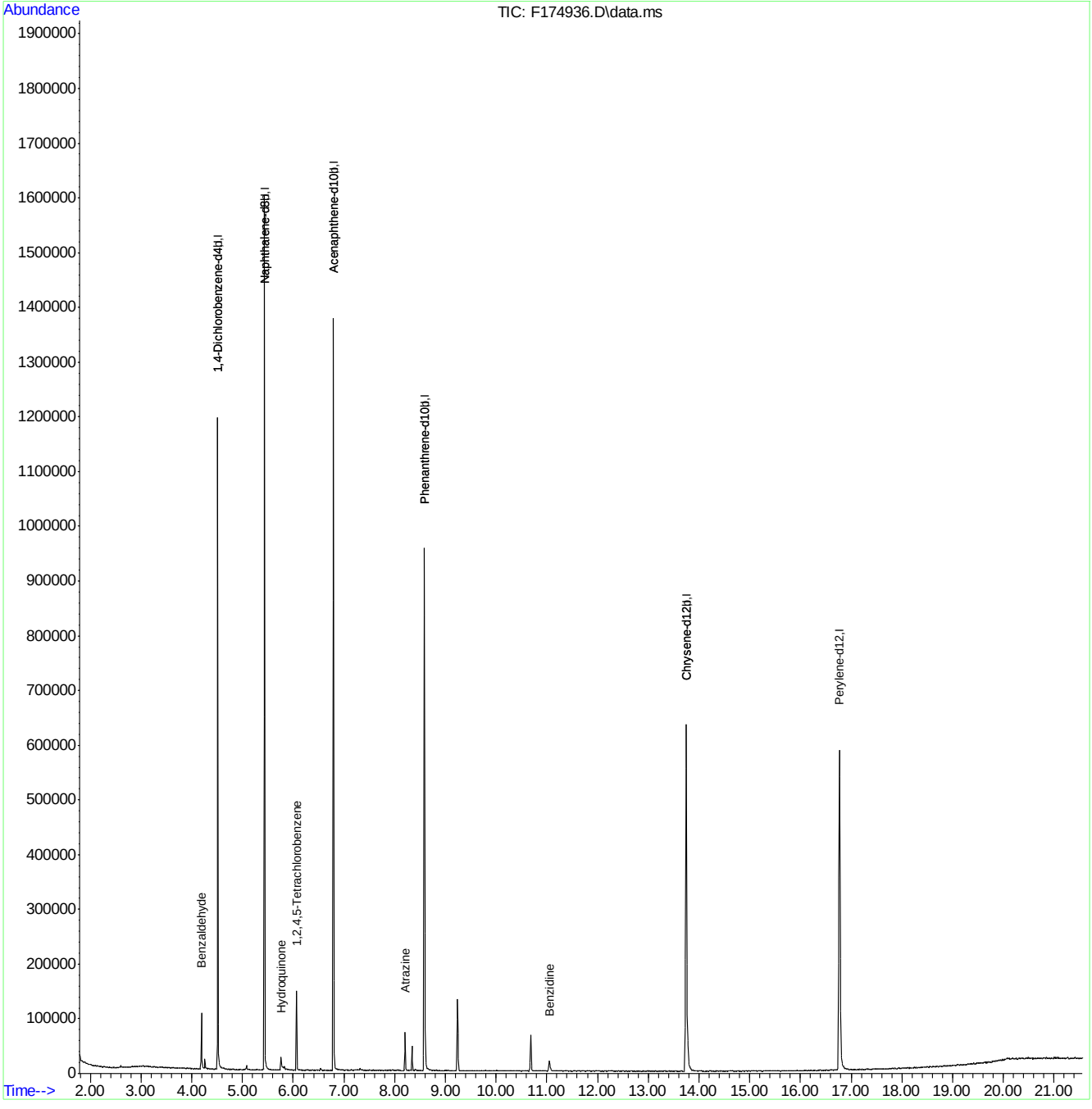
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	137268	40.00	ppm	0.02
24) Naphthalene-d8	5.430	136	508137	40.00	ppm	0.02
47) Acenaphthene-d10	6.793	164	241318	40.00	ppm	-0.06
69) Phenanthrene-d10	8.588	188	435483	40.00	ppm	-0.09
83) Chrysene-d12	13.748	240	354772	40.00	ppm	-0.12
91) Perylene-d12	16.772	264	356329	40.00	ppm	-0.13
101) 1,4-Dichlorobenzene-d4b	4.512	152	137268	40.00	ppm	-0.05
103) Phenanthrene-d10b	8.588	188	435483	40.00	ppm	-0.09
105) Chrysene-d12b	13.748	240	354772	40.00	ppm	-0.12
107) Naphthalene-d8b	5.430	136	508137	40.00	ppm	-0.05
109) Acenaphthene-d10b	6.793	164	241318	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.191	105	21347	5.41	ppm	94
104) Atrazine	8.208	200	8363	3.82	ppm	98
106) Benzidine	11.050	184	17698	2.61	ppm	95
108) Hydroquinone	5.756	110	16088	3.75	ppm	96
110) 1,2,4,5-Tetrachloroben...	6.066	216	21413	7.02	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174936.D
Acq On : 14 Mar 2018 1:32 am
Operator : chriss2
Sample : ic7441-5
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 14 09:30:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174937.D
Acq On : 14 Mar 2018 2:01 am
Operator : chriss2
Sample : ic7441-2
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 14 09:31:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration

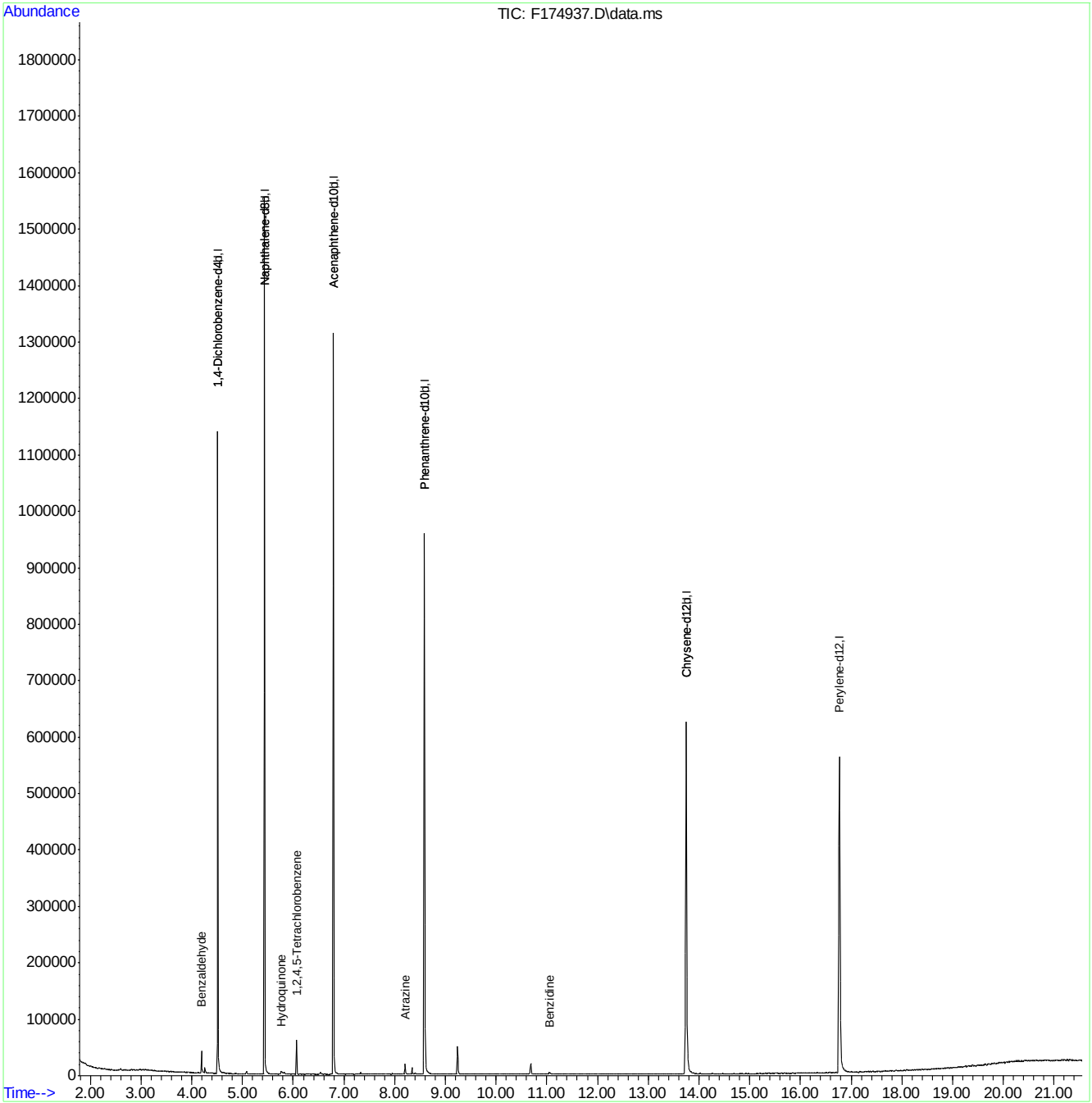
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	132321	40.00	ppm	0.02
24) Naphthalene-d8	5.430	136	504689	40.00	ppm	0.02
47) Acenaphthene-d10	6.793	164	235757	40.00	ppm	-0.06
69) Phenanthrene-d10	8.588	188	433017	40.00	ppm	-0.09
83) Chrysene-d12	13.748	240	344817	40.00	ppm	-0.12
91) Perylene-d12	16.772	264	349346	40.00	ppm	-0.13
101) 1,4-Dichlorobenzene-d4b	4.512	152	132321	40.00	ppm	-0.05
103) Phenanthrene-d10b	8.588	188	433017	40.00	ppm	-0.09
105) Chrysene-d12b	13.748	240	344817	40.00	ppm	-0.12
107) Naphthalene-d8b	5.430	136	504689	40.00	ppm	-0.05
109) Acenaphthene-d10b	6.793	164	235757	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.191	105	7759	2.04	ppm	94
104) Atrazine	8.208	200	2620	1.20	ppm	93
106) Benzidine	11.050	184	4373	0.66	ppm	89
108) Hydroquinone	5.762	110	4148	0.97	ppm	94
110) 1,2,4,5-Tetrachloroben...	6.066	216	8551	2.87	ppm	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174937.D
Acq On : 14 Mar 2018 2:01 am
Operator : chriss2
Sample : ic7441-2
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 14 09:31:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174938.D
Acq On : 14 Mar 2018 2:29 am
Operator : chriss2
Sample : ic7441-1
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 14 09:32:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration

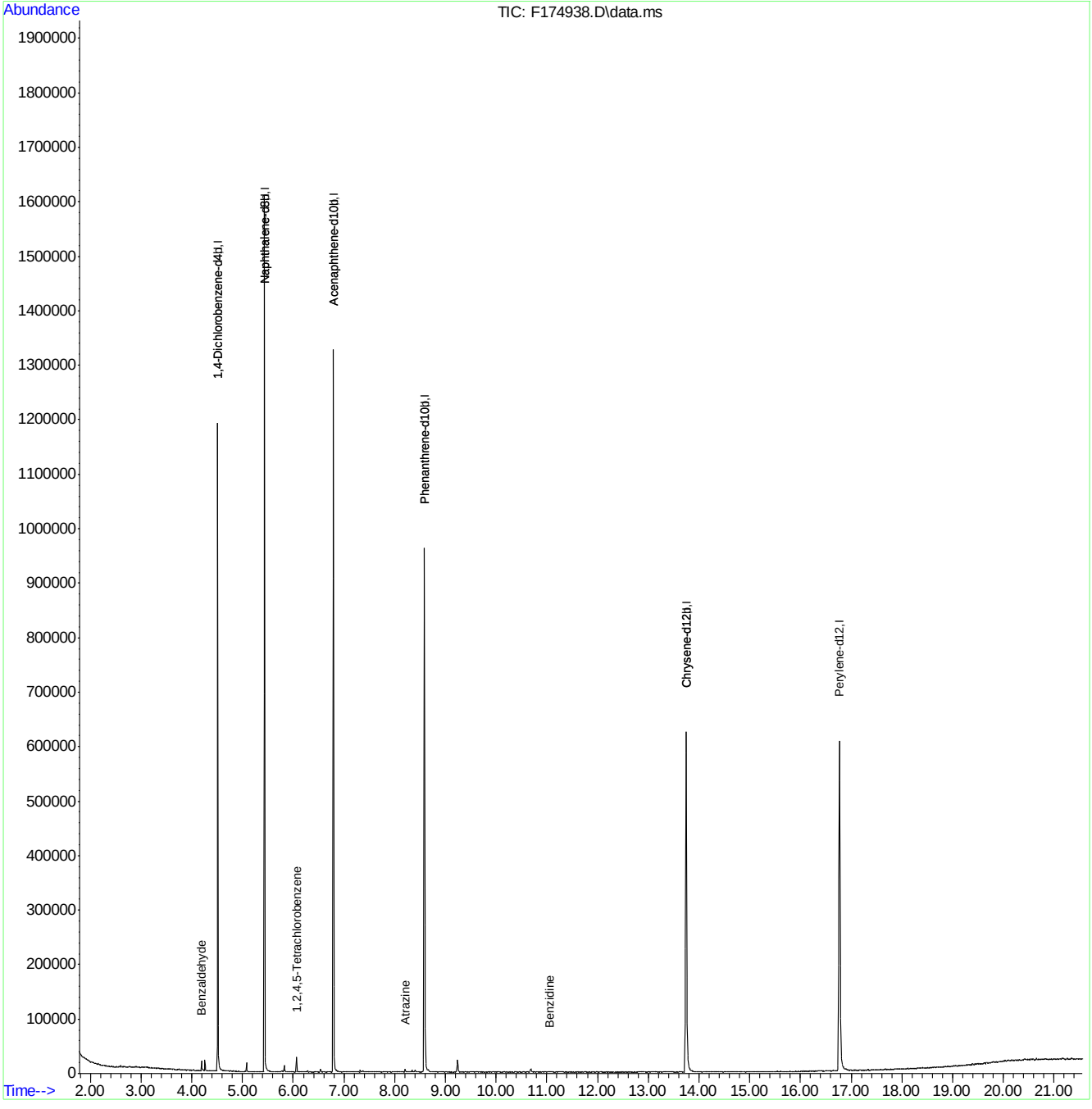
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.512	152	138360	40.00	ppm		0.02
24) Naphthalene-d8	5.430	136	513583	40.00	ppm		0.02
47) Acenaphthene-d10	6.793	164	242464	40.00	ppm		-0.06
69) Phenanthrene-d10	8.588	188	438711	40.00	ppm		-0.09
83) Chrysene-d12	13.748	240	354291	40.00	ppm		-0.12
91) Perylene-d12	16.772	264	353237	40.00	ppm		-0.13
101) 1,4-Dichlorobenzene-d4b	4.512	152	138360	40.00	ppm		-0.05
103) Phenanthrene-d10b	8.588	188	438711	40.00	ppm		-0.09
105) Chrysene-d12b	13.748	240	354291	40.00	ppm		-0.12
107) Naphthalene-d8b	5.430	136	513583	40.00	ppm		-0.05
109) Acenaphthene-d10b	6.793	164	242464	40.00	ppm		-0.06
System Monitoring Compounds							
5) 2-Fluorophenol	0.000	112	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
Target Compounds							Qvalue
102) Benzaldehyde	4.191	105	3842	0.97	ppm		94
104) Atrazine	8.208	200	1013	0.46	ppm		70
106) Benzidine	11.056	184	1749	0.26	ppm	#	68
110) 1,2,4,5-Tetrachloroben...	6.066	216	4293	1.40	ppm		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174938.D
Acq On : 14 Mar 2018 2:29 am
Operator : chriss2
Sample : ic7441-1
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 14 09:32:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 12 16:20:30 2018
Response via : Initial Calibration



9.6.37

9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174939.D
Acq On : 14 Mar 2018 2:58 am
Operator : chriss2
Sample : icv7441-50
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 14 13:46:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 14 09:37:47 2018
Response via : Initial Calibration

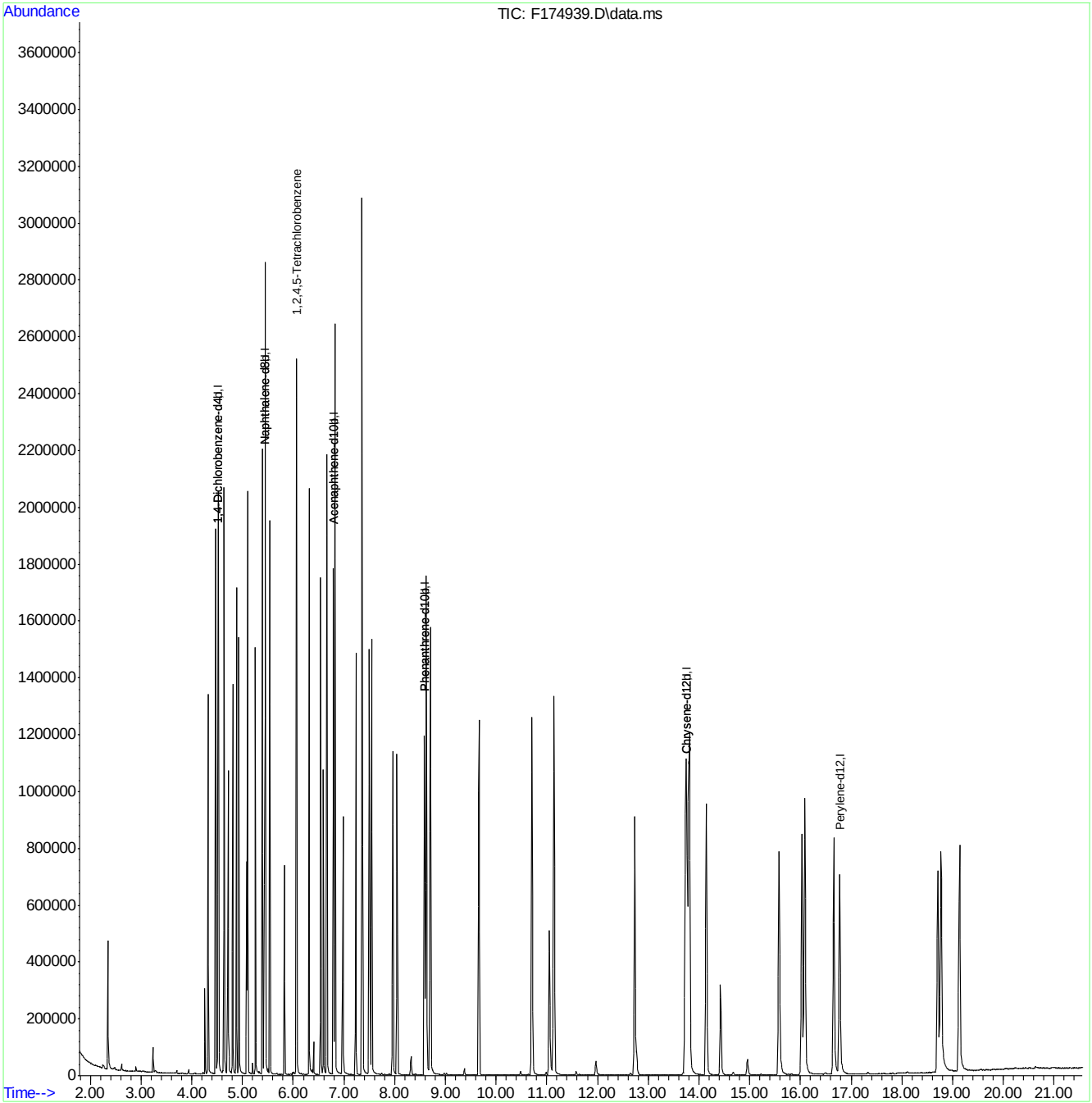
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	207612	40.00	ppm	0.00
24) Naphthalene-d8	5.431	136	743560	40.00	ppm	0.00
47) Acenaphthene-d10	6.793	164	347481	40.00	ppm	0.00
69) Phenanthrene-d10	8.588	188	583187	40.00	ppm	0.00
83) Chrysene-d12	13.759	240	440046	40.00	ppm	0.01
91) Perylene-d12	16.777	264	434975	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.512	152	207612	40.00	ppm	0.00
103) Phenanthrene-d10b	8.588	188	583187	40.00	ppm	0.00
105) Chrysene-d12b	13.759	240	440046	40.00	ppm	0.01
107) Naphthalene-d8b	5.431	136	743560	40.00	ppm	0.00
109) Acenaphthene-d10b	6.793	164	347481	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
110) 1,2,4,5-Tetrachloroben...	6.066	216	269026	48.68	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174939.D
Acq On : 14 Mar 2018 2:58 am
Operator : chriss2
Sample : icv7441-50
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 14 13:46:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 14 09:37:47 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174940.D
Acq On : 14 Mar 2018 3:26 am
Operator : chriss2
Sample : icv7441-50
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 14 13:47:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 14 09:37:47 2018
Response via : Initial Calibration

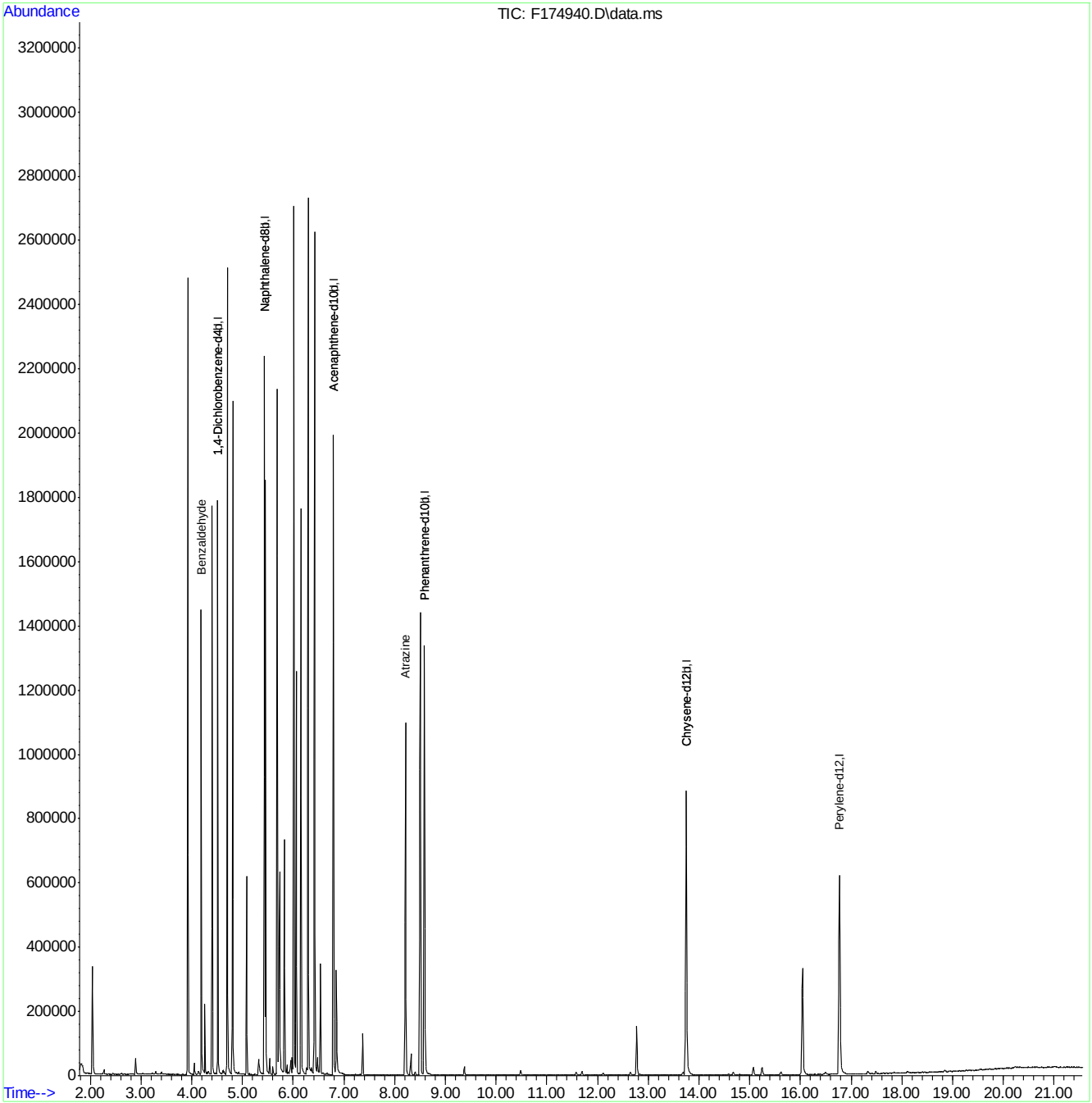
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	199870	40.00	ppm	0.00
24) Naphthalene-d8	5.431	136	709180	40.00	ppm	0.00
47) Acenaphthene-d10	6.793	164	386772	40.00	ppm	0.00
69) Phenanthrene-d10	8.588	188	600214	40.00	ppm	0.00
83) Chrysene-d12	13.748	240	496837	40.00	ppm	0.00
91) Perylene-d12	16.772	264	374646	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.512	152	199870	40.00	ppm	0.00
103) Phenanthrene-d10b	8.588	188	600214	40.00	ppm	0.00
105) Chrysene-d12b	13.748	240	496837	40.00	ppm	0.00
107) Naphthalene-d8b	5.431	136	709180	40.00	ppm	0.00
109) Acenaphthene-d10b	6.793	164	386772	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.191	105	250513	43.81	ppm	96
104) Atrazine	8.214	200	147769	52.36	ppm	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174940.D
Acq On : 14 Mar 2018 3:26 am
Operator : chriss2
Sample : icv7441-50
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 14 13:47:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 14 09:37:47 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174941A.D
Acq On : 14 Mar 2018 3:55 am
Operator : chriss2
Sample : icv7441-50
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 14 13:55:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 14 09:37:47 2018
Response via : Initial Calibration

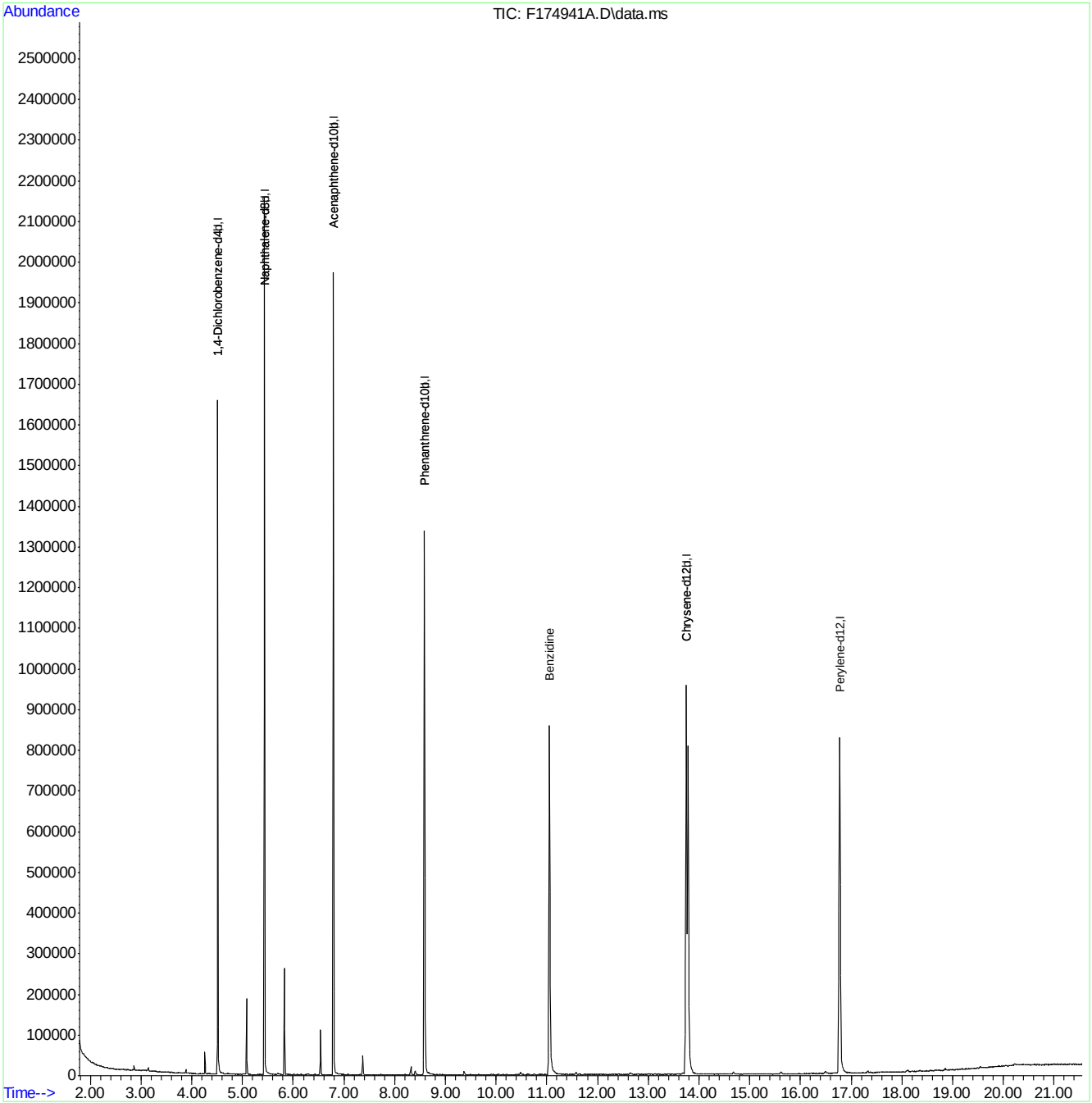
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	190934	40.00	ppm	0.00
24) Naphthalene-d8	5.431	136	702674	40.00	ppm	0.00
47) Acenaphthene-d10	6.793	164	385597	40.00	ppm	0.00
69) Phenanthrene-d10	8.588	188	615379	40.00	ppm	0.00
83) Chrysene-d12	13.754	240	564631	40.00	ppm	0.00
91) Perylene-d12	16.777	264	481279	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.512	152	190934	40.00	ppm	0.00
103) Phenanthrene-d10b	8.588	188	615379	40.00	ppm	0.00
105) Chrysene-d12b	13.754	240	564631	40.00	ppm	0.00
107) Naphthalene-d8b	5.431	136	702674	40.00	ppm	0.00
109) Acenaphthene-d10b	6.793	164	385597	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
106) Benzidine	11.051	184	506409	45.02	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7441\
Data File : F174941A.D
Acq On : 14 Mar 2018 3:55 am
Operator : chriss2
Sample : icv7441-50
Misc : op9377,ef7441,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 14 13:55:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 14 09:37:47 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7442\
Data File : F174951.D
Acq On : 14 Mar 2018 4:16 pm
Operator : seanb1
Sample : icv7441-50
Misc : op9377,ef7442,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 11:25:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 14 09:37:47 2018
Response via : Initial Calibration

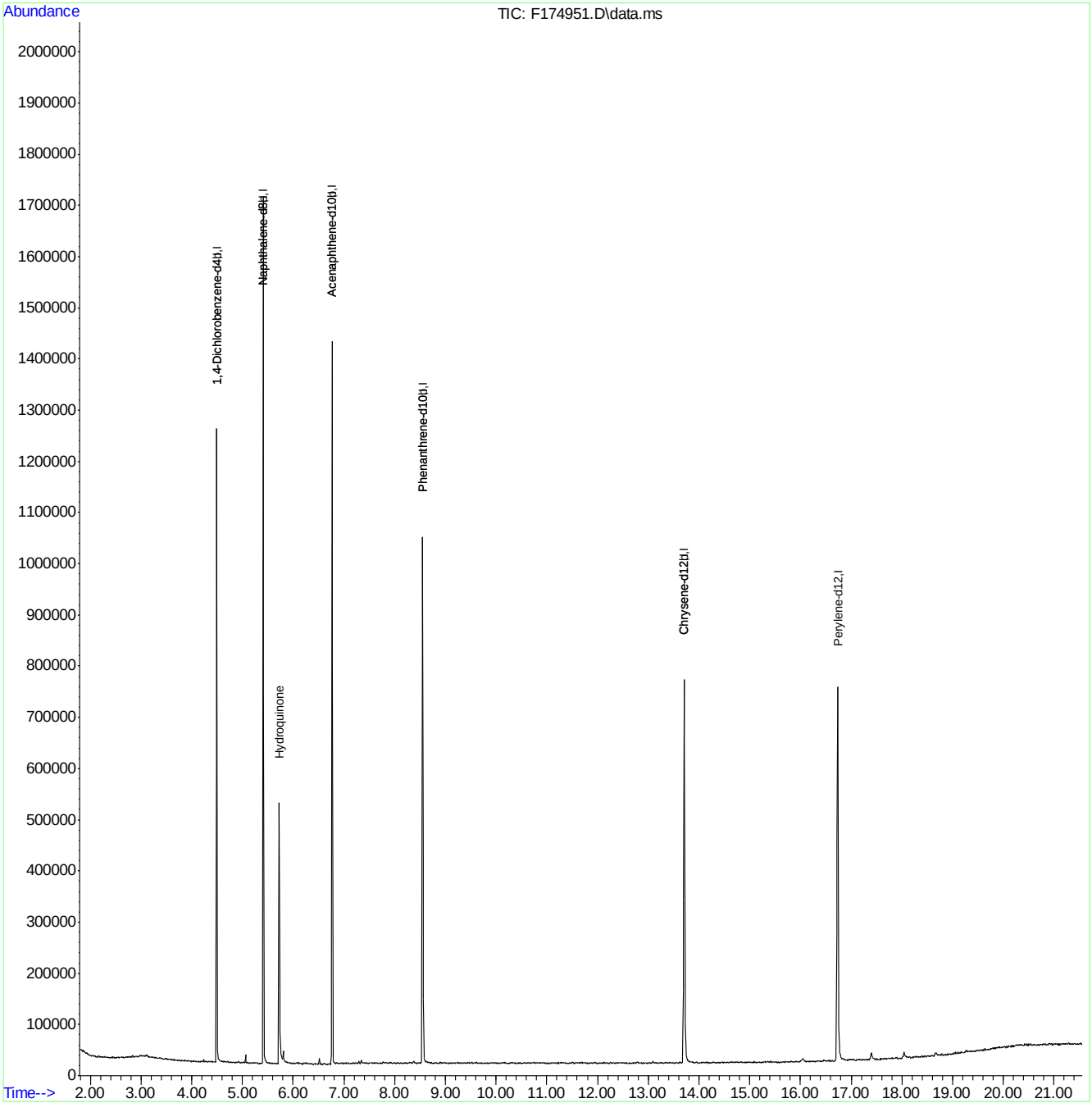
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.490	152	140224	40.00	ppm	-0.02
24) Naphthalene-d8	5.409	136	532305	40.00	ppm	-0.02
47) Acenaphthene-d10	6.766	164	255162	40.00	ppm	-0.03
69) Phenanthrene-d10	8.550	188	479307	40.00	ppm	-0.04
83) Chrysene-d12	13.711	240	448616	40.00	ppm	-0.04
91) Perylene-d12	16.740	264	445863	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4b	4.490	152	140224	40.00	ppm	-0.02
103) Phenanthrene-d10b	8.550	188	479307	40.00	ppm	-0.04
105) Chrysene-d12b	13.711	240	448616	40.00	ppm	-0.04
107) Naphthalene-d8b	5.409	136	532305	40.00	ppm	-0.02
109) Acenaphthene-d10b	6.766	164	255162	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
108) Hydroquinone	5.724	110	257121	58.79	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7442\
Data File : F174951.D
Acq On : 14 Mar 2018 4:16 pm
Operator : seanb1
Sample : icv7441-50
Misc : op9377,ef7442,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 11:25:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7440.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 14 09:37:47 2018
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Kristi Schollenberger
03/20/18 18:41

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174983.D
Acq On : 16 Mar 2018 12:13 pm
Operator : seanb1
Sample : ic7445-100
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 20 19:10:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:44:33 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	125567	40.00	ppm	0.00
24) Naphthalene-d8	5.350	136	478542	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	257471	40.00	ppm	0.00
69) Phenanthrene-d10	8.444	188	418002	40.00	ppm	0.00
83) Chrysene-d12	13.561	240	358551	40.00	ppm	0.00
91) Perylene-d12	16.569	264	393392	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.426	152	125567	40.00	ppm	0.00
111) Naphthalene-d8A	5.350	136	478542	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	257471	40.00	ppm	0.00
131) Phenanthrene-d10A	8.444	188	418002	40.00	ppm	0.00
146) Chrysene-d12A	13.561	240	358551	40.00	ppm	0.00
153) Perylene-d12A	16.569	264	393392	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	4.426	152	125567	40.00	ppm	0.00
159) Phenanthrene-d10b	8.444	188	418002	40.00	ppm	0.00
161) Chrysene-d12b	13.561	240	358551	40.00	ppm	0.00
163) Naphthalene-d8b	5.350	136	478542	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	257471	40.00	ppm	0.00
167) Naphthalene-d8c	5.350	136	478542	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	125567	40.00	ppm	0.00
174) Chrysene-d12c	13.561	240	358551	40.00	ppm	0.00
176) Chrysene-d12d	13.561	240	358551	40.00	ppm	0.00
178) Naphthalene-d8d	5.350	136	478542	40.00	ppm	0.00
180) Chrysene-d12D	13.561	240	358551	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.459	112	421142	104.27	ppm	-0.04
Spiked Amount 50.000			Recovery = 208.54%			
8) Phenol-d5	4.191	99	472351	87.92	ppm	0.00
Spiked Amount 50.000			Recovery = 175.84%			
25) Nitrobenzene-d5	4.832	82	478566	95.52	ppm	-0.02
Spiked Amount 50.000			Recovery = 191.04%			
51) 2-Fluorobiphenyl	6.125	172	800792	81.95	ppm	0.02
Spiked Amount 50.000			Recovery = 163.90%			
73) 2,4,6-Tribromophenol	7.519	330	129461	118.78	ppm	0.01
Spiked Amount 50.000			Recovery = 237.56%			
85) Terphenyl-d14	11.392	244	776296	96.50	ppm	-0.04
Spiked Amount 50.000			Recovery = 193.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.894	88	199532	94.73	ppm	97
3) Pyridine	2.241	79	505047	99.99	ppm	99
4) N-Nitrosodimethylamine	2.209	42	156575	102.63	ppm	88
6) Indene	4.619	116	654953	88.99	ppm	99
7) Cumene	3.833	105	939051	86.77	ppm	98
9) Phenol	4.202	94	562429	95.78	ppm	78
10) Aniline	4.191	93	566176	85.88	ppm	93
11) bis(2-Chloroethyl)ether	4.239	93	388317	90.30	ppm	96
12) 2-Chlorophenol	4.287	128	426573	93.52	ppm	99
13) Decane	4.319	43	269595	80.41	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174983.D
Acq On : 16 Mar 2018 12:13 pm
Operator : seanb1
Sample : ic7445-100
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 20 19:10:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:44:33 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	4.389	146	448581	88.22	ppm		99
15) 1,4-Dichlorobenzene	4.442	146	452104	85.73	ppm		99
16) Benzyl alcohol	4.544	108	249011	93.51	ppm		94
17) 1,2-Dichlorobenzene	4.554	146	408563	83.54	ppm		99
18) Acetophenone	4.725	105	541539	91.84	ppm		79
19) 2-Methylphenol	4.635	108	369907	88.08	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.629	121	110223	87.78	ppm	#	76
21) 3&4-Methylphenol	4.747	108	404584	91.04	ppm		99
22) n-Nitroso-di-n-propyla...	4.736	70	279934	86.59	ppm		95
23) Hexachloroethane	4.800	201	133173	87.70	ppm		93
26) Nitrobenzene	4.848	77	440378	89.01	ppm		99
27) Quinoline	5.617	129	833230	96.34	ppm		100
28) Isophorone	5.025	82	754702	93.26	ppm		99
29) 2-Nitrophenol	5.078	139	217437	98.64	ppm		85
30) 2,4-Dimethylphenol	5.121	107	399456	92.35	ppm		92
31) Benzoic acid	5.244	105	382794	124.65	ppm		94
32) bis(2-Chloroethoxy)met...	5.174	93	424753	90.95	ppm		98
33) 2,4-Dichlorophenol	5.260	162	324139	95.84	ppm		96
34) 2,6-Dichlorophenol	5.415	162	300729	88.25	ppm		98
35) 1,3,5-Trichlorobenzene	5.089	180	316757	78.75	ppm		98
36) 1,2,4-Trichlorobenzene	5.308	180	322578	82.95	ppm		99
37) 1,2,3-Trichlorobenzene	5.468	180	306968	80.75	ppm		98
38) Naphthalene	5.366	128	1102812	82.43	ppm		99
39) 4-Chloroaniline	5.409	127	467905	84.48	ppm		95
40) 2,3-Dichloroaniline	6.061	161	359880	86.06	ppm		98
41) Caprolactam	5.676	55	145819m	100.85	ppm		
42) Hexachlorobutadiene	5.457	225	161761	81.58	ppm		99
43) 4-Chloro-3-methylphenol	5.767	107	355096	99.18	ppm		82
44) 2-Methylnaphthalene	5.858	141	604910	84.77	ppm		99
45) 1-Methylnaphthalene	5.927	142	725594	83.35	ppm		98
46) Dimethylnaphthalene	6.328	156	630416	82.70	ppm		95
48) Hexachlorocyclopentadiene	5.975	237	346170	185.38	ppm		100
49) 2,4,6-Trichlorophenol	6.072	196	205076	92.99	ppm		100
50) 2,4,5-Trichlorophenol	6.109	196	240766	105.45	ppm		100
52) 2-Chloronaphthalene	6.216	162	677723	84.94	ppm		98
53) Biphenyl	6.200	154	847897	78.74	ppm		99
54) 2-Nitroaniline	6.301	65	233232	103.74	ppm		86
55) Dimethylphthalate	6.451	163	775056	90.58	ppm		100
56) Acenaphthylene	6.563	152	1132520	88.13	ppm		99
57) 2,6-Dinitrotoluene	6.504	165	188844	107.85	ppm		98
58) 3-Nitroaniline	6.654	138	231983	109.35	ppm		86
59) Acenaphthene	6.718	153	682033	79.28	ppm		97
60) 2,4-Dinitrophenol	6.750	184	241234	197.64	ppm		78
61) 4-Nitrophenol	6.841	109	129005	124.90	ppm		91
62) Dibenzofuran	6.884	168	959734	84.50	ppm		97
63) 2,4-Dinitrotoluene	6.873	165	253497	110.99	ppm		98
64) 2,3,4,6-Tetrachlorophenol	7.017	232	186858	105.53	ppm		95
65) Diethylphthalate	7.129	149	810106	93.35	ppm		99
66) Fluorene	7.242	166	704061	81.43	ppm		99
67) 4-Chlorophenyl-phenyle...	7.242	204	297212	78.31	ppm		95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174983.D
Acq On : 16 Mar 2018 12:13 pm
Operator : seanb1
Sample : ic7445-100
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 20 19:10:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:44:33 2018
Response via : Initial Calibration

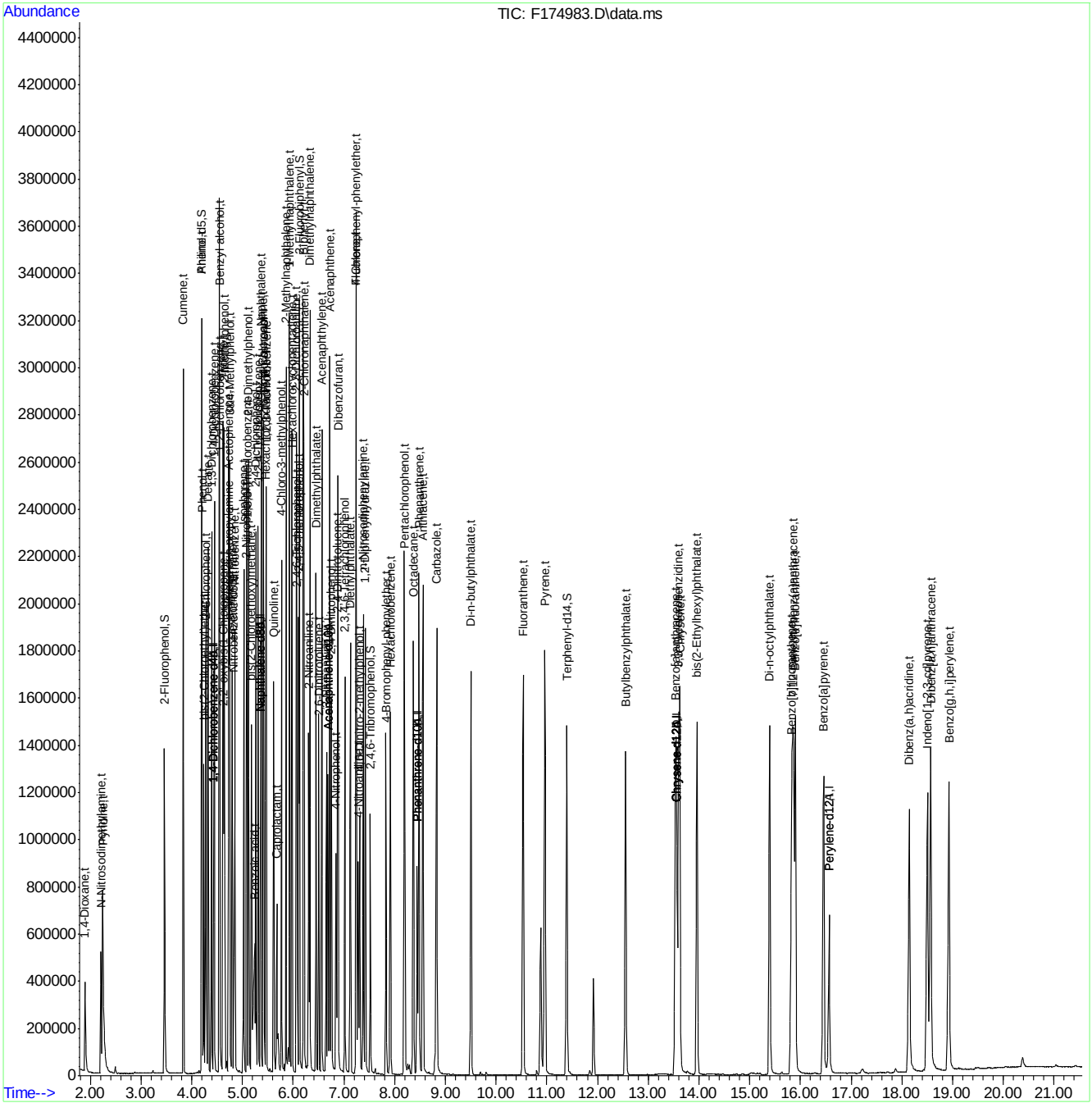
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	4-Nitroaniline	7.284	138	233490	108.45	ppm	97
70)	4,6-Dinitro-2-methylph...	7.311	198	157114	101.74	ppm	97
71)	n-Nitrosodiphenylamine	7.380	169	550795	99.46	ppm	99
72)	1,2-Diphenylhydrazine	7.423	77	868794	98.90	ppm	96
74)	4-Bromophenyl-phenylether	7.835	248	196707	92.92	ppm	99
75)	Hexachlorobenzene	7.915	284	236140	92.82	ppm	98
76)	Pentachlorophenol	8.198	266	305539	211.43	ppm	99
77)	Phenanthrene	8.481	178	1067657	87.85	ppm	100
78)	Anthracene	8.556	178	1079525	91.59	ppm	100
79)	Carbazole	8.828	167	1107604	102.64	ppm	100
80)	Di-n-butylphthalate	9.507	149	1383295	114.13	ppm	100
81)	Fluoranthene	10.538	202	1090363	98.67	ppm	99
82)	Octadecane	8.369	57	411620	99.77	ppm	96
84)	Pyrene	10.965	202	1136213	95.11	ppm	100
86)	Butylbenzylphthalate	12.557	149	626138	124.97	ppm	97
87)	Benzo[a]anthracene	13.540	228	1003969	103.72	ppm	98
88)	3,3'-Dichlorobenzidine	13.599	252	408073	123.89	ppm	99
89)	Chrysene	13.626	228	996483	90.79	ppm	98
90)	bis(2-Ethylhexyl)phtha...	13.962	149	869368	108.87	ppm	100
92)	Di-n-octylphthalate	15.394	149	1461912	110.90	ppm	99
93)	Benzo[b]fluoranthene	15.832	252	1115597	111.59	ppm	98
94)	Benzo[k]fluoranthene	15.901	252	1058673	97.85	ppm	98
95)	Benzo[a]pyrene	16.462	252	1002743	117.28	ppm	99
96)	Indeno[1,2,3-cd]pyrene	18.508	276	938391	115.73	ppm	99
97)	Dibenz(a,h)acridine	18.150	279	881307	106.18	ppm	100
98)	Dibenz[a,h]anthracene	18.572	278	963239	106.55	ppm	98
99)	7,12-Dimethylbenz(a)an...	15.864	256	497666	109.04	ppm	99
100)	Benzo[g,h,i]perylene	18.936	276	943053	101.41	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174983.D
Acq On : 16 Mar 2018 12:13 pm
Operator : seanb1
Sample : ic7445-100
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 20 19:10:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:44:33 2018
Response via : Initial Calibration



Manual Integration Approval Summary

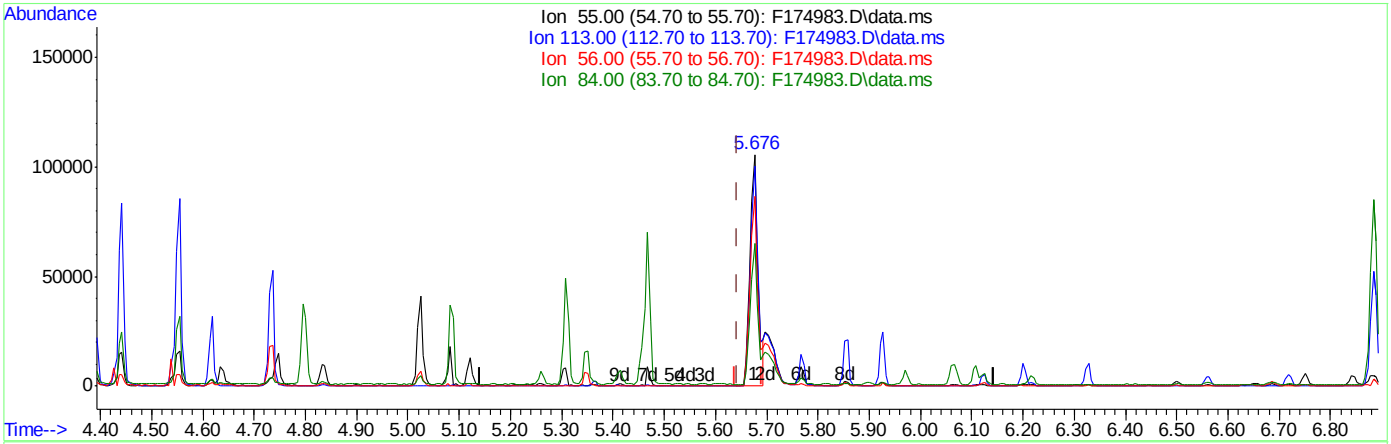
Sample Number:	EF7445-IC7445	**Method:**	SW846 8270D
Lab FileID:	F174983.D	**Analyst approved:**	03/19/18 09:44 Sean Block
Injection Time:	03/16/18 12:13	**Supervisor approved:**	03/20/18 18:41 Kristi Schollenberger

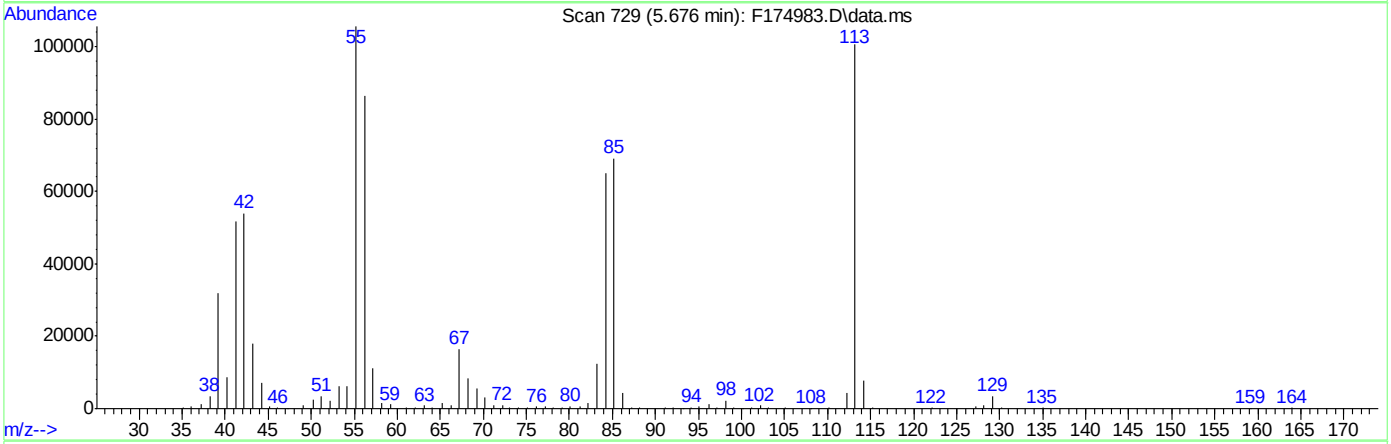
Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		5.68	Split peak

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174983.D
Acq On : 16 Mar 2018 12:13 pm
Operator : seanb1
Sample : ic7445-100
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 19 08:44:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:44:33 2018
Response via : Initial Calibration





TIC: F174983.D\data.ms

(41) Caprolactam (t)

5.676min (+0.033) 77.31ppm

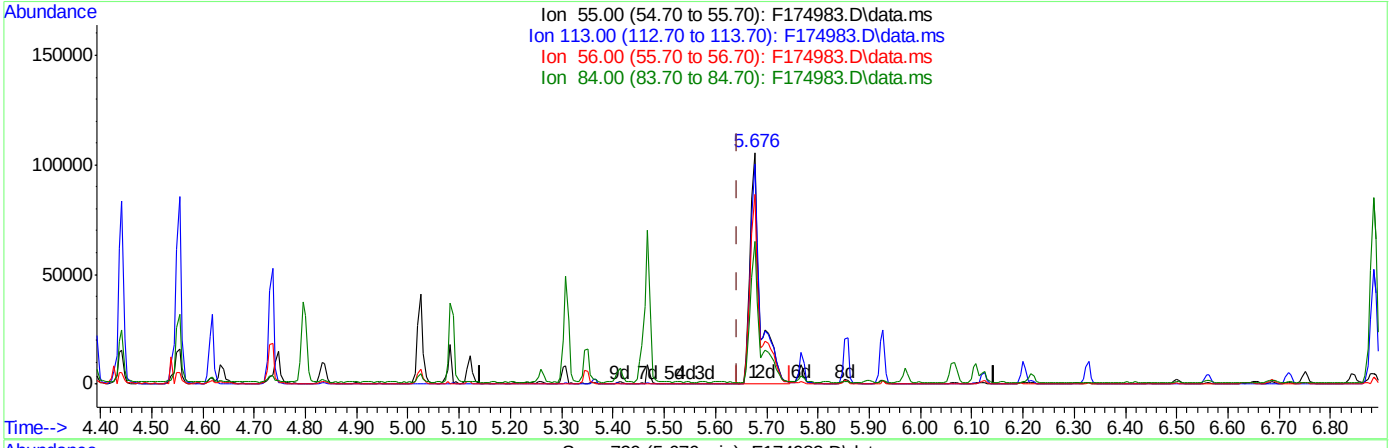
response 111791

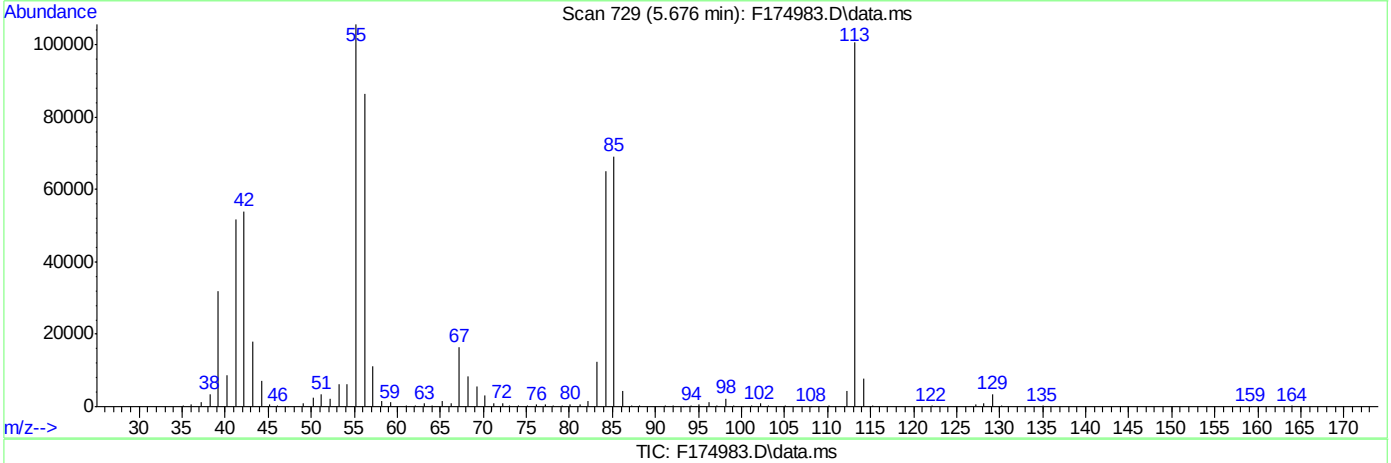
Ion	Exp%	Act%
55.00	100	100
113.00	103.20	94.63
56.00	78.80	81.61
84.00	57.80	60.92

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174983.D
Acq On : 16 Mar 2018 12:13 pm
Operator : seanb1
Sample : ic7445-100
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 19 08:44:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:44:33 2018
Response via : Initial Calibration





TIC: F174983.D\data.ms

(41) Caprolactam (t)

5.676min (+0.033) 100.85ppm m

response 145819

Ion	Exp%	Act%
55.00	100	100
113.00	103.20	95.20
56.00	78.80	81.77
84.00	57.80	61.66

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174984.D
Acq On : 16 Mar 2018 12:41 pm
Operator : seanb1
Sample : ic7445-80
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 20 19:10:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	121511	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	461566	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	248389	40.00	ppm	0.00
69) Phenanthrene-d10	8.438	188	410735	40.00	ppm	0.00
83) Chrysene-d12	13.556	240	355397	40.00	ppm	0.00
91) Perylene-d12	16.564	264	381757	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.426	152	121511	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	461566	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	248389	40.00	ppm	0.00
131) Phenanthrene-d10A	8.438	188	410735	40.00	ppm	0.00
146) Chrysene-d12A	13.556	240	355397	40.00	ppm	0.00
153) Perylene-d12A	16.564	264	381757	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	4.426	152	121511	40.00	ppm	0.00
159) Phenanthrene-d10b	8.438	188	410735	40.00	ppm	0.00
161) Chrysene-d12b	13.556	240	355397	40.00	ppm	0.00
163) Naphthalene-d8b	5.345	136	461566	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	248389	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	461566	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	121511	40.00	ppm	0.00
174) Chrysene-d12c	13.556	240	355397	40.00	ppm	0.00
176) Chrysene-d12d	13.556	240	355397	40.00	ppm	0.00
178) Naphthalene-d8d	5.345	136	461566	40.00	ppm	0.00
180) Chrysene-d12D	13.556	240	355397	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.459	112	321161	82.17	ppm	-0.04
Spiked Amount 50.000			Recovery = 164.34%			
8) Phenol-d5	4.191	99	372466	71.65	ppm	0.00
Spiked Amount 50.000			Recovery = 143.30%			
25) Nitrobenzene-d5	4.832	82	371841	76.95	ppm	-0.02
Spiked Amount 50.000			Recovery = 153.90%			
51) 2-Fluorobiphenyl	6.125	172	655075	69.49	ppm	0.02
Spiked Amount 50.000			Recovery = 138.98%			
73) 2,4,6-Tribromophenol	7.519	330	102473	95.68	ppm	0.01
Spiked Amount 50.000			Recovery = 191.36%			
85) Terphenyl-d14	11.392	244	621850	77.99	ppm	-0.04
Spiked Amount 50.000			Recovery = 155.98%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.894	88	153554	75.34	ppm	97
3) Pyridine	2.241	79	374803	76.68	ppm	97
4) N-Nitrosodimethylamine	2.209	42	116804	79.12	ppm	88
6) Indene	4.619	116	515120	72.33	ppm	98
7) Cumene	3.833	105	745286	71.16	ppm	99
9) Phenol	4.202	94	440551	77.53	ppm	76
10) Aniline	4.186	93	445734	69.87	ppm	92
11) bis(2-Chloroethyl)ether	4.239	93	296892	71.34	ppm	96
12) 2-Chlorophenol	4.282	128	330183	74.81	ppm	93
13) Decane	4.319	43	214299	66.05	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174984.D
Acq On : 16 Mar 2018 12:41 pm
Operator : seanb1
Sample : ic7445-80
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 20 19:10:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	4.389	146	352307	71.60	ppm		99
15) 1,4-Dichlorobenzene	4.442	146	361410	70.82	ppm		98
16) Benzyl alcohol	4.538	108	196312	76.18	ppm		88
17) 1,2-Dichlorobenzene	4.554	146	327869	69.28	ppm		99
18) Acetophenone	4.725	105	419632	73.54	ppm		90
19) 2-Methylphenol	4.635	108	289199	71.16	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.629	121	85530	70.39	ppm	#	63
21) 3&4-Methylphenol	4.747	108	331175	77.01	ppm		99
22) n-Nitroso-di-n-propyla...	4.731	70	220455	70.47	ppm		99
23) Hexachloroethane	4.795	201	104633	71.21	ppm		90
26) Nitrobenzene	4.848	77	346617	72.64	ppm		97
27) Quinoline	5.612	129	635742	76.21	ppm		100
28) Isophorone	5.019	82	581703	74.53	ppm		98
29) 2-Nitrophenol	5.078	139	173931	81.81	ppm		95
30) 2,4-Dimethylphenol	5.121	107	308913	74.04	ppm		92
31) Benzoic acid	5.233	105	291760	98.50	ppm		94
32) bis(2-Chloroethoxy)met...	5.174	93	328817	72.99	ppm		98
33) 2,4-Dichlorophenol	5.260	162	256819	78.73	ppm		97
34) 2,6-Dichlorophenol	5.415	162	243205	73.99	ppm		98
35) 1,3,5-Trichlorobenzene	5.083	180	252974	65.21	ppm		99
36) 1,2,4-Trichlorobenzene	5.308	180	256179	68.30	ppm		99
37) 1,2,3-Trichlorobenzene	5.468	180	247441	67.49	ppm		99
38) Naphthalene	5.361	128	889399	68.92	ppm		99
39) 4-Chloroaniline	5.404	127	380861	71.29	ppm		94
40) 2,3-Dichloroaniline	6.061	161	288749	71.59	ppm		99
41) Caprolactam	5.671	55	113459	81.35	ppm		97
42) Hexachlorobutadiene	5.457	225	130350	68.16	ppm		99
43) 4-Chloro-3-methylphenol	5.767	107	279363	80.90	ppm	#	37
44) 2-Methylnaphthalene	5.853	141	485586	70.55	ppm		97
45) 1-Methylnaphthalene	5.922	142	584731	69.64	ppm		97
46) Dimethylnaphthalene	6.323	156	509298	69.27	ppm		94
48) Hexachlorocyclopentadiene	5.970	237	277711	154.15	ppm		100
49) 2,4,6-Trichlorophenol	6.066	196	163839	77.01	ppm		100
50) 2,4,5-Trichlorophenol	6.104	196	191333	86.87	ppm		99
52) 2-Chloronaphthalene	6.216	162	540279	70.19	ppm		96
53) Biphenyl	6.200	154	684738	65.91	ppm		100
54) 2-Nitroaniline	6.301	65	180008	82.99	ppm		92
55) Dimethylphthalate	6.446	163	608914	73.77	ppm		100
56) Acenaphthylene	6.558	152	900819	72.67	ppm		99
57) 2,6-Dinitrotoluene	6.499	165	146631	86.80	ppm		94
58) 3-Nitroaniline	6.654	138	180828	88.35	ppm		93
59) Acenaphthene	6.718	153	551759	66.48	ppm		97
60) 2,4-Dinitrophenol	6.750	184	181645	161.07	ppm		89
61) 4-Nitrophenol	6.841	109	98393	98.74	ppm		95
62) Dibenzofuran	6.884	168	768245	70.11	ppm		94
63) 2,4-Dinitrotoluene	6.873	165	198356	90.02	ppm		99
64) 2,3,4,6-Tetrachlorophenol	7.012	232	147275	86.21	ppm		91
65) Diethylphthalate	7.124	149	641459	76.62	ppm		99
66) Fluorene	7.236	166	569713	68.30	ppm		99
67) 4-Chlorophenyl-phenyle...	7.236	204	240929	65.80	ppm		92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174984.D
Acq On : 16 Mar 2018 12:41 pm
Operator : seanb1
Sample : ic7445-80
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 20 19:10:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

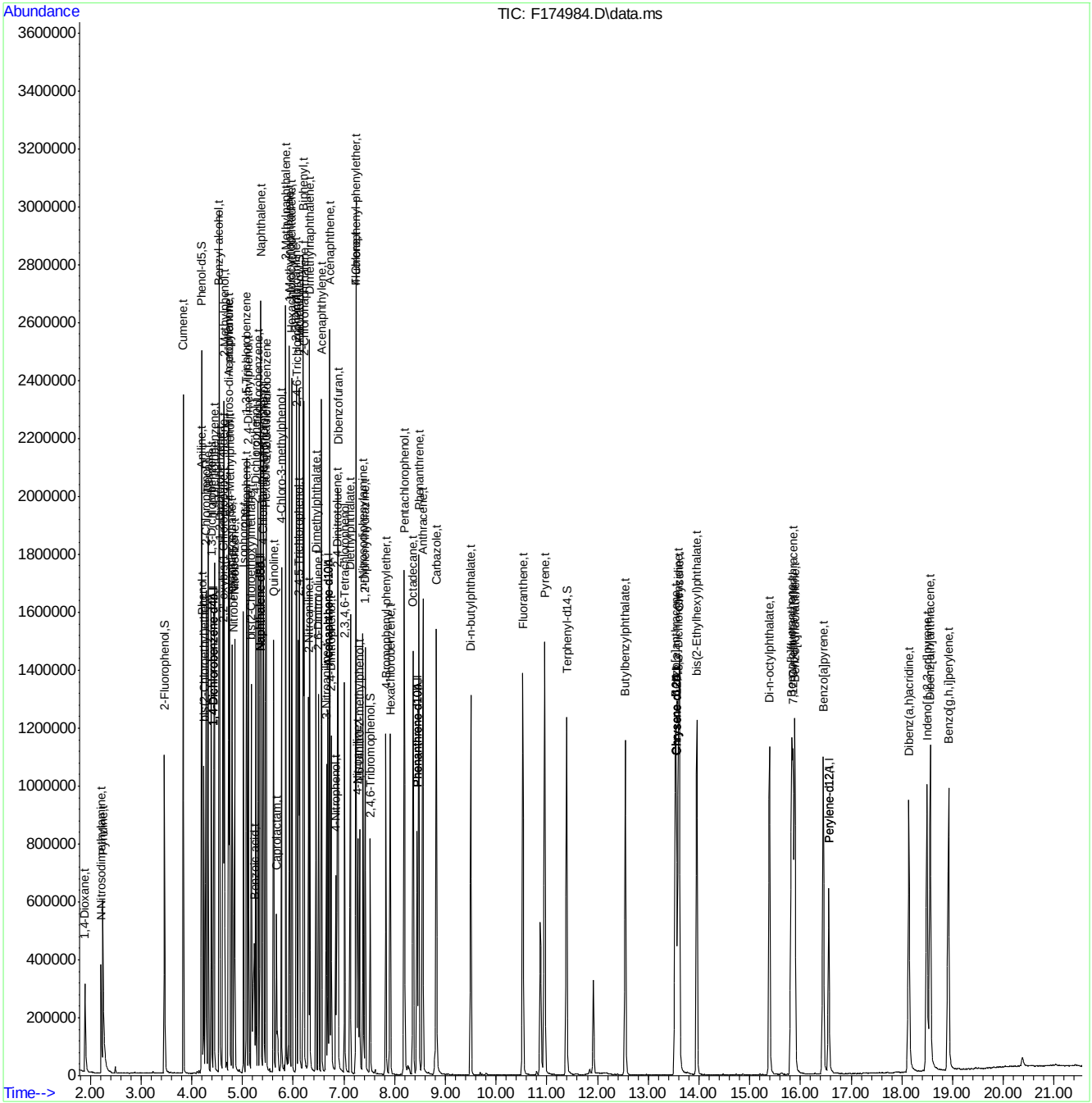
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	4-Nitroaniline	7.274	138	181584	87.42	ppm	92
70)	4,6-Dinitro-2-methylph...	7.306	198	121536	82.57	ppm	97
71)	n-Nitrosodiphenylamine	7.375	169	433595	79.68	ppm	100
72)	1,2-Diphenylhydrazine	7.423	77	681904	79.00	ppm	98
74)	4-Bromophenyl-phenylether	7.829	248	157898	75.90	ppm	96
75)	Hexachlorobenzene	7.915	284	188107	75.25	ppm	92
76)	Pentachlorophenol	8.192	266	237935	174.17	ppm	99
77)	Phenanthrene	8.476	178	850584	71.22	ppm	100
78)	Anthracene	8.556	178	880493	76.03	ppm	100
79)	Carbazole	8.823	167	878911	82.88	ppm	99
80)	Di-n-butylphthalate	9.501	149	1088129	91.37	ppm	100
81)	Fluoranthene	10.527	202	871274	80.24	ppm	97
82)	Octadecane	8.363	57	327242	80.72	ppm	96
84)	Pyrene	10.960	202	915210	77.29	ppm	99
86)	Butylbenzylphthalate	12.552	149	497330	100.14	ppm	96
87)	Benzo[a]anthracene	13.535	228	796902	83.06	ppm	98
88)	3,3'-Dichlorobenzidine	13.593	252	323612	99.12	ppm	99
89)	Chrysene	13.615	228	788290	72.46	ppm	99
90)	bis(2-Ethylhexyl)phtha...	13.957	149	680407	87.19	ppm	99
92)	Di-n-octylphthalate	15.388	149	1146787	88.33	ppm	99
93)	Benzo[b]fluoranthene	15.827	252	863310	88.99	ppm	98
94)	Benzo[k]fluoranthene	15.896	252	867339	82.61	ppm	97
95)	Benzo[a]pyrene	16.452	252	793059	95.58	ppm	100
96)	Indeno[1,2,3-cd]pyrene	18.498	276	728446	92.57	ppm	97
97)	Dibenz(a,h)acridine	18.140	279	696790	86.51	ppm	100
98)	Dibenz[a,h]anthracene	18.562	278	782584	89.21	ppm	98
99)	7,12-Dimethylbenz(a)an...	15.853	256	393779	88.91	ppm	97
100)	Benzo[g,h,i]perylene	18.925	276	755112	83.67	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174984.D
Acq On : 16 Mar 2018 12:41 pm
Operator : seanb1
Sample : ic7445-80
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 20 19:10:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration



SGS JC62879

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174985.D
Acq On : 16 Mar 2018 1:10 pm
Operator : seanb1
Sample : icc7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 08:48:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	122462	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	466116	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	250850	40.00	ppm	0.00
69) Phenanthrene-d10	8.438	188	414179	40.00	ppm	0.00
83) Chrysene-d12	13.551	240	367069	40.00	ppm	-0.01
91) Perylene-d12	16.558	264	385769	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.426	152	122462	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	466116	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	250850	40.00	ppm	0.00
131) Phenanthrene-d10A	8.438	188	414179	40.00	ppm	0.00
146) Chrysene-d12A	13.551	240	367069	40.00	ppm	-0.01
153) Perylene-d12A	16.558	264	385769	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.426	152	122462	40.00	ppm	0.00
159) Phenanthrene-d10b	8.438	188	414179	40.00	ppm	0.00
161) Chrysene-d12b	13.551	240	367069	40.00	ppm	-0.01
163) Naphthalene-d8b	5.345	136	466116	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	250850	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	466116	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	122462	40.00	ppm	0.00
174) Chrysene-d12c	13.551	240	367069	40.00	ppm	-0.01
176) Chrysene-d12d	13.551	240	367069	40.00	ppm	-0.01
178) Naphthalene-d8d	5.345	136	466116	40.00	ppm	0.00
180) Chrysene-d12D	13.551	240	367069	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.459	112	198215	50.32	ppm	-0.04
Spiked Amount 50.000			Recovery = 100.64%			
8) Phenol-d5	4.191	99	244613	46.69	ppm	0.00
Spiked Amount 50.000			Recovery = 93.38%			
25) Nitrobenzene-d5	4.832	82	239440	49.06	ppm	-0.02
Spiked Amount 50.000			Recovery = 98.12%			
51) 2-Fluorobiphenyl	6.120	172	438501	46.06	ppm	0.02
Spiked Amount 50.000			Recovery = 92.12%			
73) 2,4,6-Tribromophenol	7.514	330	64716	59.92	ppm	0.00
Spiked Amount 50.000			Recovery = 119.84%			
85) Terphenyl-d14	11.387	244	399314	48.49	ppm	-0.04
Spiked Amount 50.000			Recovery = 96.98%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.899	88	94436	45.97	ppm	95
3) Pyridine	2.247	79	246920	50.12	ppm	98
4) N-Nitrosodimethylamine	2.209	42	71455	48.03	ppm	85
6) Indene	4.613	116	340830	47.49	ppm	97
7) Cumene	3.833	105	487444	46.18	ppm	99
9) Phenol	4.196	94	287150	50.14	ppm	87
10) Aniline	4.186	93	294846	45.86	ppm	91
11) bis(2-Chloroethyl)ether	4.239	93	190968	45.53	ppm	97
12) 2-Chlorophenol	4.282	128	215545	48.45	ppm	94
13) Decane	4.319	43	140188	42.87	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174985.D
Acq On : 16 Mar 2018 1:10 pm
Operator : seanb1
Sample : icc7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 08:48:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	4.383	146	229795	46.34	ppm		99
15) 1,4-Dichlorobenzene	4.437	146	236653	46.02	ppm		99
16) Benzyl alcohol	4.538	108	133751	51.50	ppm		93
17) 1,2-Dichlorobenzene	4.549	146	218325	45.77	ppm		99
18) Acetophenone	4.720	105	272619	47.41	ppm		97
19) 2-Methylphenol	4.635	108	194019	47.37	ppm		97
20) 2,2'-oxybis(1-Chloropr...	4.629	121	56072	45.79	ppm	#	52
21) 3&4-Methylphenol	4.741	108	209494	48.34	ppm		100
22) n-Nitroso-di-n-propyla...	4.725	70	148054	46.96	ppm		98
23) Hexachloroethane	4.795	201	68909	46.53	ppm		92
26) Nitrobenzene	4.843	77	225682	46.83	ppm		97
27) Quinoline	5.607	129	413313	49.06	ppm		98
28) Isophorone	5.019	82	378943	48.08	ppm		98
29) 2-Nitrophenol	5.073	139	111263	51.82	ppm		80
30) 2,4-Dimethylphenol	5.115	107	197607	46.90	ppm		90
31) Benzoic acid	5.217	105	178360	59.63	ppm		93
32) bis(2-Chloroethoxy)met...	5.174	93	212912	46.80	ppm		98
33) 2,4-Dichlorophenol	5.260	162	164894	50.05	ppm		98
34) 2,6-Dichlorophenol	5.415	162	160190	48.26	ppm		96
35) 1,3,5-Trichlorobenzene	5.083	180	167289	42.70	ppm		100
36) 1,2,4-Trichlorobenzene	5.308	180	167823	44.31	ppm		99
37) 1,2,3-Trichlorobenzene	5.468	180	159453	43.07	ppm		99
38) Naphthalene	5.361	128	583947	44.81	ppm		100
39) 4-Chloroaniline	5.404	127	249251	46.20	ppm		95
40) 2,3-Dichloroaniline	6.061	161	191689	47.06	ppm		98
41) Caprolactam	5.655	55	71354	50.66	ppm		94
42) Hexachlorobutadiene	5.457	225	85748	44.40	ppm		98
43) 4-Chloro-3-methylphenol	5.762	107	177524	50.90	ppm		95
44) 2-Methylnaphthalene	5.853	141	315606	45.41	ppm		99
45) 1-Methylnaphthalene	5.922	142	382675	45.13	ppm		98
46) Dimethylnaphthalene	6.323	156	339830	45.77	ppm		97
48) Hexachlorocyclopentadiene	5.970	237	181861	99.96	ppm		99
49) 2,4,6-Trichlorophenol	6.066	196	106908	49.76	ppm		100
50) 2,4,5-Trichlorophenol	6.104	196	123532	55.53	ppm		99
52) 2-Chloronaphthalene	6.216	162	357170	45.95	ppm		98
53) Biphenyl	6.200	154	457369	43.60	ppm		100
54) 2-Nitroaniline	6.296	65	117819	53.79	ppm		84
55) Dimethylphthalate	6.446	163	396953	47.62	ppm		100
56) Acenaphthylene	6.558	152	597421	47.72	ppm		99
57) 2,6-Dinitrotoluene	6.494	165	93576	54.85	ppm		89
58) 3-Nitroaniline	6.649	138	112924	54.63	ppm		87
59) Acenaphthene	6.713	153	366443	43.72	ppm		95
60) 2,4-Dinitrophenol	6.745	184	112124	106.20	ppm		90
61) 4-Nitrophenol	6.836	109	60105	59.73	ppm		91
62) Dibenzofuran	6.878	168	511293	46.21	ppm		97
63) 2,4-Dinitrotoluene	6.868	165	128155	57.59	ppm		97
64) 2,3,4,6-Tetrachlorophenol	7.012	232	94209	54.61	ppm		94
65) Diethylphthalate	7.119	149	418400	49.48	ppm		99
66) Fluorene	7.236	166	389730	46.27	ppm		99
67) 4-Chlorophenyl-phenyle...	7.236	204	164633	44.52	ppm		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174985.D
Acq On : 16 Mar 2018 1:10 pm
Operator : seanb1
Sample : icc7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 08:48:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

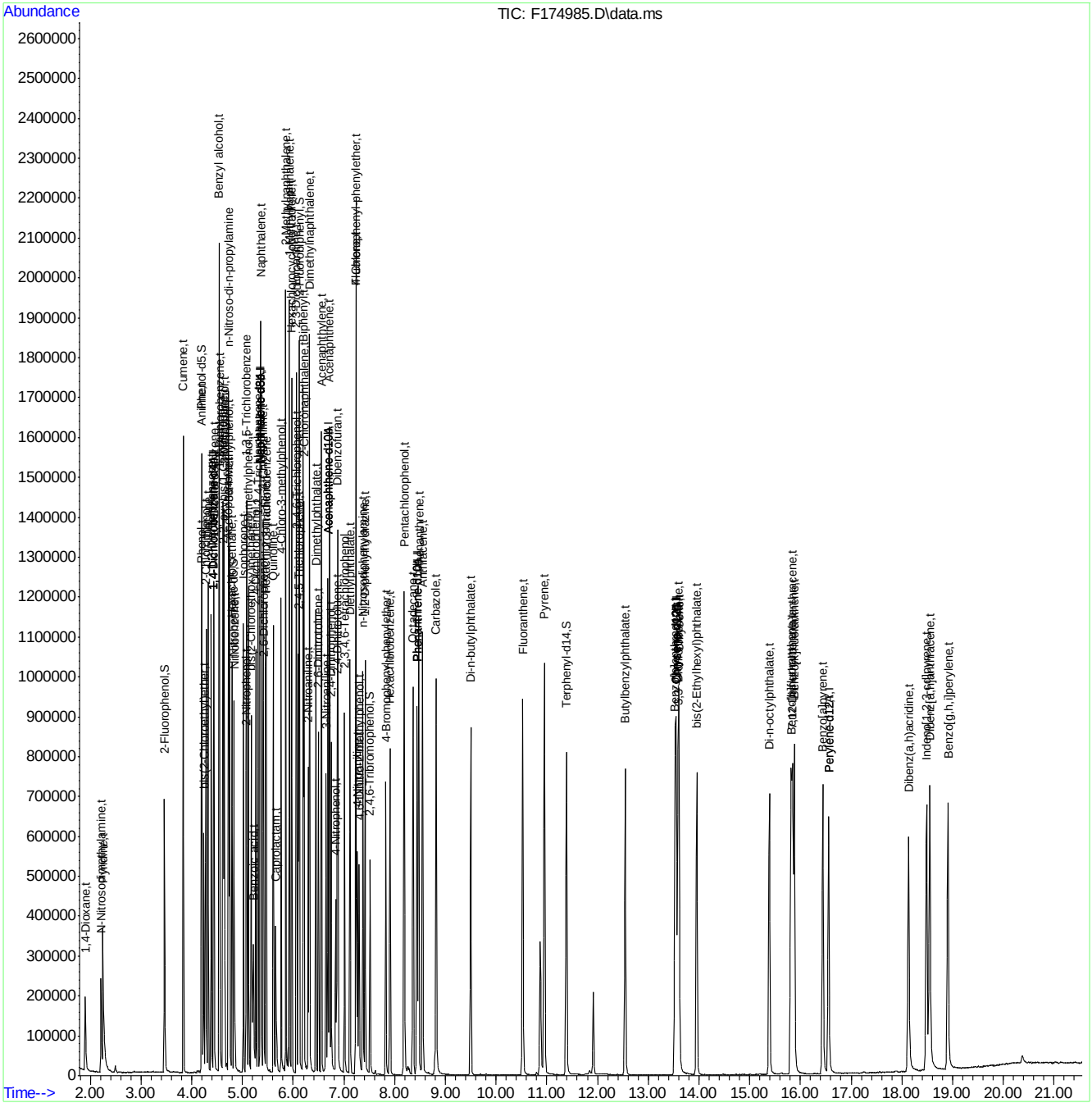
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	4-Nitroaniline	7.268	138	113647	54.18	ppm	95
70)	4,6-Dinitro-2-methylph...	7.300	198	73954	52.61	ppm	95
71)	n-Nitrosodiphenylamine	7.375	169	283822	51.72	ppm	99
72)	1,2-Diphenylhydrazine	7.418	77	445082	51.14	ppm	95
74)	4-Bromophenyl-phenylether	7.829	248	101209	48.25	ppm	99
75)	Hexachlorobenzene	7.909	284	122152	48.46	ppm	95
76)	Pentachlorophenol	8.187	266	152717	118.17	ppm	99
77)	Phenanthrene	8.476	178	553779	45.98	ppm	99
78)	Anthracene	8.550	178	567468	48.59	ppm	100
79)	Carbazole	8.818	167	568174	53.14	ppm	100
80)	Di-n-butylphthalate	9.501	149	703370	58.57	ppm	99
81)	Fluoranthene	10.527	202	556241	50.80	ppm	98
82)	Octadecane	8.363	57	217759	53.27	ppm	95
84)	Pyrene	10.954	202	595960	48.73	ppm	99
86)	Butylbenzylphthalate	12.546	149	314708	61.35	ppm	96
87)	Benzo[a]anthracene	13.529	228	507385	51.20	ppm	98
88)	3,3'-Dichlorobenzidine	13.588	252	205358	60.90	ppm	98
89)	Chrysene	13.610	228	524112	46.64	ppm	99
90)	bis(2-Ethylhexyl)phtha...	13.957	149	427099	54.38	ppm	99
92)	Di-n-octylphthalate	15.388	149	709224	53.26	ppm	99
93)	Benzo[b]fluoranthene	15.816	252	548183	55.92	ppm	99
94)	Benzo[k]fluoranthene	15.880	252	573554	54.06	ppm	98
95)	Benzo[a]pyrene	16.446	252	500967	59.75	ppm	98
96)	Indeno[1,2,3-cd]pyrene	18.487	276	458485	57.66	ppm	96
97)	Dibenz(a,h)acridine	18.134	279	442109	54.32	ppm	99
98)	Dibenz[a,h]anthracene	18.551	278	493211	55.64	ppm	98
99)	7,12-Dimethylbenz(a)an...	15.848	256	252169	56.34	ppm	98
100)	Benzo[g,h,i]perylene	18.914	276	477936	52.41	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174985.D
Acq On : 16 Mar 2018 1:10 pm
Operator : seanb1
Sample : icc7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 08:48:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174986.D
Acq On : 16 Mar 2018 1:47 pm
Operator : seanb1
Sample : ic7445-25
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 19 08:49:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	129008	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	477299	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	256164	40.00	ppm	0.00
69) Phenanthrene-d10	8.438	188	417561	40.00	ppm	0.00
83) Chrysene-d12	13.551	240	371346	40.00	ppm	-0.01
91) Perylene-d12	16.558	264	387802	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.426	152	129008	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	477299	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	256164	40.00	ppm	0.00
131) Phenanthrene-d10A	8.438	188	417561	40.00	ppm	0.00
146) Chrysene-d12A	13.551	240	371346	40.00	ppm	-0.01
153) Perylene-d12A	16.558	264	387802	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.426	152	129008	40.00	ppm	0.00
159) Phenanthrene-d10b	8.438	188	417561	40.00	ppm	0.00
161) Chrysene-d12b	13.551	240	371346	40.00	ppm	-0.01
163) Naphthalene-d8b	5.345	136	477299	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	256164	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	477299	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	129008	40.00	ppm	0.00
174) Chrysene-d12c	13.551	240	371346	40.00	ppm	-0.01
176) Chrysene-d12d	13.551	240	371346	40.00	ppm	-0.01
178) Naphthalene-d8d	5.345	136	477299	40.00	ppm	0.00
180) Chrysene-d12D	13.551	240	371346	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.459	112	103944	25.05	ppm	-0.04
Spiked Amount 50.000			Recovery = 50.10%			
8) Phenol-d5	4.191	99	136721	24.77	ppm	0.00
Spiked Amount 50.000			Recovery = 49.54%			
25) Nitrobenzene-d5	4.832	82	126292	25.27	ppm	-0.02
Spiked Amount 50.000			Recovery = 50.54%			
51) 2-Fluorobiphenyl	6.120	172	242871	24.98	ppm	0.02
Spiked Amount 50.000			Recovery = 49.96%			
73) 2,4,6-Tribromophenol	7.514	330	33082	30.38	ppm	0.00
Spiked Amount 50.000			Recovery = 60.76%			
85) Terphenyl-d14	11.387	244	207832	24.95	ppm	-0.04
Spiked Amount 50.000			Recovery = 49.90%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.899	88	51713	23.90	ppm	95
3) Pyridine	2.252	79	133727	25.77	ppm	99
4) N-Nitrosodimethylamine	2.209	42	38475	24.55	ppm	86
6) Indene	4.613	116	184444	24.39	ppm	98
7) Cumene	3.833	105	267671	24.07	ppm	99
9) Phenol	4.197	94	154214	25.56	ppm	85
10) Aniline	4.186	93	164793	24.33	ppm	91
11) bis(2-Chloroethyl)ether	4.234	93	103310	23.38	ppm	96
12) 2-Chlorophenol	4.282	128	116680	24.90	ppm	95
13) Decane	4.319	43	79945	23.21	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174986.D
Acq On : 16 Mar 2018 1:47 pm
Operator : seanb1
Sample : ic7445-25
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 19 08:49:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	4.384	146	126746	24.26	ppm		99
15) 1,4-Dichlorobenzene	4.437	146	128049	23.63	ppm		98
16) Benzyl alcohol	4.533	108	72086	26.35	ppm		82
17) 1,2-Dichlorobenzene	4.549	146	120667	24.02	ppm		100
18) Acetophenone	4.720	105	149623	24.70	ppm		97
19) 2-Methylphenol	4.635	108	103874	24.07	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.629	121	29853	23.14	ppm	#	43
21) 3&4-Methylphenol	4.741	108	113882	24.94	ppm		99
22) n-Nitroso-di-n-propyla...	4.725	70	81927	24.67	ppm		97
23) Hexachloroethane	4.795	201	36643	23.49	ppm		87
26) Nitrobenzene	4.843	77	124785	25.29	ppm		98
27) Quinoline	5.602	129	218488	25.33	ppm		100
28) Isophorone	5.014	82	206451	25.58	ppm		97
29) 2-Nitrophenol	5.073	139	59541	27.08	ppm		83
30) 2,4-Dimethylphenol	5.115	107	103727	24.04	ppm		93
31) Benzoic acid	5.201	105	89491	29.22	ppm		92
32) bis(2-Chloroethoxy)met...	5.174	93	115585	24.81	ppm		99
33) 2,4-Dichlorophenol	5.260	162	89994	26.68	ppm		99
34) 2,6-Dichlorophenol	5.409	162	87539	25.75	ppm		98
35) 1,3,5-Trichlorobenzene	5.083	180	93386	23.28	ppm		97
36) 1,2,4-Trichlorobenzene	5.308	180	91158	23.50	ppm		98
37) 1,2,3-Trichlorobenzene	5.468	180	88430	23.32	ppm		97
38) Naphthalene	5.361	128	325997	24.43	ppm		98
39) 4-Chloroaniline	5.404	127	137052	24.81	ppm		96
40) 2,3-Dichloroaniline	6.061	161	105640	25.33	ppm		96
41) Caprolactam	5.644	55	37858	26.25	ppm		95
42) Hexachlorobutadiene	5.457	225	46566	23.55	ppm		99
43) 4-Chloro-3-methylphenol	5.762	107	94719	26.52	ppm		96
44) 2-Methylnaphthalene	5.853	141	177316	24.91	ppm		99
45) 1-Methylnaphthalene	5.922	142	215221	24.79	ppm		99
46) Dimethylnaphthalene	6.323	156	185760	24.43	ppm		97
48) Hexachlorocyclopentadiene	5.970	237	95329	51.31	ppm		100
49) 2,4,6-Trichlorophenol	6.066	196	58511	26.67	ppm		98
50) 2,4,5-Trichlorophenol	6.104	196	65796	28.97	ppm		99
52) 2-Chloronaphthalene	6.216	162	195509	24.63	ppm		99
53) Biphenyl	6.200	154	252878	23.60	ppm		100
54) 2-Nitroaniline	6.296	65	60734	27.15	ppm		92
55) Dimethylphthalate	6.446	163	210350	24.71	ppm		99
56) Acenaphthylene	6.558	152	319377	24.98	ppm		99
57) 2,6-Dinitrotoluene	6.494	165	49181	28.23	ppm		96
58) 3-Nitroaniline	6.643	138	58157	27.55	ppm		84
59) Acenaphthene	6.713	153	202540	23.66	ppm		96
60) 2,4-Dinitrophenol	6.745	184	53260	55.01	ppm		98
61) 4-Nitrophenol	6.841	109	30301	29.49	ppm		96
62) Dibenzofuran	6.878	168	277647	24.57	ppm		98
63) 2,4-Dinitrotoluene	6.868	165	67879	29.87	ppm		96
64) 2,3,4,6-Tetrachlorophenol	7.012	232	49330	28.00	ppm		97
65) Diethylphthalate	7.119	149	221410	25.64	ppm		99
66) Fluorene	7.236	166	217578	25.29	ppm		99
67) 4-Chlorophenyl-phenyle...	7.236	204	89297	23.65	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174986.D
Acq On : 16 Mar 2018 1:47 pm
Operator : seanb1
Sample : ic7445-25
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 19 08:49:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

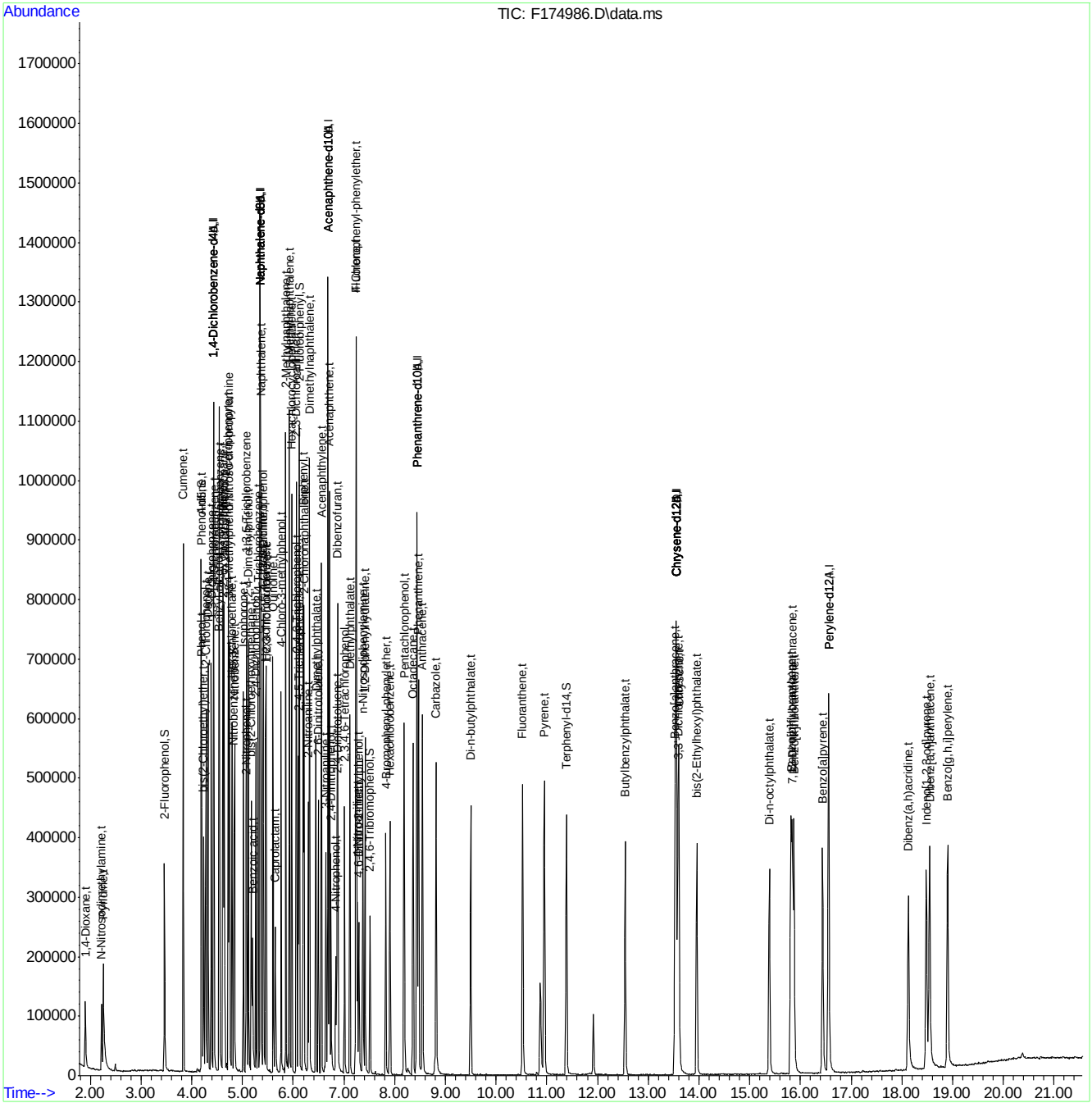
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	4-Nitroaniline	7.263	138	59763	27.90	ppm	96
70)	4,6-Dinitro-2-methylph...	7.295	198	35569	26.86	ppm	94
71)	n-Nitrosodiphenylamine	7.370	169	150917	27.28	ppm	99
72)	1,2-Diphenylhydrazine	7.418	77	238880	27.22	ppm	95
74)	4-Bromophenyl-phenylether	7.824	248	52772	24.95	ppm	92
75)	Hexachlorobenzene	7.909	284	65662	25.84	ppm	93
76)	Pentachlorophenol	8.187	266	75304	62.61	ppm	99
77)	Phenanthrene	8.470	178	297634	24.51	ppm	99
78)	Anthracene	8.545	178	300612	25.53	ppm	100
79)	Carbazole	8.818	167	296054	27.46	ppm	99
80)	Di-n-butylphthalate	9.501	149	363674	30.04	ppm	99
81)	Fluoranthene	10.522	202	286683	25.97	ppm	96
82)	Octadecane	8.364	57	116852	28.35	ppm	95
84)	Pyrene	10.954	202	312195	25.23	ppm	100
86)	Butylbenzylphthalate	12.546	149	157038	30.26	ppm	98
87)	Benzo[a]anthracene	13.529	228	259086	25.84	ppm	99
88)	3,3'-Dichlorobenzidine	13.588	252	102568	30.07	ppm	99
89)	Chrysene	13.604	228	276100	24.29	ppm	99
90)	bis(2-Ethylhexyl)phtha...	13.957	149	211733	27.64	ppm	98
92)	Di-n-octylphthalate	15.389	149	340698	25.90	ppm	99
93)	Benzo[b]fluoranthene	15.816	252	280290	28.44	ppm	98
94)	Benzo[k]fluoranthene	15.875	252	299306	28.06	ppm	98
95)	Benzo[a]pyrene	16.436	252	254512	30.20	ppm	99
96)	Indeno[1,2,3-cd]pyrene	18.482	276	231138	28.92	ppm	95
97)	Dibenz(a,h)acridine	18.129	279	220593	26.96	ppm	99
98)	Dibenz[a,h]anthracene	18.551	278	251152	28.18	ppm	99
99)	7,12-Dimethylbenz(a)an...	15.843	256	130161	28.93	ppm	96
100)	Benzo[g,h,i]perylene	18.904	276	246164	26.85	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174986.D
Acq On : 16 Mar 2018 1:47 pm
Operator : seanb1
Sample : ic7445-25
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 19 08:49:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174987.D
Acq On : 16 Mar 2018 2:15 pm
Operator : seanb1
Sample : ic7445-10
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 08:50:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	132114	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	491841	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	266685	40.00	ppm	0.00
69) Phenanthrene-d10	8.438	188	437691	40.00	ppm	0.00
83) Chrysene-d12	13.545	240	381168	40.00	ppm	-0.02
91) Perylene-d12	16.558	264	406786	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.426	152	132114	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	491841	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	266685	40.00	ppm	0.00
131) Phenanthrene-d10A	8.438	188	437691	40.00	ppm	0.00
146) Chrysene-d12A	13.545	240	381168	40.00	ppm	-0.02
153) Perylene-d12A	16.558	264	406786	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.426	152	132114	40.00	ppm	0.00
159) Phenanthrene-d10b	8.438	188	437691	40.00	ppm	0.00
161) Chrysene-d12b	13.545	240	381168	40.00	ppm	-0.02
163) Naphthalene-d8b	5.345	136	491841	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	266685	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	491841	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	132114	40.00	ppm	0.00
174) Chrysene-d12c	13.545	240	381168	40.00	ppm	-0.02
176) Chrysene-d12d	13.545	240	381168	40.00	ppm	-0.02
178) Naphthalene-d8d	5.345	136	491841	40.00	ppm	0.00
180) Chrysene-d12D	13.545	240	381168	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.464	112	40924	9.63	ppm	-0.04
Spiked Amount 50.000			Recovery = 19.26%			
8) Phenol-d5	4.191	99	55993	9.91	ppm	0.00
Spiked Amount 50.000			Recovery = 19.82%			
25) Nitrobenzene-d5	4.827	82	51963	10.09	ppm	-0.03
Spiked Amount 50.000			Recovery = 20.18%			
51) 2-Fluorobiphenyl	6.120	172	103148	10.19	ppm	0.02
Spiked Amount 50.000			Recovery = 20.38%			
73) 2,4,6-Tribromophenol	7.514	330	12952	11.35	ppm	0.00
Spiked Amount 50.000			Recovery = 22.70%			
85) Terphenyl-d14	11.382	244	85126	9.95	ppm	-0.05
Spiked Amount 50.000			Recovery = 19.90%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.904	88	21175	9.56	ppm	94
3) Pyridine	2.262	79	50727	9.55	ppm	97
4) N-Nitrosodimethylamine	2.220	42	15689	9.77	ppm	89
6) Indene	4.613	116	78857	10.18	ppm	99
7) Cumene	3.833	105	110134	9.67	ppm	100
9) Phenol	4.202	94	65783	10.65	ppm	79
10) Aniline	4.186	93	67997	9.80	ppm	91
11) bis(2-Chloroethyl)ether	4.234	93	42636	9.42	ppm	94
12) 2-Chlorophenol	4.282	128	48317	10.07	ppm	93
13) Decane	4.319	43	34100	9.67	ppm	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174987.D
Acq On : 16 Mar 2018 2:15 pm
Operator : seanb1
Sample : ic7445-10
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 08:50:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	4.383	146	51625	9.65	ppm		99
15) 1,4-Dichlorobenzene	4.437	146	54968	9.91	ppm		99
16) Benzyl alcohol	4.533	108	29797	10.63	ppm		90
17) 1,2-Dichlorobenzene	4.549	146	51105	9.93	ppm		96
18) Acetophenone	4.720	105	62442	10.07	ppm		96
19) 2-Methylphenol	4.634	108	44595	10.09	ppm		98
20) 2,2'-oxybis(1-Chloropr...	4.629	121	12744	9.65	ppm	#	50
21) 3&4-Methylphenol	4.741	108	46735	10.00	ppm		99
22) n-Nitroso-di-n-propyla...	4.725	70	34303	10.09	ppm		96
23) Hexachloroethane	4.795	201	15041	9.41	ppm		96
26) Nitrobenzene	4.843	77	49583	9.75	ppm		97
27) Quinoline	5.601	129	90045	10.13	ppm		97
28) Isophorone	5.014	82	85369	10.26	ppm		98
29) 2-Nitrophenol	5.072	139	23807	10.51	ppm		86
30) 2,4-Dimethylphenol	5.115	107	43420	9.77	ppm		98
31) Benzoic acid	5.185	105	31495	9.98	ppm		98
32) bis(2-Chloroethoxy)met...	5.169	93	48353	10.07	ppm		98
33) 2,4-Dichlorophenol	5.259	162	36363	10.46	ppm		99
34) 2,6-Dichlorophenol	5.409	162	36919	10.54	ppm		99
35) 1,3,5-Trichlorobenzene	5.083	180	39810	9.63	ppm		97
36) 1,2,4-Trichlorobenzene	5.308	180	38934	9.74	ppm		96
37) 1,2,3-Trichlorobenzene	5.462	180	37681	9.64	ppm		97
38) Naphthalene	5.361	128	134749	9.80	ppm		99
39) 4-Chloroaniline	5.404	127	58534	10.28	ppm		97
40) 2,3-Dichloroaniline	6.055	161	44400	10.33	ppm		100
41) Caprolactam	5.633	55	15082	10.15	ppm		92
42) Hexachlorobutadiene	5.452	225	19447	9.54	ppm		98
43) 4-Chloro-3-methylphenol	5.762	107	39057	10.61	ppm	#	67
44) 2-Methylnaphthalene	5.852	141	74599	10.17	ppm		98
45) 1-Methylnaphthalene	5.922	142	91530	10.23	ppm		99
46) Dimethylnaphthalene	6.323	156	78658	10.04	ppm		98
48) Hexachlorocyclopentadiene	5.970	237	38324	19.81	ppm		99
49) 2,4,6-Trichlorophenol	6.061	196	23829	10.43	ppm		99
50) 2,4,5-Trichlorophenol	6.103	196	26698	11.29	ppm		97
52) 2-Chloronaphthalene	6.210	162	83028	10.05	ppm		97
53) Biphenyl	6.194	154	108256	9.71	ppm		99
54) 2-Nitroaniline	6.296	65	24926	10.70	ppm		90
55) Dimethylphthalate	6.440	163	88143	9.95	ppm		99
56) Acenaphthylene	6.552	152	135287	10.16	ppm		99
57) 2,6-Dinitrotoluene	6.493	165	18953	10.45	ppm		99
58) 3-Nitroaniline	6.643	138	23607	10.74	ppm		80
59) Acenaphthene	6.713	153	86329	9.69	ppm		94
60) 2,4-Dinitrophenol	6.739	184	17234	21.38	ppm		90
61) 4-Nitrophenol	6.841	109	11050	10.33	ppm		93
62) Dibenzofuran	6.878	168	119499	10.16	ppm		96
63) 2,4-Dinitrotoluene	6.862	165	26644	11.26	ppm		94
64) 2,3,4,6-Tetrachlorophenol	7.012	232	19914	10.86	ppm		96
65) Diethylphthalate	7.113	149	91370	10.16	ppm		97
66) Fluorene	7.231	166	92395	10.32	ppm		99
67) 4-Chlorophenyl-phenyle...	7.236	204	38173	9.71	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174987.D
Acq On : 16 Mar 2018 2:15 pm
Operator : seanb1
Sample : ic7445-10
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 08:50:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

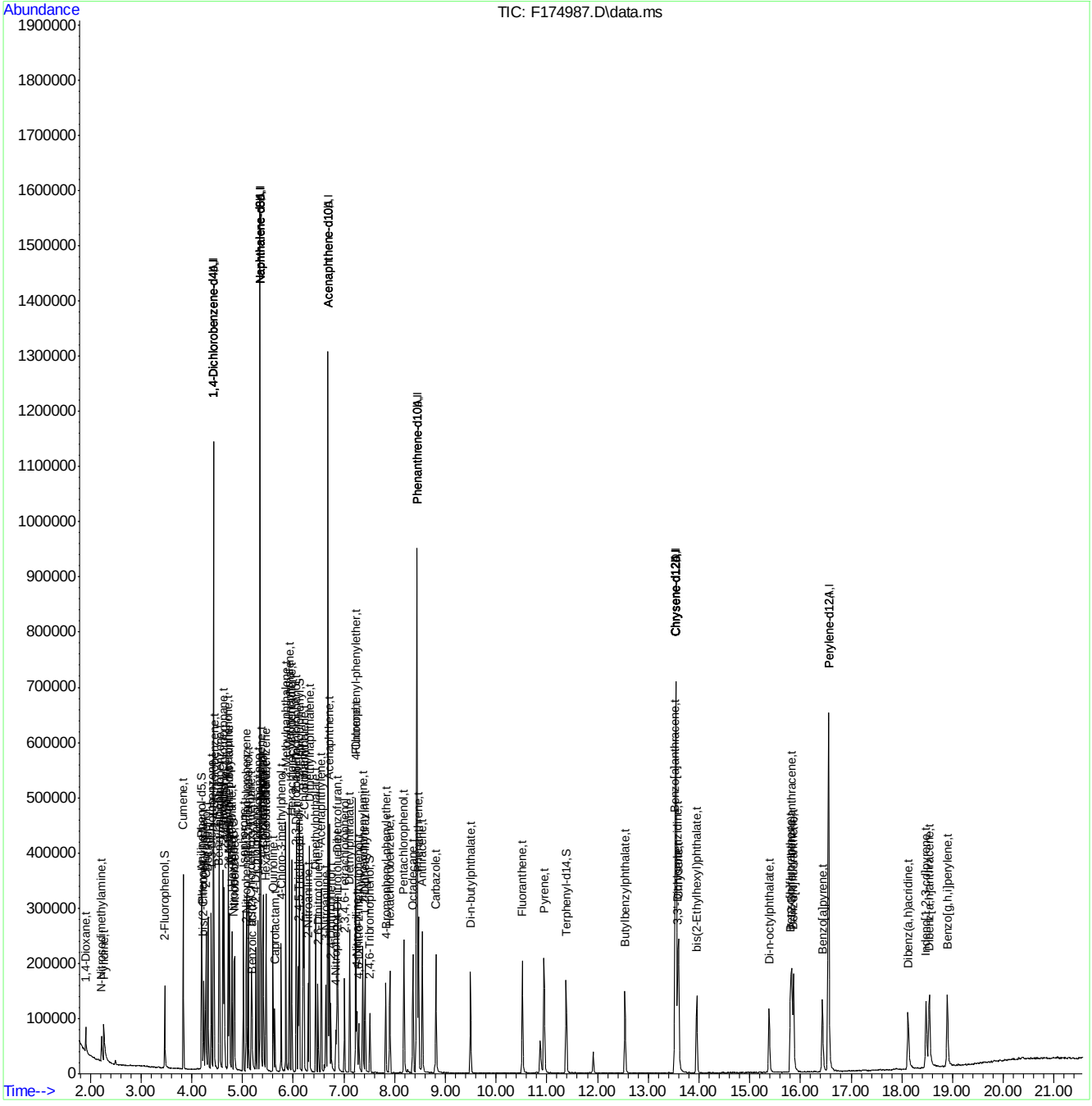
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	4-Nitroaniline	7.257	138	23288	10.44	ppm	92
70)	4,6-Dinitro-2-methylph...	7.295	198	12520	10.25	ppm	97
71)	n-Nitrosodiphenylamine	7.370	169	61620	10.63	ppm	99
72)	1,2-Diphenylhydrazine	7.412	77	99048	10.77	ppm	91
74)	4-Bromophenyl-phenylether	7.824	248	22230	10.03	ppm	95
75)	Hexachlorobenzene	7.904	284	26972	10.13	ppm	98
76)	Pentachlorophenol	8.182	266	28883	25.51	ppm	98
77)	Phenanthrene	8.470	178	126730	9.96	ppm	99
78)	Anthracene	8.545	178	122085	9.89	ppm	100
79)	Carbazole	8.812	167	121214	10.73	ppm	99
80)	Di-n-butylphthalate	9.496	149	141664	11.16	ppm	99
81)	Fluoranthene	10.522	202	118810	10.27	ppm	100
82)	Octadecane	8.363	57	47398	10.97	ppm	96
84)	Pyrene	10.944	202	129248	10.18	ppm	95
86)	Butylbenzylphthalate	12.541	149	58424	10.97	ppm	90
87)	Benzo[a]anthracene	13.529	228	103727	10.08	ppm	97
88)	3,3'-Dichlorobenzidine	13.583	252	38485	10.99	ppm	97
89)	Chrysene	13.599	228	111332	9.54	ppm	99
90)	bis(2-Ethylhexyl)phtha...	13.957	149	75566	10.48	ppm	98
92)	Di-n-octylphthalate	15.383	149	112576	9.35	ppm	99
93)	Benzo[b]fluoranthene	15.810	252	111022	10.74	ppm	99
94)	Benzo[k]fluoranthene	15.864	252	122189	10.92	ppm	98
95)	Benzo[a]pyrene	16.435	252	97965	11.08	ppm	98
96)	Indeno[1,2,3-cd]pyrene	18.476	276	83546	9.96	ppm	98
97)	Dibenz(a,h)acridine	18.124	279	80891	9.42	ppm	100
98)	Dibenz[a,h]anthracene	18.540	278	96431	10.32	ppm	98
99)	7,12-Dimethylbenz(a)an...	15.832	256	50395	10.68	ppm	96
100)	Benzo[g,h,i]perylene	18.898	276	96279	10.01	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174987.D
Acq On : 16 Mar 2018 2:15 pm
Operator : seanb1
Sample : ic7445-10
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 08:50:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174988.D
Acq On : 16 Mar 2018 2:43 pm
Operator : seanb1
Sample : ic7445-5
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 08:51:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	127627	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	480259	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	253271	40.00	ppm	0.00
69) Phenanthrene-d10	8.433	188	416006	40.00	ppm	-0.01
83) Chrysene-d12	13.545	240	369652	40.00	ppm	-0.02
91) Perylene-d12	16.558	264	391064	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.426	152	127627	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	480259	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	253271	40.00	ppm	0.00
131) Phenanthrene-d10A	8.433	188	416006	40.00	ppm	-0.01
146) Chrysene-d12A	13.545	240	369652	40.00	ppm	-0.02
153) Perylene-d12A	16.558	264	391064	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.426	152	127627	40.00	ppm	0.00
159) Phenanthrene-d10b	8.433	188	416006	40.00	ppm	-0.01
161) Chrysene-d12b	13.545	240	369652	40.00	ppm	-0.02
163) Naphthalene-d8b	5.345	136	480259	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	253271	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	480259	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	127627	40.00	ppm	0.00
174) Chrysene-d12c	13.545	240	369652	40.00	ppm	-0.02
176) Chrysene-d12d	13.545	240	369652	40.00	ppm	-0.02
178) Naphthalene-d8d	5.345	136	480259	40.00	ppm	0.00
180) Chrysene-d12D	13.545	240	369652	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.464	112	21382	5.21	ppm	-0.04
Spiked Amount 50.000			Recovery = 10.42%			
8) Phenol-d5	4.191	99	28548	5.23	ppm	0.00
Spiked Amount 50.000			Recovery = 10.46%			
25) Nitrobenzene-d5	4.827	82	26802	5.33	ppm	-0.03
Spiked Amount 50.000			Recovery = 10.66%			
51) 2-Fluorobiphenyl	6.120	172	54836	5.70	ppm	0.02
Spiked Amount 50.000			Recovery = 11.40%			
73) 2,4,6-Tribromophenol	7.509	330	6237	5.75	ppm	0.00
Spiked Amount 50.000			Recovery = 11.50%			
85) Terphenyl-d14	11.382	244	42638	5.14	ppm	-0.05
Spiked Amount 50.000			Recovery = 10.28%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.905	88	11281	5.27	ppm	95
3) Pyridine	2.273	79	24530	4.78	ppm	97
4) N-Nitrosodimethylamine	2.220	42	7751	5.00	ppm	82
6) Indene	4.613	116	40730	5.44	ppm	98
7) Cumene	3.833	105	58706	5.34	ppm	99
9) Phenol	4.202	94	33167	5.56	ppm	83
10) Aniline	4.186	93	35187	5.25	ppm	85
11) bis(2-Chloroethyl)ether	4.234	93	22397	5.12	ppm	96
12) 2-Chlorophenol	4.282	128	24025	5.18	ppm	90
13) Decane	4.319	43	17992	5.28	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174988.D
Acq On : 16 Mar 2018 2:43 pm
Operator : seanb1
Sample : ic7445-5
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 08:51:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	4.383	146	28261	5.47	ppm		97
15) 1,4-Dichlorobenzene	4.437	146	29077	5.42	ppm		99
16) Benzyl alcohol	4.533	108	15024	5.55	ppm		90
17) 1,2-Dichlorobenzene	4.549	146	26952	5.42	ppm		98
18) Acetophenone	4.720	105	32581	5.44	ppm		93
19) 2-Methylphenol	4.634	108	23692	5.55	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.629	121	6554	5.14	ppm	#	37
21) 3&4-Methylphenol	4.741	108	24776	5.49	ppm		98
22) n-Nitroso-di-n-propyla...	4.725	70	18203	5.54	ppm		96
23) Hexachloroethane	4.795	201	7884	5.11	ppm		95
26) Nitrobenzene	4.843	77	25972	5.23	ppm		98
27) Quinoline	5.596	129	46772	5.39	ppm		99
28) Isophorone	5.014	82	43450	5.35	ppm		99
29) 2-Nitrophenol	5.072	139	11746	5.31	ppm		85
30) 2,4-Dimethylphenol	5.115	107	22260	5.13	ppm		97
31) Benzoic acid	5.179	105	13840	4.49	ppm		92
32) bis(2-Chloroethoxy)met...	5.169	93	24431	5.21	ppm		98
33) 2,4-Dichlorophenol	5.259	162	18156	5.35	ppm		96
34) 2,6-Dichlorophenol	5.409	162	18952	5.54	ppm		99
35) 1,3,5-Trichlorobenzene	5.083	180	21261	5.27	ppm		99
36) 1,2,4-Trichlorobenzene	5.308	180	20311	5.20	ppm		99
37) 1,2,3-Trichlorobenzene	5.462	180	19848	5.20	ppm		97
38) Naphthalene	5.361	128	73669	5.49	ppm		99
39) 4-Chloroaniline	5.404	127	29335	5.28	ppm		93
40) 2,3-Dichloroaniline	6.055	161	22923	5.46	ppm		93
41) Caprolactam	5.633	55	8009	5.52	ppm		95
42) Hexachlorobutadiene	5.452	225	10282	5.17	ppm		95
43) 4-Chloro-3-methylphenol	5.762	107	18929	5.27	ppm		97
44) 2-Methylnaphthalene	5.852	141	38531	5.38	ppm		99
45) 1-Methylnaphthalene	5.922	142	49073	5.62	ppm		97
46) Dimethylnaphthalene	6.323	156	40301	5.27	ppm		98
48) Hexachlorocyclopentadiene	5.970	237	18589	10.12	ppm		97
49) 2,4,6-Trichlorophenol	6.061	196	12566	5.79	ppm		95
50) 2,4,5-Trichlorophenol	6.104	196	13161	5.86	ppm		92
52) 2-Chloronaphthalene	6.210	162	43718	5.57	ppm		96
53) Biphenyl	6.194	154	55739	5.26	ppm		99
54) 2-Nitroaniline	6.296	65	11813	5.34	ppm		95
55) Dimethylphthalate	6.440	163	45640	5.42	ppm		98
56) Acenaphthylene	6.558	152	70857	5.61	ppm		97
57) 2,6-Dinitrotoluene	6.488	165	9004	5.23	ppm		86
58) 3-Nitroaniline	6.643	138	11656	5.59	ppm		88
59) Acenaphthene	6.713	153	44078	5.21	ppm		96
60) 2,4-Dinitrophenol	6.739	184	6182	11.46	ppm		72
61) 4-Nitrophenol	6.841	109	4995	4.92	ppm		90
62) Dibenzofuran	6.878	168	61596	5.51	ppm		94
63) 2,4-Dinitrotoluene	6.862	165	13331	5.93	ppm		92
64) 2,3,4,6-Tetrachlorophenol	7.012	232	9595	5.51	ppm		96
65) Diethylphthalate	7.113	149	46092	5.40	ppm		99
66) Fluorene	7.231	166	47449	5.58	ppm		100
67) 4-Chlorophenyl-phenyle...	7.236	204	20348	5.45	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174988.D
Acq On : 16 Mar 2018 2:43 pm
Operator : seanb1
Sample : ic7445-5
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 08:51:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration

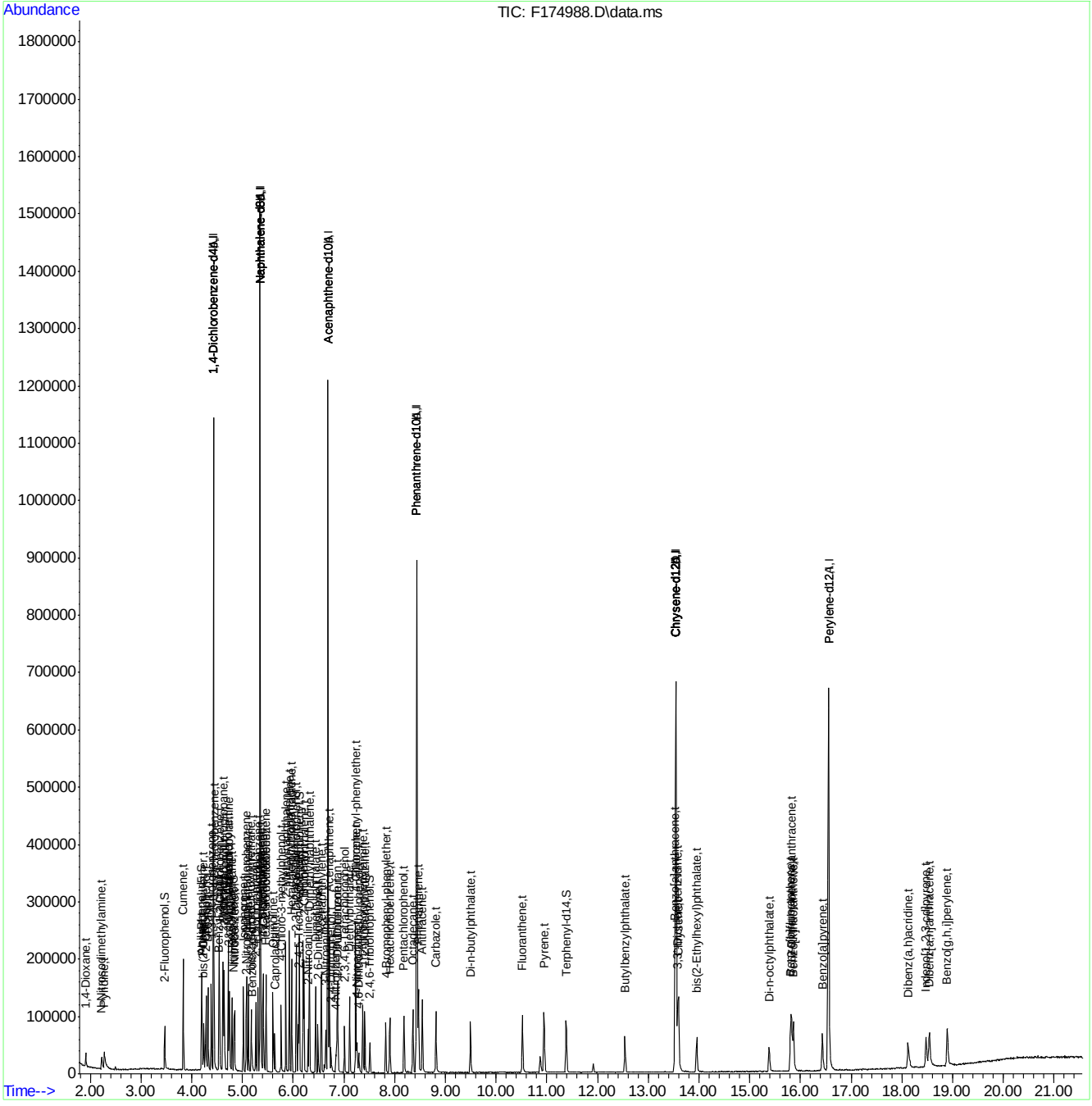
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	7.257	138	11101	5.24	ppm	88
70) 4,6-Dinitro-2-methylph...	7.295	198	5076	5.28	ppm	92
71) n-Nitrosodiphenylamine	7.370	169	31389	5.70	ppm	98
72) 1,2-Diphenylhydrazine	7.412	77	49136	5.62	ppm	92
74) 4-Bromophenyl-phenylether	7.824	248	10927	5.19	ppm	94
75) Hexachlorobenzene	7.904	284	14714	5.81	ppm	96
76) Pentachlorophenol	8.182	266	12806	13.46	ppm	96
77) Phenanthrene	8.470	178	66328	5.48	ppm	98
78) Anthracene	8.545	178	65882	5.62	ppm	99
79) Carbazole	8.812	167	61232	5.70	ppm	98
80) Di-n-butylphthalate	9.496	149	68670	5.69	ppm	98
81) Fluoranthene	10.522	202	59192	5.38	ppm	95
82) Octadecane	8.363	57	23707	5.77	ppm	93
84) Pyrene	10.944	202	66169	5.37	ppm	98
86) Butylbenzylphthalate	12.546	149	25995	5.03	ppm	91
87) Benzo[a]anthracene	13.524	228	52141	5.22	ppm	98
88) 3,3'-Dichlorobenzidine	13.583	252	17445	5.14	ppm	99
89) Chrysene	13.599	228	61900	5.47	ppm	99
90) bis(2-Ethylhexyl)phtha...	13.957	149	32043	5.27	ppm	98
92) Di-n-octylphthalate	15.383	149	43957	4.91	ppm	98
93) Benzo[b]fluoranthene	15.810	252	55115	5.55	ppm	100
94) Benzo[k]fluoranthene	15.864	252	61184	5.69	ppm	97
95) Benzo[a]pyrene	16.435	252	46779	5.50	ppm	95
96) Indeno[1,2,3-cd]pyrene	18.476	276	38878	4.82	ppm	93
97) Dibenz(a,h)acridine	18.124	279	35309	4.28	ppm	100
98) Dibenz[a,h]anthracene	18.546	278	45332	5.04	ppm	97
99) 7,12-Dimethylbenz(a)an...	15.832	256	24738	5.45	ppm	93
100) Benzo[g,h,i]perylene	18.893	276	47738	5.16	ppm	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174988.D
Acq On : 16 Mar 2018 2:43 pm
Operator : seanb1
Sample : ic7445-5
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 08:51:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:46:37 2018
Response via : Initial Calibration



MF7445.M Mon Mar 19 08:51:53 2018 Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174989.D
Acq On : 16 Mar 2018 3:47 pm
Operator : seanb1
Sample : ic7445-2
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 08:53:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:52:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	133905	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	503472	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	266813	40.00	ppm	0.00
69) Phenanthrene-d10	8.438	188	440566	40.00	ppm	0.00
83) Chrysene-d12	13.545	240	371480	40.00	ppm	-0.02
91) Perylene-d12	16.558	264	386658	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.426	152	133905	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	503472	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	266813	40.00	ppm	0.00
131) Phenanthrene-d10A	8.438	188	440566	40.00	ppm	0.00
146) Chrysene-d12A	13.545	240	371480	40.00	ppm	-0.02
153) Perylene-d12A	16.558	264	386658	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.426	152	133905	40.00	ppm	0.00
159) Phenanthrene-d10b	8.438	188	440566	40.00	ppm	0.00
161) Chrysene-d12b	13.545	240	371480	40.00	ppm	-0.02
163) Naphthalene-d8b	5.345	136	503472	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	266813	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	503472	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	133905	40.00	ppm	0.00
174) Chrysene-d12c	13.545	240	371480	40.00	ppm	-0.02
176) Chrysene-d12d	13.545	240	371480	40.00	ppm	-0.02
178) Naphthalene-d8d	5.345	136	503472	40.00	ppm	0.00
180) Chrysene-d12D	13.545	240	371480	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.464	112	8767	2.04	ppm	-0.04
Spiked Amount 50.000			Recovery = 4.08%			
8) Phenol-d5	4.196	99	12448	2.17	ppm	0.01
Spiked Amount 50.000			Recovery = 4.34%			
25) Nitrobenzene-d5	4.832	82	11170	2.12	ppm	-0.02
Spiked Amount 50.000			Recovery = 4.24%			
51) 2-Fluorobiphenyl	6.120	172	23729	2.34	ppm	0.02
Spiked Amount 50.000			Recovery = 4.68%			
73) 2,4,6-Tribromophenol	7.514	330	2382	2.07	ppm	0.00
Spiked Amount 50.000			Recovery = 4.14%			
85) Terphenyl-d14	11.382	244	16751	2.01	ppm	0.00
Spiked Amount 50.000			Recovery = 4.02%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.910	88	4816	2.14	ppm	93
3) Pyridine	2.295	79	11074	2.06	ppm	92
4) N-Nitrosodimethylamine	2.230	42	3685	2.27	ppm	91
6) Indene	4.613	116	17620	2.25	ppm	97
7) Cumene	3.833	105	25250	2.19	ppm	97
9) Phenol	4.207	94	14566	2.33	ppm	74
10) Aniline	4.191	93	15135	2.15	ppm	89
11) bis(2-Chloroethyl)ether	4.239	93	9964	2.17	ppm	92
12) 2-Chlorophenol	4.282	128	10816	2.22	ppm	91
13) Decane	4.319	43	8014	2.24	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174989.D
Acq On : 16 Mar 2018 3:47 pm
Operator : seanb1
Sample : ic7445-2
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 08:53:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:52:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	4.383	146	12440	2.29	ppm		89
15) 1,4-Dichlorobenzene	4.437	146	12555	2.23	ppm		96
16) Benzyl alcohol	4.538	108	6334	2.23	ppm		92
17) 1,2-Dichlorobenzene	4.549	146	11758	2.25	ppm		94
18) Acetophenone	4.720	105	14183	2.26	ppm		95
19) 2-Methylphenol	4.634	108	10038	2.24	ppm		98
20) 2,2'-oxybis(1-Chloropr...	4.629	121	2833	2.12	ppm	#	42
21) 3&4-Methylphenol	4.741	108	10151	2.14	ppm		96
22) n-Nitroso-di-n-propyla...	4.725	70	8235	2.39	ppm		96
23) Hexachloroethane	4.795	201	3414	2.11	ppm		93
26) Nitrobenzene	4.843	77	11746	2.26	ppm		95
27) Quinoline	5.601	129	20055	2.20	ppm		98
28) Isophorone	5.014	82	18608	2.19	ppm		96
29) 2-Nitrophenol	5.072	139	4669	2.01	ppm		79
30) 2,4-Dimethylphenol	5.115	107	8798	1.93	ppm		96
31) Benzoic acid	5.169	105	5116	1.58	ppm		95
32) bis(2-Chloroethoxy)met...	5.174	93	10659	2.17	ppm		99
33) 2,4-Dichlorophenol	5.259	162	7190	2.02	ppm		91
34) 2,6-Dichlorophenol	5.409	162	7734	2.16	ppm		98
35) 1,3,5-Trichlorobenzene	5.083	180	9126	2.16	ppm		95
36) 1,2,4-Trichlorobenzene	5.308	180	8747	2.14	ppm		94
37) 1,2,3-Trichlorobenzene	5.468	180	8560	2.14	ppm		97
38) Naphthalene	5.361	128	32116	2.28	ppm		99
39) 4-Chloroaniline	5.404	127	12456	2.14	ppm		95
40) 2,3-Dichloroaniline	6.061	161	9500	2.16	ppm		93
41) Caprolactam	5.633	55	3356	2.21	ppm		91
42) Hexachlorobutadiene	5.457	225	4413	2.12	ppm		99
43) 4-Chloro-3-methylphenol	5.762	107	8040	2.13	ppm		96
44) 2-Methylnaphthalene	5.852	141	17124	2.28	ppm		100
45) 1-Methylnaphthalene	5.922	142	20372	2.22	ppm		98
46) Dimethylnaphthalene	6.323	156	17834	2.22	ppm		98
48) Hexachlorocyclopentadiene	5.970	237	7438	3.84	ppm		93
49) 2,4,6-Trichlorophenol	6.066	196	4804	2.10	ppm		85
50) 2,4,5-Trichlorophenol	6.104	196	5369	2.27	ppm		96
52) 2-Chloronaphthalene	6.210	162	18716	2.26	ppm		97
53) Biphenyl	6.194	154	24370	2.18	ppm		98
54) 2-Nitroaniline	6.296	65	4900	2.10	ppm		81
55) Dimethylphthalate	6.440	163	19403	2.19	ppm		98
56) Acenaphthylene	6.558	152	28866	2.17	ppm		99
57) 2,6-Dinitrotoluene	6.494	165	3487	1.92	ppm		93
58) 3-Nitroaniline	6.643	138	4134	1.88	ppm		74
59) Acenaphthene	6.713	153	19540	2.19	ppm		93
60) 2,4-Dinitrophenol	6.745	184	1909	7.12	ppm		91
61) 4-Nitrophenol	6.846	109	1902	1.78	ppm	#	83
62) Dibenzofuran	6.878	168	27178	2.31	ppm		94
63) 2,4-Dinitrotoluene	6.862	165	4654	1.97	ppm		81
64) 2,3,4,6-Tetrachlorophenol	7.012	232	3751	2.04	ppm		93
65) Diethylphthalate	7.113	149	19327	2.15	ppm		96
66) Fluorene	7.231	166	20510	2.29	ppm		96
67) 4-Chlorophenyl-phenyle...	7.236	204	8759	2.23	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174989.D
Acq On : 16 Mar 2018 3:47 pm
Operator : seanb1
Sample : ic7445-2
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 08:53:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:52:34 2018
Response via : Initial Calibration

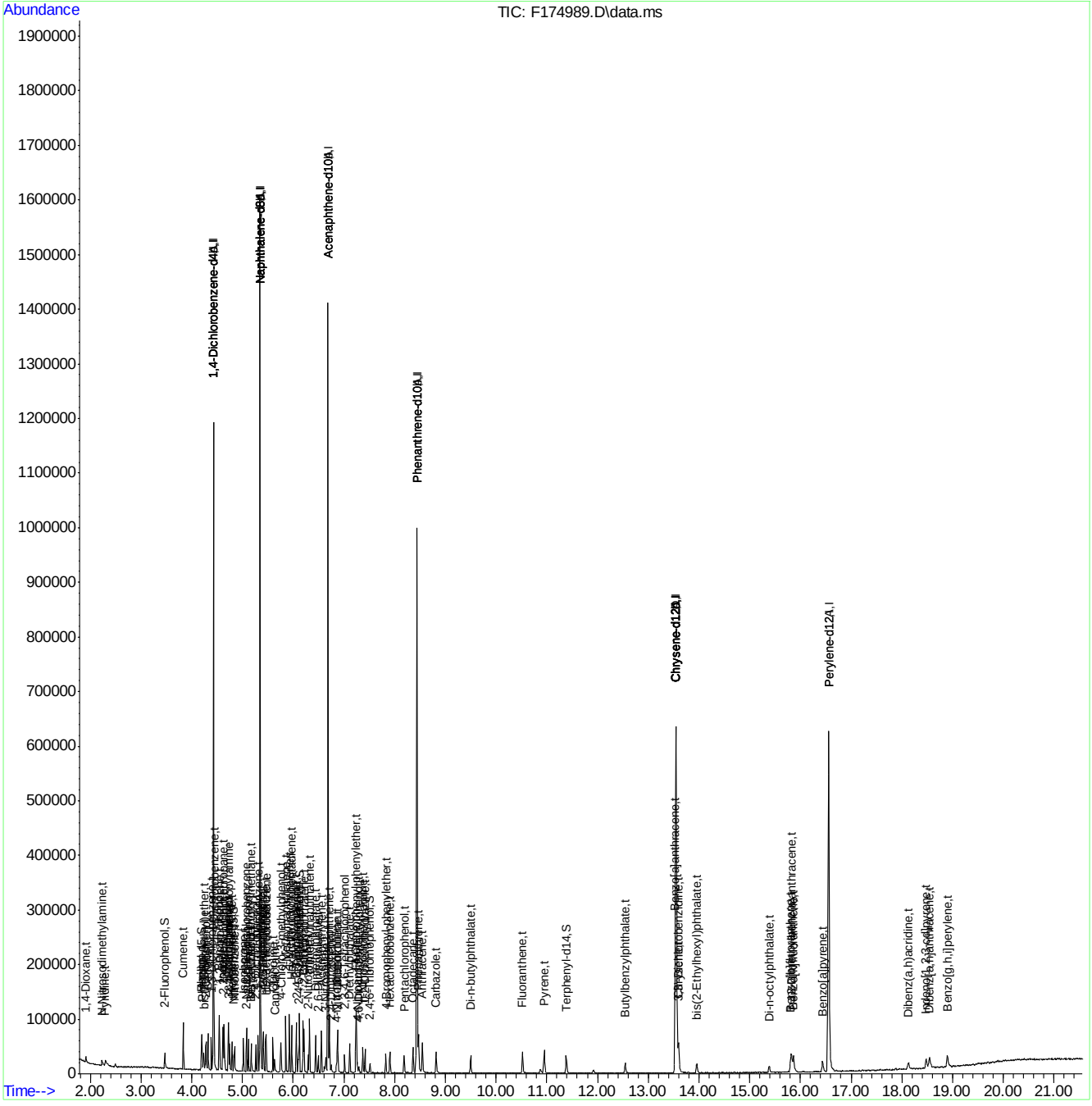
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	4-Nitroaniline	7.263	138	3761	1.69	ppm	94
70)	4,6-Dinitro-2-methylph...	7.295	198	1494	2.57	ppm	85
71)	n-Nitrosodiphenylamine	7.370	169	12675	2.17	ppm	99
72)	1,2-Diphenylhydrazine	7.418	77	20838	2.25	ppm	97
74)	4-Bromophenyl-phenylether	7.824	248	4713	2.11	ppm	94
75)	Hexachlorobenzene	7.904	284	6155	2.30	ppm	99
76)	Pentachlorophenol	8.187	266	4428	6.20	ppm	98
77)	Phenanthrene	8.470	178	29343	2.29	ppm	99
78)	Anthracene	8.545	178	26063	2.10	ppm	99
79)	Carbazole	8.817	167	24388	2.14	ppm	98
80)	Di-n-butylphthalate	9.501	149	25969	2.03	ppm	98
81)	Fluoranthene	10.522	202	23555	2.02	ppm	97
82)	Octadecane	8.363	57	9473	2.18	ppm	95
84)	Pyrene	10.949	202	26186	2.12	ppm	98
86)	Butylbenzylphthalate	12.546	149	8400	1.62	ppm	91
87)	Benzo[a]anthracene	13.529	228	20738	2.07	ppm	97
88)	3,3'-Dichlorobenzidine	13.588	252	5594	1.64	ppm	94
89)	Chrysene	13.599	228	24969	2.20	ppm	95
90)	bis(2-Ethylhexyl)phtha...	13.957	149	9221	2.37	ppm	96
92)	Di-n-octylphthalate	15.388	149	12272	2.74	ppm	98
93)	Benzo[b]fluoranthene	15.810	252	19386	1.97	ppm	91
94)	Benzo[k]fluoranthene	15.864	252	23697	2.23	ppm	94
95)	Benzo[a]pyrene	16.435	252	16345	1.94	ppm	94
96)	Indeno[1,2,3-cd]pyrene	18.476	276	12429	1.56	ppm	78
97)	Dibenz(a,h)acridine	18.129	279	11213	1.37	ppm	96
98)	Dibenz[a,h]anthracene	18.546	278	15322	1.72	ppm	97
99)	7,12-Dimethylbenz(a)an...	15.832	256	8385	1.87	ppm	94
100)	Benzo[g,h,i]perylene	18.898	276	16026	1.75	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174989.D
Acq On : 16 Mar 2018 3:47 pm
Operator : seanb1
Sample : ic7445-2
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 08:53:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:52:34 2018
Response via : Initial Calibration



MF7445.M Mon Mar 19 08:53:28 2018 Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174990.D
Acq On : 16 Mar 2018 4:15 pm
Operator : seanb1
Sample : ic7445-1
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 08:54:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:52:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	132079	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	496811	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	267544	40.00	ppm	0.00
69) Phenanthrene-d10	8.433	188	434569	40.00	ppm	-0.01
83) Chrysene-d12	13.545	240	371780	40.00	ppm	-0.02
91) Perylene-d12	16.558	264	385544	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.426	152	132079	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	496811	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	267544	40.00	ppm	0.00
131) Phenanthrene-d10A	8.433	188	434569	40.00	ppm	-0.01
146) Chrysene-d12A	13.545	240	371780	40.00	ppm	-0.02
153) Perylene-d12A	16.558	264	385544	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.426	152	132079	40.00	ppm	0.00
159) Phenanthrene-d10b	8.433	188	434569	40.00	ppm	-0.01
161) Chrysene-d12b	13.545	240	371780	40.00	ppm	-0.02
163) Naphthalene-d8b	5.345	136	496811	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	267544	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	496811	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	132079	40.00	ppm	0.00
174) Chrysene-d12c	13.545	240	371780	40.00	ppm	-0.02
176) Chrysene-d12d	13.545	240	371780	40.00	ppm	-0.02
178) Naphthalene-d8d	5.345	136	496811	40.00	ppm	0.00
180) Chrysene-d12D	13.545	240	371780	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.470	112	3987	0.94	ppm	-0.03
Spiked Amount 50.000			Recovery = 1.88%			
8) Phenol-d5	4.197	99	6051	1.07	ppm	0.01
Spiked Amount 50.000			Recovery = 2.14%			
25) Nitrobenzene-d5	4.832	82	5600	1.08	ppm	-0.02
Spiked Amount 50.000			Recovery = 2.16%			
51) 2-Fluorobiphenyl	6.120	172	11587	1.14	ppm	0.02
Spiked Amount 50.000			Recovery = 2.28%			
73) 2,4,6-Tribromophenol	7.509	330	1019	0.90	ppm	0.00
Spiked Amount 50.000			Recovery = 1.80%			
85) Terphenyl-d14	11.382	244	8091	0.97	ppm	0.00
Spiked Amount 50.000			Recovery = 1.94%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.910	88	2993	1.35	ppm	92
3) Pyridine	2.316	79	5145	0.97	ppm	94
4) N-Nitrosodimethylamine	2.241	42	1607	1.00	ppm	84
6) Indene	4.613	116	8985	1.16	ppm	98
7) Cumene	3.833	105	12645	1.11	ppm	99
9) Phenol	4.207	94	6792	1.10	ppm	79
10) Aniline	4.191	93	7059	1.02	ppm	82
11) bis(2-Chloroethyl)ether	4.239	93	4919	1.09	ppm	91
12) 2-Chlorophenol	4.287	128	4689	0.98	ppm	94
13) Decane	4.319	43	4218	1.20	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174990.D
Acq On : 16 Mar 2018 4:15 pm
Operator : seanb1
Sample : ic7445-1
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 08:54:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:52:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	4.384	146	6206	1.16	ppm		88
15) 1,4-Dichlorobenzene	4.437	146	6598	1.19	ppm		93
16) Benzyl alcohol	4.538	108	2795	1.00	ppm		96
17) 1,2-Dichlorobenzene	4.549	146	5913	1.15	ppm		96
18) Acetophenone	4.720	105	6885	1.11	ppm		96
19) 2-Methylphenol	4.635	108	4442	1.01	ppm		96
20) 2,2'-oxybis(1-Chloropr...	4.629	121	1338	1.01	ppm	#	57
21) 3&4-Methylphenol	4.747	108	4749	1.02	ppm		95
22) n-Nitroso-di-n-propyla...	4.725	70	4535	1.33	ppm		96
23) Hexachloroethane	4.795	201	1831	1.15	ppm		96
26) Nitrobenzene	4.843	77	5675	1.10	ppm		94
27) Quinoline	5.602	129	9837	1.10	ppm		97
28) Isophorone	5.014	82	8541	1.02	ppm		100
29) 2-Nitrophenol	5.073	139	2140	0.94	ppm		85
30) 2,4-Dimethylphenol	5.115	107	4230	0.94	ppm		90
31) Benzoic acid	5.174	105	1504	0.47	ppm	#	71
32) bis(2-Chloroethoxy)met...	5.174	93	5183	1.07	ppm		95
33) 2,4-Dichlorophenol	5.260	162	3394	0.97	ppm		90
34) 2,6-Dichlorophenol	5.409	162	3616	1.02	ppm		94
35) 1,3,5-Trichlorobenzene	5.083	180	4781	1.14	ppm		98
36) 1,2,4-Trichlorobenzene	5.308	180	4368	1.08	ppm		95
37) 1,2,3-Trichlorobenzene	5.463	180	4257	1.08	ppm		93
38) Naphthalene	5.361	128	17297	1.25	ppm		100
39) 4-Chloroaniline	5.404	127	5867	1.02	ppm		92
40) 2,3-Dichloroaniline	6.056	161	4683	1.08	ppm		91
41) Caprolactam	5.628	55	1725	1.15	ppm		87
42) Hexachlorobutadiene	5.452	225	2320	1.13	ppm		95
43) 4-Chloro-3-methylphenol	5.762	107	3426	0.92	ppm		98
44) 2-Methylnaphthalene	5.853	141	8316	1.12	ppm		97
45) 1-Methylnaphthalene	5.922	142	10683	1.18	ppm		99
46) Dimethylnaphthalene	6.323	156	8288	1.05	ppm		92
48) Hexachlorocyclopentadiene	5.970	237	3209	1.65	ppm		99
49) 2,4,6-Trichlorophenol	6.061	196	2373	1.04	ppm		96
50) 2,4,5-Trichlorophenol	6.104	196	2286	0.96	ppm		98
52) 2-Chloronaphthalene	6.211	162	9586	1.16	ppm		93
53) Biphenyl	6.195	154	12354	1.10	ppm		99
54) 2-Nitroaniline	6.296	65	2122	0.91	ppm		85
55) Dimethylphthalate	6.440	163	9740	1.10	ppm		96
56) Acenaphthylene	6.552	152	13952	1.04	ppm		99
57) 2,6-Dinitrotoluene	6.488	165	1546	0.85	ppm		91
58) 3-Nitroaniline	6.649	138	1787	0.81	ppm		83
59) Acenaphthene	6.713	153	9949	1.11	ppm		98
60) 2,4-Dinitrophenol	6.755	184	585	5.87	ppm	#	62
62) Dibenzofuran	6.878	168	13317	1.13	ppm		94
63) 2,4-Dinitrotoluene	6.862	165	1801	0.76	ppm		71
64) 2,3,4,6-Tetrachlorophenol	7.012	232	1581	0.86	ppm		90
65) Diethylphthalate	7.113	149	9706	1.08	ppm		96
66) Fluorene	7.231	166	10025	1.12	ppm		96
67) 4-Chlorophenyl-phenyle...	7.236	204	4486	1.14	ppm		98
68) 4-Nitroaniline	7.263	138	1489	0.67	ppm		90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174990.D
Acq On : 16 Mar 2018 4:15 pm
Operator : seanb1
Sample : ic7445-1
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 08:54:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:52:34 2018
Response via : Initial Calibration

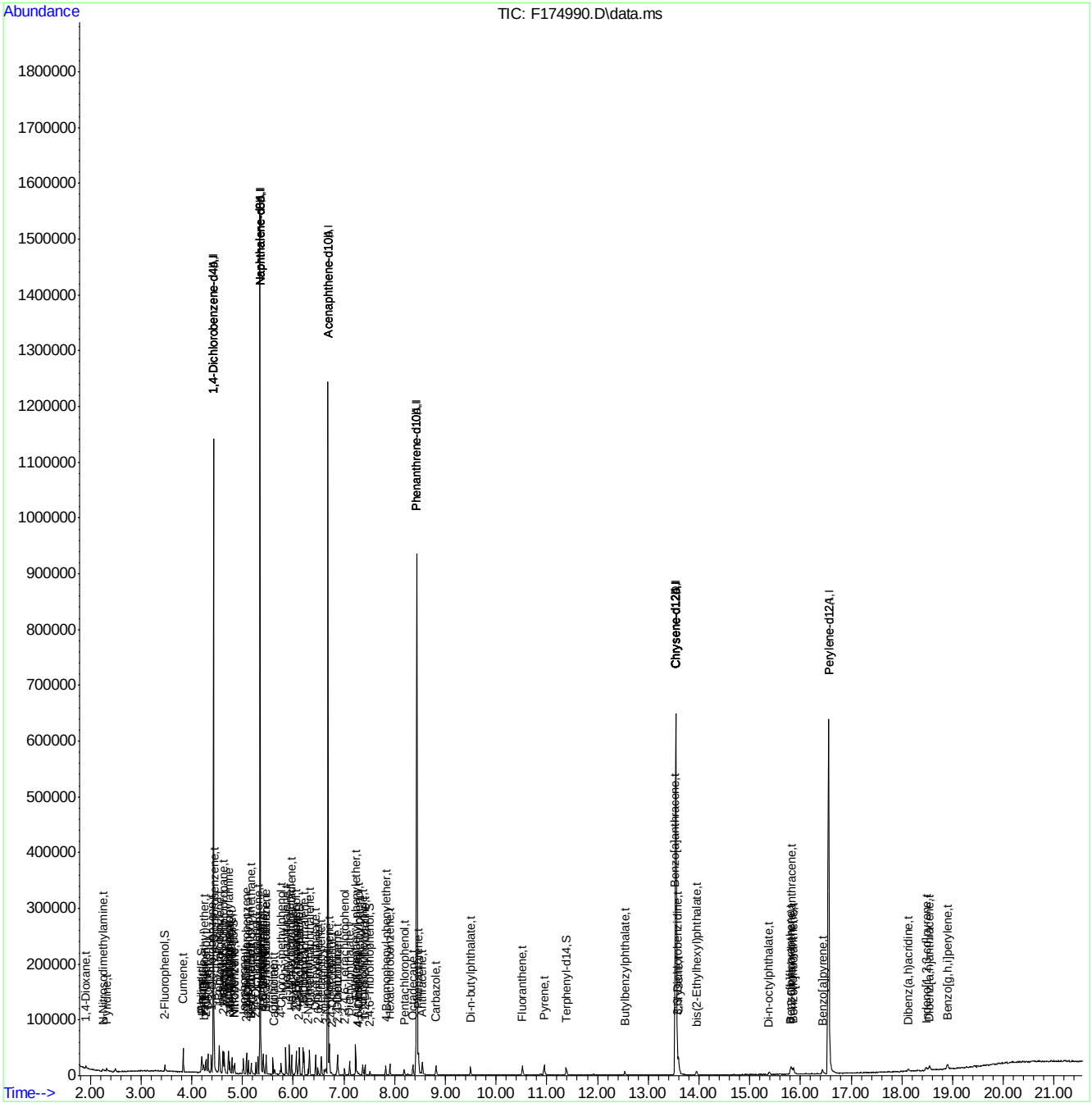
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4,6-Dinitro-2-methylph...	7.295	198	454	1.84	ppm	86
71) n-Nitrosodiphenylamine	7.370	169	5976	1.04	ppm	96
72) 1,2-Diphenylhydrazine	7.418	77	9792	1.07	ppm	96
74) 4-Bromophenyl-phenylether	7.824	248	2326	1.06	ppm	92
75) Hexachlorobenzene	7.904	284	2936	1.11	ppm	93
76) Pentachlorophenol	8.187	266	1675	4.01	ppm	87
77) Phenanthrene	8.470	178	14524	1.15	ppm	98
78) Anthracene	8.545	178	12490	1.02	ppm	97
79) Carbazole	8.818	167	11371	1.01	ppm	91
80) Di-n-butylphthalate	9.496	149	10700	0.85	ppm	99
81) Fluoranthene	10.522	202	10470	0.91	ppm	92
82) Octadecane	8.363	57	4501	1.05	ppm	91
84) Pyrene	10.949	202	11986	0.97	ppm	94
86) Butylbenzylphthalate	12.541	149	3359	0.65	ppm	91
87) Benzo[a]anthracene	13.529	228	10432	1.04	ppm	93
88) 3,3'-Dichlorobenzidine	13.583	252	1735	0.51	ppm	89
89) Chrysene	13.599	228	12200	1.07	ppm	93
90) bis(2-Ethylhexyl)phtha...	13.951	149	3418	1.63	ppm	81
92) Di-n-octylphthalate	15.378	149	4825	2.22	ppm	88
93) Benzo[b]fluoranthene	15.805	252	8921	0.91	ppm	89
94) Benzo[k]fluoranthene	15.864	252	9963	0.94	ppm	92
95) Benzo[a]pyrene	16.436	252	6281	0.75	ppm	93
96) Indeno[1,2,3-cd]pyrene	18.482	276	5207	0.66	ppm	85
97) Dibenz(a,h)acridine	18.124	279	4023	0.49	ppm	92
98) Dibenz[a,h]anthracene	18.546	278	6515	0.74	ppm	95
99) 7,12-Dimethylbenz(a)an...	15.827	256	3126	0.70	ppm	96
100) Benzo[g,h,i]perylene	18.904	276	7252	0.80	ppm	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174990.D
Acq On : 16 Mar 2018 4:15 pm
Operator : seanb1
Sample : ic7445-1
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 08:54:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 08:52:34 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174991.D
Acq On : 16 Mar 2018 4:44 pm
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 20 19:15:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.426	152	179586	40.00	ppm		0.00
24) Naphthalene-d8	5.345	136	644451	40.00	ppm		0.00
47) Acenaphthene-d10	6.686	164	310328	40.00	ppm		0.00
69) Phenanthrene-d10	8.438	188	513877	40.00	ppm		0.00
83) Chrysene-d12	13.556	240	404397	40.00	ppm		0.00
91) Perylene-d12	16.558	264	415187	40.00	ppm		-0.01
101) 1,4-Dichlorobenzene-d4A	4.426	152	179586	40.00	ppm		0.00
111) Naphthalene-d8A	5.345	136	644451	40.00	ppm		0.00
120) Acenaphthene-d10A	6.686	164	310328	40.00	ppm		0.00
131) Phenanthrene-d10A	8.438	188	513877	40.00	ppm		0.00
146) Chrysene-d12A	13.556	240	404397	40.00	ppm		0.00
153) Perylene-d12A	16.558	264	415187	40.00	ppm		-0.01
157) 1,4-Dichlorobenzene-d4b	4.426	152	179586	40.00	ppm		0.00
159) Phenanthrene-d10b	8.438	188	513877	40.00	ppm		0.00
161) Chrysene-d12b	13.556	240	404397	40.00	ppm		0.00
163) Naphthalene-d8b	5.345	136	644451	40.00	ppm		0.00
165) Acenaphthene-d10b	6.686	164	310328	40.00	ppm		0.00
167) Naphthalene-d8c	5.345	136	644451	40.00	ppm		0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	179586	40.00	ppm		0.00
174) Chrysene-d12c	13.556	240	404397	40.00	ppm		0.00
176) Chrysene-d12d	13.556	240	404397	40.00	ppm		0.00
178) Naphthalene-d8d	5.345	136	644451	40.00	ppm		0.00
180) Chrysene-d12D	13.556	240	404397	40.00	ppm		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
85) Terphenyl-d14	0.000	244	0d	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
Target Compounds							Qvalue
4) N-Nitrosodimethylamine	2.231	42	103166	46.88	ppm		89
11) bis(2-Chloroethyl)ether	4.234	93	292520	48.90	ppm		94
14) 1,3-Dichlorobenzene	4.389	146	338903	46.37	ppm		98
15) 1,4-Dichlorobenzene	4.442	146	346644	46.02	ppm		99
17) 1,2-Dichlorobenzene	4.554	146	332107	47.89	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.629	121	92611	53.85	ppm	#	69
22) n-Nitroso-di-n-propyla...	4.725	70	221760	45.06	ppm		96
23) Hexachloroethane	4.795	201	99796	47.13	ppm		91
26) Nitrobenzene	4.843	77	320404	48.09	ppm		97
28) Isophorone	5.014	82	538641	49.09	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174991.D
Acq On : 16 Mar 2018 4:44 pm
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 20 19:15:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration

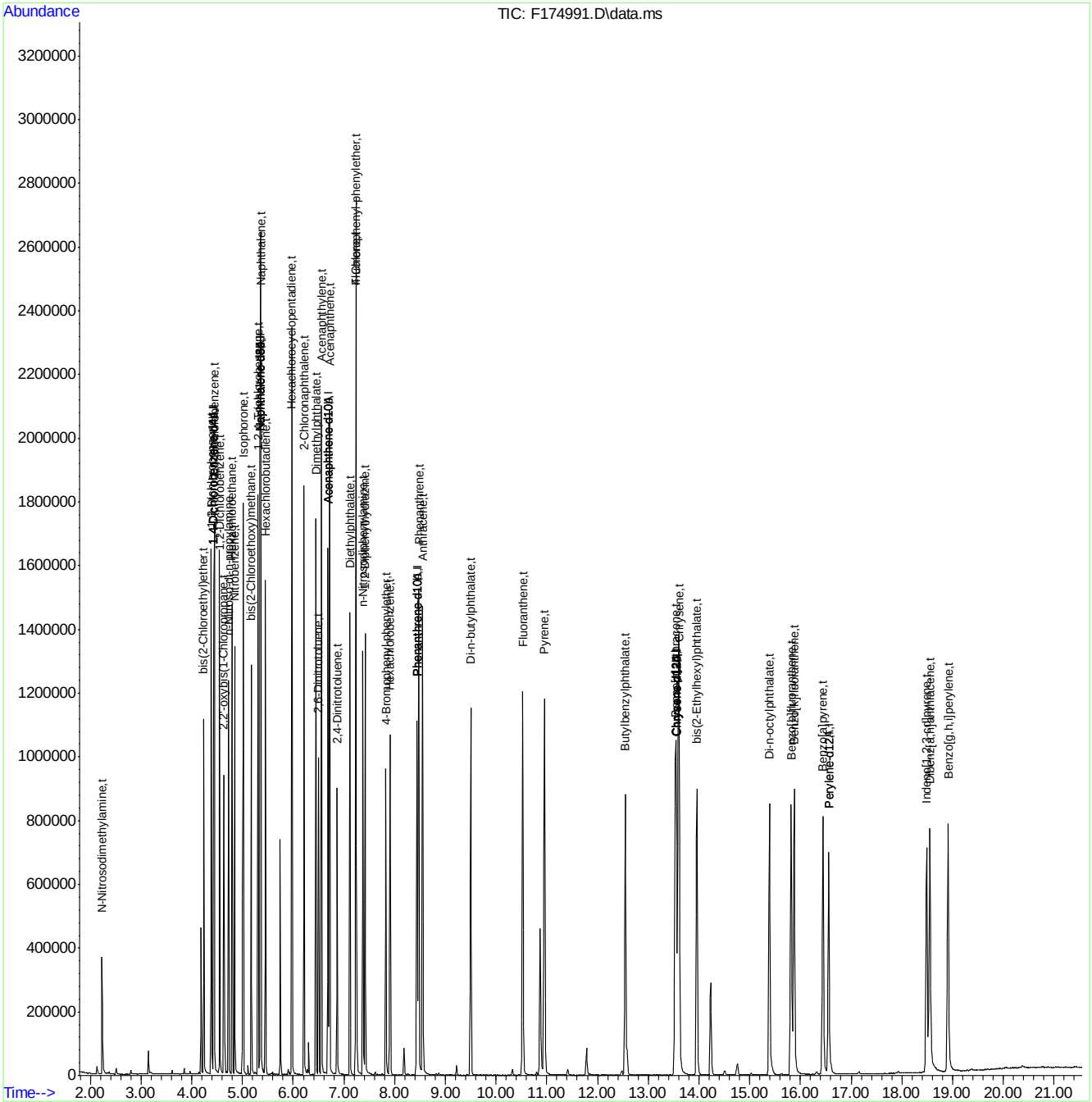
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) bis(2-Chloroethoxy)met...	5.174	93	330479	52.85	ppm	98
36) 1,2,4-Trichlorobenzene	5.308	180	242585	48.28	ppm	99
38) Naphthalene	5.361	128	837820	46.37	ppm	99
42) Hexachlorobutadiene	5.452	225	124876	48.78	ppm	98
48) Hexachlorocyclopentadiene	5.970	237	108792	50.18	ppm	99
52) 2-Chloronaphthalene	6.216	162	485041	50.20	ppm	98
55) Dimethylphthalate	6.446	163	528084	50.97	ppm	99
56) Acenaphthylene	6.558	152	802648	51.76	ppm	99
57) 2,6-Dinitrotoluene	6.499	165	122128	55.84	ppm	99
59) Acenaphthene	6.718	153	496921	50.02	ppm	96
63) 2,4-Dinitrotoluene	6.868	165	153979	51.81	ppm	94
65) Diethylphthalate	7.119	149	545816	51.20	ppm	99
66) Fluorene	7.236	166	508727	48.74	ppm	100
67) 4-Chlorophenyl-phenyle...	7.236	204	212153	47.85	ppm	96
71) n-Nitrosodiphenylamine	7.375	169	376846	52.46	ppm	100
72) 1,2-Diphenylhydrazine	7.418	77	603452	52.68	ppm	94
74) 4-Bromophenyl-phenylether	7.829	248	131846	50.70	ppm	96
75) Hexachlorobenzene	7.909	284	158439	48.80	ppm	97
77) Phenanthrene	8.476	178	732749	48.70	ppm	100
78) Anthracene	8.550	178	724509	49.75	ppm	100
80) Di-n-butylphthalate	9.501	149	898668	54.98	ppm	100
81) Fluoranthene	10.527	202	701989	51.22	ppm	98
84) Pyrene	10.954	202	732577	54.24	ppm	98
86) Butylbenzylphthalate	12.552	149	379975	59.95	ppm	97
87) Benzo[a]anthracene	13.535	228	602249	53.43	ppm	98
89) Chrysene	13.610	228	617759	50.30	ppm	99
90) bis(2-Ethylhexyl)phtha...	13.957	149	517926	54.69	ppm	100
92) Di-n-octylphthalate	15.389	149	844379	55.22	ppm	99
93) Benzo[b]fluoranthene	15.821	252	608751	53.89	ppm	99
94) Benzo[k]fluoranthene	15.880	252	651563	53.71	ppm	99
95) Benzo[a]pyrene	16.446	252	572767	58.36	ppm	100
96) Indeno[1,2,3-cd]pyrene	18.492	276	500871	50.71	ppm	97
98) Dibenz[a,h]anthracene	18.556	278	538198	56.00	ppm	98
100) Benzo[g,h,i]perylene	18.914	276	570062	58.90	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174991.D
Acq On : 16 Mar 2018 4:44 pm
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 20 19:15:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174992.D
Acq On : 16 Mar 2018 5:12 pm
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 20 19:17:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	146568	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	527372	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	254601	40.00	ppm	0.00
69) Phenanthrene-d10	8.438	188	431650	40.00	ppm	0.00
83) Chrysene-d12	13.545	240	326240	40.00	ppm	-0.02
91) Perylene-d12	16.558	264	295668	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.426	152	146568	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	527372	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	254601	40.00	ppm	0.00
131) Phenanthrene-d10A	8.438	188	431650	40.00	ppm	0.00
146) Chrysene-d12A	13.545	240	326240	40.00	ppm	-0.02
153) Perylene-d12A	16.558	264	295668	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.426	152	146568	40.00	ppm	0.00
159) Phenanthrene-d10b	8.438	188	431650	40.00	ppm	0.00
161) Chrysene-d12b	13.545	240	326240	40.00	ppm	-0.02
163) Naphthalene-d8b	5.345	136	527372	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	254601	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	527372	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	146568	40.00	ppm	0.00
174) Chrysene-d12c	13.545	240	326240	40.00	ppm	-0.02
176) Chrysene-d12d	13.545	240	326240	40.00	ppm	-0.02
178) Naphthalene-d8d	5.345	136	527372	40.00	ppm	0.00
180) Chrysene-d12D	13.545	240	326240	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.921	88	119840	47.57	ppm	97
6) Indene	4.613	116	449543	51.62	ppm	100
7) Cumene	3.833	105	590831	47.46	ppm	98
13) Decane	4.319	43	176153	46.43	ppm	97
18) Acetophenone	4.720	105	344295	49.37	ppm	98
27) Quinoline	5.596	129	472059	48.33	ppm	100
40) 2,3-Dichloroaniline	6.061	161	208083	45.19	ppm	96
41) Caprolactam	5.639	55	77935	46.25	ppm	96
45) 1-Methylnaphthalene	5.922	142	423487	43.93	ppm	98
46) Dimethylnaphthalene	6.323	156	385966	47.11	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174992.D
Acq On : 16 Mar 2018 5:12 pm
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 20 19:17:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
53) Biphenyl	6.194	154	532592	52.33	ppm	99
82) Octadecane	8.363	57	246476	53.84	ppm	96
99) 7,12-Dimethylbenz(a)an...	15.832	256	153704	43.31	ppm	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

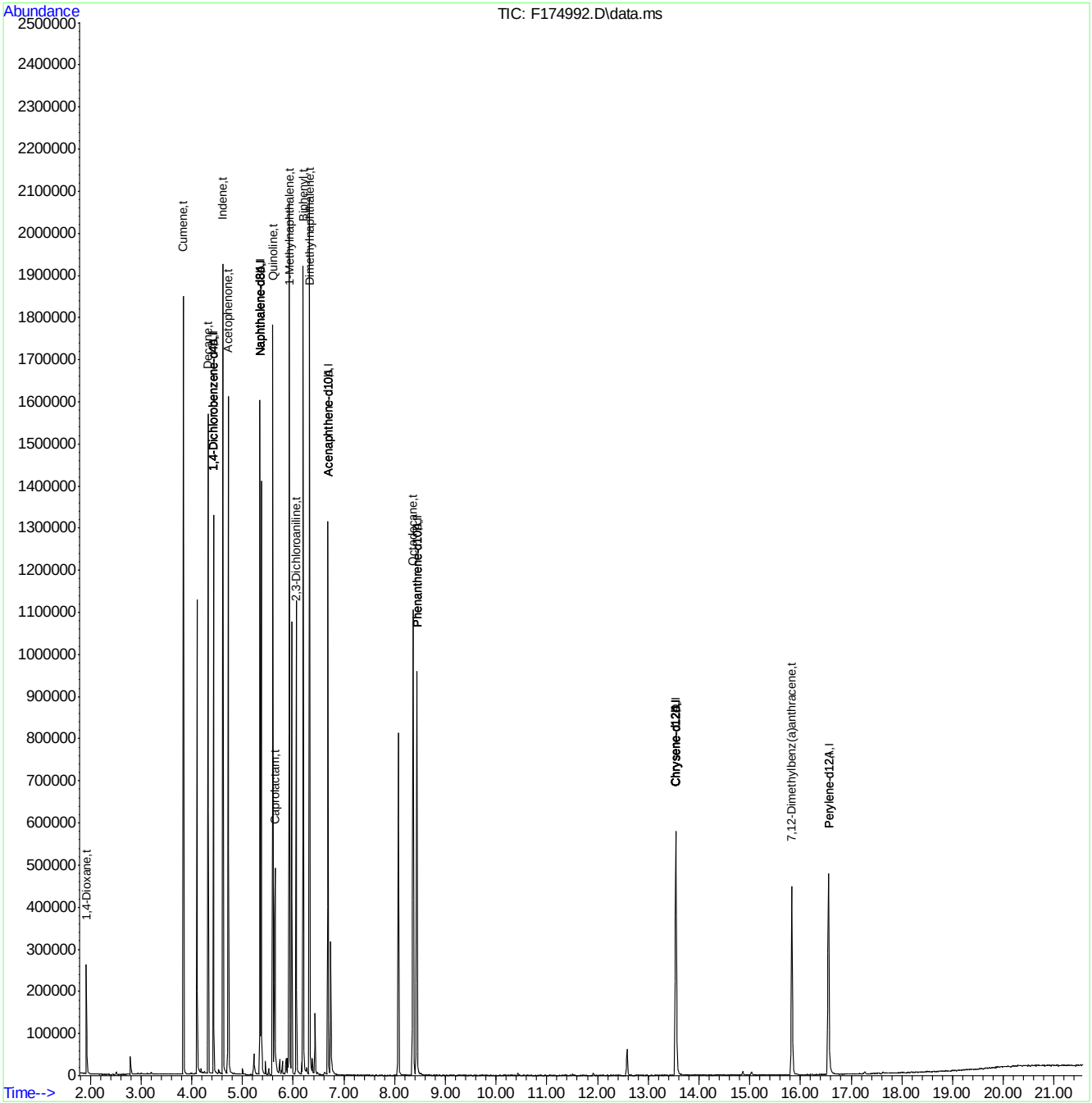
9.6.51

9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174992.D
Acq On : 16 Mar 2018 5:12 pm
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 20 19:17:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174995.D
Acq On : 16 Mar 2018 6:37 pm
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 09:25:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 09:06:11 2018
Response via : Initial Calibration

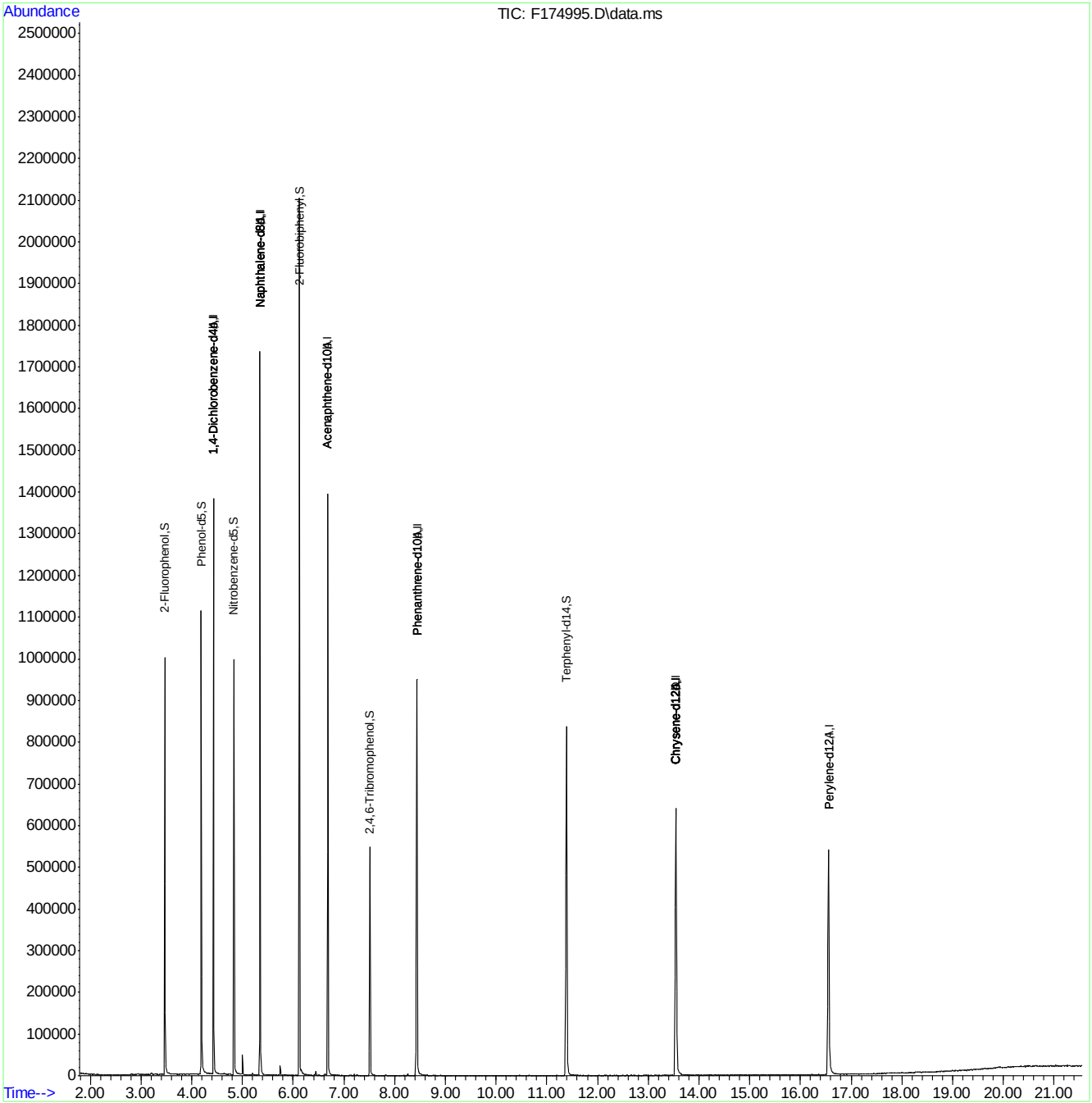
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	153636	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	552043	40.00	ppm	0.00
47) Acenaphthene-d10	6.681	164	304538	40.00	ppm	0.00
69) Phenanthrene-d10	8.438	188	452859	40.00	ppm	0.00
83) Chrysene-d12	13.545	240	369204	40.00	ppm	-0.02
91) Perylene-d12	16.558	264	324736	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.426	152	153636	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	552043	40.00	ppm	0.00
120) Acenaphthene-d10A	6.681	164	304538	40.00	ppm	0.00
131) Phenanthrene-d10A	8.438	188	452859	40.00	ppm	0.00
146) Chrysene-d12A	13.545	240	369204	40.00	ppm	-0.02
153) Perylene-d12A	16.558	264	324736	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.426	152	153636	40.00	ppm	0.00
159) Phenanthrene-d10b	8.438	188	452859	40.00	ppm	0.00
161) Chrysene-d12b	13.545	240	369204	40.00	ppm	-0.02
163) Naphthalene-d8b	5.345	136	552043	40.00	ppm	0.00
165) Acenaphthene-d10b	6.681	164	304538	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	552043	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	153636	40.00	ppm	0.00
174) Chrysene-d12c	13.545	240	369204	40.00	ppm	-0.02
176) Chrysene-d12d	13.545	240	369204	40.00	ppm	-0.02
178) Naphthalene-d8d	5.345	136	552043	40.00	ppm	0.00
180) Chrysene-d12D	13.545	240	369204	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.465	112	252763	50.90	ppm	-0.03
Spiked Amount 50.000			Recovery = 101.80%			
8) Phenol-d5	4.186	99	323164	49.83	ppm	0.00
Spiked Amount 50.000			Recovery = 99.66%			
25) Nitrobenzene-d5	4.827	82	280671	47.84	ppm	-0.03
Spiked Amount 50.000			Recovery = 95.68%			
51) 2-Fluorobiphenyl	6.120	172	500286	42.85	ppm	0.02
Spiked Amount 50.000			Recovery = 85.70%			
73) 2,4,6-Tribromophenol	7.514	330	65187	48.97	ppm	0.00
Spiked Amount 50.000			Recovery = 97.94%			
85) Terphenyl-d14	11.387	244	429466	52.46	ppm	0.00
Spiked Amount 50.000			Recovery = 104.92%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174995.D
Acq On : 16 Mar 2018 6:37 pm
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 09:25:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 09:06:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174996.D
Acq On : 16 Mar 2018 7:05 pm
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 09:28:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 09:06:11 2018
Response via : Initial Calibration

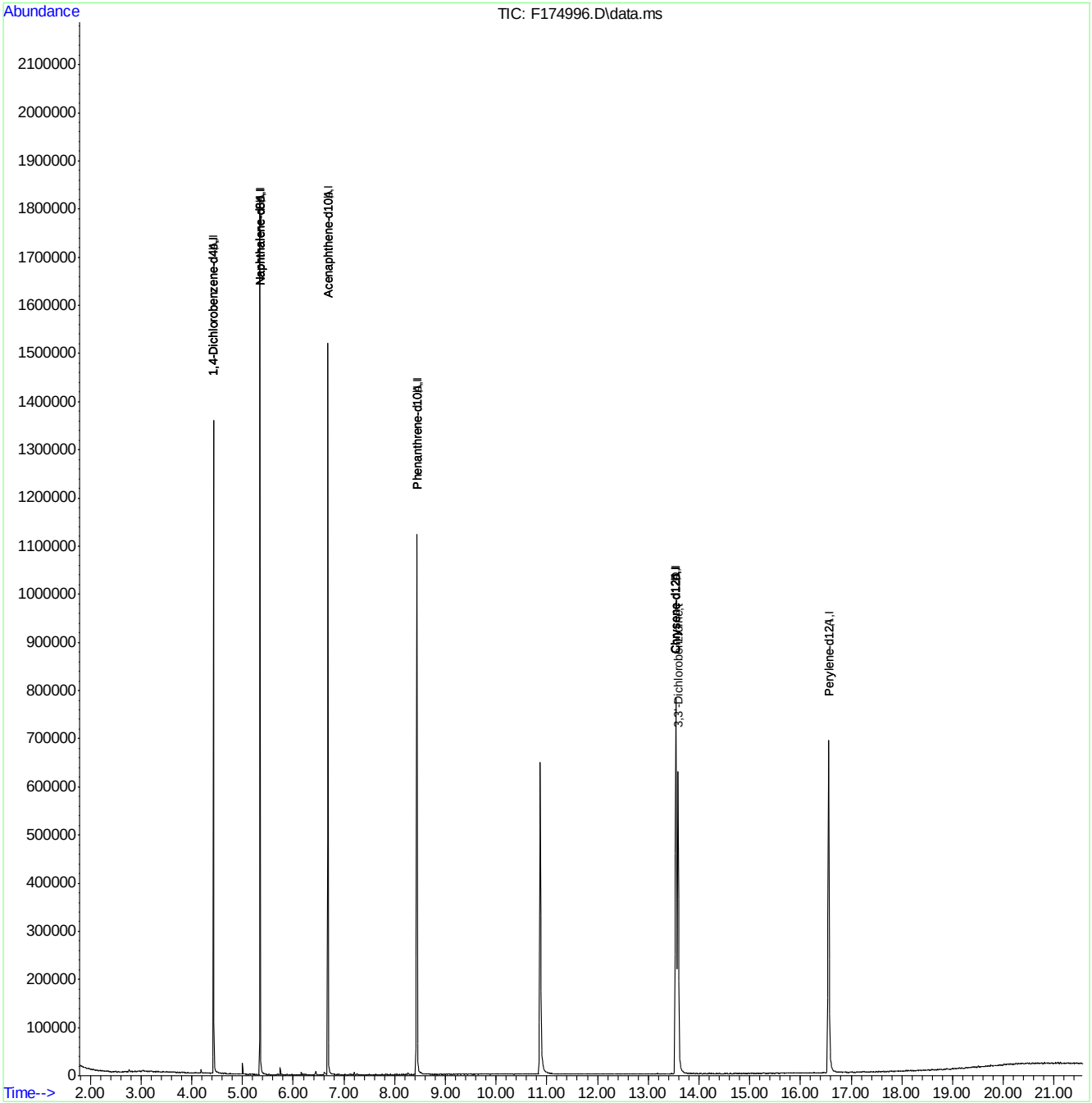
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	152755	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	566598	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	324183	40.00	ppm	0.00
69) Phenanthrene-d10	8.438	188	514931	40.00	ppm	0.00
83) Chrysene-d12	13.545	240	453710	40.00	ppm	-0.02
91) Perylene-d12	16.558	264	435187	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.426	152	152755	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	566598	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	324183	40.00	ppm	0.00
131) Phenanthrene-d10A	8.438	188	514931	40.00	ppm	0.00
146) Chrysene-d12A	13.545	240	453710	40.00	ppm	-0.02
153) Perylene-d12A	16.558	264	435187	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.426	152	152755	40.00	ppm	0.00
159) Phenanthrene-d10b	8.438	188	514931	40.00	ppm	0.00
161) Chrysene-d12b	13.545	240	453710	40.00	ppm	-0.02
163) Naphthalene-d8b	5.345	136	566598	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	324183	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	566598	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	152755	40.00	ppm	0.00
174) Chrysene-d12c	13.545	240	453710	40.00	ppm	-0.02
176) Chrysene-d12d	13.545	240	453710	40.00	ppm	-0.02
178) Naphthalene-d8d	5.345	136	566598	40.00	ppm	0.00
180) Chrysene-d12D	13.545	240	453710	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
88) 3,3'-Dichlorobenzidine	13.588	252	216802	46.41	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7445\
Data File : F174996.D
Acq On : 16 Mar 2018 7:05 pm
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7445,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 09:28:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 19 09:06:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7446\
Data File : F174999.D
Acq On : 19 Mar 2018 9:48 am
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7446,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 20 19:05:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	171135	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	682258	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	377012	40.00	ppm	0.00
69) Phenanthrene-d10	8.438	188	558435	40.00	ppm	0.00
83) Chrysene-d12	13.551	240	447829	40.00	ppm	-0.01
91) Perylene-d12	16.564	264	402312	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.426	152	171135	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	682258	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	377012	40.00	ppm	0.00
131) Phenanthrene-d10A	8.438	188	558435	40.00	ppm	0.00
146) Chrysene-d12A	13.551	240	447829	40.00	ppm	-0.01
153) Perylene-d12A	16.564	264	402312	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	4.426	152	171135	40.00	ppm	0.00
159) Phenanthrene-d10b	8.438	188	558435	40.00	ppm	0.00
161) Chrysene-d12b	13.551	240	447829	40.00	ppm	-0.01
163) Naphthalene-d8b	5.345	136	682258	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	377012	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	682258	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	171135	40.00	ppm	0.00
174) Chrysene-d12c	13.551	240	447829	40.00	ppm	-0.01
176) Chrysene-d12d	13.551	240	447829	40.00	ppm	-0.01
178) Naphthalene-d8d	5.345	136	682258	40.00	ppm	0.00
180) Chrysene-d12D	13.551	240	447829	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
3) Pyridine	2.359	79	364969	53.70	ppm	97
10) Aniline	4.196	93	504529	57.98	ppm	87
16) Benzyl alcohol	4.538	108	214848	57.35	ppm	92
39) 4-Chloroaniline	5.404	127	353566	45.78	ppm	96
44) 2-Methylnaphthalene	5.852	141	495540	48.77	ppm	97
54) 2-Nitroaniline	6.296	65	152866	44.57	ppm	82
58) 3-Nitroaniline	6.648	138	146015	45.11	ppm	88
62) Dibenzofuran	6.878	168	735509	44.06	ppm	99
68) 4-Nitroaniline	7.263	138	134958	40.98	ppm	92
79) Carbazole	8.823	167	751329	48.92	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7446\
Data File : F174999.D
Acq On : 19 Mar 2018 9:48 am
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7446,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 20 19:05:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration

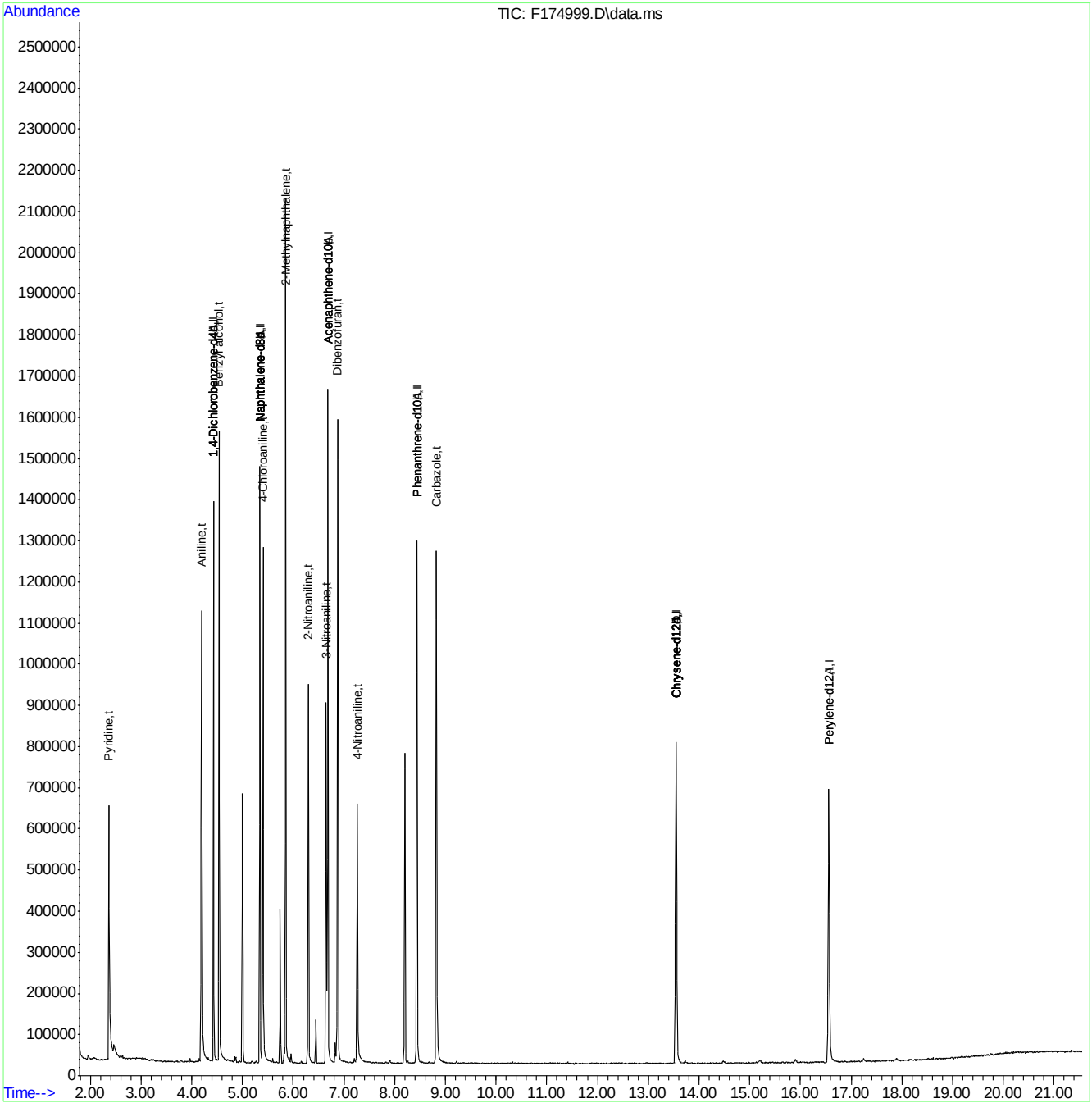
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7446\
Data File : F174999.D
Acq On : 19 Mar 2018 9:48 am
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7446,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 20 19:05:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7446\
Data File : F175000.D
Acq On : 19 Mar 2018 10:16 am
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7446,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 20 19:07:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.426	152	156591	40.00	ppm	0.00
24) Naphthalene-d8	5.345	136	558122	40.00	ppm	0.00
47) Acenaphthene-d10	6.686	164	263987	40.00	ppm	0.00
69) Phenanthrene-d10	8.438	188	436603	40.00	ppm	0.00
83) Chrysene-d12	13.545	240	320745	40.00	ppm	-0.02
91) Perylene-d12	16.558	264	314488	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.426	152	156591	40.00	ppm	0.00
111) Naphthalene-d8A	5.345	136	558122	40.00	ppm	0.00
120) Acenaphthene-d10A	6.686	164	263987	40.00	ppm	0.00
131) Phenanthrene-d10A	8.438	188	436603	40.00	ppm	0.00
146) Chrysene-d12A	13.545	240	320745	40.00	ppm	-0.02
153) Perylene-d12A	16.558	264	314488	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.426	152	156591	40.00	ppm	0.00
159) Phenanthrene-d10b	8.438	188	436603	40.00	ppm	0.00
161) Chrysene-d12b	13.545	240	320745	40.00	ppm	-0.02
163) Naphthalene-d8b	5.345	136	558122	40.00	ppm	0.00
165) Acenaphthene-d10b	6.686	164	263987	40.00	ppm	0.00
167) Naphthalene-d8c	5.345	136	558122	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.426	152	156591	40.00	ppm	0.00
174) Chrysene-d12c	13.545	240	320745	40.00	ppm	-0.02
176) Chrysene-d12d	13.545	240	320745	40.00	ppm	-0.02
178) Naphthalene-d8d	5.345	136	558122	40.00	ppm	0.00
180) Chrysene-d12D	13.545	240	320745	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Phenol	4.197	94	339782	44.24	ppm	75
12) 2-Chlorophenol	4.282	128	276231	48.76	ppm	95
19) 2-Methylphenol	4.629	108	244263	47.07	ppm	100
21) 3&4-Methylphenol	4.741	108	258508	46.52	ppm	99
29) 2-Nitrophenol	5.073	139	139572	53.07	ppm	80
30) 2,4-Dimethylphenol	5.115	107	248620	51.47	ppm	91
31) Benzoic acid	5.212	105	193494	48.13	ppm	94
33) 2,4-Dichlorophenol	5.254	162	199954	50.04	ppm	94
34) 2,6-Dichlorophenol	5.409	162	205364	51.25	ppm	99
43) 4-Chloro-3-methylphenol	5.756	107	214447	50.19	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7446\
Data File : F175000.D
Acq On : 19 Mar 2018 10:16 am
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7446,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 20 19:07:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 2,4,6-Trichlorophenol	6.061	196	128706	55.25	ppm		97
50) 2,4,5-Trichlorophenol	6.098	196	138093	53.57	ppm		99
60) 2,4-Dinitrophenol	6.739	184	50123	46.03	ppm	#	53
61) 4-Nitrophenol	6.830	109	61525	52.39	ppm		94
64) 2,3,4,6-Tetrachlorophenol	7.012	232	101737	53.28	ppm		96
70) 4,6-Dinitro-2-methylph...	7.295	198	71720	46.32	ppm		97
76) Pentachlorophenol	8.182	266	88434	60.44	ppm		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

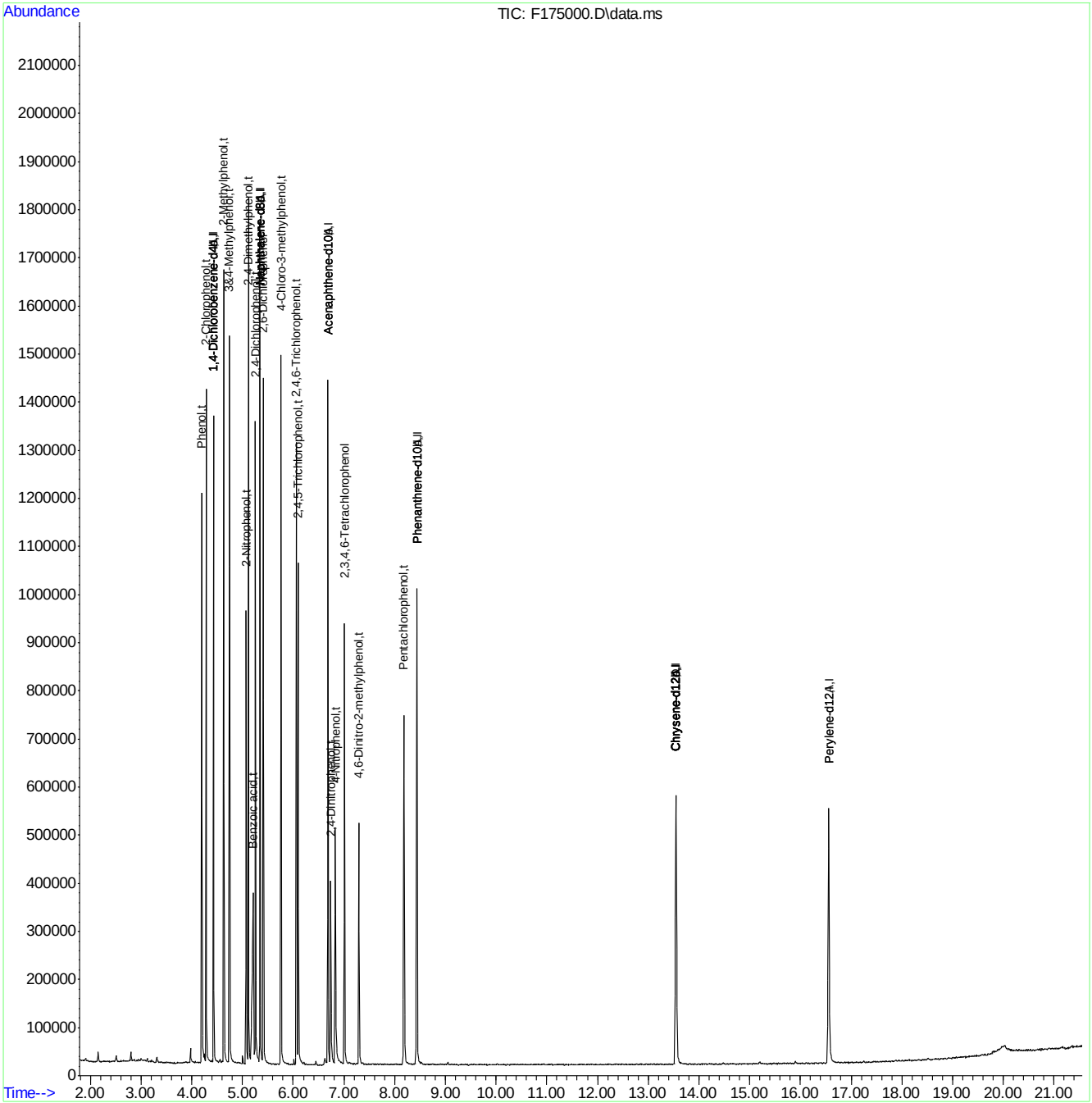
9.6.55

6

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7446\
Data File : F175000.D
Acq On : 19 Mar 2018 10:16 am
Operator : seanb1
Sample : icv7445-50
Misc : op9377,ef7446,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 20 19:07:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 20 19:01:51 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175207.D
Acq On : 27 Mar 2018 9:22 am
Operator : johnb1
Sample : cc7445-25
Misc : op9377,ef7460,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 17:01:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 28 17:00:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.378	152	155268	40.00	ppm		0.00
24) Naphthalene-d8	5.297	136	585396	40.00	ppm		0.00
47) Acenaphthene-d10	6.622	164	292811	40.00	ppm		0.00
69) Phenanthrene-d10	8.353	188	545393	40.00	ppm		0.00
83) Chrysene-d12	13.444	240	503411	40.00	ppm		0.00
91) Perylene-d12	16.446	264	525048	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.378	152	155268	40.00	ppm		-0.05
103) Phenanthrene-d10a	8.353	188	545393	40.00	ppm		-0.09
105) Chrysene-d12a	13.444	240	503411	40.00	ppm		-0.12
107) Naphthalene-d8a	5.297	136	585396	40.00	ppm		-0.05
109) Acenaphthene-d10a	6.622	164	292811	40.00	ppm		-0.06
System Monitoring Compounds							
5) 2-Fluorophenol	3.406	112	137033	27.30	ppm		-0.06
Spiked Amount 50.000			Recovery = 54.60%				
8) Phenol-d5	4.138	99	167194	25.51	ppm		0.00
Spiked Amount 50.000			Recovery = 51.02%				
25) Nitrobenzene-d5	4.784	82	152771	24.56	ppm		-0.02
Spiked Amount 50.000			Recovery = 49.12%				
51) 2-Fluorobiphenyl	6.072	172	308631	27.49	ppm		0.03
Spiked Amount 50.000			Recovery = 54.98%				
73) 2,4,6-Tribromophenol	7.439	330	44816	27.95	ppm		0.01
Spiked Amount 50.000			Recovery = 55.90%				
85) Terphenyl-d14	11.280	244	296597	26.57	ppm		0.00
Spiked Amount 50.000			Recovery = 53.14%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.830	88	65147	24.41	ppm		98
3) Pyridine	2.177	79	153717	24.93	ppm		95
4) N-Nitrosodimethylamine	2.140	42	45694	24.02	ppm		88
6) Indene	4.565	116	237096	25.70	ppm		99
7) Cumene	3.780	105	333874	25.32	ppm		99
9) Phenol	4.149	94	187830	24.66	ppm		79
10) Aniline	4.138	93	170464	21.59	ppm		91
11) bis(2-Chloroethyl)ether	4.186	93	126984	24.55	ppm		95
12) 2-Chlorophenol	4.234	128	146774	26.13	ppm		98
13) Decane	4.271	43	92126	22.92	ppm		98
14) 1,3-Dichlorobenzene	4.336	146	159124	25.18	ppm		98
15) 1,4-Dichlorobenzene	4.389	146	160461	24.64	ppm		99
16) Benzyl alcohol	4.490	108	91290	26.86	ppm		98
17) 1,2-Dichlorobenzene	4.501	146	152574	25.45	ppm		96
18) Acetophenone	4.672	105	186996	25.31	ppm	#	65
19) 2-Methylphenol	4.581	108	128760	25.03	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.587	121	39366	26.47	ppm	#	65
21) 3&4-Methylphenol	4.693	108	142194	25.81	ppm		99
22) n-Nitroso-di-n-propyla...	4.677	70	94946	22.31	ppm		99
23) Hexachloroethane	4.747	201	49275	26.91	ppm		97
26) Nitrobenzene	4.795	77	144150	23.82	ppm		95
27) Quinoline	5.554	129	278509	25.69	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175207.D
Acq On : 27 Mar 2018 9:22 am
Operator : johnb1
Sample : cc7445-25
Misc : op9377,ef7460,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 17:01:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 28 17:00:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
28) Isophorone	4.966	82	244169	24.50	ppm		99
29) 2-Nitrophenol	5.025	139	77771	28.20	ppm		84
30) 2,4-Dimethylphenol	5.067	107	117483	23.19	ppm		90
31) Benzoic acid	5.153	105	110477	26.20	ppm		97
32) bis(2-Chloroethoxy)met...	5.126	93	140575	24.75	ppm		99
33) 2,4-Dichlorophenol	5.206	162	114942	27.43	ppm		97
34) 2,6-Dichlorophenol	5.361	162	111021	26.41	ppm		99
35) 1,3,5-Trichlorobenzene	5.035	180	125675	26.79	ppm		97
36) 1,2,4-Trichlorobenzene	5.260	180	123513	27.06	ppm		99
37) 1,2,3-Trichlorobenzene	5.420	180	117376	26.57	ppm		98
38) Naphthalene	5.313	128	409019	24.92	ppm		99
39) 4-Chloroaniline	5.356	127	168470	25.42	ppm		96
40) 2,3-Dichloroaniline	6.008	161	134507	26.32	ppm		98
41) Caprolactam	5.596	55	44859	23.98	ppm		96
42) Hexachlorobutadiene	5.409	225	62066	26.69	ppm		98
43) 4-Chloro-3-methylphenol	5.714	107	122307	27.29	ppm	#	60
44) 2-Methylnaphthalene	5.805	141	220601	25.30	ppm		99
45) 1-Methylnaphthalene	5.874	142	268328	25.08	ppm		99
46) Dimethylnaphthalene	6.269	156	245356	26.98	ppm		99
48) Hexachlorocyclopentadiene	5.922	237	126929	62.04	ppm		100
49) 2,4,6-Trichlorophenol	6.013	196	76012	29.42	ppm		97
50) 2,4,5-Trichlorophenol	6.045	196	84999	29.73	ppm		97
52) 2-Chloronaphthalene	6.163	162	247670	27.17	ppm		100
53) Biphenyl	6.147	154	334062	28.54	ppm		100
54) 2-Nitroaniline	6.243	65	73461	27.58	ppm		100
55) Dimethylphthalate	6.387	163	272510	27.87	ppm		99
56) Acenaphthylene	6.494	152	413928	28.29	ppm		100
57) 2,6-Dinitrotoluene	6.435	165	63979	31.00	ppm		96
58) 3-Nitroaniline	6.585	138	75162	29.90	ppm		90
59) Acenaphthene	6.649	153	262582	28.01	ppm		95
60) 2,4-Dinitrophenol	6.681	184	71819	58.05	ppm		94
61) 4-Nitrophenol	6.766	109	36635	28.13	ppm	#	77
62) Dibenzofuran	6.814	168	353131	27.24	ppm		96
63) 2,4-Dinitrotoluene	6.804	165	90089	32.13	ppm		96
64) 2,3,4,6-Tetrachlorophenol	6.943	232	70097	33.10	ppm		98
65) Diethylphthalate	7.049	149	279929	27.83	ppm		100
66) Fluorene	7.162	166	274931	27.92	ppm		100
67) 4-Chlorophenyl-phenyle...	7.167	204	120443	28.79	ppm		98
68) 4-Nitroaniline	7.194	138	73872	28.88	ppm		98
70) 4,6-Dinitro-2-methylph...	7.226	198	51007	27.33	ppm		94
71) n-Nitrosodiphenylamine	7.300	169	194269	25.48	ppm		99
72) 1,2-Diphenylhydrazine	7.343	77	280191	23.04	ppm		99
74) 4-Bromophenyl-phenylether	7.749	248	72947	26.43	ppm		94
75) Hexachlorobenzene	7.829	284	85821	24.91	ppm		90
76) Pentachlorophenol	8.102	266	110108	60.24	ppm		98
77) Phenanthrene	8.385	178	399689	25.03	ppm		100
78) Anthracene	8.460	178	411422	26.62	ppm		99
79) Carbazole	8.727	167	391064	26.07	ppm		99
80) Di-n-butylphthalate	9.405	149	473638	27.30	ppm		99
81) Fluoranthene	10.420	202	408033	28.05	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175207.D
Acq On : 27 Mar 2018 9:22 am
Operator : johnb1
Sample : cc7445-25
Misc : op9377,ef7460,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 17:01:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 28 17:00:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.278	57	135735	23.46	ppm	97
84) Pyrene	10.842	202	433842	25.81	ppm	99
86) Butylbenzylphthalate	12.440	149	207629	26.31	ppm	98
87) Benzo[a]anthracene	13.417	228	370098	26.38	ppm	99
88) 3,3'-Dichlorobenzidine	13.476	252	141375	27.28	ppm	99
89) Chrysene	13.492	228	384412	25.15	ppm	99
90) bis(2-Ethylhexyl)phtha...	13.850	149	279873	24.73	ppm	99
92) Di-n-octylphthalate	15.287	149	471115	25.27	ppm	99
93) Benzo[b]fluoranthene	15.704	252	376391	26.35	ppm	98
94) Benzo[k]fluoranthene	15.763	252	403083	26.28	ppm	98
95) Benzo[a]pyrene	16.329	252	341620	27.52	ppm	99
96) Indeno[1,2,3-cd]pyrene	18.375	276	335483	27.17	ppm	99
97) Dibenz(a,h)acridine	18.022	279	320992	29.86	ppm	100
98) Dibenz[a,h]anthracene	18.444	278	368145	30.29	ppm	94
99) 7,12-Dimethylbenz(a)an...	15.731	256	154290	24.48	ppm	99
100) Benzo[g,h,i]perylene	18.797	276	356389	29.12	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.9.56

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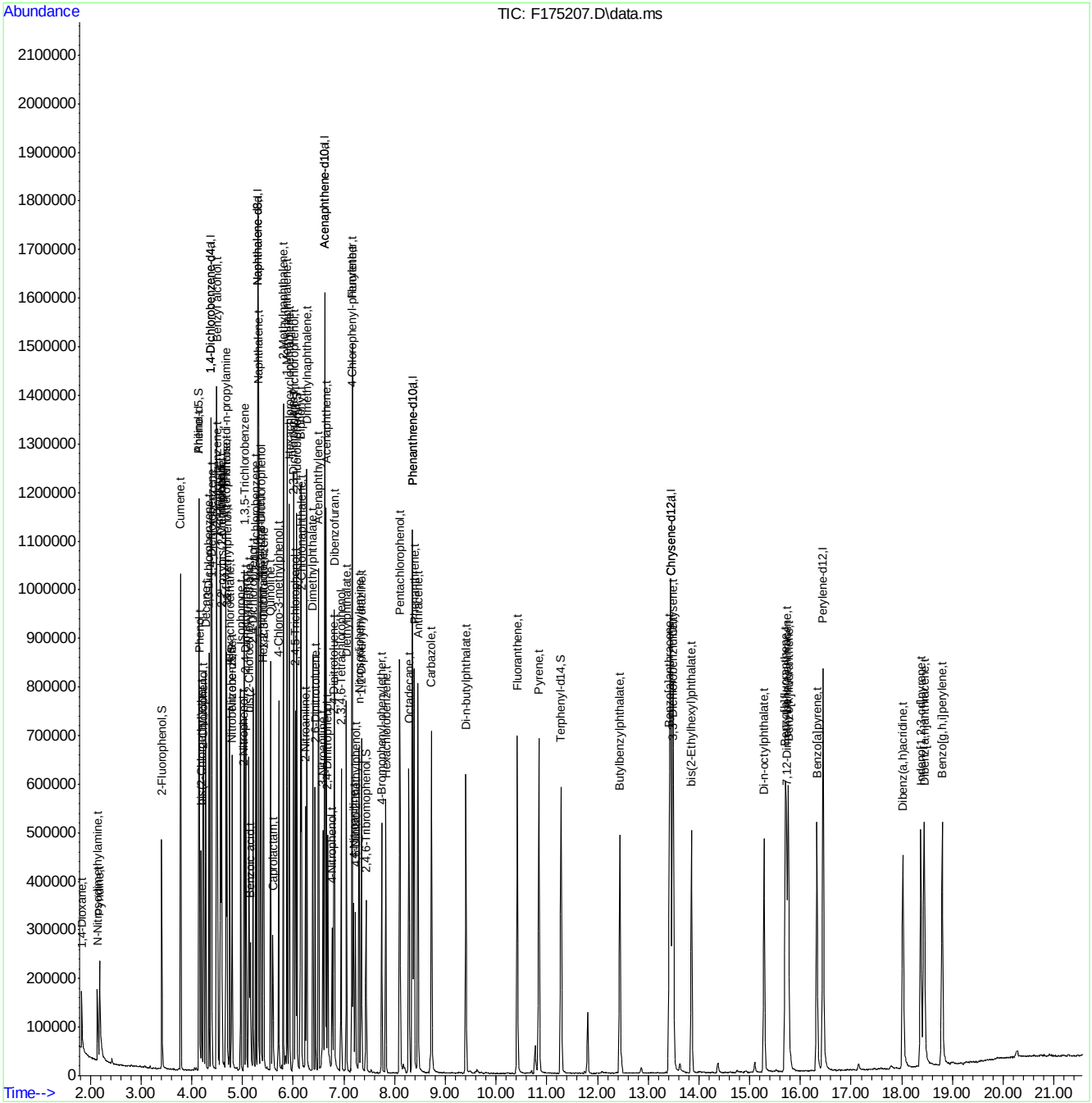
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175207.D
Acq On : 27 Mar 2018 9:22 am
Operator : johnb1
Sample : cc7445-25
Misc : op9377,ef7460,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 28 17:01:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 28 17:00:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175208.D
Acq On : 27 Mar 2018 9:59 am
Operator : johnb1
Sample : cc7441-25
Misc : op9377,ef7460,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 17:02:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration

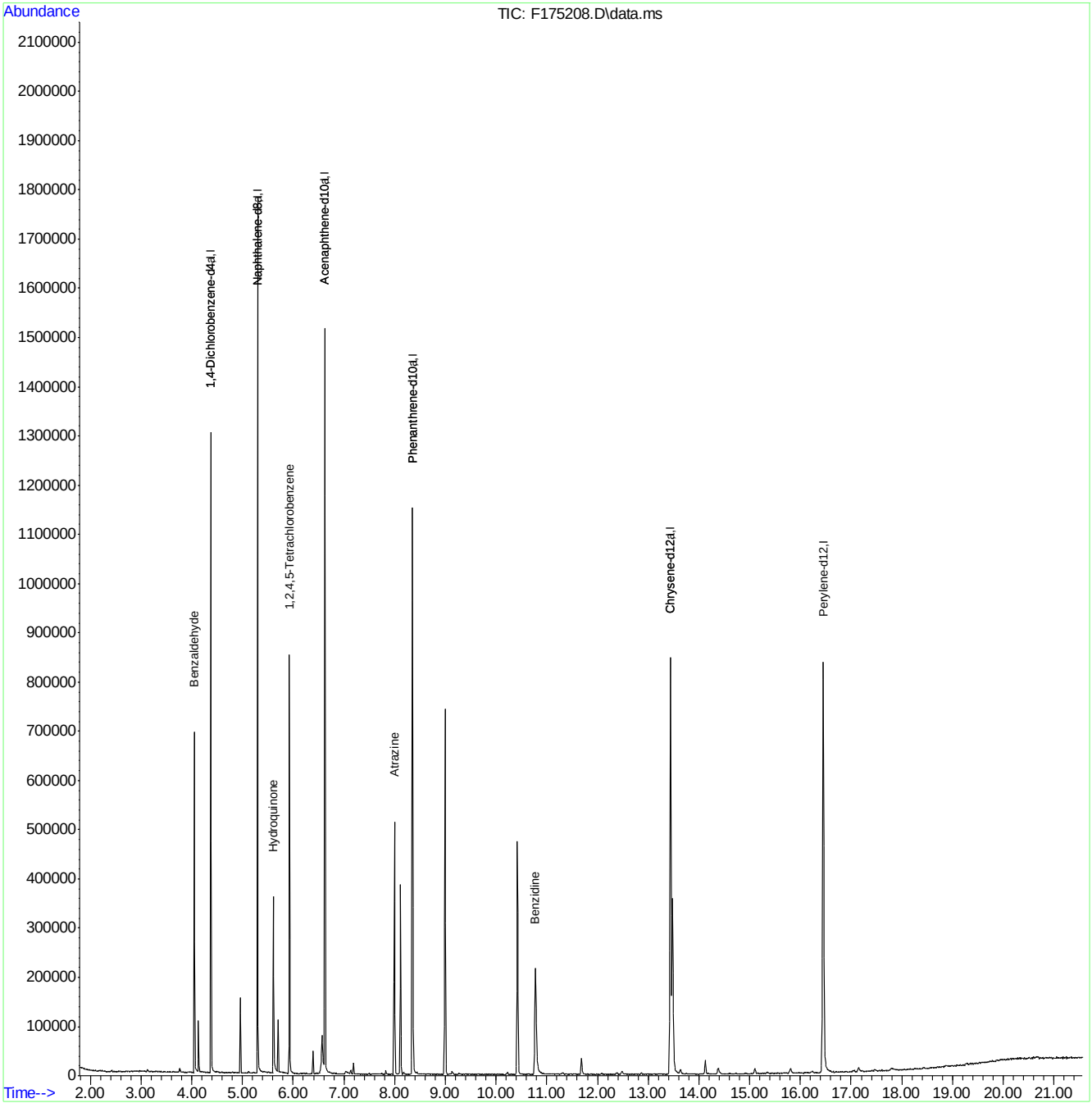
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.378	152	151581	40.00	ppm	0.00
24) Naphthalene-d8	5.297	136	569581	40.00	ppm	0.00
47) Acenaphthene-d10	6.622	164	283432	40.00	ppm	0.00
69) Phenanthrene-d10	8.353	188	528708	40.00	ppm	0.00
83) Chrysene-d12	13.439	240	492484	40.00	ppm	0.00
91) Perylene-d12	16.452	264	534986	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.378	152	151581	40.00	ppm	-0.05
103) Phenanthrene-d10a	8.353	188	528708	40.00	ppm	-0.09
105) Chrysene-d12a	13.439	240	492484	40.00	ppm	-0.12
107) Naphthalene-d8a	5.297	136	569581	40.00	ppm	-0.05
109) Acenaphthene-d10a	6.622	164	283432	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.053	105	107392	24.77	ppm	98
104) Atrazine	7.995	200	67972	27.92	ppm	99
106) Benzidine	10.773	184	194960	21.58	ppm	99
108) Hydroquinone	5.607	110	139745	29.86	ppm	96
110) 1,2,4,5-Tetrachloroben...	5.928	216	108392	24.05	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7460\
Data File : F175208.D
Acq On : 27 Mar 2018 9:59 am
Operator : johnb1
Sample : cc7441-25
Misc : op9377,ef7460,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 17:02:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\MF7445.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 27 09:54:11 2018
Response via : Initial Calibration



SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: E2P3416

Print Analyst Name: Brian Schallenberger

Date: 2/23/16

Analyst Signature:

Columns: RTX-5Sil MS 30m x .25mm x .25u

Method: 8270D/1625

Initial Cal. Method: I2P3416

Injection Volume: 1.0 µL

Standard Data

Lot #	Description	Conc.
SU)-2355-45A	BNA	100ppm
SU)-2355-45B	↓	50ppm
SU)-2355-45C		25ppm
SU)-2355-45D		12ppm
SU)-2355-45E		10ppm
SU)-2355-45F		5ppm

Standard Data

Lot #	Description	Conc.
SU)-2355-23	DFTPP	50ppm
SU)-2355-45I	BNA	7ppm
SU)-2355-45J	↓	1ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature:

Date: 2/25/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2P77605	DFTPP			W	1					OK	
	77606	IC3416-100			W	2					Wrong Sample	Schedule E1
	77607	DFTPP			W	1					OK	
	77608	IC3416-100			W	2					OK	
	77609	IC3416-5			W	3					OK	
	77610	IC3416-80				4					OK	
	77611	IC3416-1				5					OK	
	77612	IC3416-50				6					OK	
	77613	IC3416-2				7					OK	
	77614	IC3416-25				8					OK	
	77615	IC3416-10				9					OK	
	77616	ICV3416-50		ABN Surr		10					OK	0.8215 mL 4.1mM

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08
Rev. Date: 5/25/17

SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID E2P3417

Print Analyst Name: [illegible]

Date: 2/23/17

Analyst Signature: [illegible]

Columns: Rx-5ms 30mx0.25mmx0.25µm

Method 8270D/625

Initial Cal. Method M2P3416

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV172359-73	DFTPP	50 ppm
SV172363	1-1-1	2000 ppm
174194	OTM Chem	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 2/28/17

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	E2P3417	DFTPP				1					OK	5.70 pm
	17618	IC3417-100		TCMX		2					OK	SV172359-39A
	17619	-80				3					OK	-39B
	17620	IC3417-50				4					OK	-39C
	17621	IC3417-25				5					OK	-39D
	17622	-10				6					OK	-39E
	17623	-5				7					OK	-39G
	17624	-2				8					OK	-39H
	17625	-1				9					OK	-39I
	17626	IC3416-50		BN1		10					OK	08182158-03
	17627	-50		BN2		11					OK	08172106-173
	17628	-50		Acid		12					OK	-139
	17629	-50		Aniline		13					OK	-106
	17630	IC3417-50		BN1 2nd		14					OK	SV172359-37
	17631	-50		HC		15					OK	08182158-17 9.54pm

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08
Rev. Date: 5/25/17

9.7.2

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SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: E2P 3418

Print Analyst Name: [illegible]

Date: 2/26/18

Analyst Signature: [illegible]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV172352A	61 DF-1pp	5ppm
	[illegible]	
A0123840	[illegible]	[illegible]
[illegible]	[illegible]	

Columns: [illegible]

Method: [illegible]

Initial Cal. Method: M2P 3416

Injection Volume: [illegible]

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [illegible]

Date: 2/28/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2P77632	DF-1pp				1					[illegible]	sample error - no injection
	77633	DF-1pp				1					[illegible]	10:36 am
	77634	1CV3417-50		APA mix2	W	2					not [illegible]	SV172289-116 ([illegible])
	77635	1CV3416-50		Megamix		3					[illegible]	-61 (4CA 3[illegible]) 11:30 am
	776306	1EST		12457CB7		4					ref only	0818 2158-45 @ 200x

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

9.7.3

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SEMI-VOLATILES by GC/MS ANALYSIS

SGS

Batch ID E2P3422

Print Analyst Name: John Bouchneau

Date: 3/8/18

Analyst Signature:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV172359-61	DFTTP	50ppm
A0(3243)	STD	2000ppm
180495	Dam CR,LCS	

Columns: Rx1SSILMS 30m x 0.25 mm x 0.25uL

Method 8270D -625

Initial Cal. Method M2P3476 22-16 dd 3/9/18

Injection Volume: 1uL

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 3/9/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2P77707	DFTPP				1					not usr	fail Pentachlorophenol bracket failing high
	77708	DFTPP				1						pass mult.
	77709	DFTPP				1						Fail Pentachlorophenol
	77710	DFTPP				1					CR	9:05am 3/9/18
	77711	IC3422-100		8270		2					CR	SV172359-74A
	77712	-80				3					CR	-74B
	77713	IC3422-50				4					CR	-74C
	77714	IC3422-25				5					CR	-74D
	77715	-10				6					CR	-74E
	77716	-5				7					CR	-74G
	77717	-2				8					CR	-74H
	77718	-1				9					CR	-74I
	77719	IC3422-50		BN2		10					CR	OP18210S-2C
	77720	50		BN1		11					CR	OP18210S-03
	77721	50		LCS		12					PR	OP18210S-17
	77722	50		BD 3rd		13					CR	SV172383-37
	77723	50		Analyte		14					CR	OP17210S-12A 1:47

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

9.7.4

SGS

Batch ID E2P3422

Print Analyst Name: Sean Black

Date: 3/9/18

Analyst Signature:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
see page 87		

Columns: Rx-5 Silica 30 - 30 - 25

Method 8270D/625

Initial Cal. Method M2P3416

Injection Volume: 1 ug

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature]

Date: 3/9/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	2P77724	ICV3422-50		Analyses		15					not needed	OP182158-34 confirms BTD dilution

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

9.7.4

9

SEMI-VOLATILE by GC/MS ANALYSIS

SGS

Batch ID: E2P 3440

Print Analyst Name: John Boudreau

Date: 03-28-18

Analyst Signature: John Bad

Columns: Rtx5Sil MS 30m x .25mm x .25um

Method 8270D/625

Initial Cal. Method M2P3416

Injection Volume: 1uL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 92359-61	DFTPP	50ppm
-60A	BNA	50 ppm
-75A	TCL 42	50 ppm
410327788	ISTD	4000 ppm
181347	DCM - Fisher	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature]

Date: 4/9/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	2P78122	DFTPP				1					Not used	9:43am
	123	CC3416-50		BNA		2					not using	wrong method
	124	CC3416-50		BNA		2					↓	
	125	CC3422-50		TCL42		3						109 low restart clock, prep, reanalyze
	126	DFTPP				1						
	127	DFTPP				1					ok	2:55p
	128	CC3416-50		BNA		2					ok	#4↑
	129	CC3422-50		TCL		3					ok	#109↓
	130	CP10713-mb1	10713	ABS22ml	S	4			/	/	OK	
	131	CP10883-mb1	10883	ABS27ml	W	5			/	/	ok	
	132	-lcs1				6			/	/	ok	
	133	-MS				7			/	/	ok	
	134	-MSD				8			/	/	ok	
	135	-MS2				9			/	/	ok	
	136	-MSD2				10			/	/	ok	
	137	JC62942-6		ABTCL20+PAH 10%		11			/	/	ok	
	138	JC62932-12		ABTCL 20+PAH		12			/	/	ok	

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: E2P3440

Print Analyst Name: John Boudreau

Date: 03-28-18

Analyst Signature: John Bad

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	see pg 155	

Columns: Rxi Ss, 1ms 30m x .25mm x .25mm

Method 82700/625

Initial Cal. Method M2P3416

Injection Volume: 1uL

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 4/8/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2P78139	JC61955-4	10883	ABTCL20-1	W	13			/	/	ok	
	140	-5				14			/	/	ok	
	141	-6				15			/	/	ok	
	142	-7				16			/	/	ok	
	143	JC62879-8		ABTCL20		17			/	/	ok	
	144	-9				18			/	/	ok	
	145	-10				19			/	/	ok	
	146	-11				20			/	/	ok	
	147	-12				21			/	/	ok	
	148	-13				22			/	/	ok	
	149	-14				23			/	/	ok	
	150	-15				24			/	/	ok	
	151	-16				25			/	/	ok	
	152	-17				26			/	/	ok	
	153	-18				27			/	/	ok	
	154	-20				28			/	/	ok	1:13 am
	155	JC62405-8A 3/29	10713	ABTCL20+	S	29	100		/	/	ok	ran at 2078135

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

9.7.5

9

SGS

Batch ID: E2P 3440

Print Analyst Name: John Boudreau

Analyst Signature: John Bad

ate: 03-28-18

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See pg 155	

Columns: Rx-Ssilms 30m x .25mm x 25m

Method 8270D/625

Initial Cal. Method M2P3416

Injection Volume: 1uL

anually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply ith the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 4/6/18

Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
2P78156	JL 62405-8A	10713	ABTCL20+	S	30	10		/	/	gll	ran after 2P78155 6:25PM

TX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

strikeouts must be initialed, dated, and reason applied if not transcription error
mple volume/weight used and final volumes refer to extraction log.

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rm: OR015-08
v. Date: 5/25/17

9.7.5

9

SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: EF7441

Print Analyst Name: Christopher Sowa

Analyst Signature: [signature]

Date: 3/13/18

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV172359-51	dP6pp	50ppm
A0133188	ESTO	4000ppm
180490	dum (Fiche)	

Columns: Rxi 5 ms 30 m x 25 mm x 25 µm

Method: 8270D/625

Initial Cal. Method: MF7440

Injection Volume: 1 µL

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/14/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	P174930	dP6				1					ok	10:56pm
	174931	IC7441-100		TCL42		2					ok	SV172359-74A
	174932	-80				3					ok	-74B
	174933	ICL7441-50				4					ok	-74C
	174934	IC7441-25				5					ok	-74D ~~-350~~ CS3/13/16
	174935	-10				6					ok	-74E
	174936	-5				7					ok	-74G
	174937	-2				8					ok	-74H
	174938	-1				9					ok	-74I
	174939	ICV7441-50		BN1		10					ok	OP18215803
	174940	-50		BN2		11					ok	OP172106-133
	174941	-50		Bzd 3rd		12					ok	SV172359-37
	174942	-50		HQ 2nd		13					RR	OP18215817 ↑ 4.23

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

9.7.6

9

SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: EF7442

Print Analyst Name: George Sleem

Date: 3/14/2018

Analyst Signature: George

Columns: Rxi 5Sil MS 30m x 0.25mm x 0.25µm

Method: 8270D/1625

Initial Cal. Method: HF7440

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV172358-61	DFTPP	50ppm
A1033786	ISTD	4000ppm
180496	DCM	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/15/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	174943	DFTPP				1					2nd run	Pentachlorophenol failed re-run
	174944	DFTPP				2					↓	Pentachlorophenol failed re-run
	174945	DFTPP				1						PUP
	174946	DFTPP				1					OK	1:41
	174947	ICV 7396-80		Kepone 2nd		2					2nd run	↑
	174948	-80		DPA 2nd		3					OK	OP177168-104
	174949	ICV 7441-80		Anilines		4					2nd run	OP177168-124 PCNB + APA
	174950	-80		WA		5					RR	OP178215871 T
	174951	-80		WA		6					OK	OP178215872 4:16

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08
Rev. Date: 5/25/17

SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: EF 7445

Print Analyst Name: Christina Chang

Analyst Signature: [signature]

Date: 3/16/2018

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV172359-61	DFTPP	50 ppm
SV172359-60	BNA	50 ppm
A011717	ISTD	4000 ppm
180496	DCM Fisher	✓

Columns: Lvi Sailing 30MX 25mmx 25mm

Method: 8270D/625

Initial Cal. Method: MF7445 SB 37678

Injection Volume: 1 ml

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature]

Date: 3/19/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	F174978	DFTPP				1					not using	tailing 2.27
	174979	DFTPP				1					↓	9:32 am
	174980	CC7440-50		BNA		2					↓	lower Repeller, SB 37678
	174981	DFTPP				1					ok	10:20 am
	174982	CC7440-50 At CC 3114		BNA		2					not using	recalibrate - deck lands T
	174983	IC7445-100		BNA		3					ok	SV172359-78A
	174984	-50		↓		4					ok	-78B
	174985	IC7445-50		↓		5					ok	-78C
	174986	IC7445-25		↓		6					ok	-78D
	174987	-10		↓		7					ok	-78E
	174988	-5		↓		8					ok	-78G
	174989	-2		↓		9					ok	-78H
	174990	-1		↓		10					ok	-78I
	174991	ICV7445-50		BN1		11					ok	OP18215803
	174992			BN2		12					ok	OP18215826
	174993			Acids		13					~~ok~~ RR	OP18215832 pcp ↑ for ACID
	174994			Anilines		14					RR SB 37678	OP18215834 bad vial

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

Form: OR015-08

Rev. Date: 5/25/17

SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID EF7445

Print Analyst Name: Sean Nash

Date: 3/16/18

Analyst Signature: [signature]

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	see page 143	

Columns: Rx-5ms 30m-.25m-.25

Method 8270D/625

Initial Cal. Method MF7445

Injection Volume: 1u

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3-19-18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	F174995	ICV7445-50		ABN Sm		16					OK	5 3/16/18 ~~[illegible]~~ DP18216802
	174996	-50		B2D 5ml		16					OK	SW72259-52 7:05pm

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

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SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: EF7446

Print Analyst Name: Sean Black

Date: 3/19/18

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV172359-81	DFTPP	50 ppm
011717	ISTD	40 ppm
180496	DCM (Pulse)	

Columns: Rxn-5 Sil 30m x 25m x 25m

Method: 8270D/625

Initial Cal. Method: MF7445

Injection Volume: 1 ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature]

Date: 3-20-18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	F174997	DFTPP				1					not using	127 ft, reinjected
	174998	DFTPP				1					OK	9:36 am
	174999	ICV7445-50		Anilines		2					OK	OP172106-124
	175000	-50		Acids		3					OK	OP18215832
	175001	ICV7396-50		APs 2nd		4					not using	OP172100-109 Compound not present
	175002	ICV7396-50		MBOCA 2nd		5					reference only	SV172359-83 ↑↑
	175003	MBOCA Test				6					↓	SV172359-46
	175004	MBOCA Test				7					↓	SV172359-83
	175005	m-Toluidine		Spike		8					↓	OP18215856
	175006	m-Toluidine		Test		9					NR	SV172359-84
	175007	↓		↓		10					OK	↓ 4:38 pm

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

Form: OR015-08

Rev. Date: 5/25/17

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9.7.9

9

SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: EF 7460

Print Analyst Name: John Boudreau

Date: 03-27-18

Analyst Signature: John Bond

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 172359-61	DFTPP	50 ppm
-60E	BNA	25 ppm
-75D	TCL 42	25 ppm
A1033788	ISTD	4000 ppm
180785	DCM (Fisher)	—

Columns: RviS silMS 30m x .25mm x .25mm

Method 82700/625

Initial Cal. Method MF 7445

Injection Volume: 1 ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature]

Date: 4/09/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	F175206	DFTPP				1					ok	9:10am
	207	CC 7445-25		BNA		2					ok	48,57,63,64,76,98
	208	CC 7441-25		TCL42		3					ok	
	209	OP 10862-MB1	10862			4			/		ok	
	210	JC62809-1Q		ABPPTCL	W	5			/		ok	
	211	JC62810-1Q				6			/		ok	
	212	JC62811-1Q				7			/		ok	
	213	OP10877-MB1	10877			8			/	/	ok	
	214	-BS1				9			/	/	ok	
	215	-BSD				10			/	/	ok	
	216	JC62879-1		ABTCL20		11			/	/	ok	
	217	-2				12			/	/	ok	
	218	-3				13			/	/	ok	
	219	-4				14			/	/	ok	
	220	-5				15			/	/	ok	
	221	-6				16			/	/	ok	
	222	-7				17			/	/	ok	6:25pm

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

Form: OR015-08

Rev. Date: 5/25/17

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9.7.10

9

8-7207

LOGBOOK ID:

ABN Aqueous Extraction Logbook

Date Started: 3/26/18 Time Started: 6:30
Date Finished: 3/26/18 Time Finished: 10:00

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other X 3510C SIM X
Continuous Liquid Liquid: SW846 3520C/CLP/other

BATCH # MS 10877	RACK# R-46 (Green)
Set-up by:	RG
Extracted by:	AM
Concentrated by:	AM
Final Vol. Top-up:	AM
Vialed by:	AM
Supervisor Review:	3/26/18

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	3	74.7	+2.0	76.7	—
Waterbath Chiller (GPM)	FB	4	—	—	—
NEVAP (32-38°C, LPM)	4	36.0	-1.0	35.0	10

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	OP18215854	50	1.0
ABN DOD SIM			

WITNESS SIGN: AM SPIKE SIGN: RG

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	OP18215819	50	Acid: 1.0
Acid (for SIM)			A(SIM): 0.1
Base #1	OP18215829	50	1.0
Base #2	OP18215827	50	1.0
Anilines	OP18215834	50	1.0
BSIM	OP18215809	1	1.0

WITNESS SIGN: AM SPIKE SIGN: RG

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	181347	Fisher	4.0x10

REAGENT	LOT #	BATCH #	BRAND
NaOH	27017020		Fisher
H2SO4	27027833		Fisher
Sodium Sulfate	171219110	3-20-18A	Fisher
Glass Wool	108184		Alfa
Filter Paper			
pH strips			

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:

Final Volume:

Other:

HT 3/26 DD 4/16

	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust(mL) <2 H2SO4	pH Adjust(mL) >11 NaOH	Final Extract Color	Final Extract Vol(mL)	Misc. GPC Cleanup	Misc. Comments
	MB1	ABN		DiH2O	1000	1	4	Clear	1.0		
	BS1			DiH2O		1	4				
	~~JC62879-~~ ~~MS~~					1	4				
	~~BS1~~ ~~MSD~~			DiH2O	1000	1	4	Yellow	1.0		
	~~BSD~~ ~~BS~~			DiH2O	1000	1	4	Yellow	1.0		
	MS										
	~~BSD2~~ ~~MSD~~	SIM		DiH2O	1000	1	4	CLEAR	1.0		
	~~BSD12~~ ~~BS~~			DiH2O	1000	1	4	CLEAR	1.0		
	MS										
	MSD										
1	JC62879-1	ABN	3	yellow	950	1	4	CLEAR	1.0		
2	-2		3	yellow	940	1	4	LYELLOW	1.0		
3	-3		3	yellow	950	1	4	CLEAR	1.0		
4	-4		3	orange	1000	1	4	CLEAR	1.0		
5	-5		2	yellow	1000	1	4	CLEAR	1.0		
6	-6		3	yellow	1000	1	4	LYELLOW	1.0		
7	-7		2	yellow	1000	1	4	LYELLOW	1.0		
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

SGS
Form: OP022A-12
Rev Date: 8/2/17

1

8-2194

1pg.

LOGBOOK ID:

ABN Aqueous Extraction Logbook

Date Started: 3-28-18 Time Started: 0025
Date Finished: 3/28/18 Time Finished: 1145

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other ✓ 3510C SIM ✓
Continuous Liquid Liquid: SW846 3520C/CLP/other

BATCH # MS 10883 RACK# S1

Set-up by:	RL AC
Extracted by:	AC IM
Concentrated by:	AC JS
Final Vol. Top-up:	
Vialed by:	JS
Supervisor Review:	3/28/18

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	3,11	74.7/75.1	+2.0,-1.0	76.7,74.1	
Waterbath Chiller (GPM)	F-3	0	—	—	9
NEVAP (32-38°C, LPM)	4	36.6	-1.0	35.6	10

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	180158S4	50	1.0
ABN DOD SIM			
WITNESS SIGN: IM		SPIKE SIGN: JK	

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	182158 19	50	Acid: 1.0
Acid (for SIM)			A(SIM): 0.1
Base #1	182158 29	50	1.0
Base #2	182158 27	50	1.0
Anilines	182158 34	50	1.0
BSIM	182158 09	1	1.0
WITNESS SIGN: IM		SPIKE SIGN: RL	

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	181347	Fisher	6X60

REAGENT	LOT #	BATCH #	BRAND
NaOH	172030		Fisher
H2SO4	2707833		Riedel
Sodium Sulfate	176006	3-15-18A	Fisher
Glass Wool	10R19-4		Lab
Filter Paper			
pH strips			

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:

Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:

Final Volume:

Other: HT 3/30 DD 4/6 3/29

	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust(mL) <2 H2SO4	pH Adjust(mL) >11 NaOH	Final Extract Color	Final Extract Vol(mL)	Misc. GPC Cleanup	Misc. Comments
	MB1	ABN		DI H2O	1000	1	4	clear	1.0		
	BS1			DI H2O	1000	1	4	yellow	1.0		
	JC62879-9 MS		6	Red	980	1	4	yellow	1.0		
	MSD		6	Red	900	1	4	yellow	1.0		
	BS										
	JC62879-11 MS2	ABN	6	l.yellow	980	1	4	yellow	1.0		
	MSD2		6	l.yellow	1000	1	4	yellow	1.0		
	BS										
	~~BS2 MS~~	SIM		DI H2O	1000	1	4	Hyellow	1.0		
	~~BSD2 MSD~~			DI H2O	1000	1	4	Hyellow	1.0		
1	JC62879-8	ABN	2	clear	1000	1	4	Hyellow	1.0		
2	-9		4	Red	980	1	4	Hyellow	1.0		
3	-10		2	l.yellow	960	1	4	Hyellow	1.0		
4	-11		9	l.yellow	980	1	4	clear	1.0		
5	-12		3	yellow	1000	1	4	Hyellow	1.0		
6	-13		5	yellow	1040	1	4	clear	1.0		
7	-14		3	l.yellow	1050	1	4	yellow	1.0		
8	-15		2	l.yellow	1020	1	4	clear	1.0		
9	-16		3	l.yellow	1050	1	4	clear	1.0		
10	-17		2	l.yellow	980	1	4	Hyellow	1.0		
11	-18		5	orange	1000	1	4	Hyellow	1.0		
12	-20		2	l.yellow	1020	1	4	Hyellow	1.0		
13	JC62913-1		2	Brown	1030	1	4	yellow	1.0		
14	JC62942-6		3	clear	980	1	4	clear	1.0		
15	JC62932-12		3	clear	1040	1	4	clear	1.0		
16	JC61955-4		2	clear	1020	1	4	clear	1.0		
17	-5		2	clear	1000	1	4	clear	1.0		
18	-6		2	clear	980	1	4	clear	1.0		
19	-7		2	l.yellow	950	1	4	clear	1.0		
20											

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

SGS
Form: OP022A-12
Rev Date: 8/2/17

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GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10876-MB1	4G90985.D	1	03/27/18	CP	03/26/18	OP10876	G4G2399

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0067	0.0034	ug/l	
319-84-6	alpha-BHC	ND	0.0067	0.0035	ug/l	
319-85-7	beta-BHC	ND	0.0067	0.0053	ug/l	
319-86-8	delta-BHC	ND	0.0067	0.0044	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0067	0.0033	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0067	0.0028	ug/l	
60-57-1	Dieldrin	ND	0.0067	0.0051	ug/l	
72-54-8	4,4'-DDD	ND	0.0067	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.0067	0.0034	ug/l	
50-29-3	4,4'-DDT	ND	0.0067	0.0046	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0067	0.0036	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0067	0.0045	ug/l	
53494-70-5	Endrin ketone	ND	0.0067	0.0041	ug/l	
959-98-8	Endosulfan-I	ND	0.0067	0.0035	ug/l	
33213-65-9	Endosulfan-II	ND	0.0067	0.0033	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	89%	13-153%
877-09-8	Tetrachloro-m-xylene	82%	13-153%
2051-24-3	Decachlorobiphenyl	40%	10-138%
2051-24-3	Decachlorobiphenyl	37%	10-138%

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10885-MB1	1G144704.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0020	0.0010	ug/l	
319-84-6	alpha-BHC	ND	0.0020	0.0010	ug/l	
319-85-7	beta-BHC	ND	0.0020	0.0016	ug/l	
319-86-8	delta-BHC	ND	0.0020	0.0013	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0020	0.0012	ug/l	
5103-71-9	alpha-Chlordane	ND	0.0020	0.00099	ug/l	
5103-74-2	gamma-Chlordane	ND	0.0020	0.00085	ug/l	
60-57-1	Dieldrin	ND	0.0020	0.0015	ug/l	
72-54-8	4,4'-DDD	ND	0.0020	0.0011	ug/l	
72-55-9	4,4'-DDE	ND	0.0020	0.0010	ug/l	
50-29-3	4,4'-DDT	ND	0.0020	0.0014	ug/l	
72-20-8	Endrin	ND	0.0020	0.0012	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0020	0.0011	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0020	0.0013	ug/l	
53494-70-5	Endrin ketone	ND	0.0020	0.0012	ug/l	
959-98-8	Endosulfan-I	ND	0.0020	0.0011	ug/l	
33213-65-9	Endosulfan-II	ND	0.0020	0.00098	ug/l	
76-44-8	Heptachlor	ND	0.0020	0.00090	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0020	0.0012	ug/l	
72-43-5	Methoxychlor	ND	0.0040	0.0013	ug/l	
8001-35-2	Toxaphene	ND	0.050	0.032	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	85%	13-153%
877-09-8	Tetrachloro-m-xylene	77%	13-153%
2051-24-3	Decachlorobiphenyl	40%	10-138%
2051-24-3	Decachlorobiphenyl	30%	10-138%

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10875-MB1	EF181179.D	1	03/27/18	HB	03/26/18	OP10875	GEF6202

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	79%	11-166%
877-09-8	Tetrachloro-m-xylene	86%	11-166%
2051-24-3	Decachlorobiphenyl	59%	10-150%
2051-24-3	Decachlorobiphenyl	57%	10-150%

Method Blank Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10884-MB1	EF181218.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	0.15	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	0.084	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	0.10	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	0.13	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	70%	11-166%
877-09-8	Tetrachloro-m-xylene	72%	11-166%
2051-24-3	Decachlorobiphenyl	45%	10-150%
2051-24-3	Decachlorobiphenyl	43%	10-150%

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10885-BS1	1G144705.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.05	0.034	68	13-135
319-84-6	alpha-BHC	0.05	0.052	104	36-139
319-85-7	beta-BHC	0.05	0.044	88	44-136
319-86-8	delta-BHC	0.05	0.047	94	40-139
58-89-9	gamma-BHC (Lindane)	0.05	0.051	102	43-136
5103-71-9	alpha-Chlordane	0.05	0.049	98	32-140
5103-74-2	gamma-Chlordane	0.05	0.047	94	28-143
60-57-1	Dieldrin	0.05	0.053	106	39-142
72-54-8	4,4'-DDD	0.05	0.042	84	36-142
72-55-9	4,4'-DDE	0.05	0.039	78	27-140
50-29-3	4,4'-DDT	0.05	0.052	104	30-144
72-20-8	Endrin	0.05	0.055	110	44-151
1031-07-8	Endosulfan sulfate	0.05	0.056	112	41-144
7421-93-4	Endrin aldehyde	0.05	0.051	102	42-144
53494-70-5	Endrin ketone	0.05	0.058	116	41-149
959-98-8	Endosulfan-I	0.05	0.052	104	40-136
33213-65-9	Endosulfan-II	0.05	0.052	104	42-140
76-44-8	Heptachlor	0.05	0.041	82	11-140
1024-57-3	Heptachlor epoxide	0.05	0.051	102	41-138
72-43-5	Methoxychlor	0.05	0.048	96	31-149

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	83%	13-153%
877-09-8	Tetrachloro-m-xylene	79%	13-153%
2051-24-3	Decachlorobiphenyl	51%	10-138%
2051-24-3	Decachlorobiphenyl	43%	10-138%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10884-BS1	EF181219.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	1.33	1.3	97	37-164
11104-28-2	Aroclor 1221		ND		70-130
11141-16-5	Aroclor 1232		ND		70-130
53469-21-9	Aroclor 1242		ND		70-130
12672-29-6	Aroclor 1248		ND		70-130
11097-69-1	Aroclor 1254		ND		70-130
11096-82-5	Aroclor 1260	1.33	1.2	90	36-155
11100-14-4	Aroclor 1268		ND		50-150 [a]
37324-23-5	Aroclor 1262		ND		50-150 [a]

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	81%	11-166%
877-09-8	Tetrachloro-m-xylene	87%	11-166%
2051-24-3	Decachlorobiphenyl	38%	10-150%
2051-24-3	Decachlorobiphenyl	37%	10-150%

(a) Advisory control limits.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10876-BS1	4G90986.D	1	03/27/18	CP	03/26/18	OP10876	G4G2399
OP10876-BSD	4G90987.D	1	03/27/18	CP	03/26/18	OP10876	G4G2399

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	0.167	0.14	84	0.16	96	13	13-135/52
319-84-6	alpha-BHC	0.167	0.15	90	0.18	108	18	36-139/42
319-85-7	beta-BHC	0.167	0.17	102 [a]	0.17	102	0	44-136/40
319-86-8	delta-BHC	0.167	0.14	84	0.16	96	6	40-139/45
58-89-9	gamma-BHC (Lindane)	0.167	0.15	90	0.17	102	13	43-136/45
5103-71-9	alpha-Chlordane	0.167	0.15	90	0.17	102	13	32-140/46
5103-74-2	gamma-Chlordane	0.167	0.15	90	0.17	102	13	28-143/47
60-57-1	Dieldrin	0.167	0.15	90	0.18	108	18	39-142/41
72-54-8	4,4'-DDD	0.167	0.15	90	0.18	108	18	36-142/39
72-55-9	4,4'-DDE	0.167	0.14	84	0.16	96	6	27-140/43
50-29-3	4,4'-DDT	0.167	0.16	96	0.18	108	12	30-144/39
72-20-8	Endrin	0.167	0.16	96	0.18	108	12	44-151/49
1031-07-8	Endosulfan sulfate	0.167	0.17	102	0.19	114	5	41-144/39
7421-93-4	Endrin aldehyde	0.167	0.13	78	0.16	96	21	42-144/42
53494-70-5	Endrin ketone	0.167	0.16	96	0.19	114	17	41-149/42
959-98-8	Endosulfan-I	0.167	0.15	90	0.18	108	18	40-136/45
33213-65-9	Endosulfan-II	0.167	0.15	90	0.18	108	18	42-140/42
76-44-8	Heptachlor	0.167	0.14	84	0.17	102	19	11-140/52
1024-57-3	Heptachlor epoxide	0.167	0.14	84	0.17	102	19	41-138/38
72-43-5	Methoxychlor	0.167	0.16	96	0.19	114	17	31-149/42

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	81%	76%	13-153%
877-09-8	Tetrachloro-m-xylene	78%	81%	13-153%
2051-24-3	Decachlorobiphenyl	44%	44%	10-138%
2051-24-3	Decachlorobiphenyl	39%	43%	10-138%

(a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10875-BS1	EF181180.D	1	03/27/18	HB	03/26/18	OP10875	GEF6202
OP10875-BSD	EF181181.D	1	03/27/18	HB	03/26/18	OP10875	GEF6202

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	1.33	2.0	150	1.6	120	22	37-164/43
11104-28-2	Aroclor 1221		ND		ND		nc	70-130/20
11141-16-5	Aroclor 1232		ND		ND		nc	70-130/20
53469-21-9	Aroclor 1242		ND		ND		nc	70-130/20
12672-29-6	Aroclor 1248		ND		ND		nc	70-130/20
11097-69-1	Aroclor 1254		ND		ND		nc	70-130/20
11096-82-5	Aroclor 1260	1.33	1.9	142	1.7	127	11	36-155/46
11100-14-4	Aroclor 1268		ND		ND		nc	-/20
37324-23-5	Aroclor 1262		ND		ND		nc	-/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	105%	80%	11-166%
877-09-8	Tetrachloro-m-xylene	109%	86%	11-166%
2051-24-3	Decachlorobiphenyl	57%	42%	10-150%
2051-24-3	Decachlorobiphenyl	56%	42%	10-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10885-MS	1G144709.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598
OP10885-MSD	1G144710.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598
JC62879-9	1G144708.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC62879-8, JC62879-9, JC62879-10, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	JC62879-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	ND		0.167	0.31	186* [a]	0.167	0.32	192* [a]	3	10-157/46
319-84-6	alpha-BHC	ND		0.167	0.22	132	0.167	0.23	138	4	33-154/45
319-85-7	beta-BHC	ND		0.167	0.13	78	0.167	0.13	78	0	36-154/45
319-86-8	delta-BHC	ND		0.167	0.16	96	0.167	0.17	102	6	29-165/50
58-89-9	gamma-BHC (Lindane)	ND		0.167	0.16	96	0.167	0.16	96	0	33-154/43
5103-71-9	alpha-Chlordane	ND		0.167	0.11	66	0.167	0.11	66	0	26-158/44
5103-74-2	gamma-Chlordane	ND		0.167	0.14	84	0.167	0.14	84	0	20-163/44
60-57-1	Dieldrin	ND		0.167	0.16	96	0.167	0.17	102	6	24-165/44
72-54-8	4,4'-DDD	ND		0.167	0.10	60	0.167	0.11	66	10	27-157/45
72-55-9	4,4'-DDE	ND		0.167	0.066	40	0.167	0.058	35	13	13-164/43
50-29-3	4,4'-DDT	ND		0.167	0.076	46	0.167	0.077	46	1	11-169/44
72-20-8	Endrin	ND		0.167	0.17	102	0.167	0.17	102	0	39-170/42
1031-07-8	Endosulfan sulfate	ND		0.167	0.19	114	0.167	0.19	114	0	22-164/49
7421-93-4	Endrin aldehyde	ND		0.167	0.17	102	0.167	0.20	120	16	21-176/48
53494-70-5	Endrin ketone	ND		0.167	0.20	120	0.167	0.20	120	0	33-166/45
959-98-8	Endosulfan-I	ND		0.167	0.16	96	0.167	0.16	96	0	23-161/44
33213-65-9	Endosulfan-II	ND		0.167	0.17	102	0.167	0.17	102	0	30-161/43
76-44-8	Heptachlor	ND		0.167	0.20	120	0.167	0.14	84	35	10-158/47
1024-57-3	Heptachlor epoxide	ND		0.167	0.15	90	0.167	0.15	90	0	29-163/43
72-43-5	Methoxychlor	ND		0.167	0.14	84	0.167	0.15	90	7	15-164/46
8001-35-2	Toxaphene	ND			ND			ND		nc	50-150/30

CAS No.	Surrogate Recoveries	MS	MSD	JC62879-9	Limits
877-09-8	Tetrachloro-m-xylene	57%	62%	49%	13-153%
877-09-8	Tetrachloro-m-xylene	63%	73%	53%	13-153%
2051-24-3	Decachlorobiphenyl	41%	43%	22%	10-138%
2051-24-3	Decachlorobiphenyl	36%	41%	23%	10-138%

(a) Outside the QC limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10885-MS2	1G144713.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598
OP10885-MSD2	1G144714.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598
JC62879-11	1G144712.D	1	03/28/18	CP	03/27/18	OP10885	G1G4598

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC62879-11

CAS No.	Compound	JC62879-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	ND		0.172	0.12	70	0.167	0.12	72	0	10-157/46
319-84-6	alpha-BHC	ND		0.172	0.20	116	0.167	0.20	120	0	33-154/45
319-85-7	beta-BHC	ND		0.172	0.18	104	0.167	0.19	114	5	36-154/45
319-86-8	delta-BHC	ND		0.172	0.19	110	0.167	0.19	114	0	29-165/50
58-89-9	gamma-BHC (Lindane)	ND		0.172	0.20	116	0.167	0.20	120	0	33-154/43
5103-71-9	alpha-Chlordane	ND		0.172	0.16	93	0.167	0.17	102	6	26-158/44
5103-74-2	gamma-Chlordane	ND		0.172	0.20	116	0.167	0.20	120	0	20-163/44
60-57-1	Dieldrin	0.046		0.172	0.24	113	0.167	0.24	116	0	24-165/44
72-54-8	4,4'-DDD	ND		0.172	0.13	75	0.167	0.13	78	0	27-157/45
72-55-9	4,4'-DDE	ND		0.172	0.089	52	0.167	0.088	53	1	13-164/43
50-29-3	4,4'-DDT	ND		0.172	0.11	64	0.167	0.11	66	0	11-169/44
72-20-8	Endrin	ND		0.172	0.22	128	0.167	0.22	132	0	39-170/42
1031-07-8	Endosulfan sulfate	ND		0.172	0.23	133	0.167	0.24	144	4	22-164/49
7421-93-4	Endrin aldehyde	ND		0.172	0.22	128	0.167	0.23	138	4	21-176/48
53494-70-5	Endrin ketone	ND		0.172	0.26	151	0.167	0.28	168* [a]	7	33-166/45
959-98-8	Endosulfan-I	ND		0.172	0.22	128	0.167	0.22	132	0	23-161/44
33213-65-9	Endosulfan-II	ND		0.172	0.22	128	0.167	0.22	132	0	30-161/43
76-44-8	Heptachlor	ND		0.172	0.15	87	0.167	0.14	84	7	10-158/47
1024-57-3	Heptachlor epoxide	ND		0.172	0.20	116	0.167	0.21	126	5	29-163/43
72-43-5	Methoxychlor	ND		0.172	0.15	87	0.167	0.16	96	6	15-164/46
8001-35-2	Toxaphene	ND			ND			ND		nc	50-150/30

CAS No.	Surrogate Recoveries	MS	MSD	JC62879-11	Limits
877-09-8	Tetrachloro-m-xylene	80%	82%	82%	13-153%
877-09-8	Tetrachloro-m-xylene	77%	76%	79%	13-153%
2051-24-3	Decachlorobiphenyl	46%	61%	77%	10-138%
2051-24-3	Decachlorobiphenyl	47%	49%	69%	10-138%

(a) Outside the QC limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10884-MS	EF181221.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203
OP10884-MSD	EF181222.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203
JC62879-9	EF181220.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC62879-8, JC62879-9, JC62879-10, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

CAS No.	Compound	JC62879-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		1.33	1.3	97	1.33	1.4	105	7	18-187/42
11104-28-2	Aroclor 1221	ND			ND			ND		nc	70-130/50
11141-16-5	Aroclor 1232	ND			ND			ND		nc	70-130/50
53469-21-9	Aroclor 1242	ND			ND			ND		nc	70-130/50
12672-29-6	Aroclor 1248	ND			ND			ND		nc	70-130/50
11097-69-1	Aroclor 1254	ND			ND			ND		nc	70-130/50
11096-82-5	Aroclor 1260	ND		1.33	0.41	31	1.33	0.44	33	7	10-185/46
11100-14-4	Aroclor 1268	ND			ND			ND		nc	-/50
37324-23-5	Aroclor 1262	ND			ND			ND		nc	-/50

CAS No.	Surrogate Recoveries	MS	MSD	JC62879-9	Limits
877-09-8	Tetrachloro-m-xylene	64%	73%	54%	11-166%
877-09-8	Tetrachloro-m-xylene	63%	65%	53%	11-166%
2051-24-3	Decachlorobiphenyl	35%	39%	29%	10-150%
2051-24-3	Decachlorobiphenyl	34%	37%	28%	10-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10884-MS2	EF181231.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203
OP10884-MSD2	EF181232.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203
JC62879-11	EF181230.D	1	03/28/18	HB	03/27/18	OP10884	GEF6203

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC62879-11

CAS No.	Compound	JC62879-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		1.33	1.3	97	1.33	1.4	105	7	18-187/42
11104-28-2	Aroclor 1221	ND			ND			ND		nc	70-130/50
11141-16-5	Aroclor 1232	ND			ND			ND		nc	70-130/50
53469-21-9	Aroclor 1242	ND			ND			ND		nc	70-130/50
12672-29-6	Aroclor 1248	ND			ND			ND		nc	70-130/50
11097-69-1	Aroclor 1254	ND			ND			ND		nc	70-130/50
11096-82-5	Aroclor 1260	ND		1.33	1.1	82	1.33	0.98	73	12	10-185/46
11100-14-4	Aroclor 1268	ND			ND			ND		nc	-/50
37324-23-5	Aroclor 1262	ND			ND			ND		nc	-/50

CAS No.	Surrogate Recoveries	MS	MSD	JC62879-11	Limits
877-09-8	Tetrachloro-m-xylene	73%	85%	87%	11-166%
877-09-8	Tetrachloro-m-xylene	73%	87%	92%	11-166%
2051-24-3	Decachlorobiphenyl	63%	64%	80%	10-150%
2051-24-3	Decachlorobiphenyl	51%	55%	69%	10-150%

* = Outside of Control Limits.

Internal Standard Area Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
Check Std	111572894	2.45	495338569	2.16
Upper Limit [a]	223145788	2.95	990677138	2.66
Lower Limit [b]	55786447	1.95	247669285	1.66

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
OP10885-MB1	108613636	2.45	463652880	2.16
OP10885-BS1	110519122	2.45	495362824	2.16
ZZZZZZ	110515708	2.45	498670808	2.16
JC62879-8	106932392	2.45	472124341	2.16
JC62879-9	115258454	2.45	564134012	2.16
OP10885-MS	120734132	2.46	577140894	2.16
OP10885-MSD	115624118	2.46	598697088	2.16
JC62879-10	112259810	2.46	462393170	2.17
JC62879-11	120804279	2.45	531976744	2.16
OP10885-MS2	107727741	2.45	474779256	2.16
OP10885-MSD2	110409316	2.45	472444248	2.16
JC62879-12	100081531	2.46	445634360	2.16
JC62879-13	119368273	2.45	653083395	2.16
JC62879-14	114625306	2.45	534007080	2.16
JC62879-15	119275690	2.45	502813008	2.16
JC62879-16	118262698	2.45	498061444	2.16
JC62879-17	117103886	2.45	513754992	2.16

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144723.D	**Injection Time:**	06:53
Instrument ID:	GC1G	**Method:**	SW846 8081B

	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
Check Std	115564152	2.45	528561057	2.16
Upper Limit [a]	231128304	2.95	1057122114	2.66
Lower Limit [b]	57782076	1.95	264280529	1.66

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
JC62879-18	114626024	2.45	600921914	2.16
JC62879-20	117385515	2.45	488629556	2.16
ZZZZZZ	112242603	2.45	494365760	2.16
ZZZZZZ	104748320	2.45	435179062	2.16
ZZZZZZ	103492023	2.45	437366368	2.16
ZZZZZZ	99668433	2.45	394671782	2.16
ZZZZZZ	115912912	2.45	403697436	2.16
ZZZZZZ	113947371	2.45	508290456	2.16

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G4G2399-CC2366	**Injection Date:**	03/27/18
Lab File ID:	4G90983.D	**Injection Time:**	09:20
Instrument ID:	GC4G	**Method:**	SW846 8081B

	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
Check Std	241519183	1.88	1380511681	1.46
Upper Limit [a]	483038366	2.38	2761023362	1.96
Lower Limit [b]	120759592	1.38	690255841	0.96

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
OP10876-MB1	220220682	1.88	1237022233	1.46
OP10876-BS1	224202276	1.88	1215726276	1.46
OP10876-BSD	220206773	1.88	1316610588	1.46
OP10868-MB1	191059483	1.88	1156243661	1.46
ZZZZZZ	216697167	1.88	1297031632	1.46
ZZZZZZ	226925791	1.88	1351629997	1.47
ZZZZZZ	224138903	1.88	1320459701	1.47
ZZZZZZ	212089502	1.88	1180788319	1.46
JC62879-1	220132230	1.88	1193888231	1.46
JC62879-2	208182893	1.88	1067212325	1.47
JC62879-3	221202848	1.88	1194369229	1.46
JC62879-4	239798050	1.88	1358237890	1.46
JC62879-5	236956432	1.88	1315154822	1.46
JC62879-6	237010008	1.88	1315956809	1.47
JC62879-7	256282995	1.88	1408144721	1.46

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

DDT/Endrin Breakdown Check

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-DDT
Lab File ID: 1G143263.D
Instrument ID: GC1G
Injection Date: 02/08/18
Injection Time: 09:19

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	12494289	5407524
4,4'-DDE	11036658	3279560
4,4'-DDT	654388534	133609366
DDT Breakdown [a]	3.5 %	6.1 %
Endrin aldehyde	2254334	571873
Endrin ketone	2509313	826010
Endrin	394482642	95115906
Endrin Breakdown [b]	1.2 %	1.4 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G1G4557-IC4557	1G143265.D	02/08/18	09:54	00:35	Initial cal 100
G1G4557-IC4557	1G143266.D	02/08/18	10:11	00:52	Initial cal 75
G1G4557-IC4557	1G143267.D	02/08/18	10:28	01:09	Initial cal 50
G1G4557-ICC4557	1G143268.D	02/08/18	10:45	01:26	Initial cal 25
G1G4557-IC4557	1G143269.D	02/08/18	11:02	01:43	Initial cal 10
G1G4557-IC4557	1G143270.D	02/08/18	11:19	02:00	Initial cal 5
G1G4557-IC4557	1G143271.D	02/08/18	11:37	02:18	Initial cal 2
G1G4557-IC4557	1G143272.D	02/08/18	11:54	02:35	Initial cal 1
G1G4557-IC4557	1G143273.D	02/08/18	12:11	02:52	Initial cal 500
G1G4557-IC4557	1G143274.D	02/08/18	12:28	03:09	Initial cal 500
G1G4557-ICV4557	1G143276.D	02/08/18	13:03	03:44	Initial cal verification 500
G1G4557-ICV4557	1G143277.D	02/08/18	13:20	04:01	Initial cal verification 500
G1G4557-ICV4557	1G143278.D	02/08/18	13:37	04:18	Initial cal verification 50
G1G4557-ICV4557	1G143279.D	02/08/18	13:54	04:35	Initial cal verification 50
G1G4558-ICV4557	1G143283.D	02/08/18	16:50	07:31	Initial cal verification 25
G1G4559-CC4557	1G143284.D	02/08/18	17:07	07:48	Continuing cal 50
OP9834-MB1	1G143286.D	02/08/18	17:41	08:23	Method Blank
ZZZZZZ	1G143288.D	02/08/18	18:16	08:57	(unrelated sample)
ZZZZZZ	1G143289.D	02/08/18	18:33	09:14	(unrelated sample)
JC60235-5	1G143290.D	02/08/18	18:50	09:31	(used for QC only; not part of job JC62879)
OP9834-MS	1G143291.D	02/08/18	19:07	09:48	Matrix Spike
OP9834-MSD	1G143292.D	02/08/18	19:24	10:06	Matrix Spike Duplicate
ZZZZZZ	1G143293.D	02/08/18	19:41	10:23	(unrelated sample)
ZZZZZZ	1G143294.D	02/08/18	19:59	10:40	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G1G4557-DDT	**Injection Date:**	02/08/18
Lab File ID:	1G143263.D	**Injection Time:**	09:19
Instrument ID:	GC1G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	1G143295.D	02/08/18	20:16	10:57	(unrelated sample)
ZZZZZZ	1G143296.D	02/08/18	20:33	11:14	(unrelated sample)
ZZZZZZ	1G143297.D	02/08/18	20:50	11:31	(unrelated sample)
ZZZZZZ	1G143298.D	02/08/18	21:07	11:48	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G1G4598-DDT	**Injection Date:**	03/28/18
Lab File ID:	1G144701.D	**Injection Time:**	00:30
Instrument ID:	GC1G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	8481928	6292746
4,4'-DDE	14182701	2622428
4,4'-DDT	760798857	155355991
DDT Breakdown [a]	2.9 %	5.4 %
Endrin aldehyde	2670001	822543
Endrin ketone	3185936	1178531
Endrin	515626384	111116445
Endrin Breakdown [b]	1.1 %	1.8 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G1G4598-CC4557	1G144702.D	03/28/18	00:47	00:17	Continuing cal 25
OP10885-MB1	1G144704.D	03/28/18	01:26	00:57	Method Blank
OP10885-BS1	1G144705.D	03/28/18	01:43	01:14	Blank Spike
ZZZZZZ	1G144706.D	03/28/18	02:01	01:31	(unrelated sample)
JC62879-8	1G144707.D	03/28/18	02:18	01:48	PCMW-8S
JC62879-9	1G144708.D	03/28/18	02:35	02:05	PCMW-8D
OP10885-MS	1G144709.D	03/28/18	02:52	02:23	Matrix Spike
OP10885-MSD	1G144710.D	03/28/18	03:09	02:40	Matrix Spike Duplicate
JC62879-10	1G144711.D	03/28/18	03:27	02:57	PCMW-17S
JC62879-11	1G144712.D	03/28/18	03:44	03:14	PCMW-17D
OP10885-MS2	1G144713.D	03/28/18	04:01	03:31	Matrix Spike
OP10885-MSD2	1G144714.D	03/28/18	04:18	03:48	Matrix Spike Duplicate
JC62879-12	1G144715.D	03/28/18	04:35	04:06	PCMW-20S
JC62879-13	1G144716.D	03/28/18	04:52	04:23	PCMW-20D
JC62879-14	1G144717.D	03/28/18	05:09	04:40	PCMW-19S
JC62879-15	1G144718.D	03/28/18	05:27	04:57	PCMW-19D
JC62879-16	1G144719.D	03/28/18	05:44	05:14	DUP-03222018
JC62879-17	1G144720.D	03/28/18	06:01	05:32	PCMW-10S
G1G4598-CC4557	1G144723.D	03/28/18	06:53	06:23	Continuing cal 50
JC62879-18	1G144725.D	03/28/18	07:27	06:58	PCMW-10D
JC62879-20	1G144726.D	03/28/18	07:44	07:15	MW-6
ZZZZZZ	1G144727.D	03/28/18	08:02	07:32	(unrelated sample)
ZZZZZZ	1G144728.D	03/28/18	08:19	07:49	(unrelated sample)
ZZZZZZ	1G144729.D	03/28/18	08:36	08:07	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G1G4598-DDT	**Injection Date:**	03/28/18
Lab File ID:	1G144701.D	**Injection Time:**	00:30
Instrument ID:	GC1G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	1G144730.D	03/28/18	08:53	08:24	(unrelated sample)
ZZZZZZ	1G144731.D	03/28/18	09:11	08:41	(unrelated sample)
ZZZZZZ	1G144732.D	03/28/18	09:28	08:58	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G4G2366-DDT	**Injection Date:**	02/16/18
Lab File ID:	4G90000.D	**Injection Time:**	16:00
Instrument ID:	GC4G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	21774451	5570696
4,4'-DDE	68300502	6811339
4,4'-DDT	1896566414	426861434
DDT Breakdown [a]	4.5 %	2.8 %
Endrin aldehyde	12859968	1025285
Endrin ketone	11812087	11774573
Endrin	1116346932	243986077
Endrin Breakdown [b]	2.2 %	5 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G4G2366-IC2366	4G90002.D	02/16/18	16:34	00:34	Initial cal 100
G4G2366-IC2366	4G90003.D	02/16/18	16:51	00:51	Initial cal 75
G4G2366-IC2366	4G90004.D	02/16/18	17:08	01:08	Initial cal 50
G4G2366-ICC2366	4G90005.D	02/16/18	17:25	01:25	Initial cal 25
G4G2366-IC2366	4G90006.D	02/16/18	17:42	01:42	Initial cal 10
G4G2366-IC2366	4G90007.D	02/16/18	17:59	01:59	Initial cal 5
G4G2366-IC2366	4G90008.D	02/16/18	18:16	02:16	Initial cal 2
G4G2366-IC2366	4G90009.D	02/16/18	18:33	02:33	Initial cal 1
G4G2366-IC2366	4G90010.D	02/16/18	18:50	02:50	Initial cal 500
G4G2366-IC2366	4G90011.D	02/16/18	19:07	03:07	Initial cal 500
G4G2366-ICV2366	4G90012.D	02/16/18	19:24	03:24	Initial cal verification 25
G4G2366-ICV2366	4G90013.D	02/16/18	19:41	03:41	Initial cal verification 500
G4G2366-ICV2366	4G90014.D	02/16/18	19:58	03:58	Initial cal verification 500
G4G2366-ICV2366	4G90016.D	02/16/18	20:32	04:32	Initial cal verification 50

DDT/Endrin Breakdown Check

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G4G2399-DDT	**Injection Date:**	03/27/18
Lab File ID:	4G90982.D	**Injection Time:**	09:03
Instrument ID:	GC4G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	42647584	8366634
4,4'-DDE	31388945	5298481
4,4'-DDT	1879302274	330298885
DDT Breakdown [a]	3.8 %	4 %
Endrin aldehyde	11008392	1896899
Endrin ketone	14541709	2119173
Endrin	1182097156	199211537
Endrin Breakdown [b]	2.1 %	2 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G4G2399-CC2366	4G90983.D	03/27/18	09:20	00:17	Continuing cal 50
OP10876-MB1	4G90985.D	03/27/18	09:54	00:51	Method Blank
OP10876-BS1	4G90986.D	03/27/18	10:11	01:08	Blank Spike
OP10876-BSD	4G90987.D	03/27/18	10:28	01:25	Blank Spike Duplicate
OP10868-MB1	4G90988.D	03/27/18	10:45	01:42	Method Blank
ZZZZZZ	4G90989.D	03/27/18	11:02	01:59	(unrelated sample)
ZZZZZZ	4G90990.D	03/27/18	11:19	02:16	(unrelated sample)
ZZZZZZ	4G90991.D	03/27/18	11:36	02:33	(unrelated sample)
ZZZZZZ	4G90992.D	03/27/18	11:53	02:50	(unrelated sample)
JC62879-1	4G90993.D	03/27/18	12:10	03:07	PCMW-01
JC62879-2	4G90994.D	03/27/18	12:27	03:24	PCMW-04
JC62879-3	4G90995.D	03/27/18	12:44	03:41	PCMW-9S
JC62879-4	4G90996.D	03/27/18	13:01	03:58	PCMW-16D
JC62879-5	4G90997.D	03/27/18	13:18	04:15	MW-5
JC62879-6	4G90998.D	03/27/18	13:34	04:31	PCMW-15S
JC62879-7	4G90999.D	03/27/18	13:51	04:48	PCMW-15D

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G4G2399-CC2366	**Injection Date:**	03/27/18
Lab File ID:	4G90983.D	**Injection Time:**	09:20
Instrument ID:	GC4G	**Method:**	SW846 8081B

Sample ID:	JC62879-2	**Injection Date:**	03/27/18
Lab File ID:	4G90994.D	**Injection Time:**	12:27
Client ID:	PCMW-04		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-Chlordane	1	4.50	4.49	0.0073		ug/l	47.5
gamma-Chlordane [a]	2 [b]	6.06	6.08	0.0045	J	ug/l	

(a) More than 40 % RPD for detected concentrations between the two GC columns.
(b) Final result reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G4G2399-CC2366	**Injection Date:**	03/27/18
Lab File ID:	4G90983.D	**Injection Time:**	09:20
Instrument ID:	GC4G	**Method:**	SW846 8081B

Sample ID:	JC62879-4	**Injection Date:**	03/27/18
Lab File ID:	4G90996.D	**Injection Time:**	13:01
Client ID:	PCMW-16D		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Dieldrin	1	5.14	5.14	0.039		ug/l	2.6
Dieldrin	2 [a]	6.84	6.85	0.038		ug/l	

(a) Final result reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	JC62879-11	**Injection Date:**	03/28/18
Lab File ID:	1G144712.D	**Injection Time:**	03:44
Client ID:	PCMW-17D		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Dieldrin	1	6.04	6.04	0.054		ug/l	16.0
Dieldrin	2 [a]	7.60	7.60	0.046		ug/l	

(a) Final result reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G4G2399-CC2366	**Injection Date:**	03/27/18
Lab File ID:	4G90983.D	**Injection Time:**	09:20
Instrument ID:	GC4G	**Method:**	SW846 8081B

Sample ID:	OP10876-BS1	**Injection Date:**	03/27/18
Lab File ID:	4G90986.D	**Injection Time:**	10:11
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1	3.64	3.64	0.16		ug/l	13.3
Aldrin	2 [a]	4.95	4.96	0.14		ug/l	
alpha-BHC	1	2.54	2.54	0.17		ug/l	12.5
alpha-BHC	2 [a]	3.46	3.46	0.15		ug/l	
beta-BHC [b]	1 [a]	2.91	2.91	0.17		ug/l	12.5
beta-BHC [b]	2	4.00	4.00	0.15		ug/l	
delta-BHC	1	3.09	3.09	0.15		ug/l	6.9
delta-BHC	2 [a]	4.40	4.40	0.14		ug/l	
gamma-BHC (Lindane)	1	2.83	2.83	0.17		ug/l	12.5
gamma-BHC (Lindane)	2 [a]	3.90	3.90	0.15		ug/l	
alpha-Chlordane	1	4.66	4.66	0.16		ug/l	6.5
alpha-Chlordane	2 [a]	6.31	6.31	0.15		ug/l	
gamma-Chlordane	1	4.49	4.49	0.17		ug/l	12.5
gamma-Chlordane	2 [a]	6.08	6.08	0.15		ug/l	
Dieldrin	1	5.14	5.14	0.17		ug/l	12.5
Dieldrin	2 [a]	6.85	6.85	0.15		ug/l	
4,4'-DDD	1	5.60	5.60	0.17		ug/l	12.5
4,4'-DDD	2 [a]	7.53	7.53	0.15		ug/l	
4,4'-DDE	1	4.78	4.78	0.15		ug/l	6.9
4,4'-DDE	2 [a]	6.57	6.57	0.14		ug/l	
4,4'-DDT	1	6.01	6.00	0.18		ug/l	11.8
4,4'-DDT	2 [a]	8.07	8.07	0.16		ug/l	
Endrin	1	5.46	5.46	0.18		ug/l	11.8
Endrin	2 [a]	7.35	7.35	0.16		ug/l	
Endosulfan sulfate	1	7.05	7.05	0.18		ug/l	5.7
Endosulfan sulfate	2 [a]	8.76	8.76	0.17		ug/l	
Endrin aldehyde	1	6.38	6.38	0.19		ug/l	37.5
Endrin aldehyde	2 [a]	8.28	8.28	0.13		ug/l	
Endrin ketone	1	7.49	7.48	0.19		ug/l	17.1
Endrin ketone	2 [a]	9.72	9.72	0.16		ug/l	
Endosulfan-I	1	4.83	4.83	0.17		ug/l	12.5
Endosulfan-I	2 [a]	6.41	6.41	0.15		ug/l	
Endosulfan-II	1	5.77	5.77	0.17		ug/l	12.5
Endosulfan-II	2 [a]	7.71	7.71	0.15		ug/l	
Heptachlor	1	3.32	3.32	0.16		ug/l	13.3
Heptachlor	2 [a]	4.49	4.49	0.14		ug/l	
Heptachlor epoxide	1	4.33	4.33	0.17		ug/l	19.4
Heptachlor epoxide	2 [a]	5.79	5.79	0.14		ug/l	
Methoxychlor	1	6.80	6.80	0.18		ug/l	11.8
Methoxychlor	2 [a]	9.31	9.31	0.16		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G4G2399-CC2366	**Injection Date:**	03/27/18
Lab File ID:	4G90983.D	**Injection Time:**	09:20
Instrument ID:	GC4G	**Method:**	SW846 8081B

Sample ID:	OP10876-BS1	**Injection Date:**	03/27/18
Lab File ID:	4G90986.D	**Injection Time:**	10:11
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP10885-BS1	**Injection Date:**	03/28/18
Lab File ID:	1G144705.D	**Injection Time:**	01:43
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.45	4.45	0.034		ug/l	2.9
Aldrin	2	5.64	5.64	0.035		ug/l	
alpha-BHC	1	3.27	3.27	0.055		ug/l	5.6
alpha-BHC	2 [a]	4.06	4.06	0.052		ug/l	
beta-BHC	1	3.66	3.66	0.046		ug/l	4.4
beta-BHC	2 [a]	4.62	4.62	0.044		ug/l	
delta-BHC	1	3.87	3.87	0.049		ug/l	4.2
delta-BHC	2 [a]	5.05	5.05	0.047		ug/l	
gamma-BHC (Lindane)	1	3.58	3.58	0.053		ug/l	3.8
gamma-BHC (Lindane)	2 [a]	4.53	4.53	0.051		ug/l	
alpha-Chlordane	1 [a]	5.53	5.53	0.049		ug/l	0.0
alpha-Chlordane	2	7.03	7.03	0.049		ug/l	
gamma-Chlordane	1	5.35	5.35	0.060		ug/l	24.3
gamma-Chlordane	2 [a]	6.80	6.80	0.047		ug/l	
Dieldrin	1	6.04	6.04	0.057		ug/l	7.3
Dieldrin	2 [a]	7.60	7.60	0.053		ug/l	
4,4'-DDD	1	6.52	6.52	0.043		ug/l	2.4
4,4'-DDD	2 [a]	8.29	8.29	0.042		ug/l	
4,4'-DDE	1	5.65	5.64	0.040		ug/l	2.5
4,4'-DDE	2 [a]	7.29	7.29	0.039		ug/l	
4,4'-DDT	1 [a]	6.93	6.92	0.052		ug/l	10.9
4,4'-DDT	2	8.83	8.83	0.058		ug/l	
Endrin	1	6.38	6.38	0.059		ug/l	7.0
Endrin	2 [a]	8.13	8.13	0.055		ug/l	
Endosulfan sulfate	1 [a]	8.04	8.04	0.056		ug/l	3.5
Endosulfan sulfate	2	9.53	9.53	0.058		ug/l	
Endrin aldehyde	1	7.35	7.35	0.053		ug/l	3.8
Endrin aldehyde	2 [a]	9.07	9.07	0.051		ug/l	
Endrin ketone	1	8.50	8.50	0.066		ug/l	12.9
Endrin ketone	2 [a]	10.32	10.32	0.058		ug/l	
Endosulfan-I	1	5.72	5.71	0.062		ug/l	17.5
Endosulfan-I	2 [a]	7.15	7.15	0.052		ug/l	
Endosulfan-II	1	6.72	6.71	0.057		ug/l	9.2
Endosulfan-II	2 [a]	8.49	8.49	0.052		ug/l	
Heptachlor	1	4.09	4.09	0.041		ug/l	0.0
Heptachlor	2 [a]	5.15	5.15	0.041		ug/l	
Heptachlor epoxide	1	5.18	5.18	0.053		ug/l	3.8
Heptachlor epoxide	2 [a]	6.50	6.50	0.051		ug/l	
Methoxychlor	1	7.73	7.73	0.049		ug/l	2.1
Methoxychlor	2 [a]	9.96	9.96	0.048		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G4G2399-CC2366	**Injection Date:**	03/27/18
Lab File ID:	4G90983.D	**Injection Time:**	09:20
Instrument ID:	GC4G	**Method:**	SW846 8081B

Sample ID:	OP10876-BSD	**Injection Date:**	03/27/18
Lab File ID:	4G90987.D	**Injection Time:**	10:28
Client ID:	Blank Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1	3.64	3.64	0.17		ug/l	6.1
Aldrin	2 [a]	4.96	4.96	0.16		ug/l	
alpha-BHC	1	2.54	2.54	0.19		ug/l	5.4
alpha-BHC	2 [a]	3.46	3.46	0.18		ug/l	
beta-BHC	1 [a]	2.91	2.91	0.17		ug/l	0.0
beta-BHC	2	3.99	4.00	0.17		ug/l	
delta-BHC	1 [a]	3.09	3.09	0.16		ug/l	0.0
delta-BHC	2	4.40	4.40	0.16		ug/l	
gamma-BHC (Lindane)	1	2.83	2.83	0.18		ug/l	5.7
gamma-BHC (Lindane)	2 [a]	3.90	3.90	0.17		ug/l	
alpha-Chlordane	1	4.66	4.66	0.17		ug/l	0.0
alpha-Chlordane	2 [a]	6.31	6.31	0.17		ug/l	
gamma-Chlordane	1	4.49	4.49	0.18		ug/l	5.7
gamma-Chlordane	2 [a]	6.08	6.08	0.17		ug/l	
Dieldrin	1	5.14	5.14	0.18		ug/l	0.0
Dieldrin	2 [a]	6.85	6.85	0.18		ug/l	
4,4'-DDD	1	5.60	5.60	0.18		ug/l	0.0
4,4'-DDD	2 [a]	7.53	7.53	0.18		ug/l	
4,4'-DDE	1 [a]	4.78	4.78	0.16		ug/l	6.1
4,4'-DDE	2	6.57	6.57	0.17		ug/l	
4,4'-DDT	1	6.01	6.00	0.19		ug/l	5.4
4,4'-DDT	2 [a]	8.07	8.07	0.18		ug/l	
Endrin	1	5.46	5.46	0.19		ug/l	5.4
Endrin	2 [a]	7.36	7.35	0.18		ug/l	
Endosulfan sulfate	1 [a]	7.05	7.05	0.19		ug/l	0.0
Endosulfan sulfate	2	8.76	8.76	0.19		ug/l	
Endrin aldehyde	1	6.38	6.38	0.20		ug/l	22.2
Endrin aldehyde	2 [a]	8.28	8.28	0.16		ug/l	
Endrin ketone	1	7.49	7.48	0.20		ug/l	5.1
Endrin ketone	2 [a]	9.72	9.72	0.19		ug/l	
Endosulfan-I	1	4.83	4.83	0.18		ug/l	0.0
Endosulfan-I	2 [a]	6.41	6.41	0.18		ug/l	
Endosulfan-II	1	5.77	5.77	0.18		ug/l	0.0
Endosulfan-II	2 [a]	7.71	7.71	0.18		ug/l	
Heptachlor	1	3.31	3.32	0.17		ug/l	0.0
Heptachlor	2 [a]	4.49	4.49	0.17		ug/l	
Heptachlor epoxide	1	4.33	4.33	0.17		ug/l	0.0
Heptachlor epoxide	2 [a]	5.79	5.79	0.17		ug/l	
Methoxychlor	1	6.80	6.80	0.19		ug/l	0.0
Methoxychlor	2 [a]	9.31	9.31	0.19		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP10885-MS	**Injection Date:**	03/28/18
Lab File ID:	1G144709.D	**Injection Time:**	02:52
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.42	4.45	0.31		ug/l	117.9
Aldrin	2	5.64	5.64	0.080		ug/l	
alpha-BHC	1 [a]	3.27	3.27	0.22		ug/l	31.6
alpha-BHC	2	4.06	4.06	0.16		ug/l	
beta-BHC	1 [a]	3.66	3.66	0.13		ug/l	7.4
beta-BHC	2	4.61	4.62	0.14		ug/l	
delta-BHC	1 [a]	3.86	3.87	0.16		ug/l	11.8
delta-BHC	2	5.05	5.05	0.18		ug/l	
gamma-BHC (Lindane)	1 [a]	3.58	3.58	0.16		ug/l	0.0
gamma-BHC (Lindane)	2	4.53	4.53	0.16		ug/l	
alpha-Chlordane	1 [a]	5.53	5.53	0.11		ug/l	8.7
alpha-Chlordane	2	7.03	7.03	0.12		ug/l	
gamma-Chlordane	1 [a]	5.35	5.35	0.14		ug/l	7.4
gamma-Chlordane	2	6.80	6.80	0.13		ug/l	
Dieldrin	1 [a]	6.04	6.04	0.16		ug/l	0.0
Dieldrin	2	7.60	7.60	0.16		ug/l	
4,4'-DDD	1 [a]	6.50	6.52	0.10		ug/l	2.0
4,4'-DDD	2	8.28	8.29	0.098		ug/l	
4,4'-DDE	1 [a]	5.63	5.64	0.066		ug/l	14.6
4,4'-DDE	2	7.29	7.29	0.057		ug/l	
4,4'-DDT	1 [a]	6.91	6.92	0.076		ug/l	0.0
4,4'-DDT	2	8.82	8.83	0.076		ug/l	
Endrin	1 [a]	6.38	6.38	0.17		ug/l	0.0
Endrin	2	8.13	8.13	0.17		ug/l	
Endosulfan sulfate	1 [a]	8.03	8.04	0.19		ug/l	0.0
Endosulfan sulfate	2	9.53	9.53	0.19		ug/l	
Endrin aldehyde	1 [a]	7.34	7.35	0.17		ug/l	6.1
Endrin aldehyde	2	9.07	9.07	0.16		ug/l	
Endrin ketone	1 [a]	8.49	8.50	0.20		ug/l	4.9
Endrin ketone	2	10.31	10.32	0.21		ug/l	
Endosulfan-I	1 [a]	5.71	5.71	0.16		ug/l	0.0
Endosulfan-I	2	7.15	7.15	0.16		ug/l	
Endosulfan-II	1 [a]	6.71	6.71	0.17		ug/l	0.0
Endosulfan-II	2	8.49	8.49	0.17		ug/l	
Heptachlor	1 [a]	4.10	4.09	0.20		ug/l	58.1
Heptachlor	2	5.15	5.15	0.11		ug/l	
Heptachlor epoxide	1 [a]	5.18	5.18	0.15		ug/l	6.5
Heptachlor epoxide	2	6.50	6.50	0.16		ug/l	
Methoxychlor	1 [a]	7.71	7.73	0.14		ug/l	7.4
Methoxychlor	2	9.96	9.96	0.13		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP10885-MS2	**Injection Date:**	03/28/18
Lab File ID:	1G144713.D	**Injection Time:**	04:01
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.45	4.45	0.12		ug/l	0.0
Aldrin	2	5.64	5.64	0.12		ug/l	
alpha-BHC	1 [a]	3.27	3.27	0.20		ug/l	5.1
alpha-BHC	2	4.06	4.06	0.19		ug/l	
beta-BHC	1 [a]	3.67	3.66	0.18		ug/l	0.0
beta-BHC	2	4.62	4.62	0.18		ug/l	
delta-BHC	1 [a]	3.87	3.87	0.19		ug/l	0.0
delta-BHC	2	5.05	5.05	0.19		ug/l	
gamma-BHC (Lindane)	1 [a]	3.58	3.58	0.20		ug/l	5.1
gamma-BHC (Lindane)	2	4.52	4.53	0.19		ug/l	
alpha-Chlordane	1 [a]	5.53	5.53	0.16		ug/l	0.0
alpha-Chlordane	2	7.03	7.03	0.16		ug/l	
gamma-Chlordane	1 [a]	5.35	5.35	0.20		ug/l	28.6
gamma-Chlordane	2	6.80	6.80	0.15		ug/l	
Dieldrin	1	6.04	6.04	0.27		ug/l	11.8
Dieldrin	2 [a]	7.60	7.60	0.24		ug/l	
4,4'-DDD	1 [a]	6.51	6.52	0.13		ug/l	0.0
4,4'-DDD	2	8.28	8.29	0.13		ug/l	
4,4'-DDE	1 [a]	5.64	5.64	0.089		ug/l	7.0
4,4'-DDE	2	7.29	7.29	0.083		ug/l	
4,4'-DDT	1 [a]	6.92	6.92	0.11		ug/l	8.7
4,4'-DDT	2	8.82	8.83	0.12		ug/l	
Endrin	1 [a]	6.38	6.38	0.22		ug/l	9.5
Endrin	2	8.13	8.13	0.20		ug/l	
Endosulfan sulfate	1 [a]	8.03	8.04	0.23		ug/l	4.3
Endosulfan sulfate	2	9.53	9.53	0.24		ug/l	
Endrin aldehyde	1 [a]	7.34	7.35	0.22		ug/l	14.6
Endrin aldehyde	2	9.07	9.07	0.19		ug/l	
Endrin ketone	1 [a]	8.49	8.50	0.26		ug/l	3.9
Endrin ketone	2	10.32	10.32	0.25		ug/l	
Endosulfan-I	1 [a]	5.71	5.71	0.22		ug/l	14.6
Endosulfan-I	2	7.14	7.15	0.19		ug/l	
Endosulfan-II	1 [a]	6.71	6.71	0.22		ug/l	9.5
Endosulfan-II	2	8.49	8.49	0.20		ug/l	
Heptachlor	1 [a]	4.09	4.09	0.15		ug/l	0.0
Heptachlor	2	5.15	5.15	0.15		ug/l	
Heptachlor epoxide	1 [a]	5.18	5.18	0.20		ug/l	5.1
Heptachlor epoxide	2	6.50	6.50	0.19		ug/l	
Methoxychlor	1 [a]	7.72	7.73	0.15		ug/l	0.0
Methoxychlor	2	9.96	9.96	0.15		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP10885-MSD	**Injection Date:**	03/28/18
Lab File ID:	1G144710.D	**Injection Time:**	03:09
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.42	4.45	0.32		ug/l	120.8
Aldrin	2	5.64	5.64	0.079		ug/l	
alpha-BHC	1 [a]	3.27	3.27	0.23		ug/l	24.4
alpha-BHC	2	4.06	4.06	0.18		ug/l	
beta-BHC	1 [a]	3.66	3.66	0.13		ug/l	20.7
beta-BHC	2	4.61	4.62	0.16		ug/l	
delta-BHC	1 [a]	3.86	3.87	0.17		ug/l	11.1
delta-BHC	2	5.04	5.05	0.19		ug/l	
gamma-BHC (Lindane)	1 [a]	3.58	3.58	0.16		ug/l	11.8
gamma-BHC (Lindane)	2	4.52	4.53	0.18		ug/l	
alpha-Chlordane	1 [a]	5.52	5.53	0.11		ug/l	16.7
alpha-Chlordane	2	7.03	7.03	0.13		ug/l	
gamma-Chlordane	1 [a]	5.35	5.35	0.14		ug/l	0.0
gamma-Chlordane	2	6.80	6.80	0.14		ug/l	
Dieldrin	1 [a]	6.04	6.04	0.17		ug/l	0.0
Dieldrin	2	7.60	7.60	0.17		ug/l	
4,4'-DDD	1 [a]	6.49	6.52	0.11		ug/l	0.0
4,4'-DDD	2	8.27	8.29	0.11		ug/l	
4,4'-DDE	1 [a]	5.63	5.64	0.058		ug/l	5.0
4,4'-DDE	2	7.28	7.29	0.061		ug/l	
4,4'-DDT	1 [a]	6.91	6.92	0.077		ug/l	12.2
4,4'-DDT	2	8.82	8.83	0.087		ug/l	
Endrin	1 [a]	6.37	6.38	0.17		ug/l	11.1
Endrin	2	8.12	8.13	0.19		ug/l	
Endosulfan sulfate	1 [a]	8.03	8.04	0.19		ug/l	14.6
Endosulfan sulfate	2	9.53	9.53	0.22		ug/l	
Endrin aldehyde	1 [a]	7.34	7.35	0.20		ug/l	0.0
Endrin aldehyde	2	9.07	9.07	0.20		ug/l	
Endrin ketone	1 [a]	8.49	8.50	0.20		ug/l	18.2
Endrin ketone	2	10.31	10.32	0.24		ug/l	
Endosulfan-I	1 [a]	5.71	5.71	0.16		ug/l	11.8
Endosulfan-I	2	7.14	7.15	0.18		ug/l	
Endosulfan-II	1 [a]	6.71	6.71	0.17		ug/l	5.7
Endosulfan-II	2	8.48	8.49	0.18		ug/l	
Heptachlor	1 [a]	4.10	4.09	0.14		ug/l	24.0
Heptachlor	2	5.15	5.15	0.11		ug/l	
Heptachlor epoxide	1 [a]	5.18	5.18	0.15		ug/l	18.2
Heptachlor epoxide	2	6.50	6.50	0.18		ug/l	
Methoxychlor	1 [a]	7.71	7.73	0.15		ug/l	6.5
Methoxychlor	2	9.95	9.96	0.16		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP10885-MSD2	**Injection Date:**	03/28/18
Lab File ID:	1G144714.D	**Injection Time:**	04:18
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.45	4.45	0.12		ug/l	8.7
Aldrin	2	5.64	5.64	0.11		ug/l	
alpha-BHC	1 [a]	3.27	3.27	0.20		ug/l	5.1
alpha-BHC	2	4.06	4.06	0.19		ug/l	
beta-BHC	1 [a]	3.67	3.66	0.19		ug/l	11.1
beta-BHC	2	4.62	4.62	0.17		ug/l	
delta-BHC	1 [a]	3.87	3.87	0.19		ug/l	0.0
delta-BHC	2	5.05	5.05	0.19		ug/l	
gamma-BHC (Lindane)	1 [a]	3.58	3.58	0.20		ug/l	5.1
gamma-BHC (Lindane)	2	4.52	4.53	0.19		ug/l	
alpha-Chlordane	1 [a]	5.53	5.53	0.17		ug/l	12.5
alpha-Chlordane	2	7.03	7.03	0.15		ug/l	
gamma-Chlordane	1 [a]	5.35	5.35	0.20		ug/l	28.6
gamma-Chlordane	2	6.80	6.80	0.15		ug/l	
Dieldrin	1	6.04	6.04	0.27		ug/l	11.8
Dieldrin	2 [a]	7.60	7.60	0.24		ug/l	
4,4'-DDD	1 [a]	6.50	6.52	0.13		ug/l	0.0
4,4'-DDD	2	8.28	8.29	0.13		ug/l	
4,4'-DDE	1 [a]	5.64	5.64	0.088		ug/l	9.5
4,4'-DDE	2	7.29	7.29	0.080		ug/l	
4,4'-DDT	1 [a]	6.92	6.92	0.11		ug/l	8.7
4,4'-DDT	2	8.82	8.83	0.12		ug/l	
Endrin	1 [a]	6.38	6.38	0.22		ug/l	9.5
Endrin	2	8.13	8.13	0.20		ug/l	
Endosulfan sulfate	1 [a]	8.03	8.04	0.24		ug/l	0.0
Endosulfan sulfate	2	9.53	9.53	0.24		ug/l	
Endrin aldehyde	1 [a]	7.34	7.35	0.23		ug/l	19.0
Endrin aldehyde	2	9.07	9.07	0.19		ug/l	
Endrin ketone	1 [a]	8.49	8.50	0.28		ug/l	11.3
Endrin ketone	2	10.31	10.32	0.25		ug/l	
Endosulfan-I	1 [a]	5.71	5.71	0.22		ug/l	14.6
Endosulfan-I	2	7.14	7.15	0.19		ug/l	
Endosulfan-II	1 [a]	6.71	6.71	0.22		ug/l	14.6
Endosulfan-II	2	8.49	8.49	0.19		ug/l	
Heptachlor	1 [a]	4.09	4.09	0.14		ug/l	0.0
Heptachlor	2	5.15	5.15	0.14		ug/l	
Heptachlor epoxide	1 [a]	5.18	5.18	0.21		ug/l	10.0
Heptachlor epoxide	2	6.50	6.50	0.19		ug/l	
Methoxychlor	1 [a]	7.72	7.73	0.16		ug/l	6.5
Methoxychlor	2	9.96	9.96	0.15		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6202-CC6195	**Injection Date:**	03/27/18
Lab File ID:	EF181177.D	**Injection Time:**	12:11
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP10875-BS1	**Injection Date:**	03/27/18
Lab File ID:	EF181180.D	**Injection Time:**	13:25
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1			2.0		ug/l	0.0
Aroclor 1016	2 [a]			2.0		ug/l	
AR1016-A	1	3.75	3.74	2.3		ug/l	
AR1016-A	2	5.16	5.16	2.4		ug/l	
AR1016-B	1	4.27	4.26	2.0		ug/l	
AR1016-B	2	5.98	5.98	1.8		ug/l	
AR1016-C	1	5.09	5.07	1.8		ug/l	
AR1016-C	2	6.94	6.92	1.9		ug/l	
AR1016-D	1	5.32	5.30	2.0		ug/l	
AR1016-D	2	7.23	7.22	1.9		ug/l	
AR1016-E	1	6.04	6.04	1.9		ug/l	
AR1016-E	2	8.24	8.23	1.9		ug/l	
Aroclor 1260	1			2.0		ug/l	5.1
Aroclor 1260	2 [a]			1.9		ug/l	
AR1260-A	1	9.68	9.66	1.6		ug/l	
AR1260-A	2	12.34	12.33	1.6		ug/l	
AR1260-B	1	9.91	9.90	2.2		ug/l	
AR1260-B	2	12.54	12.53	2.2		ug/l	
AR1260-C	1	10.44	10.43	2.2		ug/l	
AR1260-C	2	13.22	13.21	2.0		ug/l	
AR1260-D	1	11.13	11.11	2.1		ug/l	
AR1260-D	2	13.78	13.77	2.0		ug/l	
AR1260-E	1	11.75	11.73	1.9		ug/l	
AR1260-E	2	14.64	14.63	1.9		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/28/18
Lab File ID:	EF181216.D	**Injection Time:**	16:59
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP10884-BS1	**Injection Date:**	03/28/18
Lab File ID:	EF181219.D	**Injection Time:**	18:14
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			1.3		ug/l	7.4
Aroclor 1016	2			1.4		ug/l	
AR1016-A	1	3.77	3.75	1.5		ug/l	
AR1016-A	2	5.18	5.17	1.7		ug/l	
AR1016-B	1	4.29	4.28	1.3		ug/l	
AR1016-B	2	6.00	5.99	1.4		ug/l	
AR1016-C	1	5.13	5.08	1.2		ug/l	
AR1016-C	2	6.96	6.94	1.3		ug/l	
AR1016-D	1	5.34	5.32	1.4		ug/l	
AR1016-D	2	7.25	7.24	1.4		ug/l	
AR1016-E	1	6.07	6.05	1.2		ug/l	
AR1016-E	2	8.26	8.25	1.3		ug/l	
Aroclor 1260	1			1.3		ug/l	8.0
Aroclor 1260	2 [a]			1.2		ug/l	
AR1260-A	1	9.70	9.67	1.1		ug/l	
AR1260-A	2	12.36	12.35	1.1		ug/l	
AR1260-B	1	9.93	9.92	1.5		ug/l	
AR1260-B	2	12.56	12.54	1.4		ug/l	
AR1260-C	1	10.46	10.45	1.4		ug/l	
AR1260-C	2	13.24	13.23	1.3		ug/l	
AR1260-D	1	11.15	11.13	1.3		ug/l	
AR1260-D	2	13.80	13.79	1.3		ug/l	
AR1260-E	1	11.77	11.75	1.1		ug/l	
AR1260-E	2	14.66	14.65	1.1		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6202-CC6195	**Injection Date:**	03/27/18
Lab File ID:	EF181177.D	**Injection Time:**	12:11
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP10875-BSD	**Injection Date:**	03/27/18
Lab File ID:	EF181181.D	**Injection Time:**	13:50
Client ID:	Blank Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			1.6		ug/l	11.8
Aroclor 1016	2			1.8		ug/l	
AR1016-A	1	3.75	3.74	1.8		ug/l	
AR1016-A	2	5.16	5.16	2.5		ug/l	
AR1016-B	1	4.27	4.26	1.7		ug/l	
AR1016-B	2	5.98	5.98	1.6		ug/l	
AR1016-C	1	5.10	5.07	1.3		ug/l	
AR1016-C	2	6.93	6.92	1.6		ug/l	
AR1016-D	1	5.32	5.30	1.6		ug/l	
AR1016-D	2	7.22	7.22	1.7		ug/l	
AR1016-E	1	6.04	6.04	1.6		ug/l	
AR1016-E	2	8.23	8.23	1.6		ug/l	
Aroclor 1260	1			1.7		ug/l	0.0
Aroclor 1260	2 [a]			1.7		ug/l	
AR1260-A	1	9.67	9.66	1.3		ug/l	
AR1260-A	2	12.34	12.33	1.4		ug/l	
AR1260-B	1	9.90	9.90	1.9		ug/l	
AR1260-B	2	12.53	12.53	1.9		ug/l	
AR1260-C	1	10.43	10.43	1.8		ug/l	
AR1260-C	2	13.21	13.21	1.7		ug/l	
AR1260-D	1	11.12	11.11	1.8		ug/l	
AR1260-D	2	13.77	13.77	1.8		ug/l	
AR1260-E	1	11.74	11.73	1.7		ug/l	
AR1260-E	2	14.63	14.63	1.7		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/28/18
Lab File ID:	EF181216.D	**Injection Time:**	16:59
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP10884-MS	**Injection Date:**	03/28/18
Lab File ID:	EF181221.D	**Injection Time:**	19:04
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			1.3		ug/l	8.0
Aroclor 1016	2			1.2		ug/l	
AR1016-B	1	4.28	4.28	1.1		ug/l	
AR1016-B	2	6.00	5.99	1.5		ug/l	
AR1016-C	1	5.10	5.08	1.3		ug/l	
AR1016-C	2	6.95	6.94	1.2		ug/l	
AR1016-E	1	6.05	6.05	1.4		ug/l	
AR1016-E	2	8.25	8.25	1.0		ug/l	
Aroclor 1260	1 [a]			0.41		ug/l	10.3
Aroclor 1260	2			0.37		ug/l	
AR1260-A	1	9.68	9.67	0.32	J	ug/l	
AR1260-A	2	12.36	12.35	0.31	J	ug/l	
AR1260-B	1	9.93	9.92	0.40		ug/l	
AR1260-B	2	12.55	12.54	0.38		ug/l	
AR1260-C	1	10.45	10.45	0.61		ug/l	
AR1260-C	2	13.24	13.23	0.37		ug/l	
AR1260-D	1	11.14	11.13	0.36		ug/l	
AR1260-D	2	13.79	13.79	0.38		ug/l	
AR1260-E	1	11.76	11.75	0.37		ug/l	
AR1260-E	2	14.65	14.65	0.40		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/28/18
Lab File ID:	EF181227.D	**Injection Time:**	21:34
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP10884-MS2	**Injection Date:**	03/28/18
Lab File ID:	EF181231.D	**Injection Time:**	23:14
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			1.3		ug/l	7.4
Aroclor 1016	2			1.4		ug/l	
AR1016-A	1	3.76	3.76	1.5		ug/l	
AR1016-A	2	5.17	5.18	1.6		ug/l	
AR1016-B	1	4.28	4.28	1.3		ug/l	
AR1016-B	2	5.99	6.00	1.3		ug/l	
AR1016-C	1	5.11	5.10	1.2		ug/l	
AR1016-C	2	6.95	6.95	1.3		ug/l	
AR1016-D	1	5.33	5.33	1.3		ug/l	
AR1016-D	2	7.24	7.24	1.5		ug/l	
AR1016-E	1	6.06	6.06	1.2		ug/l	
AR1016-E	2	8.25	8.25	1.3		ug/l	
Aroclor 1260	1 [a]			1.1		ug/l	9.5
Aroclor 1260	2			1.0		ug/l	
AR1260-A	1	9.68	9.68	0.82		ug/l	
AR1260-A	2	12.35	12.36	0.84		ug/l	
AR1260-B	1	9.92	9.92	1.1		ug/l	
AR1260-B	2	12.55	12.55	1.1		ug/l	
AR1260-C	1	10.45	10.45	1.3		ug/l	
AR1260-C	2	13.23	13.23	1.1		ug/l	
AR1260-D	1	11.14	11.14	1.0		ug/l	
AR1260-D	2	13.79	13.79	1.1		ug/l	
AR1260-E	1	11.75	11.76	1.0		ug/l	
AR1260-E	2	14.65	14.65	0.95		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/28/18
Lab File ID:	EF181216.D	**Injection Time:**	16:59
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP10884-MSD	**Injection Date:**	03/28/18
Lab File ID:	EF181222.D	**Injection Time:**	19:29
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			1.4		ug/l	7.4
Aroclor 1016	2			1.3		ug/l	
AR1016-B	1	4.28	4.28	1.2		ug/l	
AR1016-B	2	6.00	5.99	1.5		ug/l	
AR1016-C	1	5.10	5.08	1.8		ug/l	
AR1016-C	2	6.96	6.94	1.2		ug/l	
AR1016-E	1	6.06	6.05	1.2		ug/l	
AR1016-E	2	8.26	8.25	1.1		ug/l	
Aroclor 1260	1 [a]			0.44		ug/l	2.3
Aroclor 1260	2			0.43		ug/l	
AR1260-A	1	9.69	9.67	0.37		ug/l	
AR1260-A	2	12.36	12.35	0.39		ug/l	
AR1260-B	1	9.93	9.92	0.47		ug/l	
AR1260-B	2	12.56	12.54	0.47		ug/l	
AR1260-C	1	10.46	10.45	0.60		ug/l	
AR1260-C	2	13.24	13.23	0.48		ug/l	
AR1260-D	1	11.15	11.13	0.39		ug/l	
AR1260-D	2	13.80	13.79	0.41		ug/l	
AR1260-E	1	11.76	11.75	0.39		ug/l	
AR1260-E	2	14.66	14.65	0.42		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/28/18
Lab File ID:	EF181227.D	**Injection Time:**	21:34
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP10884-MSD2	**Injection Date:**	03/28/18
Lab File ID:	EF181232.D	**Injection Time:**	23:39
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			1.4		ug/l	6.9
Aroclor 1016	2			1.5		ug/l	
AR1016-A	1	3.76	3.76	1.6		ug/l	
AR1016-A	2	5.18	5.18	1.7		ug/l	
AR1016-B	1	4.29	4.28	1.4		ug/l	
AR1016-B	2	6.00	6.00	1.4		ug/l	
AR1016-C	1	5.12	5.10	1.3		ug/l	
AR1016-C	2	6.96	6.95	1.4		ug/l	
AR1016-D	1	5.34	5.33	1.4		ug/l	
AR1016-D	2	7.24	7.24	1.7		ug/l	
AR1016-E	1	6.06	6.06	1.3		ug/l	
AR1016-E	2	8.26	8.25	1.4		ug/l	
Aroclor 1260	1 [a]			0.98		ug/l	4.2
Aroclor 1260	2			0.94		ug/l	
AR1260-A	1	9.69	9.68	0.77		ug/l	
AR1260-A	2	12.36	12.36	0.79		ug/l	
AR1260-B	1	9.93	9.92	1.1		ug/l	
AR1260-B	2	12.55	12.55	1.0		ug/l	
AR1260-C	1	10.46	10.45	1.1		ug/l	
AR1260-C	2	13.24	13.23	0.97		ug/l	
AR1260-D	1	11.14	11.14	0.95		ug/l	
AR1260-D	2	13.80	13.79	0.99		ug/l	
AR1260-E	1	11.76	11.76	0.95		ug/l	
AR1260-E	2	14.66	14.65	0.90		ug/l	

(a) QC results reported from this column.

Surrogate Recovery Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8081B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC62879-1	4G90993.D	84	84	73	66
JC62879-2	4G90994.D	57	60	56	51
JC62879-3	4G90995.D	87	86	63	58
JC62879-4	4G90996.D	68	71	59	56
JC62879-5	4G90997.D	73	75	56	52
JC62879-6	4G90998.D	83	82	80	74
JC62879-7	4G90999.D	75	76	62	56
JC62879-8	1G144707.D	84	80	109	83
JC62879-9	1G144708.D	49	53	22	23
JC62879-10	1G144711.D	80	74	105	75
JC62879-11	1G144712.D	82	79	77	69
JC62879-12	1G144715.D	90	89	98	80
JC62879-13	1G144716.D	52	62	48	46
JC62879-14	1G144717.D	79	81	56	45
JC62879-15	1G144718.D	70	68	51	38
JC62879-16	1G144719.D	74	72	52	38
JC62879-17	1G144720.D	86	82	101	83
JC62879-18	1G144725.D	68	79	26	23
JC62879-20	1G144726.D	83	76	104	77
OP10876-BS1	4G90986.D	81	78	44	39
OP10876-BSD	4G90987.D	76	81	44	43
OP10876-MB1	4G90985.D	89	82	40	37
OP10885-BS1	1G144705.D	83	79	51	43
OP10885-MB1	1G144704.D	85	77	40	30
OP10885-MS	1G144709.D	57	63	41	36
OP10885-MS2	1G144713.D	80	77	46	47
OP10885-MSD	1G144710.D	62	73	43	41
OP10885-MSD2	1G144714.D	82	76	61	49

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	13-153%
S2 = Decachlorobiphenyl	10-138%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

Surrogate Recovery Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8082A **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC62879-1	EF181182.D	77	82	70	70
JC62879-2	EF181183.D	52	52	49	52
JC62879-3	EF181184.D	84	88	60	61
JC62879-4	EF181189.D	74	82	64	65
JC62879-5	EF181190.D	77	82	57	58
JC62879-6	EF181191.D	68	74	68	67
JC62879-7	EF181192.D	76	83	69	63
JC62879-8	EF181224.D	84	89	80	82
JC62879-9	EF181220.D	54	53	29	28
JC62879-10	EF181229.D	76	79	73	73
JC62879-11	EF181230.D	87	92	80	69
JC62879-12	EF181233.D	81	84	82	73
JC62879-13	EF181234.D	72	64	54	56
JC62879-14	EF181235.D	86	88	52	52
JC62879-15	EF181240.D	73	74	44	43
JC62879-16	EF181241.D	71	75	40	40
JC62879-17	EF181242.D	90	92	82	83
JC62879-18	EF181243.D	84	82	33	25
JC62879-20	EF181223.D	79	82	82	78
OP10875-BS1	EF181180.D	105	109	57	56
OP10875-BSD	EF181181.D	80	86	42	42
OP10875-MB1	EF181179.D	79	86	59	57
OP10884-BS1	EF181219.D	81	87	38	37
OP10884-MB1	EF181218.D	70	72	45	43
OP10884-MS	EF181221.D	64	63	35	34
OP10884-MS2	EF181231.D	73	73	63	51
OP10884-MSD	EF181222.D	73	65	39	37
OP10884-MSD2	EF181232.D	85	87	64	55

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	11-166%
S2 = Decachlorobiphenyl	10-150%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144702.D	**Injection Time:**	00:47
Instrument ID:	GC1G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.77	3.35	10.13	12.03

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP10885-MB1	1G144704.D	03/28/18	01:26	2.78	3.34	10.13	12.03
OP10885-BS1	1G144705.D	03/28/18	01:43	2.78	3.35	10.13	12.03
ZZZZZZ	1G144706.D	03/28/18	02:01	2.78	3.35	10.13	12.03
JC62879-8	1G144707.D	03/28/18	02:18	2.78	3.35	10.12	12.02
JC62879-9	1G144708.D	03/28/18	02:35	2.78	3.35	10.13	12.03
OP10885-MS	1G144709.D	03/28/18	02:52	2.78	3.35	10.13	12.03
OP10885-MSD	1G144710.D	03/28/18	03:09	2.78	3.35	10.13	12.03
JC62879-10	1G144711.D	03/28/18	03:27	2.78	3.35	10.12	12.02
JC62879-11	1G144712.D	03/28/18	03:44	2.77	3.35	10.13	12.03
OP10885-MS2	1G144713.D	03/28/18	04:01	2.77	3.35	10.13	12.03
OP10885-MSD2	1G144714.D	03/28/18	04:18	2.78	3.35	10.13	12.03
JC62879-12	1G144715.D	03/28/18	04:35	2.78	3.35	10.13	12.03
JC62879-13	1G144716.D	03/28/18	04:52	2.77	3.34	10.13	12.03
JC62879-14	1G144717.D	03/28/18	05:09	2.78	3.35	10.13	12.02
JC62879-15	1G144718.D	03/28/18	05:27	2.77	3.35	10.12	12.03
JC62879-16	1G144719.D	03/28/18	05:44	2.77	3.34	10.12	12.02
JC62879-17	1G144720.D	03/28/18	06:01	2.78	3.35	10.12	12.03

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G1G4598-CC4557	**Injection Date:**	03/28/18
Lab File ID:	1G144723.D	**Injection Time:**	06:53
Instrument ID:	GC1G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.77	3.34	10.13	12.03

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
JC62879-18	1G144725.D	03/28/18	07:27	2.78	3.35	10.12	12.02
JC62879-20	1G144726.D	03/28/18	07:44	2.77	3.35	10.13	12.03
ZZZZZZ	1G144727.D	03/28/18	08:02	2.77	3.34	10.12	12.02
ZZZZZZ	1G144728.D	03/28/18	08:19	2.78	3.34	10.12	12.02
ZZZZZZ	1G144729.D	03/28/18	08:36	2.77	3.34	10.12	12.02
ZZZZZZ	1G144730.D	03/28/18	08:53	2.77	3.34	10.12	12.02
ZZZZZZ	1G144731.D	03/28/18	09:11	2.77	3.34	10.12	12.02
ZZZZZZ	1G144732.D	03/28/18	09:28	2.77	3.34	10.13	12.03

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G4G2399-CC2366	**Injection Date:**	03/27/18
Lab File ID:	4G90983.D	**Injection Time:**	09:20
Instrument ID:	GC4G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.07	2.76	9.31	11.81

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP10876-MB1	4G90985.D	03/27/18	09:54	2.07	2.76	9.30	11.81
OP10876-BS1	4G90986.D	03/27/18	10:11	2.07	2.76	9.31	11.81
OP10876-BSD	4G90987.D	03/27/18	10:28	2.07	2.76	9.31	11.81
OP10868-MB1	4G90988.D	03/27/18	10:45	2.07	2.76	9.31	11.81
ZZZZZZ	4G90989.D	03/27/18	11:02	2.07	2.76	9.31	11.81
ZZZZZZ	4G90990.D	03/27/18	11:19	2.07	2.76	9.31	11.81
ZZZZZZ	4G90991.D	03/27/18	11:36	2.07	2.76	9.31	11.81
ZZZZZZ	4G90992.D	03/27/18	11:53	2.07	2.76	9.31	11.81
JC62879-1	4G90993.D	03/27/18	12:10	2.07	2.76	9.30	11.81
JC62879-2	4G90994.D	03/27/18	12:27	2.08	2.76	9.30	11.80
JC62879-3	4G90995.D	03/27/18	12:44	2.07	2.76	9.30	11.81
JC62879-4	4G90996.D	03/27/18	13:01	2.07	2.76	9.30	11.81
JC62879-5	4G90997.D	03/27/18	13:18	2.07	2.76	9.30	11.81
JC62879-6	4G90998.D	03/27/18	13:34	2.08	2.76	9.30	11.80
JC62879-7	4G90999.D	03/27/18	13:51	2.07	2.76	9.30	11.81

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6202-CC6195	**Injection Date:**	03/27/18
Lab File ID:	EF181177.D	**Injection Time:**	12:11
Instrument ID:	GCEF	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	3.20	4.20	14.18	17.30

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP10875-MB1	EF181179.D	03/27/18	13:00	3.21	4.21	14.18	17.31
OP10875-BS1	EF181180.D	03/27/18	13:25	3.20	4.21	14.19	17.31
OP10875-BSD	EF181181.D	03/27/18	13:50	3.20	4.21	14.18	17.30
JC62879-1	EF181182.D	03/27/18	14:15	3.20	4.20	14.17	17.30
JC62879-2	EF181183.D	03/27/18	14:40	3.20	4.21	14.17	17.30
JC62879-3	EF181184.D	03/27/18	15:05	3.20	4.21	14.17	17.30

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6202-CC6195	**Injection Date:**	03/27/18
Lab File ID:	EF181187.D	**Injection Time:**	16:20
Instrument ID:	GCEF	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	3.20	4.21	14.19	17.31

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
JC62879-4	EF181189.D	03/27/18	17:10	3.20	4.21	14.18	17.31
JC62879-5	EF181190.D	03/27/18	17:35	3.20	4.21	14.18	17.31
JC62879-6	EF181191.D	03/27/18	18:00	3.21	4.21	14.18	17.31
JC62879-7	EF181192.D	03/27/18	18:25	3.21	4.21	14.18	17.31

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/28/18
Lab File ID:	EF181216.D	**Injection Time:**	16:59
Instrument ID:	GCEF	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	3.21	4.22	14.19	17.32

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP10884-MB1	EF181218.D	03/28/18	17:49	3.21	4.22	14.21	17.33
OP10884-BS1	EF181219.D	03/28/18	18:14	3.22	4.22	14.20	17.33
JC62879-9	EF181220.D	03/28/18	18:39	3.21	4.22	14.20	17.33
OP10884-MS	EF181221.D	03/28/18	19:04	3.21	4.22	14.20	17.33
OP10884-MSD	EF181222.D	03/28/18	19:29	3.22	4.23	14.20	17.33
JC62879-20	EF181223.D	03/28/18	19:54	3.22	4.22	14.20	17.33
JC62879-8	EF181224.D	03/28/18	20:19	3.22	4.22	14.20	17.33

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/28/18
Lab File ID:	EF181227.D	**Injection Time:**	21:34
Instrument ID:	GCEF	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	3.22	4.22	14.20	17.32

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
JC62879-10	EF181229.D	03/28/18	22:24	3.21	4.22	14.19	17.32
JC62879-11	EF181230.D	03/28/18	22:49	3.21	4.22	14.20	17.33
OP10884-MS2	EF181231.D	03/28/18	23:14	3.21	4.22	14.19	17.32
OP10884-MSD2	EF181232.D	03/28/18	23:39	3.22	4.22	14.20	17.33
JC62879-12	EF181233.D	03/29/18	00:04	3.21	4.22	14.19	17.32
JC62879-13	EF181234.D	03/29/18	00:29	3.22	4.22	14.19	17.32
JC62879-14	EF181235.D	03/29/18	00:54	3.21	4.22	14.19	17.32

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	GEF6203-CC6195	**Injection Date:**	03/29/18
Lab File ID:	EF181238.D	**Injection Time:**	02:09
Instrument ID:	GCEF	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	3.22	4.22	14.19	17.32

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
JC62879-15	EF181240.D	03/29/18	02:59	3.22	4.22	14.20	17.32
JC62879-16	EF181241.D	03/29/18	03:24	3.21	4.22	14.19	17.32
JC62879-17	EF181242.D	03/29/18	03:49	3.22	4.22	14.19	17.32
JC62879-18	EF181243.D	03/29/18	04:14	3.21	4.22	14.19	17.32
ZZZZZZ	EF181244.D	03/29/18	04:39	3.22	4.22	14.20	17.32
ZZZZZZ	EF181245.D	03/29/18	05:04	3.21	4.22	14.19	17.32
ZZZZZZ	EF181246.D	03/29/18	05:29	3.21	4.22	14.20	17.33

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICC4557
Lab FileID: 1G143268.D

Response Factor Report GC1G

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration

Calibration Files
2 =1G143271.D 5 =1G143270.D 10 =1G143269.D 25 =1G143268.D
50 =1G143267.D 100 =1G143265.D 1 =1G143272.D 75 =1G143266.D

Compound	2	5	10	25	50	100	1	75	Avg	%RSD
1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-	0.850	0.879	0.895	0.866	0.889	0.909		0.907	0.885	2.42
3) Hexachlorobe	1.145	1.111	1.101	1.093	1.102	1.099	1.176	1.100	1.116	2.63
4) alpha-BHC	1.021	1.044	1.056	1.116	1.183	1.275	0.915	1.241	1.106	10.95
5) gamma-BHC	1.020	1.018	1.030	1.049	1.102	1.162	0.853	1.140	1.047	9.15
6) Heptachlor	1.081	1.063	1.089	1.076	1.109	1.146	1.025	1.127	1.090	3.47
7) beta-BHC	0.562	0.533	0.537	0.529	0.511	0.507	0.485	0.514	0.522	4.47
8) delta-BHC	0.759	0.786	0.817	0.871	0.946	1.008	0.770	0.977	0.867	11.39
9) Aldrin	1.030	0.967	0.975	0.985	1.023	1.062	0.881	1.046	0.996	5.80
10) Alachlor	0.162	0.146	0.147	0.141	0.137	0.131		0.132	0.142	7.47
11) Heptachlor E	1.108	1.063	1.026	0.971	0.947	0.913	1.169	0.941	1.017	8.89
12) gamma-Chlord	0.668	0.759	0.822	0.849	0.874	0.889	0.474	0.884	0.777	18.49
13) alpha-Chlord	1.022	0.932	0.976	0.925	0.948	0.947	0.933	0.946	0.954	3.32
14) Endosulfan I	1.038	0.918	0.940	0.900	0.915	0.914	0.942	0.914	0.935	4.71
15) 4,4'-DDE	1.046	0.801	0.861	0.816	0.874	0.907	0.970	0.891	0.896	8.96
16) Dieldrin	0.951	0.934	0.939	0.943	0.977	1.004	0.837	0.990	0.947	5.41
17) Endrin	0.840	0.847	0.865	0.870	0.904	0.937	0.773	0.919	0.869	5.98
18) 4,4'-DDD	0.660	0.652	0.671	0.663	0.714	0.751	0.476	0.733	0.665	12.75
19) Endosulfan I	0.899	0.866	0.878	0.864	0.882	0.893	0.778	0.884	0.868	4.39
20) 4,4'-DDT	0.540	0.530	0.575	0.621	0.681	0.745	0.495	0.713	0.613	15.09
21) Endrin Aldeh	0.766	0.737	0.744	0.721	0.737	0.735	0.643	0.734	0.727	4.97
22) Endosulfan S	0.672	0.666	0.670	0.683	0.711	0.734	0.575	0.723	0.679	7.27
23) Methoxychlor	0.313	0.337	0.349	0.359	0.379	0.393	0.238	0.383	0.344	14.56
24) Mirex	0.910	0.855	0.857	0.805	0.778	0.739	0.848	0.751	0.818	7.28
25) Endrin Keton	0.737	0.714	0.720	0.722	0.749	0.788	0.603	0.770	0.725	7.67
26) Decachlorobi	0.788	0.746	0.729	0.702	0.694	0.701		0.699	0.723	4.77
27) I 1-bromo-2-nitrobenzen	ISTD									
28) Toxaphene{A}				0.018					0.018	0.00
29) Toxaphene{B}				0.044					0.044	0.00
30) Toxaphene{C}				0.034					0.034	0.00
31) Toxaphene{D}				0.025					0.025	0.00
32) Toxaphene{E}				0.030					0.030	0.00
33) I 1-bromo-2-nitrobenzen	ISTD									
34) Chlordane {A				0.056					0.056	0.00
35) Chlordane {B				0.049					0.049	0.00
36) Chlordane {C				0.134					0.134	0.00
37) Chlordane {D				0.218					0.218	0.00
38) Chlordane {E				0.039					0.039	0.00

Signal #2

Compound	2	5	10	25	50	100	1	75	Avg	%RSD
1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-	0.974	0.942	0.922	0.874	0.877	0.880		0.883	0.908	4.32

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICC4557
Lab FileID: 1G143268.D

3)	Hexachlorobe	1.422	1.291	1.295	1.225	1.209	1.217	1.382	1.215	1.282	6.40
4)	alpha-BHC	1.251	1.230	1.215	1.199	1.219	1.267	1.150	1.255	1.223	3.05
5)	gamma-BHC	1.139	1.100	1.105	1.082	1.099	1.133	1.092	1.122	1.109	1.82
6)	Heptachlor	1.053	1.060	1.047	1.036	1.029	1.053	1.000	1.043	1.040	1.85
7)	beta-BHC	0.526	0.489	0.497	0.458	0.465	0.464	0.516	0.469	0.486	5.27
8)	delta-BHC	1.054	0.971	0.951	0.973	0.990	1.034	1.022	1.015	1.001	3.54
9)	Aldrin	1.148	1.090	1.061	1.038	1.028	1.040	1.021	1.037	1.058	4.01
10)	Alachlor	0.170	0.144	0.140	0.137	0.126	0.122		0.126	0.138	11.76
11)	Heptachlor E	1.072	1.038	1.012	0.964	0.963	0.958	0.983	0.959	0.994	4.31
12)	gamma-Chlord	1.041	0.979	0.972	0.933	0.930	0.936	0.970	0.937	0.962	3.89
13)	alpha-Chlord	1.012	0.969	0.944	0.913	0.900	0.902	1.043	0.901	0.948	5.86
14)	Endosulfan I	1.004	0.932	0.911	0.893	0.878	0.883	0.953	0.877	0.916	4.86
15)	4,4'-DDE	1.106	1.030	0.977	0.953	0.935	0.943	1.122	0.938	1.000	7.67
16)	Dieldrin	1.085	1.039	1.022	0.985	0.982	0.991	1.046	0.988	1.017	3.66
17)	Endrin	0.928	0.912	0.903	0.880	0.876	0.890	0.886	0.882	0.895	2.02
18)	4,4'-DDD	0.787	0.785	0.776	0.748	0.751	0.764	0.809	0.753	0.772	2.75
19)	Endosulfan I	0.942	0.905	0.879	0.858	0.848	0.855	0.986	0.848	0.890	5.70
20)	4,4'-DDT	0.433	0.475	0.497	0.550	0.590	0.639	0.368	0.615	0.521	18.08
21)	Endrin Aldeh	0.763	0.727	0.690	0.671	0.668	0.666	0.761	0.661	0.701	6.15
22)	Endosulfan S	0.656	0.626	0.614	0.615	0.623	0.644	0.546	0.633	0.620	5.30
23)	Methoxychlor	0.242	0.243	0.271	0.285	0.299	0.334	0.195	0.317	0.273	16.61
24)	Mirex	0.611	0.556	0.553	0.536	0.515	0.508	0.572	0.512	0.545	6.46
25)	Endrin Ketone	0.685	0.684	0.689	0.713	0.735	0.770	0.607	0.753	0.705	7.24
26)	Decachlorobi	0.710	0.656	0.645	0.641	0.641	0.647		0.647	0.655	3.75

27)	I 1-bromo-2-nitrobenzen	----------ISTD----------			
28)	Toxaphene{A}		0.019	0.019	0.00
29)	Toxaphene{B}		0.020	0.020	0.00
30)	Toxaphene{C}		0.037	0.037	0.00
31)	Toxaphene{D}		0.021	0.021	0.00
32)	Toxaphene{E}		0.016	0.016	0.00

33)	I 1-bromo-2-nitrobenzen	----------ISTD----------			
34)	Chlordane {A		0.052	0.052	0.00
35)	Chlordane {B		0.040	0.040	0.00
36)	Chlordane {C		0.125	0.125	0.00
37)	Chlordane {D		0.207	0.207	0.00
38)	Chlordane {E		0.034	0.034	0.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

1PST4557.M Fri Feb 09 07:07:45 2018 RPT1

10.10.1 10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICV4557
Lab FileID: 1G143276.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD2B.CH
Acq On : 2-8-18 01:03:14 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	2.07- 2.27
34	Chlordane {A}	0.056	0.063	-12.5	116	0.00	4.01- 4.21
35	Chlordane {B}	0.049	0.043	12.2	90	0.00	4.51- 4.71
36	Chlordane {C}	0.134	0.134	0.0	103	0.00	5.28- 5.48
37	Chlordane {D}	0.218	0.214	1.8	102	0.00	5.44- 5.64
38	Chlordane {E}	0.039	0.032	17.9	85	0.00	6.55- 6.75

***** Signal #2 *****

33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	104	0.00	2.36- 2.56
34	Chlordane {A}	0.052	0.058	-11.5	116	0.00	5.08- 5.28
35	Chlordane {B}	0.040	0.034	15.0	88	0.00	5.76- 5.96
36	Chlordane {C}	0.125	0.120	4.0	100	0.00	6.74- 6.94
37	Chlordane {D}	0.207	0.197	4.8	99	0.00	6.97- 7.17
38	Chlordane {E}	0.034	0.029	14.7	88	0.00	8.51- 8.71

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G143267.D 1PST4557.M Fri Feb 09 07:07:12 2018 RPT1

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICV4557
Lab FileID: 1G143277.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD2B.CH
Acq On : 2-8-18 01:20:19 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	106	0.00	2.07- 2.27
28 L8	Toxaphene{A}	0.018	0.018	0.0	108	0.00	5.98- 6.18
29 L8	Toxaphene{B}	0.044	0.043	2.3	103	0.00	6.62- 6.82
30 L8	Toxaphene{C}	0.034	0.035	-2.9	110	0.00	6.80- 7.00
31 L8	Toxaphene{D}	0.025	0.030	-20.0	126	0.00	7.15- 7.35
32 L8	Toxaphene{E}	0.030	0.028	6.7	100	0.00	7.82- 8.02

***** Signal #2 *****

27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	2.36- 2.56
28 L8	Toxaphene{A}	0.019	0.017	10.5	93	0.00	7.49- 7.69
29 L8	Toxaphene{B}	0.020	0.020	0.0	102	0.00	8.39- 8.59
30 L8	Toxaphene{C}	0.037	0.036	2.7	102	0.00	8.56- 8.76
31 L8	Toxaphene{D}	0.021	0.020	4.8	104	0.00	9.00- 9.20
32 L8	Toxaphene{E}	0.016	0.016	0.0	103	0.00	9.84-10.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G143267.D 1PST4557.M Fri Feb 09 07:07:13 2018 RPT1

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICV4557
Lab FileID: 1G143278.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD2B.CH
Acq On : 2-8-18 01:37:39 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00	2.14- 2.20
10	Alachlor	0.142	0.145	-2.1	114	0.00	4.56- 4.62

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	106	0.00	2.43- 2.49
10	Alachlor	0.138	0.139	-0.7	117	0.00	5.40- 5.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G143267.D 1PST4557.M Fri Feb 09 07:07:14 2018 RPT1

10.10.4 10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4557-ICV4557
Lab FileID: 1G143279.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD2B.CH
Acq On : 2-8-18 01:54:52 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	109	0.00	2.14- 2.20
3	Hexachlorobenzene	1.116	1.134	-1.6	112	0.00	3.11- 3.17

***** Signal #2 *****

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00	2.43- 2.49
3	Hexachlorobenzene	1.282	1.250	2.5	112	0.00	3.89- 3.95

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G143267.D 1PST4557.M Fri Feb 09 07:07:15 2018 RPT1

10.10.5 10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4558-ICV4557
Lab FileID: 1G143283.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	93	0.00	2.15- 2.21
2	SAB	Tetrachloro-m-xylene	0.885	0.825	6.8	89	0.00	2.76- 2.82
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC	1.106	1.108	-0.2	93	0.00	3.26- 3.32
5	MA	gamma-BHC	1.047	1.073	-2.5	95	0.00	3.57- 3.63
6	MA	Heptachlor	1.090	1.109	-1.7	96	0.00	4.09- 4.15
7	B	beta-BHC	0.522	0.422	19.2	75	0.00	3.64- 3.70
8	B	delta-BHC	0.867	0.774	10.7	83	0.00	3.84- 3.90
9	MB	Aldrin	0.996	0.981	1.5	93	0.00	4.44- 4.50
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide	1.017	0.821	19.3	79	0.00	5.18- 5.24
12	B	gamma-Chlordane	0.777	0.842	-8.4	93	0.00	5.35- 5.41
13	B	alpha-Chlordane	0.954	0.938	1.7	95	0.00	5.52- 5.58
14	A	Endosulfan I	0.935	0.894	4.4	93	0.00	5.71- 5.77
15	B	4,4'-DDE	0.896	0.858	4.2	98	0.00	5.62- 5.68
16	MA	Dieldrin	0.947	0.938	1.0	93	0.00	6.04- 6.10
17	MA	Endrin	0.869	0.876	-0.8	94	0.00	6.38- 6.44
18	A	4,4'-DDD	0.665	0.713	-7.2	100	0.00	6.47- 6.54
19	B	Endosulfan II	0.868	0.845	2.6	91	0.00	6.71- 6.77
20	MA	4,4'-DDT	0.613	0.678	-10.6	102	0.00	6.91- 6.97
21	B	Endrin Aldehyde	0.727	0.719	1.1	93	0.00	7.35- 7.41
22	B	Endosulfan Sulfate	0.679	0.702	-3.4	96	0.00	8.04- 8.10
23	A	Methoxychlor	0.344	0.404	-17.4	105	0.00	7.69- 7.75
24		Mirex	0.818	0.778	4.9	90	0.00	7.91- 7.97
25	B	Endrin Ketone	0.725	0.812	-12.0	105	0.00	8.50- 8.56
26	SA	Decachlorobiphenyl	0.723	0.828	-14.5	110	0.00	10.12-10.18
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	2.08- 2.28
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	2.08- 2.28
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4558-ICV4557
Lab FileID: 1G143283.D

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	97	0.00	2.44- 2.50
2	SAB	Tetrachloro-m-xylene	0.908	0.804	11.5	89	0.00	3.34- 3.40
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC	1.223	1.202	1.7	97	0.00	4.06- 4.12
5	MA	gamma-BHC	1.109	1.071	3.4	96	0.00	4.52- 4.58
6	MA	Heptachlor	1.040	1.042	-0.2	97	0.00	5.15- 5.21
7	B	beta-BHC	0.486	0.437	10.1	92	0.00	4.61- 4.67
8	B	delta-BHC	1.001	0.955	4.6	95	0.00	5.04- 5.10
9	MB	Aldrin	1.058	1.008	4.7	94	0.00	5.64- 5.70
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide	0.994	0.936	5.8	94	0.00	6.51- 6.57
12	B	gamma-Chlordane	0.962	0.918	4.6	95	0.00	6.81- 6.87
13	B	alpha-Chlordane	0.948	0.889	6.2	94	0.00	7.04- 7.10
14	A	Endosulfan I	0.916	0.967	-5.6	105	0.00	7.15- 7.21
15	B	4,4'-DDE	1.000	0.944	5.6	96	0.00	7.29- 7.35
16	MA	Dieldrin	1.017	0.967	4.9	95	0.00	7.61- 7.67
17	MA	Endrin	0.895	0.877	2.0	96	0.00	8.14- 8.20
18	A	4,4'-DDD	0.772	0.765	0.9	99	0.00	8.28- 8.34
19	B	Endosulfan II	0.890	0.839	5.7	94	0.00	8.50- 8.56
20	MA	4,4'-DDT	0.521	0.587	-12.7	103	0.00	8.83- 8.89
21	B	Endrin Aldehyde	0.701	0.656	6.4	94	0.00	9.08- 9.14
22	B	Endosulfan Sulfate	0.620	0.632	-1.9	99	0.00	9.53- 9.59
23	A	Methoxychlor	0.273	0.304	-11.4	103	0.00	9.95-10.01
24		Mirex	0.545	0.523	4.0	94	0.00	10.28-10.34
25	B	Endrin Ketone	0.705	0.800	-13.5	108	0.00	10.31-10.37
26	SA	Decachlorobiphenyl	0.655	0.661	-0.9	100	0.00	12.04-12.10
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	2.37- 2.57
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	2.37- 2.57
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1G143268.D 1PST4557.M Thu Feb 08 17:07:05 2018 RPT1

10.10.6 10

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4598-CC4557
Lab FileID: 1G144702.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	2.13- 2.19
2 SAB	Tetrachloro-m-xylene	0.885	0.900	-1.7	109	0.00	2.74- 2.80
3	Hexachlorobenzene	1.116	1.476	-32.3#	142	0.00	3.09- 3.15
4 A	alpha-BHC	1.106	1.159	-4.8	109	0.00	3.24- 3.30
5 MA	gamma-BHC	1.047	1.081	-3.2	108	0.00	3.55- 3.61
6 MA	Heptachlor	1.090	1.176	-7.9	115	0.00	4.06- 4.12
7 B	beta-BHC	0.522	0.449	14.0	89	0.00	3.63- 3.69
8 B	delta-BHC	0.867	0.831	4.2	100	0.00	3.84- 3.90
9 MB	Aldrin	0.996	1.053	-5.7	112	0.00	4.42- 4.48
10	Alachlor	0.142	0.126	11.3	94	0.00	4.54- 4.60
11 B	Heptachlor Epoxide	1.017	1.048	-3.0	113	0.00	5.15- 5.21
12 B	gamma-Chlordane	0.777	0.892	-14.8	110	0.00	5.32- 5.38
13 B	alpha-Chlordane	0.954	0.980	-2.7	111	0.00	5.50- 5.56
14 A	Endosulfan I	0.935	1.096	-17.2	128	0.00	5.68- 5.74
15 B	4,4'-DDE	0.896	0.964	-7.6	124	0.00	5.61- 5.67
16 MA	Dieldrin	0.947	1.013	-7.0	113	0.00	6.01- 6.07
17 MA	Endrin	0.869	0.926	-6.6	112	0.00	6.35- 6.41
18 A	4,4'-DDD	0.665	0.551	17.1	87	0.02	6.48- 6.55
19 B	Endosulfan II	0.868	0.878	-1.2	107	0.00	6.68- 6.74
20 MA	4,4'-DDT	0.613	0.572	6.7	97	0.00	6.89- 6.95
21 B	Endrin Aldehyde	0.727	0.671	7.7	98	0.00	7.32- 7.38
22 B	Endosulfan Sulfate	0.679	0.654	3.7	100	0.00	8.01- 8.07
23 A	Methoxychlor	0.344	0.257	25.3#	75	0.02	7.70- 7.76
24	Mirex	0.818	0.775	5.3	101	0.00	7.87- 7.93
25 B	Endrin Ketone	0.725	0.791	-9.1	115	0.00	8.47- 8.53
26 SA	Decachlorobiphenyl	0.723	0.712	1.5	106	0.00	10.10-10.16

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	2.42- 2.48
2 SAB	Tetrachloro-m-xylene	0.908	0.907	0.1	106	0.00	3.32- 3.38
3	Hexachlorobenzene	1.282	1.229	4.1	103	0.00	3.88- 3.94
4 A	alpha-BHC	1.223	1.254	-2.5	107	0.00	4.03- 4.09
5 MA	gamma-BHC	1.109	1.111	-0.2	105	0.00	4.50- 4.56
6 MA	Heptachlor	1.040	1.130	-8.7	112	0.00	5.12- 5.18
7 B	beta-BHC	0.486	0.405	16.7	91	0.00	4.59- 4.65
8 B	delta-BHC	1.001	0.938	6.3	99	0.00	5.02- 5.08
9 MB	Aldrin	1.058	1.103	-4.3	109	0.00	5.61- 5.67
10	Alachlor	0.138	0.126	8.7	94	0.00	5.36- 5.42

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4598-CC4557
Lab FileID: 1G144702.D

11	B	Heptachlor Epoxide	0.994	0.978	1.6	104	0.00	6.47- 6.53
12	B	gamma-Chlordane	0.962	0.975	-1.4	107	0.00	6.77- 6.83
13	B	alpha-Chlordane	0.948	0.960	-1.3	108	0.00	7.00- 7.06
14	A	Endosulfan I	0.916	0.900	1.7	103	0.00	7.12- 7.18
15	B	4,4'-DDE	1.000	0.908	9.2	98	0.00	7.26- 7.32
16	MA	Dieldrin	1.017	1.024	-0.7	107	0.00	7.57- 7.63
17	MA	Endrin	0.895	0.913	-2.0	106	0.00	8.10- 8.16
18	A	4,4'-DDD	0.772	0.619	19.8	85	0.01	8.26- 8.32
19	B	Endosulfan II	0.890	0.846	4.9	101	0.00	8.46- 8.52
20	MA	4,4'-DDT	0.521	0.546	-4.8	102	0.00	8.80- 8.86
21	B	Endrin Aldehyde	0.701	0.651	7.1	100	0.00	9.04- 9.10
22	B	Endosulfan Sulfate	0.620	0.648	-4.5	108	0.00	9.50- 9.56
23	A	Methoxychlor	0.273	0.224	17.9	81	0.00	9.93- 9.99
24		Mirex	0.545	0.581	-6.6	111	0.00	10.25-10.31
25	B	Endrin Ketone	0.705	0.728	-3.3	105	0.00	10.29-10.35
26	SA	Decachlorobiphenyl	0.655	0.566	13.6	91	0.00	12.00-12.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G143268.D 1PST4557.M Wed Mar 28 09:22:14 2018 RPT1

10.10.7 10

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4598-CC4557
Lab FileID: 1G144723.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	113	0.00	2.13- 2.19
2 SAB	Tetrachloro-m-xylene	0.885	0.955	-7.9	122	0.00	2.74- 2.80
3	Hexachlorobenzene	1.116	1.523	-36.5#	157	0.00	3.09- 3.15
4 A	alpha-BHC	1.106	1.313	-18.7	126	0.00	3.24- 3.30
5 MA	gamma-BHC	1.047	1.157	-10.5	119	0.00	3.55- 3.61
6 MA	Heptachlor	1.090	1.222	-12.1	125	0.00	4.06- 4.12
7 B	beta-BHC	0.522	0.475	9.0	105	-0.01	3.62- 3.68
8 B	delta-BHC	0.867	0.862	0.6	103	-0.01	3.83- 3.89
9 MB	Aldrin	0.996	1.219	-22.4#	135	0.00	4.42- 4.48
10	Alachlor	0.142	0.117	17.6	97	0.00	4.54- 4.60
11 B	Heptachlor Epoxide	1.017	1.124	-10.5	135	0.00	5.15- 5.21
12 B	gamma-Chlordane	0.777	1.144	-47.2#	148	0.00	5.32- 5.38
13 B	alpha-Chlordane	0.954	1.120	-17.4	134	0.00	5.50- 5.56
14 A	Endosulfan I	0.935	1.465	-56.7#	182	0.00	5.68- 5.74
15 B	4,4'-DDE	0.896	0.504	43.8#	65	0.03	5.63- 5.69
16 MA	Dieldrin	0.947	1.152	-21.6#	134	0.00	6.01- 6.07
17 MA	Endrin	0.869	0.992	-14.2	124	0.00	6.35- 6.41
18 A	4,4'-DDD	0.665	0.541	18.6	86	0.06	6.52- 6.59
19 B	Endosulfan II	0.868	1.049	-20.9#	135	0.00	6.69- 6.75
20 MA	4,4'-DDT	0.613	0.591	3.6	98	0.03	6.91- 6.97
21 B	Endrin Aldehyde	0.727	0.783	-7.7	120	0.00	7.32- 7.38
22 B	Endosulfan Sulfate	0.679	0.783	-15.3	125	0.00	8.01- 8.07
23 A	Methoxychlor	0.344	0.259	24.7#	77	0.03	7.71- 7.77
24	Mirex	0.818	0.886	-8.3	129	0.00	7.87- 7.93
25 B	Endrin Ketone	0.725	0.953	-31.4#	144	0.00	8.47- 8.53
26 SA	Decachlorobiphenyl	0.723	0.785	-8.6	128	0.00	10.10-10.16

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00	2.42- 2.48
2 SAB	Tetrachloro-m-xylene	0.908	0.951	-4.7	117	0.00	3.31- 3.37
3	Hexachlorobenzene	1.282	1.258	1.9	112	0.00	3.87- 3.93
4 A	alpha-BHC	1.223	1.317	-7.7	116	0.00	4.03- 4.09
5 MA	gamma-BHC	1.109	1.206	-8.7	118	0.00	4.49- 4.55
6 MA	Heptachlor	1.040	1.210	-16.3	127	0.00	5.12- 5.18
7 B	beta-BHC	0.486	0.512	-5.3	119	0.00	4.59- 4.65
8 B	delta-BHC	1.001	0.988	1.3	107	0.00	5.02- 5.08
9 MB	Aldrin	1.058	1.187	-12.2	124	0.00	5.61- 5.67

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G1G4598-CC4557
Lab FileID: 1G144723.D

10		Alachlor	0.138	0.145	-5.1	123	0.00	5.37- 5.43
11	B	Heptachlor Epoxide	0.994	1.073	-7.9	120	0.00	6.47- 6.53
12	B	gamma-Chlordane	0.962	1.070	-11.2	124	0.00	6.77- 6.83
13	B	alpha-Chlordane	0.948	1.035	-9.2	124	0.00	7.00- 7.06
14	A	Endosulfan I	0.916	0.985	-7.5	121	0.00	7.12- 7.18
15	B	4,4'-DDE	1.000	0.905	9.5	104	0.02	7.27- 7.33
16	MA	Dieldrin	1.017	1.116	-9.7	122	0.00	7.57- 7.63
17	MA	Endrin	0.895	0.923	-3.1	113	0.00	8.10- 8.16
18	A	4,4'-DDD	0.772	0.643	16.7	92	0.03	8.28- 8.34
19	B	Endosulfan II	0.890	0.921	-3.5	117	0.00	8.46- 8.52
20	MA	4,4'-DDT	0.521	0.549	-5.4	100	0.01	8.80- 8.86
21	B	Endrin Aldehyde	0.701	0.748	-6.7	121	0.00	9.04- 9.10
22	B	Endosulfan Sulfate	0.620	0.735	-18.5	127	0.00	9.50- 9.56
23	A	Methoxychlor	0.273	0.227	16.8	82	0.01	9.94-10.00
24		Mirex	0.545	0.628	-15.2	131	0.00	10.25-10.31
25	B	Endrin Ketone	0.705	0.837	-18.7	123	0.00	10.29-10.35
26	SA	Decachlorobiphenyl	0.655	0.565	13.7	95	0.00	12.00-12.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G144658.D 1PST4557.M Wed Mar 28 09:26:29 2018 RPT1

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2366-ICC2366
Lab FileID: 4G90005.D

Response Factor Report GC4G

Method : C:\MSDCHEM\1\METHODS\4PST2366.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Feb 19 11:01:45 2018
Response via : Initial Calibration

Calibration Files
2 =4g90008.D 5 =4g90007.D 10 =4g90006.D 25 =4g90005.D
50 =4g90004.D 100 =4g90002.D 1 =4g90009.D 75 =4g90003.D

Compound	2	5	10	25	50	100	1	75	Avg	%RSD
1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-	0.698	0.912	1.156	1.005	0.956	0.931	0.411	0.939	0.876	25.79
----- Quadratic regression ----- Coefficient = 0.9995										
Response Ratio = -0.00059 + 1.00390 *A + -0.03812 *A^2										
3) hexachlorobe	1.818	1.463	1.571	1.353	1.394	1.290	2.301	1.313	1.563	22.02
----- Quadratic regression ----- Coefficient = 0.9996										
Response Ratio = 0.01486 + 1.41771 *A + -0.06880 *A^2										
4) alpha-BHC	1.272	1.152	1.296	1.180	1.252	1.200	1.194	1.211	1.220	4.03
5) gamma-BHC	1.125	1.099	1.171	1.064	1.130	1.059	1.114	1.082	1.105	3.37
6) Heptachlor	1.118	1.032	1.170	1.057	1.115	1.064	1.021	1.087	1.083	4.59
7) beta-BHC	0.588	0.514	0.513	0.452	0.474	0.434	0.528	0.449	0.494	10.44
8) delta-BHC	0.940	0.871	1.000	0.885	0.949	0.921	0.948	0.938	0.931	4.32
9) Aldrin	1.072	0.986	1.109	1.007	1.084	0.993	1.000	1.032	1.036	4.52
10) alachlor		0.120	0.150	0.106	0.113	0.101		0.105	0.116	15.76
11) Heptachlor E	1.118	0.915	0.999	0.885	0.939	0.846	1.140	0.889	0.966	11.38
12) gamma-Chlord	0.997	0.869	0.968	0.872	0.918	0.851	0.932	0.882	0.911	5.70
13) alpha-Chlord	1.044	0.912	0.974	0.860	0.893	0.829	0.800	0.861	0.897	8.89
14) Endosulfan I	0.871	0.833	0.926	0.832	0.864	0.809	0.817	0.838	0.849	4.42
15) 4,4'-DDE	1.054	0.931	1.042	0.926	0.960	0.899	1.017	0.930	0.970	6.11
16) Dieldrin	1.042	0.928	1.047	0.942	0.988	0.929	0.952	0.963	0.974	4.89
17) Endrin	0.973	0.862	0.997	0.900	0.950	0.887	0.969	0.920	0.932	5.05
18) 4,4'-DDD	0.845	0.724	0.834	0.751	0.790	0.747	0.782	0.772	0.780	5.37
19) Endosulfan I	0.864	0.813	0.915	0.812	0.850	0.796	0.915	0.827	0.849	5.43
20) 4,4'-DDT	0.665	0.646	0.769	0.715	0.782	0.754	0.660	0.774	0.721	7.85
21) Endrin Aldeh	0.529	0.647	0.732	0.660	0.678	0.645	0.442	0.667	0.625	14.90
22) Endosulfan S	0.652	0.597	0.680	0.602	0.643	0.625	0.592	0.637	0.628	4.86
23) Methoxychlor	0.389	0.374	0.435	0.395	0.427	0.395	0.370	0.419	0.400	6.00
24) Mirex	0.699	0.630	0.706	0.620	0.636	0.589	0.736	0.616	0.654	8.01
25) Endrin Keton	0.819	0.741	0.876	0.763	0.802	0.766	0.761	0.784	0.789	5.44
26) Decachlorobi	0.977	0.852	0.951	0.834	0.886	0.820	0.938	0.844	0.888	6.76
27) I 1-bromo-2-nitrobenzen	ISTD									
28) Toxaphene{A}				0.014					0.014	0.00
29) Toxaphene{B}				0.038					0.038	0.00
30) Toxaphene{C}				0.029					0.029	0.00
31) Toxaphene{D}				0.024					0.024	0.00
32) Toxaphene{E}				0.023					0.023	0.00
33) I 1-bromo-2-nitrobenzen	ISTD									
34) Chlordane {A				0.053					0.053	0.00
35) Chlordane {B				0.024					0.024	0.00
36) Chlordane {C				0.134					0.134	0.00
37) Chlordane {D				0.204					0.204	0.00
38) Chlordane {E				0.024					0.024	0.00

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2366-ICC2366
Lab FileID: 4G90005.D

Signal #2

1)	I 1-bromo-2-nitrobenzen	----------ISTD----------									
2)	Tetrachloro-	0.944	0.924	1.041	0.925	0.902	0.927	0.794	0.906	0.920	7.33
3)	hexachlorobe	1.450	1.299	1.489	1.315	1.287	1.289	1.509	1.277	1.364	7.32
4)	alpha-BHC	1.173	1.147	1.322	1.209	1.237	1.292	1.159	1.260	1.225	5.23
5)	gamma-BHC	1.096	1.055	1.209	1.095	1.111	1.148	0.964	1.129	1.101	6.48
6)	Heptachlor	1.112	1.077	1.220	1.099	1.118	1.153	1.041	1.134	1.119	4.75
7)	beta-BHC	0.551	0.494	0.553	0.482	0.474	0.471	0.515	0.475	0.502	6.75
8)	delta-BHC	0.915	0.888	1.026	0.916	0.937	0.995	0.816	0.971	0.933	7.04
9)	Aldrin	1.089	1.018	1.157	1.031	1.031	1.065	0.989	1.049	1.054	4.87
10)	alachlor		0.143	0.156	0.137	0.130	0.124		0.125	0.136	9.07
11)	Heptachlor E	1.043	0.990	1.095	0.952	0.941	0.954	1.061	0.944	0.997	6.05
12)	gamma-Chlord	0.979	0.937	1.053	0.945	0.938	0.957	0.927	0.942	0.960	4.27
13)	alpha-Chlord	0.965	0.928	1.055	0.923	0.908	0.928	0.930	0.921	0.945	5.01
14)	Endosulfan I	0.895	0.863	0.985	0.870	0.865	0.878	0.835	0.872	0.883	5.04
15)	4,4'-DDE	0.973	0.938	1.055	0.944	0.945	0.970	0.864	0.959	0.956	5.50
16)	Dieldrin	0.962	0.931	1.055	0.946	0.947	0.969	0.897	0.961	0.958	4.71
17)	Endrin	0.898	0.863	0.996	0.890	0.894	0.930	0.823	0.911	0.901	5.56
18)	4,4'-DDD	0.747	0.737	0.848	0.757	0.756	0.782	0.702	0.771	0.762	5.54
19)	Endosulfan I	0.875	0.831	0.952	0.840	0.829	0.839	0.731	0.834	0.841	7.24
20)	4,4'-DDT	0.691	0.655	0.801	0.728	0.752	0.782	0.579	0.768	0.720	10.35
21)	Endrin Aldeh	0.736	0.656	0.763	0.671	0.655	0.661	0.651	0.656	0.681	6.34
22)	Endosulfan S	0.612	0.602	0.694	0.605	0.609	0.630	0.543	0.617	0.614	6.71
23)	Methoxychlor	0.381	0.381	0.462	0.414	0.410	0.410	0.358	0.411	0.403	7.67
24)	Mirex	0.675	0.636	0.727	0.635	0.612	0.601	0.726	0.605	0.652	7.90
25)	Endrin Keton	0.793	0.764	0.880	0.780	0.784	0.806	0.734	0.796	0.792	5.27
26)	Decachlorobi	0.839	0.775	0.869	0.752	0.722	0.710	0.717	0.718	0.763	7.98
27)	I 1-bromo-2-nitrobenzen	----------ISTD----------									
28)	Toxaphene{A}					0.019				0.019	0.00
29)	Toxaphene{B}					0.024				0.024	0.00
30)	Toxaphene{C}					0.043				0.043	0.00
31)	Toxaphene{D}					0.026				0.026	0.00
32)	Toxaphene{E}					0.022				0.022	0.00
33)	I 1-bromo-2-nitrobenzen	----------ISTD----------									
34)	Chlordane {A					0.056				0.056	0.00
35)	Chlordane {B					0.028				0.028	0.00
36)	Chlordane {C					0.128				0.128	0.00
37)	Chlordane {D					0.210				0.210	0.00
38)	Chlordane {E					0.022				0.022	0.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

4PST2366.M Mon Feb 19 13:03:59 2018 RPT1

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2366-ICV2366
Lab FileID: 4G90012.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G2366\4g90012.D\ECD1A.ch Vial: 13
Signal #2 : C:\msdchem\1\DATA\4G2366\4g90012.D\ECD2B.ch
Acq On : 16 Feb 2018 7:24 pm Operator: kristend
Sample : icv2366-25 Inst : GC4G
Misc : op9981,g4g2366,880,,,5,10 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST2366.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Feb 19 11:01:45 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	89	0.00	1.45- 1.51
		---------- True Calc. % Drift ----------						
2	SAB	Tetrachloro-m-xylene	25.000	21.502	14.0	75	0.02	2.07- 2.13
		---------- AvgRF CCRF % Dev ----------						
4	A	alpha-BHC	1.220	1.204	1.3	91	0.00	2.55- 2.61
5	MA	gamma-BHC	1.105	1.105	0.0	92	0.00	2.85- 2.91
6	MA	Heptachlor	1.083	1.096	-1.2	92	0.00	3.34- 3.40
7	B	beta-BHC	0.494	0.471	4.7	93	0.00	2.92- 2.98
8	B	delta-BHC	0.931	0.932	-0.1	94	0.00	3.11- 3.17
9	MB	Aldrin	1.036	1.031	0.5	91	0.00	3.67- 3.73
11	B	Heptachlor Epoxide	0.966	0.989	-2.4	99	0.00	4.37- 4.43
12	B	gamma-Chlordane	0.911	0.983	-7.9	100	0.00	4.53- 4.59
13	B	alpha-Chlordane	0.897	0.932	-3.9	96	0.00	4.70- 4.76
14	A	Endosulfan I	0.849	0.891	-4.9	95	0.00	4.87- 4.93
15	B	4,4'-DDE	0.970	0.984	-1.4	94	0.00	4.82- 4.88
16	MA	Dieldrin	0.974	0.998	-2.5	94	0.00	5.19- 5.25
17	MA	Endrin	0.932	0.907	2.7	90	0.00	5.51- 5.57
18	A	4,4'-DDD	0.780	0.801	-2.7	95	0.00	5.64- 5.70
19	B	Endosulfan II	0.849	0.853	-0.5	93	0.00	5.83- 5.89
20	MA	4,4'-DDT	0.721	0.763	-5.8	95	0.00	6.06- 6.12
21	B	Endrin Aldehyde	0.625	0.688	-10.1	93	0.00	6.45- 6.51
22	B	Endosulfan Sulfate	0.628	0.626	0.3	92	0.00	7.12- 7.18
23	A	Methoxychlor	0.400	0.407	-1.7	92	0.00	6.85- 6.91
24		Mirex	0.654	0.653	0.2	94	0.00	6.98- 7.04
25	B	Endrin Ketone	0.789	0.821	-4.1	96	0.00	7.56- 7.62
26	SA	Decachlorobiphenyl	0.888	0.863	2.8	92	0.00	9.38- 9.44
*****		Signal #2 *****						
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	93	0.00	1.88- 1.94
2	SAB	Tetrachloro-m-xylene	0.920	0.836	9.1	84	0.00	2.77- 2.83
4	A	alpha-BHC	1.225	1.185	3.3	92	0.00	3.48- 3.54
5	MA	gamma-BHC	1.101	1.086	1.4	93	0.00	3.93- 3.99
6	MA	Heptachlor	1.119	1.101	1.6	94	0.00	4.53- 4.59
7	B	beta-BHC	0.502	0.484	3.6	94	0.00	4.02- 4.08
8	B	delta-BHC	0.933	0.923	1.1	94	0.00	4.43- 4.49
9	MB	Aldrin	1.054	1.010	4.2	91	0.00	5.00- 5.06
11	B	Heptachlor Epoxide	0.997	0.950	4.7	93	0.00	5.84- 5.90
12	B	gamma-Chlordane	0.960	0.946	1.5	94	0.00	6.13- 6.19

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2366-ICV2366
Lab FileID: 4G90012.D

13	B	alpha-Chlordane	0.945	0.914	3.3	92	0.00	6.36- 6.42
14	A	Endosulfan I	0.883	0.877	0.7	94	0.00	6.46- 6.52
15	B	4,4'-DDE	0.956	0.936	2.1	93	0.00	6.62- 6.68
16	MA	Dieldrin	0.958	0.942	1.7	93	0.00	6.90- 6.96
17	MA	Endrin	0.901	0.857	4.9	90	0.00	7.41- 7.47
18	A	4,4'-DDD	0.762	0.756	0.8	93	0.00	7.59- 7.65
19	B	Endosulfan II	0.841	0.831	1.2	92	0.00	7.77- 7.83
20	MA	4,4'-DDT	0.720	0.734	-1.9	94	0.00	8.13- 8.19
21	B	Endrin Aldehyde	0.681	0.678	0.4	94	0.00	8.35- 8.41
22	B	Endosulfan Sulfate	0.614	0.596	2.9	92	0.00	8.82- 8.88
23	A	Methoxychlor	0.403	0.394	2.2	89	0.00	9.38- 9.44
24		Mirex	0.652	0.630	3.4	93	0.00	9.72- 9.78
25	B	Endrin Ketone	0.792	0.793	-0.1	95	0.00	9.79- 9.85
26	SA	Decachlorobiphenyl	0.763	0.735	3.7	91	0.00	11.87-11.93

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g90005.D 4PST2366.M Mon Feb 19 12:44:10 2018 RPT1

10.10.10
10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2366-ICV2366
Lab FileID: 4G90013.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G2366\4g90013.D\ECD1A.ch Vial: 14
Signal #2 : C:\msdchem\1\DATA\4G2366\4g90013.D\ECD2B.ch
Acq On : 16 Feb 2018 7:41 pm Operator: kristend
Sample : icv2366-500 Inst : GC4G
Misc : op9981,g4g2366,880,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST2366.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Feb 19 11:01:45 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.40- 1.60
34	Chlordane {A}	0.053	0.058	-9.4	114	0.00	3.28- 3.48
35	Chlordane {B}	0.024	0.023	4.2	100	0.00	4.22- 4.42
36	Chlordane {C}	0.134	0.125	6.7	98	0.00	4.47- 4.67
37	Chlordane {D}	0.204	0.194	4.9	99	0.00	4.63- 4.83
38	Chlordane {E}	0.024	0.025	-4.2	112	0.00	5.51- 5.71
*****	Signal #2 *****						
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.82- 2.02
34	Chlordane {A}	0.056	0.061	-8.9	114	0.00	4.46- 4.66
35	Chlordane {B}	0.028	0.026	7.1	97	0.00	5.71- 5.91
36	Chlordane {C}	0.128	0.118	7.8	97	0.00	6.07- 6.27
37	Chlordane {D}	0.210	0.195	7.1	97	0.00	6.29- 6.49
38	Chlordane {E}	0.022	0.023	-4.5	110	0.00	7.47- 7.67

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g90004.D 4PST2366.M Mon Feb 19 12:44:25 2018 RPT1

10.10.11 10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2366-ICV2366
Lab FileID: 4G90014.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G2366\4g90014.D\ECD1A.ch Vial: 15
Signal #2 : C:\msdchem\1\DATA\4G2366\4g90014.D\ECD2B.ch
Acq On : 16 Feb 2018 7:58 pm Operator: kristend
Sample : icv2366-500 Inst : GC4G
Misc : op9981,g4g2366,880,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST2366.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Feb 19 11:01:45 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.40- 1.60
28 L8	Toxaphene{A}	0.014	0.015	-7.1	106	0.00	5.13- 5.33
29 L8	Toxaphene{B}	0.038	0.043	-13.2	113	0.00	5.75- 5.95
30 L8	Toxaphene{C}	0.029	0.029	0.0	99	0.00	5.92- 6.12
31 L8	Toxaphene{D}	0.024	0.026	-8.3	108	0.00	6.26- 6.46
32 L8	Toxaphene{E}	0.023	0.026	-13.0	113	0.00	6.90- 7.10
*****	Signal #2 *****						
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.82- 2.02
28 L8	Toxaphene{A}	0.019	0.019	0.0	101	0.00	6.80- 7.00
29 L8	Toxaphene{B}	0.024	0.024	0.0	99	0.00	7.67- 7.87
30 L8	Toxaphene{C}	0.043	0.044	-2.3	101	0.00	7.84- 8.04
31 L8	Toxaphene{D}	0.026	0.026	0.0	100	0.00	8.28- 8.48
32 L8	Toxaphene{E}	0.022	0.022	0.0	102	0.00	9.19- 9.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g90004.D 4PST2366.M Mon Feb 19 12:44:27 2018 RPT1

10.10.12 10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2366-ICV2366
Lab FileID: 4G90016.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G2366\4g90016.D\ECD1A.ch Vial: 17
Signal #2 : C:\msdchem\1\DATA\4G2366\4g90016.D\ECD2B.ch
Acq On : 16 Feb 2018 8:32 pm Operator: kristend
Sample : icv2366-50 Inst : GC4G
Misc : op9981,g4g2366,880,,,5,20 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST2366.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Feb 19 11:01:45 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.00	1.45- 1.51
	---------- True Calc. % Drift ----------						
3	hexachlorobenzene	50.000	54.963	-9.9	105	-0.01	2.41- 2.47
	---------- AvgRF CCRF % Dev ----------						
*****	Signal #2 *****						
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.88- 1.94
3	hexachlorobenzene	1.364	1.354	0.7	106	0.00	3.32- 3.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g90004.D 4PST2366.M Mon Feb 19 12:44:29 2018 RPT1

10.10.13 10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2367-ICV2366
Lab FileID: 4G90020.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G2367\4g90020.D\ECD1A.ch Vial: 5
Signal #2 : C:\msdchem\1\DATA\4G2367\4g90020.D\ECD2B.ch
Acq On : 19 Feb 2018 12:44 pm Operator: kristend
Sample : icv2366-50 Inst : GC4G
Misc : op9981,g4g2367,880,,,5,20 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST2366.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Feb 19 11:01:45 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	85	0.00	1.46- 1.52
10	alachlor	0.116	0.129	-11.2	96	0.01	3.84- 3.90
*****	Signal #2 *****						
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	94	-0.02	1.86- 1.92
10	alachlor	0.136	0.134	1.5	96	-0.01	4.79- 4.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g90004.D 4PST2366.M Mon Feb 19 13:02:58 2018 RPT1

10.10.14 10

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2399-CC2366
Lab FileID: 4G90983.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G2399\4g90983.D\ECD1A.ch Vial: 4
Signal #2 : C:\msdchem\1\DATA\4G2399\4g90983.D\ECD2B.ch
Acq On : 27 Mar 2018 9:20 am Operator: kristend
Sample : cc2366-50 Inst : GC4G
Misc : op10830,g4g2399,1020,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST2366.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 08:39:27 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	106	0.00	1.43- 1.49
		---------- True Calc. % Drift ----------						
2	SAB	Tetrachloro-m-xylene	50.000	47.001	6.0	101	0.00	2.04- 2.10
3		hexachlorobenzene	50.000	48.466	3.1	101	0.00	2.37- 2.43
		---------- AvgRF CCRF % Dev ----------						
4	A	alpha-BHC	1.220	1.182	3.1	101	0.00	2.51- 2.57
5	MA	gamma-BHC	1.105	0.999	9.6	94	0.00	2.80- 2.86
6	MA	Heptachlor	1.083	1.002	7.5	96	0.00	3.29- 3.35
7	B	beta-BHC	0.494	0.398	19.4	89	0.00	2.88- 2.94
8	B	delta-BHC	0.931	0.810	13.0	91	0.00	3.06- 3.12
9	MB	Aldrin	1.036	0.942	9.1	93	0.00	3.61- 3.67
10		alachlor	0.116	0.106	8.6	100	0.00	3.75- 3.81
11	B	Heptachlor Epoxide	0.966	0.789	18.3	89	0.00	4.30- 4.36
12	B	gamma-Chlordane	0.911	0.795	12.7	92	0.00	4.46- 4.52
13	B	alpha-Chlordane	0.897	0.781	12.9	93	0.00	4.63- 4.69
14	A	Endosulfan I	0.849	0.783	7.8	96	0.00	4.80- 4.86
15	B	4,4'-DDE	0.970	0.807	16.8	90	0.00	4.75- 4.81
16	MA	Dieldrin	0.974	0.869	10.8	94	0.00	5.11- 5.17
17	MA	Endrin	0.932	0.851	8.7	95	0.00	5.43- 5.49
18	A	4,4'-DDD	0.780	0.706	9.5	95	0.00	5.57- 5.63
19	B	Endosulfan II	0.849	0.752	11.4	94	0.00	5.74- 5.80
20	MA	4,4'-DDT	0.721	0.661	8.3	90	0.00	5.97- 6.03
21	B	Endrin Aldehyde	0.625	0.597	4.5	94	0.00	6.35- 6.41
22	B	Endosulfan Sulfate	0.628	0.608	3.2	101	0.00	7.02- 7.08
23	A	Methoxychlor	0.400	0.365	8.8	91	0.00	6.77- 6.83
24		Mirex	0.654	0.569	13.0	95	0.00	6.88- 6.94
25	B	Endrin Ketone	0.789	0.732	7.2	97	0.00	7.45- 7.51
26	SA	Decachlorobiphenyl	0.888	0.804	9.5	97	0.00	9.28- 9.34
*****		Signal #2 *****						
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	87	0.00	1.85- 1.91
2	SAB	Tetrachloro-m-xylene	0.920	0.880	4.3	85	0.00	2.73- 2.79
3		hexachlorobenzene	1.364	1.265	7.3	85	0.00	3.27- 3.33
4	A	alpha-BHC	1.225	1.148	6.3	81	0.00	3.43- 3.49
5	MA	gamma-BHC	1.101	0.974	11.5	76	0.00	3.87- 3.93
6	MA	Heptachlor	1.119	1.015	9.3	79	0.00	4.46- 4.52
7	B	beta-BHC	0.502	0.400	20.3#	73	0.00	3.97- 4.03
8	B	delta-BHC	0.933	0.804	13.8	74	0.00	4.37- 4.43

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2399-CC2366
Lab FileID: 4G90983.D

9	MB	Aldrin	1.054	0.916	13.1	77	0.00	4.93- 4.99
10		alachlor	0.136	0.121	11.0	81	0.00	4.73- 4.79
11	B	Heptachlor Epoxide	0.997	0.901	9.6	83	0.00	5.76- 5.82
12	B	gamma-Chlordane	0.960	0.821	14.5	76	0.00	6.05- 6.11
13	B	alpha-Chlordane	0.945	0.795	15.9	76	0.00	6.28- 6.34
14	A	Endosulfan I	0.883	0.767	13.1	77	0.00	6.38- 6.44
15	B	4,4'-DDE	0.956	0.828	13.4	76	0.00	6.54- 6.60
16	MA	Dieldrin	0.958	0.830	13.4	76	0.00	6.82- 6.88
17	MA	Endrin	0.901	0.808	10.3	79	0.00	7.32- 7.38
18	A	4,4'-DDD	0.762	0.669	12.2	77	0.00	7.50- 7.56
19	B	Endosulfan II	0.841	0.740	12.0	78	0.00	7.68- 7.74
20	MA	4,4'-DDT	0.720	0.638	11.4	74	0.00	8.04- 8.10
21	B	Endrin Aldehyde	0.681	0.580	14.8	77	0.00	8.25- 8.31
22	B	Endosulfan Sulfate	0.614	0.577	6.0	82	0.00	8.73- 8.79
23	A	Methoxychlor	0.403	0.361	10.4	77	0.00	9.28- 9.34
24		Mirex	0.652	0.577	11.5	82	0.00	9.62- 9.68
25	B	Endrin Ketone	0.792	0.714	9.8	79	0.00	9.69- 9.75
26	SA	Decachlorobiphenyl	0.763	0.681	10.7	82	0.00	11.78-11.84

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g90004.D 4PST2366.M Tue Mar 27 11:22:36 2018 RPT1

10.10.15 10

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2400-CC2366
Lab FileID: 4G91001.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G2400\4g91001.D\ECD1A.ch Vial: 2
Signal #2 : C:\msdchem\1\DATA\4G2400\4g91001.D\ECD2B.ch
Acq On : 28 Mar 2018 12:54 am Operator: christp
Sample : cc2366-25 Inst : GC4G
Misc : op10876,g4g2400,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST2366.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:46:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	107	0.01	1.44- 1.50
		---------- True Calc. % Drift ----------						
2	SAB	Tetrachloro-m-xylene	25.000	21.673	13.3	91	0.00	2.05- 2.11
3		hexachlorobenzene	25.000	23.562	5.8	106	0.00	2.38- 2.44
		---------- AvgRF CCRF % Dev ----------						
4	A	alpha-BHC	1.220	1.210	0.8	110	0.00	2.52- 2.58
5	MA	gamma-BHC	1.105	1.056	4.4	107	0.00	2.81- 2.87
6	MA	Heptachlor	1.083	1.054	2.7	107	0.00	3.29- 3.35
7	B	beta-BHC	0.494	0.426	13.8	101	0.00	2.89- 2.95
8	B	delta-BHC	0.931	0.853	8.4	104	0.00	3.07- 3.13
9	MB	Aldrin	1.036	0.983	5.1	105	0.00	3.61- 3.67
10		alachlor	0.116	0.112	3.4	114	0.00	3.76- 3.82
11	B	Heptachlor Epoxide	0.966	0.809	16.3	98	0.00	4.30- 4.36
12	B	gamma-Chlordane	0.911	0.867	4.8	107	0.00	4.46- 4.52
13	B	alpha-Chlordane	0.897	0.868	3.2	109	0.00	4.63- 4.69
14	A	Endosulfan I	0.849	0.882	-3.9	114	0.00	4.80- 4.86
15	B	4,4'-DDE	0.970	0.880	9.3	102	0.00	4.75- 4.81
16	MA	Dieldrin	0.974	0.912	6.4	104	0.00	5.11- 5.17
17	MA	Endrin	0.932	0.879	5.7	105	0.00	5.43- 5.49
18	A	4,4'-DDD	0.780	0.737	5.5	105	0.00	5.57- 5.63
19	B	Endosulfan II	0.849	0.786	7.4	104	0.00	5.74- 5.80
20	MA	4,4'-DDT	0.721	0.668	7.4	100	0.00	5.98- 6.04
21	B	Endrin Aldehyde	0.625	0.634	-1.4	103	0.00	6.35- 6.41
22	B	Endosulfan Sulfate	0.628	0.626	0.3	112	0.00	7.02- 7.08
23	A	Methoxychlor	0.400	0.363	9.3	99	0.00	6.77- 6.83
24		Mirex	0.654	0.594	9.2	103	0.00	6.88- 6.94
25	B	Endrin Ketone	0.789	0.762	3.4	107	0.00	7.46- 7.52
26	SA	Decachlorobiphenyl	0.888	0.793	10.7	102	0.00	9.28- 9.34

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	90	0.00	1.86- 1.92
2	SAB	Tetrachloro-m-xylene	0.920	0.893	2.9	86	0.00	2.74- 2.80
3		hexachlorobenzene	1.364	1.291	5.4	88	0.00	3.27- 3.33
4	A	alpha-BHC	1.225	1.155	5.7	86	0.00	3.43- 3.49
5	MA	gamma-BHC	1.101	1.055	4.2	86	0.00	3.87- 3.93

10.10.16 10

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G4G2400-CC2366
Lab FileID: 4G91001.D

6	MA	Heptachlor	1.119	1.059	5.4	86	0.00	4.46- 4.52
7	B	beta-BHC	0.502	0.442	12.0	82	0.00	3.97- 4.03
8	B	delta-BHC	0.933	0.869	6.9	85	0.00	4.37- 4.43
9	MB	Aldrin	1.054	0.973	7.7	85	0.00	4.92- 4.98
10		alachlor	0.136	0.120	11.8	79	0.00	4.73- 4.79
11	B	Heptachlor Epoxide	0.997	0.811	18.7	76	0.00	5.76- 5.82
12	B	gamma-Chlordane	0.960	0.868	9.6	82	0.00	6.05- 6.11
13	B	alpha-Chlordane	0.945	0.849	10.2	82	0.00	6.28- 6.34
14	A	Endosulfan I	0.883	0.803	9.1	83	0.00	6.37- 6.43
15	B	4,4'-DDE	0.956	0.868	9.2	82	0.00	6.54- 6.60
16	MA	Dieldrin	0.958	0.874	8.8	83	0.00	6.81- 6.87
17	MA	Endrin	0.901	0.838	7.0	84	0.00	7.32- 7.38
18	A	4,4'-DDD	0.762	0.732	3.9	87	0.00	7.50- 7.56
19	B	Endosulfan II	0.841	0.791	5.9	84	0.00	7.68- 7.74
20	MA	4,4'-DDT	0.720	0.645	10.4	79	0.00	8.03- 8.09
21	B	Endrin Aldehyde	0.681	0.622	8.7	83	0.00	8.25- 8.31
22	B	Endosulfan Sulfate	0.614	0.609	0.8	90	0.00	8.72- 8.78
23	A	Methoxychlor	0.403	0.359	10.9	78	0.00	9.28- 9.34
24		Mirex	0.652	0.577	11.5	81	0.00	9.62- 9.68
25	B	Endrin Ketone	0.792	0.749	5.4	86	0.00	9.69- 9.75
26	SA	Decachlorobiphenyl	0.763	0.691	9.4	82	0.00	11.78-11.84

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g90970.D 4PST2366.M Wed Mar 28 12:38:41 2018 RPT1

10.10.16
10

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICC6195
Lab FileID: EF180976.D

Response Factor Report gcef

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration

Calibration Files
3000=EF180978.D 2000=EF180977.D 1000=EF180976.D 500 =EF180975.D
250 =EF180974.D 50 =EF180973.D

	Compound	3000	2000	1000	500	250	50	Avg	%RSD
1) S	Tetrachloro-m-xylen	1.177	1.162	1.110	1.102	1.103	1.282	1.156 E4	6.02
2)	AR1221-A			1.261				1.261 E2	0.00
3)	AR1221-B			1.646				1.646 E2	0.00
4)	AR1221-C			5.623				5.623 E2	0.00
5)	AR1221-D			5.934				5.934 E1	0.00
6)	AR1221-E			1.207				1.207 E2	0.00
7)	AR1232-A			4.044				4.044 E2	0.00
8)	AR1232-B			2.644				2.644 E2	0.00
9)	AR1232-C			5.784				5.784 E2	0.00
10)	AR1232-D			2.215				2.215 E2	0.00
11)	AR1232-E			2.064				2.064 E2	0.00
12)	AR1242-A			4.679				4.679 E2	0.00
13)	AR1242-B			1.037				1.037 E3	0.00
14)	AR1242-C			4.037				4.037 E2	0.00
15)	AR1242-D			4.226				4.226 E2	0.00
16)	AR1242-E			5.053				5.053 E2	0.00
17)	AR1248-A			2.458				2.458 E2	0.00
18)	AR1248-B			6.987				6.987 E2	0.00
19)	AR1248-C			6.899				6.899 E2	0.00
20)	AR1248-D			6.247				6.247 E2	0.00
21)	AR1248-E			5.382				5.382 E2	0.00
22)	AR1248-F			7.076				7.076 E2	0.00
23)	AR1248-G			5.006				5.006 E2	0.00
24)	AR1254-A			5.570				5.570 E2	0.00
25)	AR1254-B			7.121				7.121 E2	0.00
26)	AR1254-C			5.215				5.215 E2	0.00
27)	AR1254-D			9.701				9.701 E2	0.00
28)	AR1254-E			8.638				8.638 E2	0.00
29)	AR1254-F			7.208				7.208 E2	0.00
30)	AR1254-G			9.509				9.509 E2	0.00
31)	AR1262-A			7.553				7.553 E2	0.00
32)	AR1262-B			1.090				1.090 E3	0.00
33)	AR1262-C			8.378				8.378 E2	0.00
34)	AR1262-D			2.000				2.000 E3	0.00
35)	AR1262-E			2.424				2.424 E3	0.00
36)	AR1268-A			2.189				2.189 E3	0.00
37)	AR1268-B			2.278				2.278 E3	0.00
38)	AR1268-C			1.828				1.828 E3	0.00
39)	AR1268-D			7.984				7.984 E2	0.00
40)	AR1268-E			4.915				4.915 E3	0.00
41)	AR1016-A	2.789	2.910	3.090	3.242	3.309	3.669	3.168 E2	9.90
42)	AR1016-B	4.573	4.840	5.276	5.702	5.915	6.779	5.514 E2	14.49
43)	AR1016-C	1.047	1.105	1.190	1.267	1.295	1.462	1.228 E3	12.10
44)	AR1016-D	4.047	4.279	4.638	4.943	5.028	5.633	4.761 E2	11.96
45)	AR1016-E	4.239	4.443	4.745	5.044	5.148	6.035	4.942 E2	12.89
46)	AR1260-A	1.169	1.224	1.320	1.405	1.434	1.617	1.362 E3	11.85
47)	AR1260-B	5.506	5.760	6.360	6.874	7.049	7.894	6.574 E2	13.44

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICC6195
Lab FileID: EF180976.D

48)		AR1260-C	5.323	5.556	5.982	6.370	6.495	7.165	6.148	E2	10.94
49)		AR1260-D	1.388	1.452	1.529	1.636	1.640	1.759	1.567	E3	8.73
50)		AR1260-E	1.422	1.470	1.528	1.576	1.567	1.697	1.543	E3	6.19
51)	S	Decachlorobiphenyl	1.446	1.526	1.631	1.747	1.832	2.088	1.712	E4	13.54

Signal #2

1)	S	Tetrachloro-m-xylen	1.598	1.596	1.542	1.514	1.530	1.562	1.557	E4	2.23
2)		AR1221-A			1.609				1.609	E2	0.00
3)		AR1221-B			2.344				2.344	E2	0.00
4)		AR1221-C			6.182				6.182	E2	0.00
5)		AR1221-D			1.321				1.321	E2	0.00
6)		AR1221-E			1.275				1.275	E2	0.00
7)		AR1232-A			4.834				4.834	E2	0.00
8)		AR1232-B			3.750				3.750	E2	0.00
9)		AR1232-C			7.681				7.681	E2	0.00
10)		AR1232-D			3.317				3.317	E2	0.00
11)		AR1232-E			2.122				2.122	E2	0.00
12)		AR1242-A			6.810				6.810	E2	0.00
13)		AR1242-B			1.342				1.342	E3	0.00
14)		AR1242-C			5.864				5.864	E2	0.00
15)		AR1242-D			4.146				4.146	E2	0.00
16)		AR1242-E			5.511				5.511	E2	0.00
17)		AR1248-A			3.481				3.481	E2	0.00
18)		AR1248-B			8.815				8.815	E2	0.00
19)		AR1248-C			5.045				5.045	E2	0.00
20)		AR1248-D			6.091				6.091	E2	0.00
21)		AR1248-E			6.759				6.759	E2	0.00
22)		AR1248-F			8.819				8.819	E2	0.00
23)		AR1248-G			7.666				7.666	E2	0.00
24)		AR1254-A			7.793				7.793	E2	0.00
25)		AR1254-B			8.229				8.229	E2	0.00
26)		AR1254-C			6.027				6.027	E2	0.00
27)		AR1254-D			1.271				1.271	E3	0.00
28)		AR1254-E			1.022				1.022	E3	0.00
29)		AR1254-F			1.005				1.005	E3	0.00
30)		AR1254-G			1.192				1.192	E3	0.00
31)		AR1262-A			8.906				8.906	E2	0.00
32)		AR1262-B			1.222				1.222	E3	0.00
33)		AR1262-C			1.046				1.046	E3	0.00
34)		AR1262-D			2.191				2.191	E3	0.00
35)		AR1262-E			2.884				2.884	E3	0.00
36)		AR1268-A			2.553				2.553	E3	0.00
37)		AR1268-B			2.736				2.736	E3	0.00
38)		AR1268-C			2.210				2.210	E3	0.00
39)		AR1268-D			9.624				9.624	E2	0.00
40)		AR1268-E			6.029				6.029	E3	0.00
41)		AR1016-A	3.329	3.545	3.912	4.250	4.407	5.144	4.098	E2	15.99
42)		AR1016-B	0.642	0.685	0.759	0.834	0.873	1.039	0.805	E3	17.88
43)		AR1016-C	1.281	1.364	1.514	1.671	1.756	2.052	1.606	E3	17.56
44)		AR1016-D	5.656	6.000	6.618	7.210	7.447	8.278	6.868	E2	14.15
45)		AR1016-E	3.933	4.199	4.615	4.979	5.154	5.925	4.801	E2	14.93
46)		AR1260-A	1.494	1.567	1.696	1.822	1.894	2.220	1.782	E3	14.68
47)		AR1260-B	0.646	0.681	0.755	0.826	0.875	1.052	0.806	E3	18.39
48)		AR1260-C	0.720	0.754	0.813	0.880	0.912	1.084	0.861	E3	15.24
49)		AR1260-D	1.538	1.600	1.713	1.844	1.901	2.163	1.793	E3	12.71
50)		AR1260-E	1.692	1.748	1.839	1.905	1.928	2.082	1.866	E3	7.47
51)	S	Decachlorobiphenyl	1.751	1.851	1.957	2.118	2.261	2.658	2.099	E4	15.68

(#) = Out of Range

Initial Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICC6195
Lab FileID: EF180976.D

PCB6195.M Tue Mar 20 15:30:12 2018 GCEF

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180983.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	11.561	12.223 E3	-5.7	110	0.00	3.06- 3.31
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A	316.814	309.406	2.3	100	0.00	3.62- 3.80

10.10.18
10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180983.D

42		AR1016-B	551.418	561.120		-1.8	106	0.00	4.19- 4.31
43		AR1016-C	1.228	1.257	E3	-2.4	106	0.00	5.00- 5.07
44		AR1016-D	476.117	489.003		-2.7	105	0.00	5.25- 5.31
45		AR1016-E	494.247	493.626		0.1	104	0.00	5.99- 6.05
46		AR1260-A	1.362	1.285	E3	5.7	97	0.00	9.58- 9.72
47		AR1260-B	657.364	668.843		-1.7	105	0.00	9.83- 9.97
48		AR1260-C	614.837	628.445		-2.2	105	0.00	10.36-10.50
49		AR1260-D	1.567	1.614	E3	-3.0	106	0.00	11.04-11.17
50		AR1260-E	1.543	1.585	E3	-2.7	104	0.00	11.66-11.79
51	S	Decachlorobiphenyl	17.116	16.367	E3	4.4	100	0.00	14.11-14.25
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	17.137	E3	-10.1	111	0.00	4.09- 4.31
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	409.781	398.131		2.8	102	0.00	5.09- 5.22
42		AR1016-B	805.373	806.851		-0.2	106	0.00	5.95- 6.01
43		AR1016-C	1.606	1.605	E3	0.1	106	0.00	6.89- 6.95
44		AR1016-D	686.807	701.220		-2.1	106	0.00	7.19- 7.25
45		AR1016-E	480.106	477.766		0.5	104	0.00	8.20- 8.27
46		AR1260-A	1.782	1.664	E3	6.6	98	0.00	12.28-12.40
47		AR1260-B	805.827	790.890		1.9	105	0.00	12.48-12.60

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180983.D

48		AR1260-C	860.698	844.364		1.9	104	0.00	13.16-13.29
49		AR1260-D	1.793	1.815	E3	-1.2	106	0.00	13.72-13.85
50		AR1260-E	1.866	1.929	E3	-3.4	105	0.00	14.58-14.70
51	S	Decachlorobiphenyl	20.993	19.899	E3	5.2	102	0.00	17.26-17.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EF180976.D PCB6195.M Tue Mar 20 16:01:41 2018 GCEF

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180984.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	11.561	11.556 E3	0.0	104	0.00	3.06- 3.31
2	AR1221-A	126.056	122.976	2.4	98	0.00	2.46- 2.66
3	AR1221-B	164.608	145.221	11.8	88	0.00	3.34- 3.54
4	AR1221-C	562.318	500.891	10.9	89	0.00	3.60- 3.80
5	AR1221-D	59.345	48.286	18.6	81	0.00	4.15- 4.35
6	AR1221-E	120.744	107.610	10.9	89	0.00	4.46- 4.66
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A	556.970	543.387	2.4	98	0.00	6.65- 6.85
25	AR1254-B	712.084	700.171	1.7	98	0.00	7.17- 7.37
26	AR1254-C	521.535	512.333	1.8	98	0.00	7.73- 7.93
27	AR1254-D	970.110	956.789	1.4	99	0.00	7.98- 8.18
28	AR1254-E	863.799	845.674	2.1	98	0.00	8.58- 8.78
29	AR1254-F	720.837	709.799	1.5	98	0.00	8.96- 9.16
30	AR1254-G	950.863	925.780	2.6	97	0.00	9.55- 9.75
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A		----------NA----------				

10.10.19 10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180984.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	17.116	13.732 E3	19.8	84	0.00	14.11-14.25	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	14.656 E3	5.9	95	0.00	4.09- 4.31	
2		AR1221-A	160.898	162.899	-1.2	101	0.00	3.33- 3.53	
3		AR1221-B	234.434	213.027	9.1	91	0.00	4.66- 4.86	
4		AR1221-C	618.180	558.957	9.6	90	0.00	5.05- 5.25	
5		AR1221-D	132.079	112.348	14.9	85	0.00	5.87- 6.07	
6		AR1221-E	127.522	123.741	3.0	97	0.00	6.00- 6.20	
7		AR1232-A			----------NA----------				
8		AR1232-B			----------NA----------				
9		AR1232-C			----------NA----------				
10		AR1232-D			----------NA----------				
11		AR1232-E			----------NA----------				
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A	779.263	770.234	1.2	99	0.00	9.06- 9.26	
25		AR1254-B	822.851	812.435	1.3	99	0.00	9.47- 9.67	
26		AR1254-C	602.713	594.810	1.3	99	0.00	10.26-10.46	
27		AR1254-D	1.271	1.258 E3	1.0	99	0.00	10.52-10.72	
28		AR1254-E	1.022	1.015 E3	0.7	99	0.00	11.02-11.22	
29		AR1254-F	1.005	0.965 E3	4.0	96	0.00	11.83-12.03	
30		AR1254-G	1.192	1.176 E3	1.3	99	0.00	12.25-12.45	
31		AR1262-A			----------NA----------				
32		AR1262-B			----------NA----------				
33		AR1262-C			----------NA----------				
34		AR1262-D			----------NA----------				
35		AR1262-E			----------NA----------				
36		AR1268-A			----------NA----------				
37		AR1268-B			----------NA----------				
38		AR1268-C			----------NA----------				
39		AR1268-D			----------NA----------				
40		AR1268-E			----------NA----------				
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

10.10.19 10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180984.D

48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	20.993	16.858	E3	19.7	86	0.00	17.26-17.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF180976.D PCB6195.M Tue Mar 20 16:01:43 2018 GCEF

10.10.19
10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180985.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	11.561	13.112 E3	-13.4	118	0.00	3.06- 3.31
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A	404.407	395.321	2.2	98	0.00	3.60- 3.80
8	AR1232-B	264.446	260.887	1.3	99	0.00	4.15- 4.35
9	AR1232-C	578.429	568.466	1.7	98	0.00	4.94- 5.14
10	AR1232-D	221.540	218.232	1.5	99	0.00	5.18- 5.38
11	AR1232-E	206.412	203.538	1.4	99	0.00	5.92- 6.12
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A	755.327	758.700	-0.4	100	0.00	8.95- 9.15
32	AR1262-B	1.090	1.095 E3	-0.5	100	0.00	9.80-10.00
33	AR1262-C	837.822	844.948	-0.9	101	0.00	10.32-10.52
34	AR1262-D	2.000	2.015 E3	-0.8	101	0.00	11.00-11.20
35	AR1262-E	2.424	2.428 E3	-0.2	100	0.00	11.71-11.91
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A		----------NA----------				

10.10.20 10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180985.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	17.116	16.840	E3	1.6	103	0.00	14.11-14.25
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	17.585	E3	-12.9	114	0.00	4.09- 4.31
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A	483.417	477.984		1.1	99	0.00	5.05- 5.25
8		AR1232-B	375.015	371.666		0.9	99	0.00	5.88- 6.08
9		AR1232-C	768.128	758.875		1.2	99	0.00	6.82- 7.02
10		AR1232-D	331.656	328.461		1.0	99	0.00	7.12- 7.32
11		AR1232-E	212.228	210.348		0.9	99	0.00	8.13- 8.33
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1262-A	890.638	891.501		-0.1	100	0.00	11.41-11.61
32		AR1262-B	1.222	1.228	E3	-0.5	101	0.00	12.44-12.64
33		AR1262-C	1.046	1.056	E3	-1.0	101	0.00	13.12-13.32
34		AR1262-D	2.191	2.206	E3	-0.7	101	0.00	13.68-13.88
35		AR1262-E	2.884	2.913	E3	-1.0	101	0.00	14.51-14.71
36		AR1268-A			----------NA----------				
37		AR1268-B			----------NA----------				
38		AR1268-C			----------NA----------				
39		AR1268-D			----------NA----------				
40		AR1268-E			----------NA----------				
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180985.D

48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	20.993	20.646 E3	1.7	105	0.00	17.26-17.38	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF180976.D PCB6195.M Tue Mar 20 16:01:45 2018 GCEF

10.10.20 10

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180986.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD1A.CH Vial: 30
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD2B.CH
Acq On : 19 Mar 2018 10:49 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	11.561	12.784	E3	-10.6	115	0.00	3.06- 3.31
2	AR1221-A		----------NA----------					
3	AR1221-B		----------NA----------					
4	AR1221-C		----------NA----------					
5	AR1221-D		----------NA----------					
6	AR1221-E		----------NA----------					
7	AR1232-A		----------NA----------					
8	AR1232-B		----------NA----------					
9	AR1232-C		----------NA----------					
10	AR1232-D		----------NA----------					
11	AR1232-E		----------NA----------					
12	AR1242-A	467.930	448.898		4.1	96	0.00	4.15- 4.35
13	AR1242-B	1.037	0.997	E3	3.9	96	0.00	4.94- 5.14
14	AR1242-C	403.731	389.150		3.6	96	0.00	5.18- 5.38
15	AR1242-D	422.603	398.757		5.6	94	0.00	5.92- 6.12
16	AR1242-E	505.265	470.247		6.9	93	0.00	6.81- 7.01
17	AR1248-A		----------NA----------					
18	AR1248-B		----------NA----------					
19	AR1248-C		----------NA----------					
20	AR1248-D		----------NA----------					
21	AR1248-E		----------NA----------					
22	AR1248-F		----------NA----------					
23	AR1248-G		----------NA----------					
24	AR1254-A		----------NA----------					
25	AR1254-B		----------NA----------					
26	AR1254-C		----------NA----------					
27	AR1254-D		----------NA----------					
28	AR1254-E		----------NA----------					
29	AR1254-F		----------NA----------					
30	AR1254-G		----------NA----------					
31	AR1262-A		----------NA----------					
32	AR1262-B		----------NA----------					
33	AR1262-C		----------NA----------					
34	AR1262-D		----------NA----------					
35	AR1262-E		----------NA----------					
36	AR1268-A	2.189	2.123	E3	3.0	97	0.00	11.71-11.91
37	AR1268-B	2.278	2.224	E3	2.4	98	0.00	11.79-11.99
38	AR1268-C	1.828	1.768	E3	3.3	97	0.00	12.23-12.43
39	AR1268-D	798.448	777.585		2.6	97	0.00	13.01-13.21
40	AR1268-E	4.915	4.748	E3	3.4	97	0.00	13.65-13.85
41	AR1016-A		----------NA----------					

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Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180986.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	17.116	42.605	E3 -148.9#	261#	0.00	14.11-14.25	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	18.054	E3 -16.0	117	0.00	4.09- 4.31	
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A			----------NA----------				
8		AR1232-B			----------NA----------				
9		AR1232-C			----------NA----------				
10		AR1232-D			----------NA----------				
11		AR1232-E			----------NA----------				
12		AR1242-A	680.960	660.002	3.1	97	0.00	5.88- 6.08	
13		AR1242-B	1.342	1.290	E3 3.9	96	0.00	6.82- 7.02	
14		AR1242-C	586.418	564.055	3.8	96	0.00	7.12- 7.32	
15		AR1242-D	414.642	390.799	5.8	94	0.00	8.13- 8.33	
16		AR1242-E	551.061	514.728	6.6	93	0.00	9.07- 9.27	
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1262-A			----------NA----------				
32		AR1262-B			----------NA----------				
33		AR1262-C			----------NA----------				
34		AR1262-D			----------NA----------				
35		AR1262-E			----------NA----------				
36		AR1268-A	2.553	2.491	E3 2.4	98	0.00	14.51-14.71	
37		AR1268-B	2.736	2.688	E3 1.8	98	0.00	14.61-14.81	
38		AR1268-C	2.210	2.146	E3 2.9	97	0.00	15.21-15.41	
39		AR1268-D	962.393	946.845	1.6	98	0.00	15.85-16.05	
40		AR1268-E	6.029	5.869	E3 2.7	97	0.00	16.61-16.81	
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180986.D

48		AR1260-C			----------NA----------			
49		AR1260-D			----------NA----------			
50		AR1260-E			----------NA----------			
51	S	Decachlorobiphenyl	20.993	51.321 E3	-144.5#	262#	-0.01	17.25-17.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF180976.D PCB6195.M Tue Mar 20 16:01:47 2018 GCEF

10.10.21
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Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180987.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	11.561	12.439 E3	-7.6	112	0.00	3.06- 3.31
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A	245.800	227.637	7.4	93	0.00	4.15- 4.35
18	AR1248-B	698.707	679.849	2.7	97	0.00	4.94- 5.14
19	AR1248-C	689.945	678.423	1.7	98	0.00	5.53- 5.73
20	AR1248-D	624.750	627.783	-0.5	100	0.00	5.92- 6.12
21	AR1248-E	538.162	535.719	0.5	100	0.00	6.08- 6.28
22	AR1248-F	707.574	757.058	-7.0	107	0.00	6.80- 7.00
23	AR1248-G	500.560	526.907	-5.3	105	0.00	7.18- 7.38
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A		----------NA----------				

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Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180987.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	17.116	17.603 E3	-2.8	108	0.00	14.11-14.25	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	18.425 E3	-18.3	119	0.00	4.09- 4.31	
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A			----------NA----------				
8		AR1232-B			----------NA----------				
9		AR1232-C			----------NA----------				
10		AR1232-D			----------NA----------				
11		AR1232-E			----------NA----------				
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A	348.145	321.735	7.6	92	0.00	5.87- 6.07	
18		AR1248-B	881.505	864.093	2.0	98	0.00	6.82- 7.02	
19		AR1248-C	504.455	503.158	0.3	100	0.00	7.54- 7.74	
20		AR1248-D	609.081	611.724	-0.4	100	0.00	8.13- 8.33	
21		AR1248-E	675.931	693.518	-2.6	103	0.00	8.40- 8.60	
22		AR1248-F	881.937	919.702	-4.3	104	0.00	9.06- 9.26	
23		AR1248-G	766.598	811.006	-5.8	106	0.00	9.59- 9.79	
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1262-A			----------NA----------				
32		AR1262-B			----------NA----------				
33		AR1262-C			----------NA----------				
34		AR1262-D			----------NA----------				
35		AR1262-E			----------NA----------				
36		AR1268-A			----------NA----------				
37		AR1268-B			----------NA----------				
38		AR1268-C			----------NA----------				
39		AR1268-D			----------NA----------				
40		AR1268-E			----------NA----------				
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

Initial Calibration Verification

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6195-ICV6195
Lab FileID: EF180987.D

48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	20.993	21.508	E3	-2.5	110	-0.01	17.25-17.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF180976.D PCB6195.M Tue Mar 20 16:01:49 2018 GCEF

10.10.22
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Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6202-CC6195
Lab FileID: EF181177.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181177.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181177.D\ECD2B.CH
Acq On : 27 Mar 2018 12:11 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10818,GEF6202,15.6,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	11.561	11.953 E3	-3.4	108	0.00	3.08- 3.33
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	316.814	305.200	3.7	99	-0.02	3.64- 3.83

10.10.23 10

Continuing Calibration Summary

Job Number: JC62879 **Sample:** GEF6202-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181177.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	571.213		-3.6	108	-0.01	4.20- 4.33
43		AR1016-C	1.228	1.207	E3	1.7	101	-0.03	5.03- 5.10
44		AR1016-D	476.117	500.028		-5.0	108	-0.02	5.27- 5.33
45		AR1016-E	494.247	524.323		-6.1	111	-0.01	6.01- 6.07
46		AR1260-A	1.362	1.426	E3	-4.7	108	-0.02	9.59- 9.72
47		AR1260-B	657.364	715.823		-8.9	113	-0.02	9.83- 9.97
48		AR1260-C	614.837	640.862		-4.2	107	-0.02	10.36-10.50
49		AR1260-D	1.567	1.772	E3	-13.1	116	-0.02	11.05-11.17
50		AR1260-E	1.543	1.720	E3	-11.5	113	-0.02	11.66-11.80
51	S	Decachlorobiphenyl	17.116	18.328	E3	-7.1	112	-0.02	14.11-14.25
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	16.345	E3	-5.0	106	-0.02	4.10- 4.31
2		AR1221-A	----------NA----------						
3		AR1221-B	----------NA----------						
4		AR1221-C	----------NA----------						
5		AR1221-D	----------NA----------						
6		AR1221-E	----------NA----------						
7		AR1232-A	----------NA----------						
8		AR1232-B	----------NA----------						
9		AR1232-C	----------NA----------						
10		AR1232-D	----------NA----------						
11		AR1232-E	----------NA----------						
12		AR1242-A	----------NA----------						
13		AR1242-B	----------NA----------						
14		AR1242-C	----------NA----------						
15		AR1242-D	----------NA----------						
16		AR1242-E	----------NA----------						
17		AR1248-A	----------NA----------						
18		AR1248-B	----------NA----------						
19		AR1248-C	----------NA----------						
20		AR1248-D	----------NA----------						
21		AR1248-E	----------NA----------						
22		AR1248-F	----------NA----------						
23		AR1248-G	----------NA----------						
24		AR1254-A	----------NA----------						
25		AR1254-B	----------NA----------						
26		AR1254-C	----------NA----------						
27		AR1254-D	----------NA----------						
28		AR1254-E	----------NA----------						
29		AR1254-F	----------NA----------						
30		AR1254-G	----------NA----------						
31		AR1262-A	----------NA----------						
32		AR1262-B	----------NA----------						
33		AR1262-C	----------NA----------						
34		AR1262-D	----------NA----------						
35		AR1262-E	----------NA----------						
36		AR1268-A	----------NA----------						
37		AR1268-B	----------NA----------						
38		AR1268-C	----------NA----------						
39		AR1268-D	----------NA----------						
40		AR1268-E	----------NA----------						
41		AR1016-A	409.781	420.560		-2.6	108	-0.01	5.10- 5.22
42		AR1016-B	805.373	749.607		6.9	99	-0.02	5.95- 6.01
43		AR1016-C	1.606	1.585	E3	1.3	105	-0.02	6.89- 6.95
44		AR1016-D	686.807	727.457		-5.9	110	-0.02	7.19- 7.25
45		AR1016-E	480.106	491.024		-2.3	106	-0.02	8.20- 8.27
46		AR1260-A	1.782	1.865	E3	-4.7	110	-0.03	12.27-12.40
47		AR1260-B	805.827	841.768		-4.5	111	-0.03	12.47-12.59

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6202-CC6195
Lab FileID: EF181177.D

48		AR1260-C	860.698	902.726		-4.9	111	-0.03	13.15-13.28
49		AR1260-D	1.793	1.907	E3	-6.4	111	-0.03	13.71-13.84
50		AR1260-E	1.866	2.039	E3	-9.3	111	-0.03	14.57-14.69
51	S	Decachlorobiphenyl	20.993	22.001	E3	-4.8	112	-0.03	17.24-17.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EF181159.D PCB6195.M Tue Mar 27 12:33:45 2018 GCEF

10.10.23

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Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6202-CC6195
Lab FileID: EF181187.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD2B.CH
Acq On : 27 Mar 2018 4:20 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10875,GEF6202,280,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	11.561	11.707 E3	-1.3	106	0.00	3.08- 3.33
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	316.814	295.994	6.6	91	0.00	3.65- 3.84

10.10.24 10

Continuing Calibration Summary

Job Number: JC62879 **Sample:** GEF6202-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181187.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	591.792		-7.3	104	0.00	4.21- 4.33
43		AR1016-C	1.228	1.189	E3	3.2	94	0.00	5.05- 5.12
44		AR1016-D	476.117	524.402		-10.1	106	0.00	5.29- 5.35
45		AR1016-E	494.247	532.521		-7.7	106	0.00	6.01- 6.07
46		AR1260-A	1.362	1.445	E3	-6.1	103	-0.01	9.60- 9.74
47		AR1260-B	657.364	751.971		-14.4	109	-0.01	9.84- 9.98
48		AR1260-C	614.837	652.251		-6.1	102	-0.01	10.37-10.51
49		AR1260-D	1.567	1.799	E3	-14.8	110	-0.01	11.06-11.18
50		AR1260-E	1.543	1.711	E3	-10.9	109	0.00	11.67-11.81
51	S	Decachlorobiphenyl	17.116	19.284	E3	-12.7	110	-0.01	14.12-14.26
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	15.931	E3	-2.3	105	-0.01	4.10- 4.32
2		AR1221-A	----------NA----------						
3		AR1221-B	----------NA----------						
4		AR1221-C	----------NA----------						
5		AR1221-D	----------NA----------						
6		AR1221-E	----------NA----------						
7		AR1232-A	----------NA----------						
8		AR1232-B	----------NA----------						
9		AR1232-C	----------NA----------						
10		AR1232-D	----------NA----------						
11		AR1232-E	----------NA----------						
12		AR1242-A	----------NA----------						
13		AR1242-B	----------NA----------						
14		AR1242-C	----------NA----------						
15		AR1242-D	----------NA----------						
16		AR1242-E	----------NA----------						
17		AR1248-A	----------NA----------						
18		AR1248-B	----------NA----------						
19		AR1248-C	----------NA----------						
20		AR1248-D	----------NA----------						
21		AR1248-E	----------NA----------						
22		AR1248-F	----------NA----------						
23		AR1248-G	----------NA----------						
24		AR1254-A	----------NA----------						
25		AR1254-B	----------NA----------						
26		AR1254-C	----------NA----------						
27		AR1254-D	----------NA----------						
28		AR1254-E	----------NA----------						
29		AR1254-F	----------NA----------						
30		AR1254-G	----------NA----------						
31		AR1262-A	----------NA----------						
32		AR1262-B	----------NA----------						
33		AR1262-C	----------NA----------						
34		AR1262-D	----------NA----------						
35		AR1262-E	----------NA----------						
36		AR1268-A	----------NA----------						
37		AR1268-B	----------NA----------						
38		AR1268-C	----------NA----------						
39		AR1268-D	----------NA----------						
40		AR1268-E	----------NA----------						
41		AR1016-A	409.781	435.755		-6.3	103	0.00	5.10- 5.23
42		AR1016-B	805.373	809.853		-0.6	97	-0.01	5.95- 6.01
43		AR1016-C	1.606	1.691	E3	-5.3	101	-0.01	6.91- 6.97
44		AR1016-D	686.807	763.401		-11.2	106	-0.01	7.20- 7.26
45		AR1016-E	480.106	508.420		-5.9	102	-0.01	8.20- 8.27
46		AR1260-A	1.782	1.948	E3	-9.3	107	-0.02	12.28-12.40
47		AR1260-B	805.827	900.831		-11.8	109	-0.02	12.47-12.60

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6202-CC6195
Lab FileID: EF181187.D

48		AR1260-C	860.698	945.578		-9.9	107	-0.02	13.16-13.28
49		AR1260-D	1.793	1.962	E3	-9.4	106	-0.02	13.72-13.84
50		AR1260-E	1.866	2.064	E3	-10.6	108	-0.02	14.58-14.70
51	S	Decachlorobiphenyl	20.993	23.398	E3	-11.5	110	-0.02	17.25-17.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EF180975.D PCB6195.M Tue Mar 27 16:44:17 2018 GCEF

10.10.24 10

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6202-CC6195
Lab FileID: EF181195.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD2B.CH
Acq On : 27 Mar 2018 7:40 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10875,GEF6202,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	11.561	11.925 E3	-3.1	107	0.00	3.08- 3.33
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A	316.814	291.802	7.9	94	-0.02	3.65- 3.83

10.10.25 10

Continuing Calibration Summary

Job Number: JC62879 **Sample:** GEF6202-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181195.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	549.887		0.3	104	-0.01	4.20- 4.33
43		AR1016-C	1.228	1.152	E3	6.2	97	-0.02	5.04- 5.11
44		AR1016-D	476.117	467.882		1.7	101	-0.01	5.28- 5.34
45		AR1016-E	494.247	453.220		8.3	96	-0.01	6.01- 6.07
46		AR1260-A	1.362	1.383	E3	-1.5	105	-0.02	9.59- 9.73
47		AR1260-B	657.364	695.069		-5.7	109	-0.02	9.84- 9.97
48		AR1260-C	614.837	602.544		2.0	101	-0.02	10.36-10.50
49		AR1260-D	1.567	1.722	E3	-9.9	113	-0.02	11.05-11.18
50		AR1260-E	1.543	1.710	E3	-10.8	112	-0.02	11.67-11.80
51	S	Decachlorobiphenyl	17.116	18.381	E3	-7.4	113	-0.02	14.11-14.25
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	16.152	E3	-3.7	105	-0.01	4.10- 4.32
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	409.781	414.742		-1.2	106	0.00	5.10- 5.23
42		AR1016-B	805.373	739.372		8.2	97	-0.01	5.95- 6.01
43		AR1016-C	1.606	1.574	E3	2.0	104	-0.02	6.90- 6.96
44		AR1016-D	686.807	718.983		-4.7	109	-0.02	7.19- 7.25
45		AR1016-E	480.106	485.255		-1.1	105	-0.02	8.20- 8.27
46		AR1260-A	1.782	1.824	E3	-2.4	108	-0.02	12.28-12.40
47		AR1260-B	805.827	822.165		-2.0	109	-0.02	12.47-12.59

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6202-CC6195
Lab FileID: EF181195.D

48		AR1260-C	860.698	881.856		-2.5	108	-0.02	13.15-13.28
49		AR1260-D	1.793	1.863	E3	-3.9	109	-0.02	13.71-13.84
50		AR1260-E	1.866	2.005	E3	-7.4	109	-0.02	14.57-14.70
51	S	Decachlorobiphenyl	20.993	22.223	E3	-5.9	114	-0.03	17.24-17.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EF181159.D PCB6195.M Wed Mar 28 09:19:59 2018 GCEF

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181216.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	11.561	12.396 E3	-7.2	112	0.00	3.09- 3.34
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A	316.814	309.908	2.2	100	0.00	3.65- 3.84

10.10.26 10

Continuing Calibration Summary

Job Number: JC62879 **Sample:** GEF6203-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181216.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	579.392		-5.1	110	0.00	4.21- 4.34
43		AR1016-C	1.228	1.244	E3	-1.3	105	0.00	5.04- 5.11
44		AR1016-D	476.117	513.879		-7.9	111	0.00	5.29- 5.35
45		AR1016-E	494.247	529.020		-7.0	111	0.01	6.02- 6.08
46		AR1260-A	1.362	1.421	E3	-4.3	108	0.01	9.60- 9.74
47		AR1260-B	657.364	781.937		-19.0	123	0.01	9.85- 9.99
48		AR1260-C	614.837	616.762		-0.3	103	0.01	10.38-10.51
49		AR1260-D	1.567	1.764	E3	-12.6	115	0.00	11.07-11.19
50		AR1260-E	1.543	1.734	E3	-12.4	113	0.00	11.68-11.82
51	S	Decachlorobiphenyl	17.116	18.499	E3	-8.1	113	0.00	14.13-14.26
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	16.772	E3	-7.7	109	0.00	4.11- 4.33
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	409.781	422.462		-3.1	108	0.00	5.11- 5.24
42		AR1016-B	805.373	753.075		6.5	99	0.01	5.96- 6.02
43		AR1016-C	1.606	1.602	E3	0.2	106	0.01	6.91- 6.97
44		AR1016-D	686.807	723.803		-5.4	109	0.01	7.21- 7.27
45		AR1016-E	480.106	484.265		-0.9	105	0.01	8.21- 8.28
46		AR1260-A	1.782	1.834	E3	-2.9	108	0.00	12.29-12.41
47		AR1260-B	805.827	819.985		-1.8	109	0.01	12.48-12.61

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181216.D

48		AR1260-C	860.698	876.582		-1.8	108	0.01	13.17-13.29
49		AR1260-D	1.793	1.829	E3	-2.0	107	0.00	13.73-13.85
50		AR1260-E	1.866	1.971	E3	-5.6	107	0.00	14.58-14.71
51	S	Decachlorobiphenyl	20.993	21.137	E3	-0.7	108	0.00	17.26-17.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EF181197.D PCB6195.M Thu Mar 29 08:41:08 2018 GCEF

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181227.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	11.561	12.026 E3	-4.0	109	0.01	3.09- 3.34
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	316.814	302.767	4.4	93	0.02	3.67- 3.85

10.10.27 10

Continuing Calibration Summary

Job Number: JC62879 **Sample:** GEF6203-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181227.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	608.697		-10.4	107	0.02	4.22- 4.34
43		AR1016-C	1.228	1.227	E3	0.1	97	0.03	5.07- 5.14
44		AR1016-D	476.117	543.958		-14.2	110	0.02	5.30- 5.36
45		AR1016-E	494.247	553.285		-11.9	110	0.02	6.03- 6.09
46		AR1260-A	1.362	1.511	E3	-10.9	108	0.02	9.62- 9.75
47		AR1260-B	657.364	784.692		-19.4	114	0.02	9.86- 9.99
48		AR1260-C	614.837	669.192		-8.8	105	0.02	10.38-10.52
49		AR1260-D	1.567	1.867	E3	-19.1	114	0.02	11.08-11.20
50		AR1260-E	1.543	1.787	E3	-15.8	113	0.02	11.69-11.83
51	S	Decachlorobiphenyl	17.116	19.910	E3	-16.3	114	0.01	14.13-14.27
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	16.239	E3	-4.3	107	0.01	4.11- 4.33
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	409.781	436.171		-6.4	103	0.02	5.12- 5.24
42		AR1016-B	805.373	827.971		-2.8	99	0.02	5.97- 6.03
43		AR1016-C	1.606	1.722	E3	-7.2	103	0.02	6.92- 6.98
44		AR1016-D	686.807	774.169		-12.7	107	0.02	7.21- 7.27
45		AR1016-E	480.106	523.924		-9.1	105	0.02	8.22- 8.29
46		AR1260-A	1.782	1.979	E3	-11.1	109	0.02	12.29-12.42
47		AR1260-B	805.827	910.751		-13.0	110	0.02	12.49-12.61

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181227.D

48		AR1260-C	860.698	956.102		-11.1	109	0.02	13.17-13.30
49		AR1260-D	1.793	1.991	E3	-11.0	108	0.02	13.73-13.86
50		AR1260-E	1.866	2.111	E3	-13.1	111	0.02	14.59-14.72
51	S	Decachlorobiphenyl	20.993	24.005	E3	-14.3	113	0.01	17.26-17.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EF180975.D PCB6195.M Thu Mar 29 09:30:17 2018 GCEF

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181238.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	11.561	12.564 E3	-8.7	113	0.01	3.09- 3.34
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A	316.814	313.657	1.0	102	0.01	3.66- 3.84

10.10.28 10

Continuing Calibration Summary

Job Number: JC62879 **Sample:** GEF6203-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181238.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	590.833		-7.1	112	0.01	4.22- 4.34
43		AR1016-C	1.228	1.252	E3	-2.0	105	0.01	5.05- 5.12
44		AR1016-D	476.117	521.357		-9.5	112	0.01	5.29- 5.35
45		AR1016-E	494.247	542.982		-9.9	114	0.02	6.02- 6.08
46		AR1260-A	1.362	1.452	E3	-6.6	110	0.01	9.61- 9.74
47		AR1260-B	657.364	731.480		-11.3	115	0.01	9.85- 9.99
48		AR1260-C	614.837	626.539		-1.9	105	0.01	10.38-10.52
49		AR1260-D	1.567	1.820	E3	-16.1	119	0.01	11.07-11.19
50		AR1260-E	1.543	1.762	E3	-14.2	115	0.01	11.68-11.82
51	S	Decachlorobiphenyl	17.116	19.191	E3	-12.1	118	0.00	14.13-14.26
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	16.867	E3	-8.3	109	0.01	4.11- 4.33
2		AR1221-A	----------NA----------						
3		AR1221-B	----------NA----------						
4		AR1221-C	----------NA----------						
5		AR1221-D	----------NA----------						
6		AR1221-E	----------NA----------						
7		AR1232-A	----------NA----------						
8		AR1232-B	----------NA----------						
9		AR1232-C	----------NA----------						
10		AR1232-D	----------NA----------						
11		AR1232-E	----------NA----------						
12		AR1242-A	----------NA----------						
13		AR1242-B	----------NA----------						
14		AR1242-C	----------NA----------						
15		AR1242-D	----------NA----------						
16		AR1242-E	----------NA----------						
17		AR1248-A	----------NA----------						
18		AR1248-B	----------NA----------						
19		AR1248-C	----------NA----------						
20		AR1248-D	----------NA----------						
21		AR1248-E	----------NA----------						
22		AR1248-F	----------NA----------						
23		AR1248-G	----------NA----------						
24		AR1254-A	----------NA----------						
25		AR1254-B	----------NA----------						
26		AR1254-C	----------NA----------						
27		AR1254-D	----------NA----------						
28		AR1254-E	----------NA----------						
29		AR1254-F	----------NA----------						
30		AR1254-G	----------NA----------						
31		AR1262-A	----------NA----------						
32		AR1262-B	----------NA----------						
33		AR1262-C	----------NA----------						
34		AR1262-D	----------NA----------						
35		AR1262-E	----------NA----------						
36		AR1268-A	----------NA----------						
37		AR1268-B	----------NA----------						
38		AR1268-C	----------NA----------						
39		AR1268-D	----------NA----------						
40		AR1268-E	----------NA----------						
41		AR1016-A	409.781	418.734		-2.2	107	0.01	5.11- 5.24
42		AR1016-B	805.373	765.108		5.0	101	0.01	5.96- 6.02
43		AR1016-C	1.606	1.626	E3	-1.2	107	0.01	6.91- 6.97
44		AR1016-D	686.807	736.209		-7.2	111	0.01	7.21- 7.27
45		AR1016-E	480.106	491.293		-2.3	106	0.01	8.21- 8.28
46		AR1260-A	1.782	1.898	E3	-6.5	112	0.00	12.29-12.41
47		AR1260-B	805.827	851.690		-5.7	113	0.01	12.48-12.61

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181238.D

48		AR1260-C	860.698	913.462		-6.1	112	0.01	13.17-13.29
49		AR1260-D	1.793	1.931	E3	-7.7	113	0.00	13.73-13.85
50		AR1260-E	1.866	2.092	E3	-12.1	114	0.01	14.59-14.71
51	S	Decachlorobiphenyl	20.993	22.938	E3	-9.3	117	0.00	17.26-17.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF181197.D PCB6195.M Thu Mar 29 09:31:07 2018 GCEF

10.10.28
10

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181249.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	11.561	12.312 E3	-6.5	112	0.01	3.09- 3.34
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	316.814	309.531	2.3	95	0.02	3.67- 3.85

10.10.29 10

Continuing Calibration Summary

Job Number: JC62879 **Sample:** GEF6203-CC6195
Account: BBLNYS Arcadis **Lab FileID:** EF181249.D
Project: National Grid, Philly Coke, Philadelphia PA

42		AR1016-B	551.418	614.109		-11.4	108	0.02	4.22- 4.34
43		AR1016-C	1.228	1.240	E3	-1.0	98	0.03	5.07- 5.14
44		AR1016-D	476.117	538.161		-13.0	109	0.02	5.30- 5.36
45		AR1016-E	494.247	534.797		-8.2	106	0.02	6.03- 6.09
46		AR1260-A	1.362	1.480	E3	-8.7	105	0.02	9.61- 9.75
47		AR1260-B	657.364	759.996		-15.6	111	0.02	9.86- 9.99
48		AR1260-C	614.837	661.781		-7.6	104	0.02	10.38-10.52
49		AR1260-D	1.567	1.808	E3	-15.4	110	0.02	11.08-11.20
50		AR1260-E	1.543	1.727	E3	-11.9	110	0.02	11.69-11.83
51	S	Decachlorobiphenyl	17.116	19.707	E3	-15.1	113	0.01	14.13-14.27
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	15.569	16.433	E3	-5.5	109	0.01	4.11- 4.33
2		AR1221-A	----------NA----------						
3		AR1221-B	----------NA----------						
4		AR1221-C	----------NA----------						
5		AR1221-D	----------NA----------						
6		AR1221-E	----------NA----------						
7		AR1232-A	----------NA----------						
8		AR1232-B	----------NA----------						
9		AR1232-C	----------NA----------						
10		AR1232-D	----------NA----------						
11		AR1232-E	----------NA----------						
12		AR1242-A	----------NA----------						
13		AR1242-B	----------NA----------						
14		AR1242-C	----------NA----------						
15		AR1242-D	----------NA----------						
16		AR1242-E	----------NA----------						
17		AR1248-A	----------NA----------						
18		AR1248-B	----------NA----------						
19		AR1248-C	----------NA----------						
20		AR1248-D	----------NA----------						
21		AR1248-E	----------NA----------						
22		AR1248-F	----------NA----------						
23		AR1248-G	----------NA----------						
24		AR1254-A	----------NA----------						
25		AR1254-B	----------NA----------						
26		AR1254-C	----------NA----------						
27		AR1254-D	----------NA----------						
28		AR1254-E	----------NA----------						
29		AR1254-F	----------NA----------						
30		AR1254-G	----------NA----------						
31		AR1262-A	----------NA----------						
32		AR1262-B	----------NA----------						
33		AR1262-C	----------NA----------						
34		AR1262-D	----------NA----------						
35		AR1262-E	----------NA----------						
36		AR1268-A	----------NA----------						
37		AR1268-B	----------NA----------						
38		AR1268-C	----------NA----------						
39		AR1268-D	----------NA----------						
40		AR1268-E	----------NA----------						
41		AR1016-A	409.781	443.795		-8.3	104	0.01	5.12- 5.24
42		AR1016-B	805.373	826.899		-2.7	99	0.02	5.97- 6.03
43		AR1016-C	1.606	1.725	E3	-7.4	103	0.02	6.92- 6.98
44		AR1016-D	686.807	771.143		-12.3	107	0.02	7.21- 7.27
45		AR1016-E	480.106	515.023		-7.3	103	0.02	8.22- 8.29
46		AR1260-A	1.782	1.950	E3	-9.4	107	0.02	12.30-12.42
47		AR1260-B	805.827	893.892		-10.9	108	0.02	12.49-12.61

Continuing Calibration Summary

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: GEF6203-CC6195
Lab FileID: EF181249.D

48		AR1260-C	860.698	936.871		-8.9	106	0.02	13.17-13.30
49		AR1260-D	1.793	1.957	E3	-9.1	106	0.02	13.73-13.86
50		AR1260-E	1.866	2.065	E3	-10.7	108	0.01	14.59-14.71
51	S	Decachlorobiphenyl	20.993	24.096	E3	-14.8	114	0.01	17.26-17.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF180975.D PCB6195.M Thu Mar 29 09:30:19 2018 GCEF

GC/LC Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/27/18 16:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90993.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:10 pm
Operator : kristend
Sample : jc62879-1
Misc : op10876,g4g2399,275,,,2,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:49:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.465	1.883	1193.9E6	220.1E6	50.000	50.000
27) I	1-bromo-2...	1.465	1.883	1193.9E6	220.1E6	50.000	50.000
33) I	1-bromo-2...	1.465	1.883	1193.9E6	220.1E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.073	2.762	784.7E6	136.0E6	33.625	33.576
	Spiked Amount 40.000	Range 30 - 150		Recovery =		84.06%	83.94%
26) SA	Decachlor...	9.304	11.807	616.6E6	88607396	29.095m	26.386
	Spiked Amount 40.000			Recovery =		72.74%	65.96%
	Target Compounds						
	SemiQuant Compounds - Not Calibrated on this Instrument						

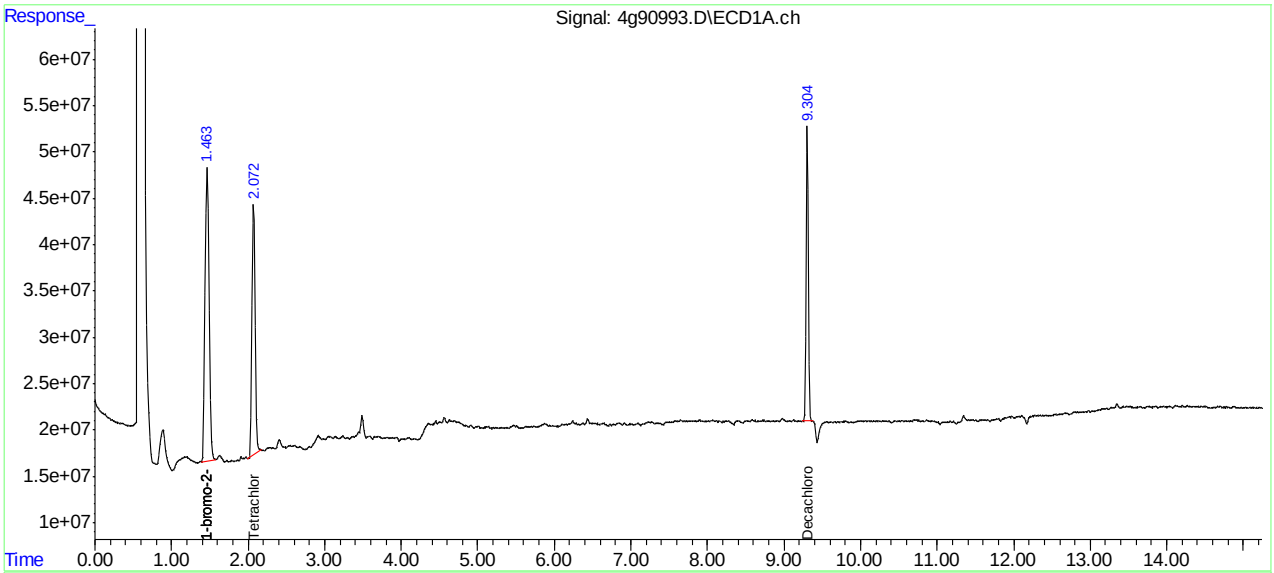
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

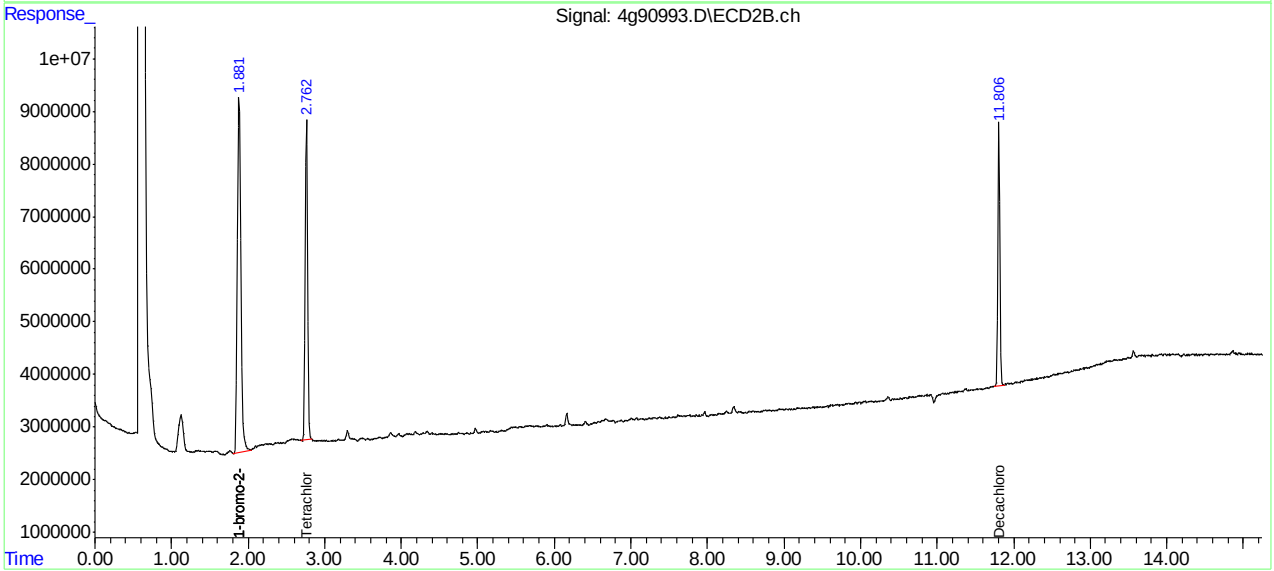
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90993.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:10 pm
Operator : kristend
Sample : jc62879-1
Misc : op10876,g4g2399,275,,,2,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:49:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	JC62879-1	**Method:**	SW846 8081B
Lab FileID:	4G90993.D	**Analyst approved:**	03/27/18 15:59 Kristen Drake
Injection Time:	03/27/18 12:10	**Supervisor approved:**	03/27/18 16:32 Gwendolyn Burns

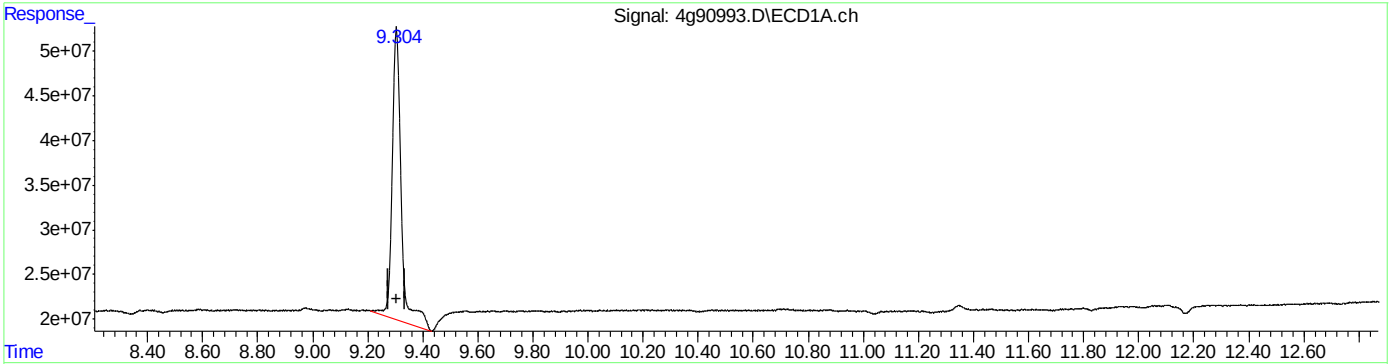
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.30	Poorly defined baseline

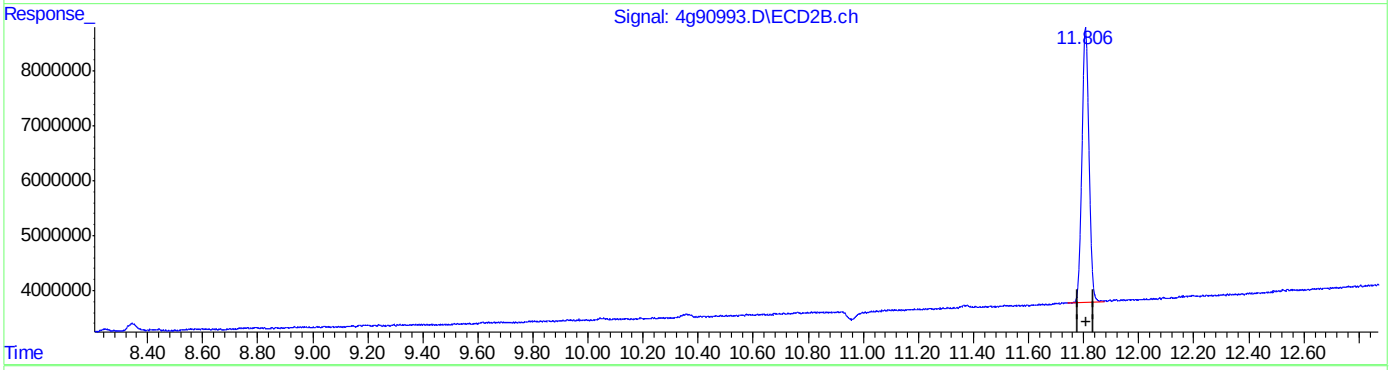
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90993.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:10 pm
Operator : kristend
Sample : jc62879-1
Misc : op10876,g4g2399,275,,,2,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:48:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)
9.304min 35.160 PPB
response 745204089

(26) Decachlorobiphenyl #2 (SA)
11.807min 26.386 PPB
response 88607396

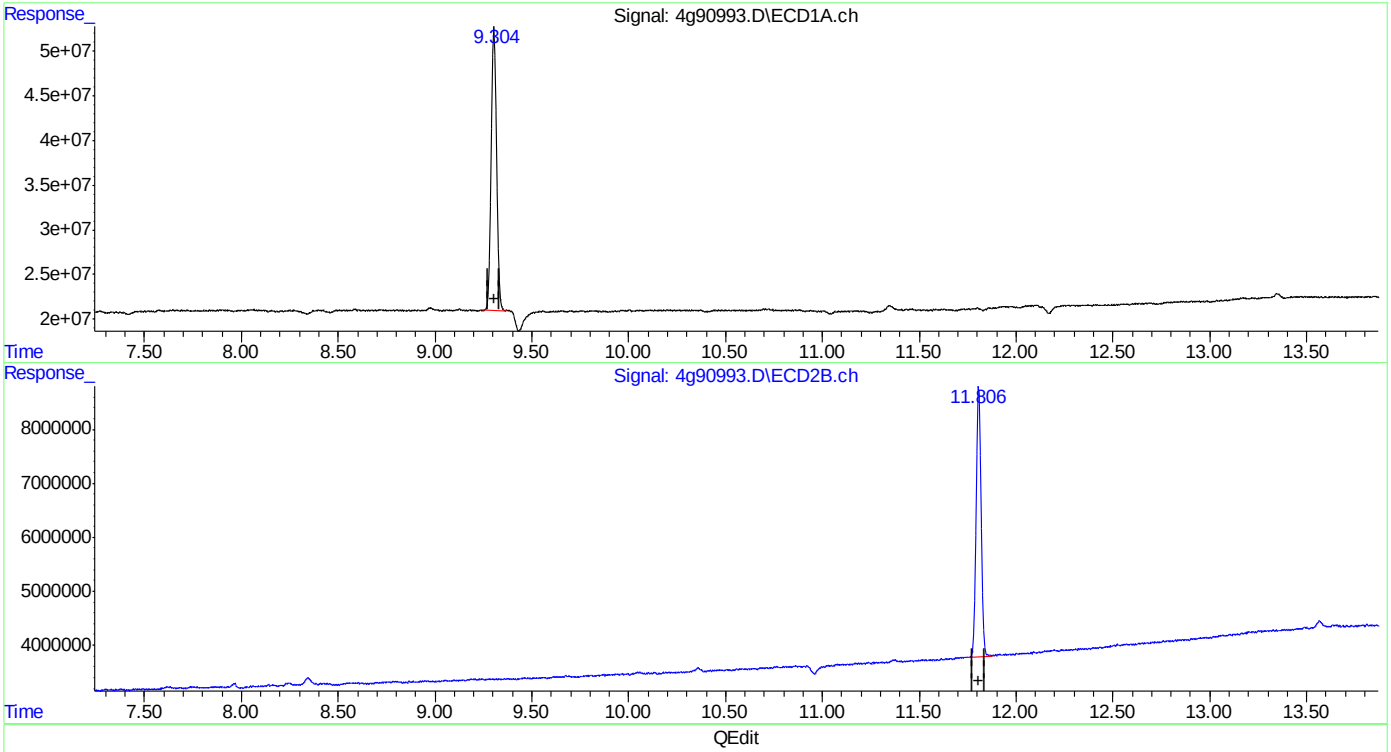
(+) = Expected Retention Time
4PST2366.M Tue Mar 27 15:48:41 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90993.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:10 pm
Operator : kristend
Sample : jc62879-1
Misc : op10876,g4g2399,275,,,2,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:48:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(26) Decachlorobiphenyl (SA)
9.304min 29.095 PPB m
response 616648981

(26) Decachlorobiphenyl #2 (SA)
11.807min 26.386 PPB
response 88607396

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/27/18 16:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90994.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:27 pm
Operator : kristend
Sample : jc62879-2
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:51:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.465	1.883	1067.2E6	208.2E6	50.000	50.000
27) I	1-bromo-2...	1.465	1.883	1067.2E6	208.2E6	50.000	50.000
33) I	1-bromo-2...	1.465	1.883	1067.2E6	208.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.076	2.762	482.0E6	91440621	22.925	23.864
	Spiked Amount 40.000	Range 30 - 150		Recovery =		57.31%	59.66%
26) SA	Decachlor...	9.304	11.805	425.4E6	64600262	22.456	20.341
	Spiked Amount 40.000			Recovery =		56.14%	50.85%
	Target Compounds						
12) B	gamma-Chl...	4.498	6.065f	21242394	2702934	1.092m	0.676m#
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

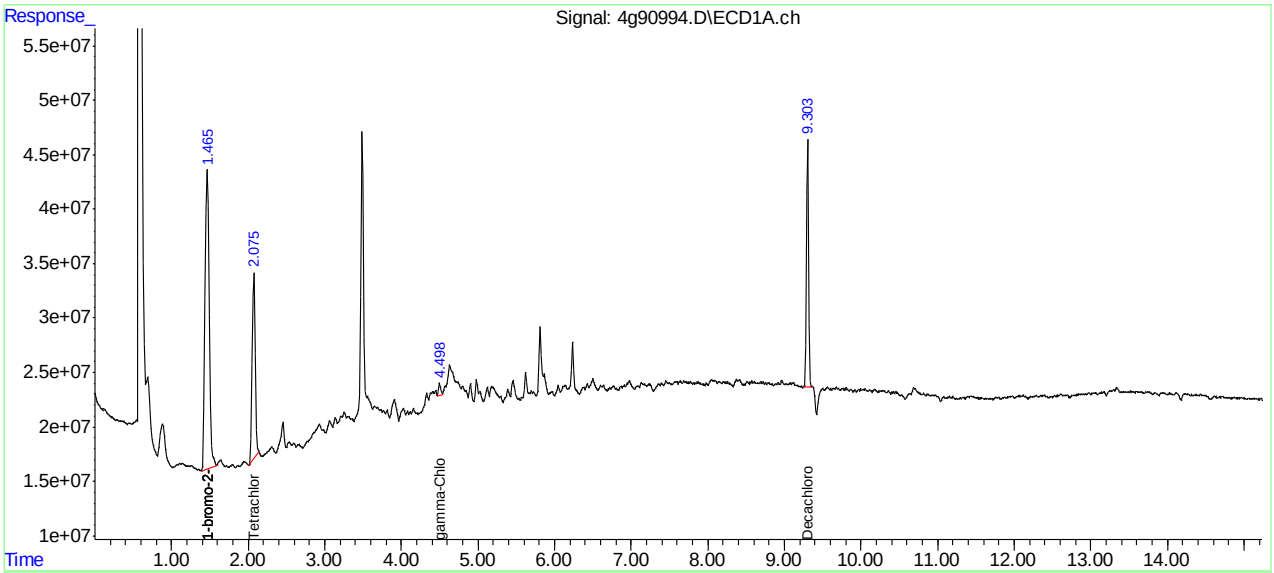
11.1.2 11

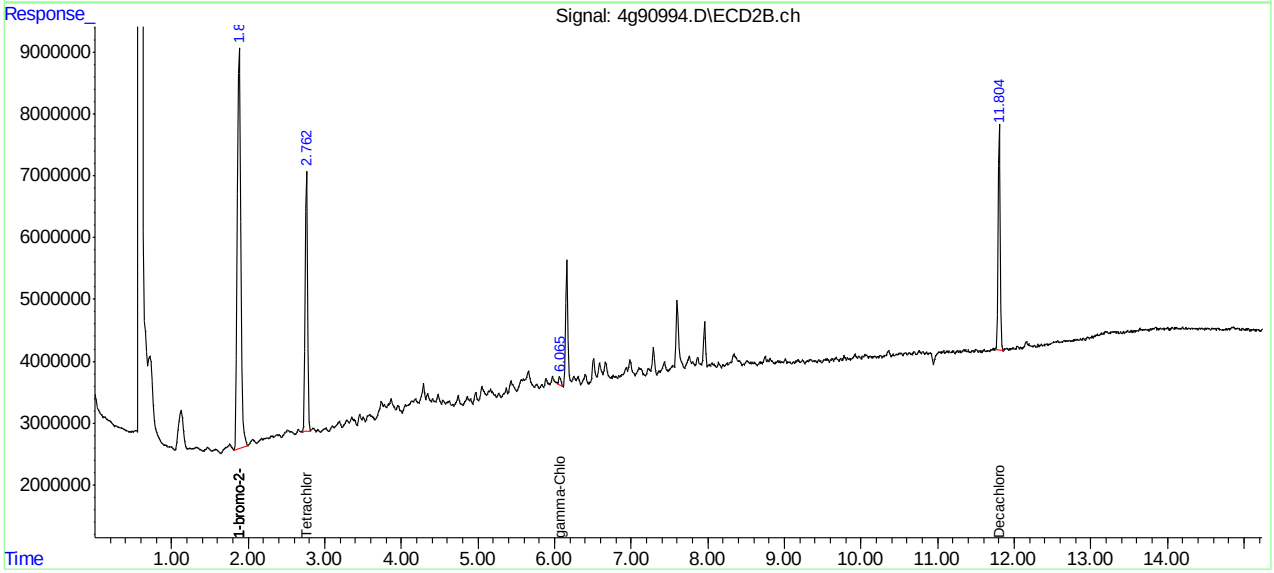
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90994.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:27 pm
Operator : kristend
Sample : jc62879-2
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:51:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number: JC62879-2
Lab FileID: 4G90994.D
Injection Time: 03/27/18 12:27
Method: SW846 8081B
Analyst approved: 03/27/18 15:59 Kristen Drake
Supervisor approved: 03/27/18 16:32 Gwendolyn Burns

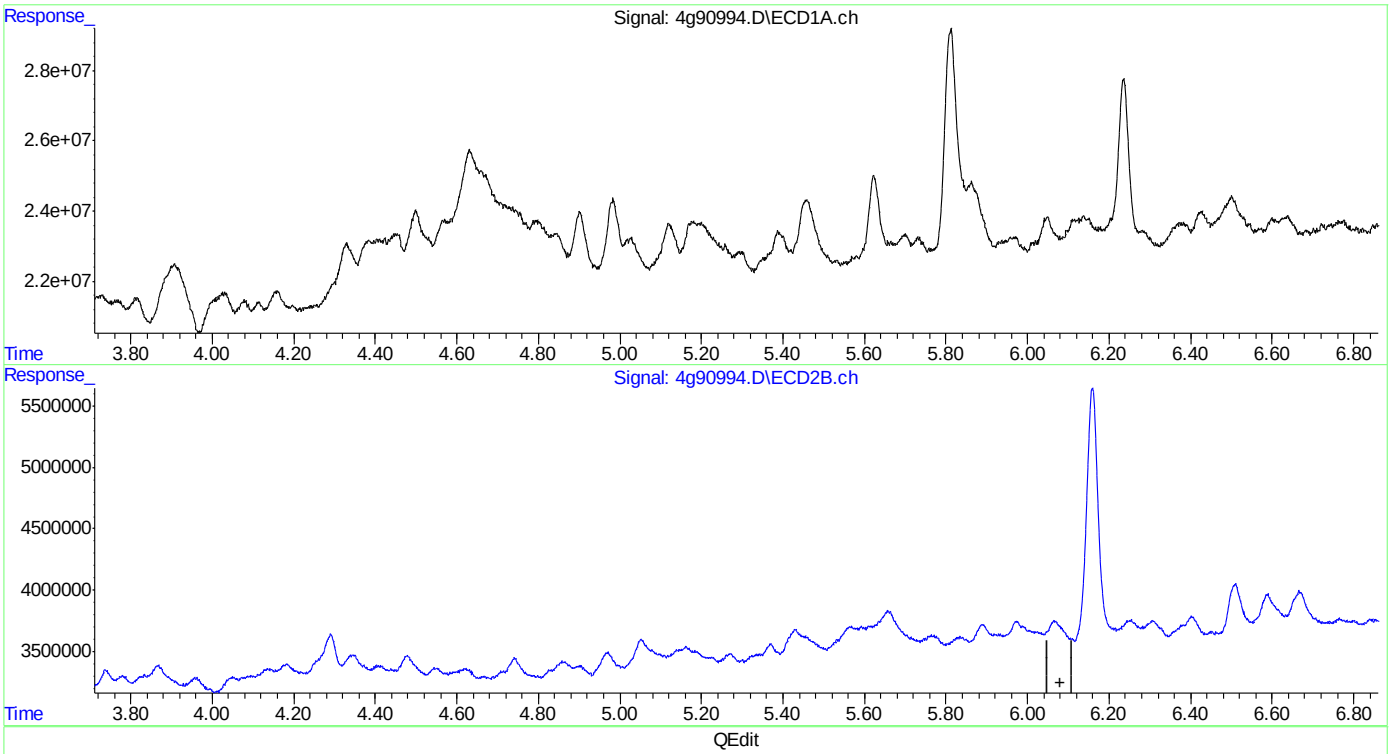
Parameter	CAS	Sig#	R.T. (min.)	Reason
gamma-Chlordane	5103-74-2	1	4.50	Poorly defined baseline
gamma-Chlordane	5103-74-2	2	6.06	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90994.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:27 pm
Operator : kristend
Sample : jc62879-2
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:50:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(12) gamma-Chlordane (B)
0.000min 0.000 PPB
response 0

(12) gamma-Chlordane #2 (B)
0.000min 0.000 PPB
response 0

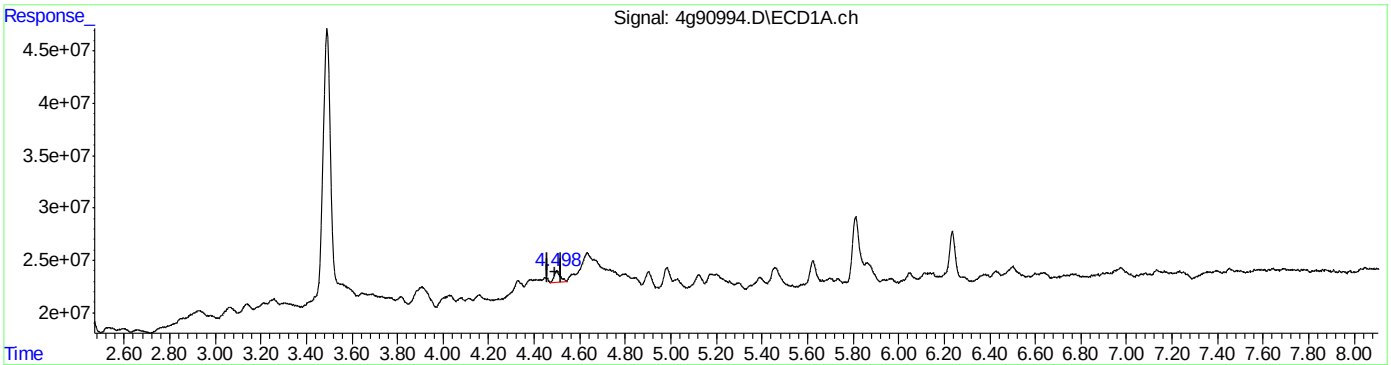
(+) = Expected Retention Time

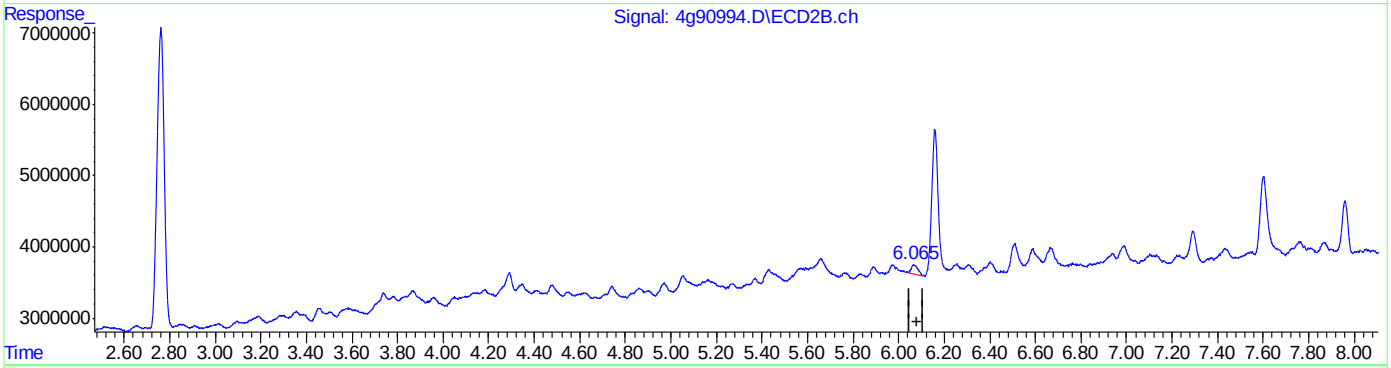
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90994.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:27 pm
Operator : kristend
Sample : jc62879-2
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:50:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(12) gamma-Chlordane (B)
4.498min 1.092 PPB m
response 21242394

(12) gamma-Chlordane #2 (B)
6.065min 0.676 PPB m
response 2702934

(+) = Expected Retention Time
4PST2366.M Tue Mar 27 15:50:44 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/27/18 16:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90995.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:44 pm
Operator : kristend
Sample : jc62879-3
Misc : op10876,g4g2399,280,,,2,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:53:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.463	1.880	1194.4E6	221.2E6	50.000	50.000
27) I	1-bromo-2...	1.463	1.880	1194.4E6	221.2E6	50.000	50.000
33) I	1-bromo-2...	1.463	1.880	1194.4E6	221.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.072	2.760	812.6E6	139.3E6	34.834	34.223
	Spiked Amount 40.000	Range 30 - 150		Recovery =		87.09%	85.56%
26) SA	Decachlor...	9.303	11.805	536.6E6	78193642	25.305m	23.172
	Spiked Amount 40.000			Recovery =		63.26%	57.93%
	Target Compounds						
	SemiQuant Compounds - Not Calibrated on this Instrument						

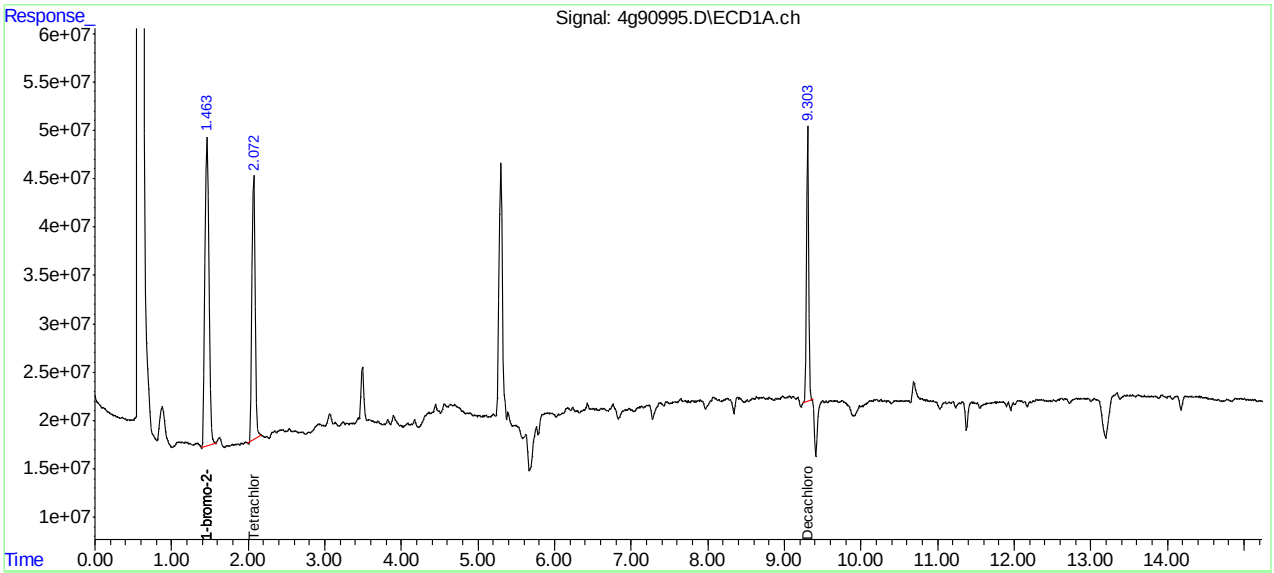
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

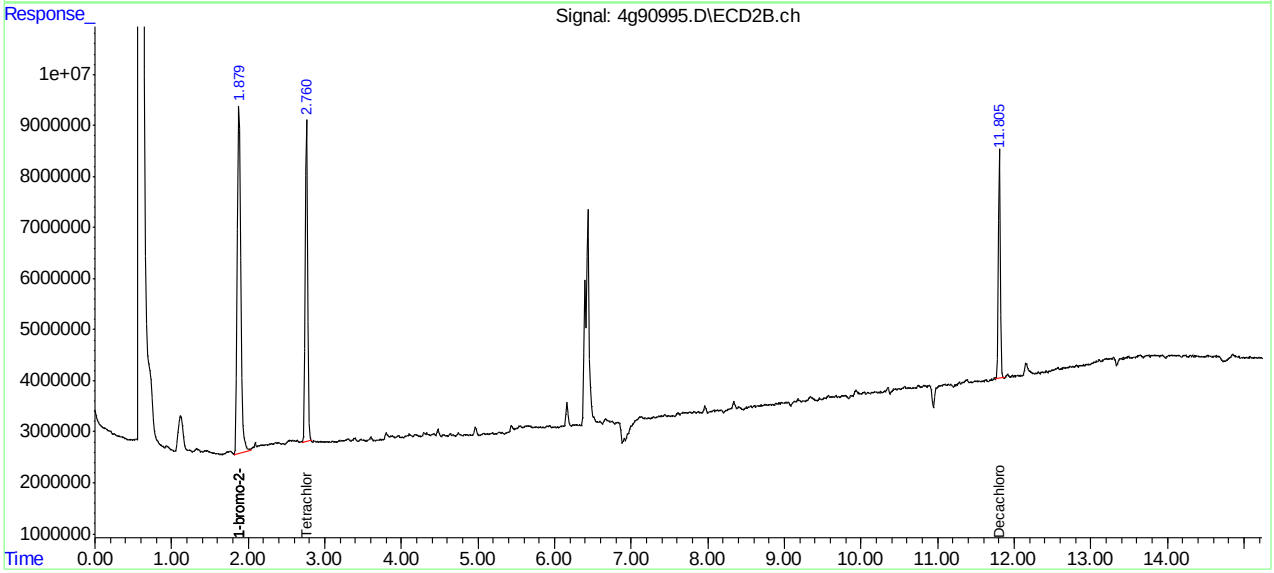
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90995.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:44 pm
Operator : kristend
Sample : jc62879-3
Misc : op10876,g4g2399,280,,,2,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:53:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	JC62879-3	**Method:**	SW846 8081B
Lab FileID:	4G90995.D	**Analyst approved:**	03/27/18 15:59 Kristen Drake
Injection Time:	03/27/18 12:44	**Supervisor approved:**	03/27/18 16:32 Gwendolyn Burns

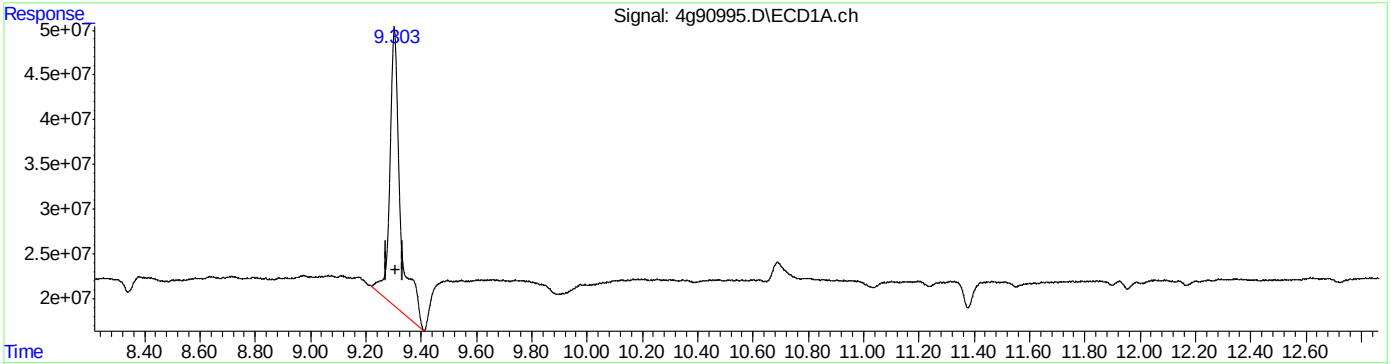
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.30	Poorly defined baseline

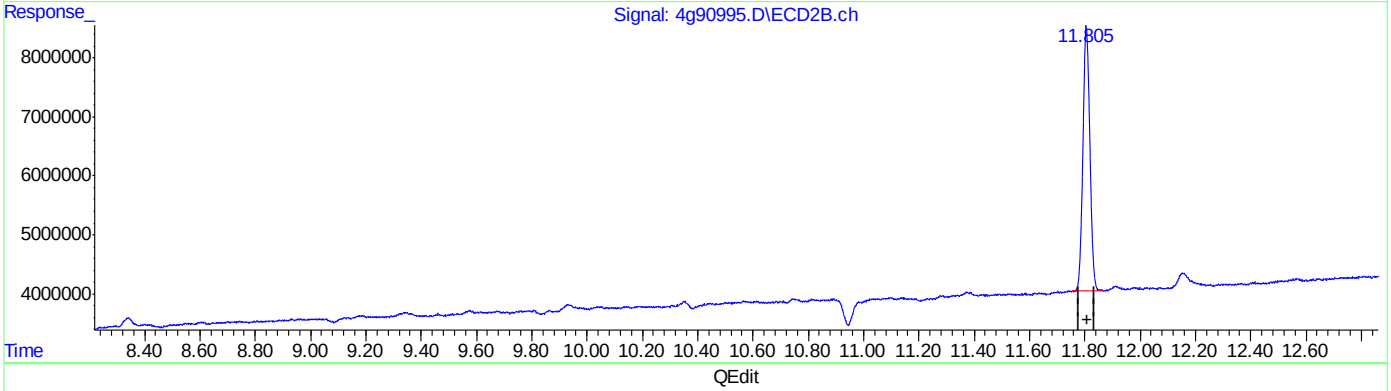
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90995.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:44 pm
Operator : kristend
Sample : jc62879-3
Misc : op10876,g4g2399,280,,,2,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:52:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)
9.303min 39.053 PPB
response 828030490

(26) Decachlorobiphenyl #2 (SA)
11.805min 23.172 PPB
response 78193642

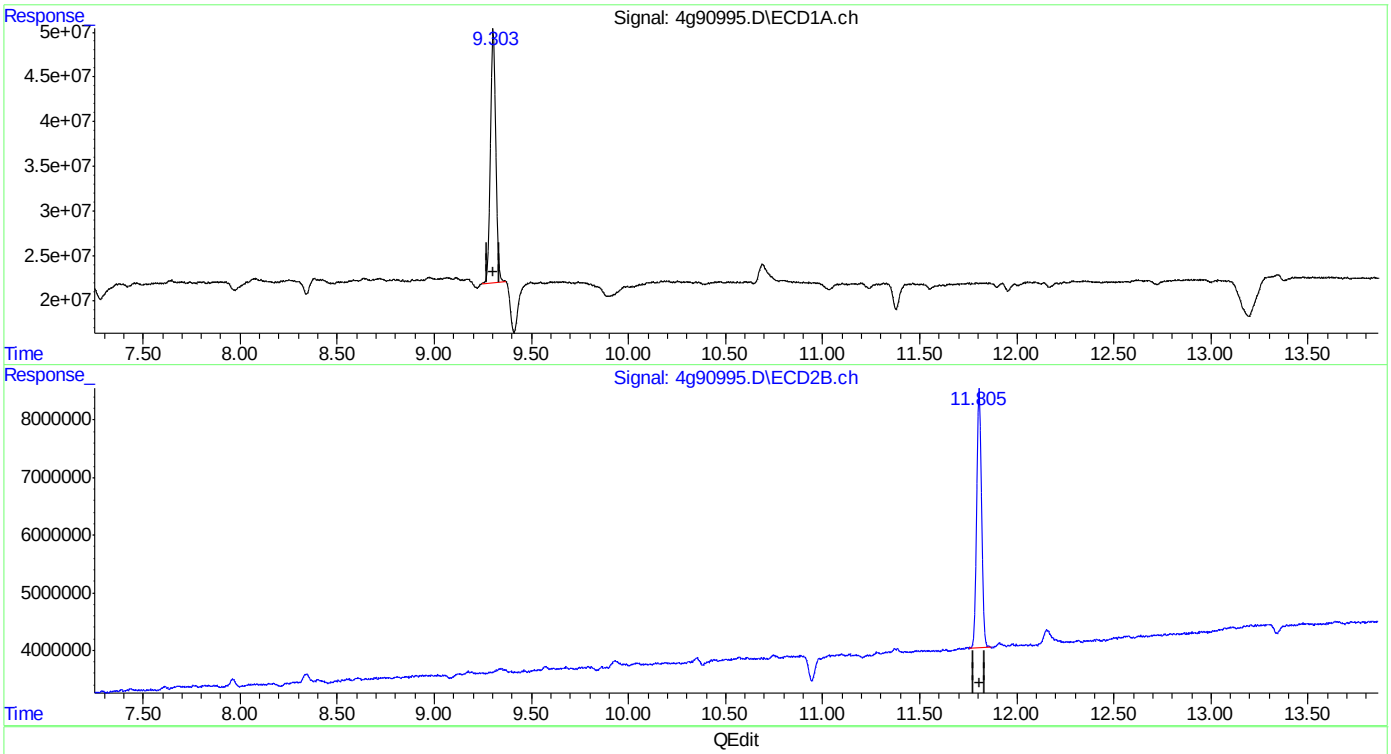
(+) = Expected Retention Time
4PST2366.M Tue Mar 27 15:52:52 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90995.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 12:44 pm
Operator : kristend
Sample : jc62879-3
Misc : op10876,g4g2399,280,,,2,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:52:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(26) Decachlorobiphenyl (SA)
9.303min 25.305 PPB m
response 536550029

(26) Decachlorobiphenyl #2 (SA)
11.805min 23.172 PPB
response 78193642

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/27/18 16:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90996.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:01 pm
Operator : kristend
Sample : jc62879-4
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:54:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.464	1.883	1358.2E6	239.8E6	50.000	50.000
27) I	1-bromo-2...	1.464	1.883	1358.2E6	239.8E6	50.000	50.000
33) I	1-bromo-2...	1.464	1.883	1358.2E6	239.8E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.073	2.762	724.1E6	125.8E6	27.140	28.495
	Spiked Amount 40.000	Range 30 - 150		Recovery =		67.85%	71.24%
26) SA	Decachlor...	9.304	11.807	567.6E6	81292744	23.541	22.222
	Spiked Amount 40.000			Recovery =		58.85%	55.56%
	Target Compounds						
16) MA	Dieldrin	5.141	6.844	153.9E6	26173536	5.817	5.695m
	SemiQuant Compounds - Not Calibrated on this Instrument						

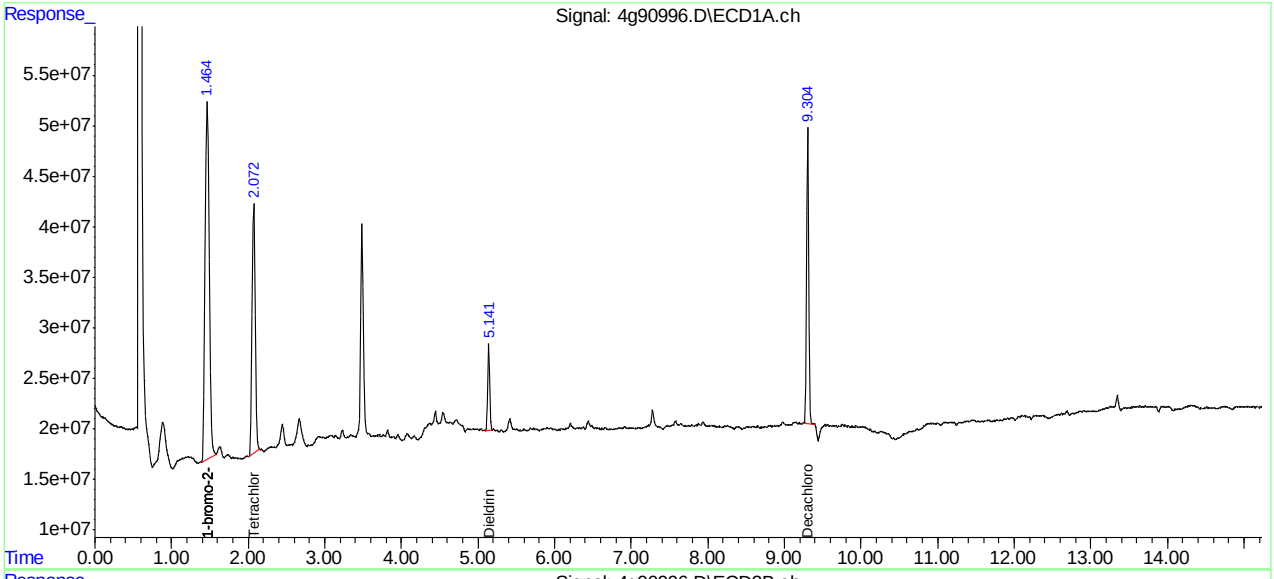
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

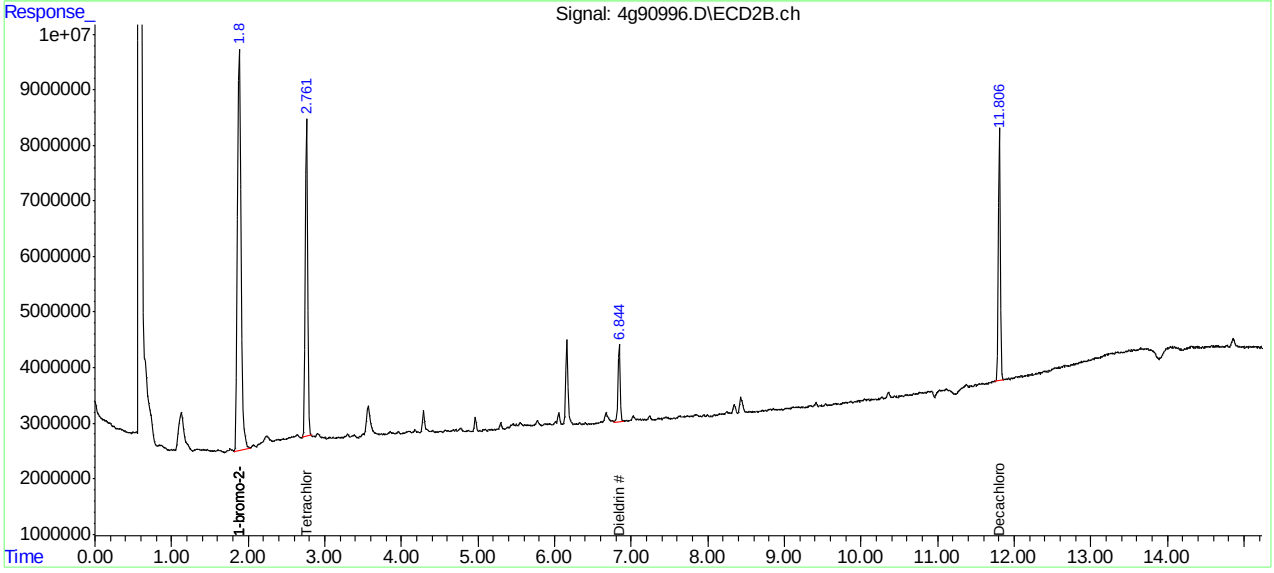
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90996.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:01 pm
Operator : kristend
Sample : jc62879-4
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:54:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	JC62879-4	**Method:**	SW846 8081B
Lab FileID:	4G90996.D	**Analyst approved:**	03/27/18 15:59 Kristen Drake
Injection Time:	03/27/18 13:01	**Supervisor approved:**	03/27/18 16:32 Gwendolyn Burns

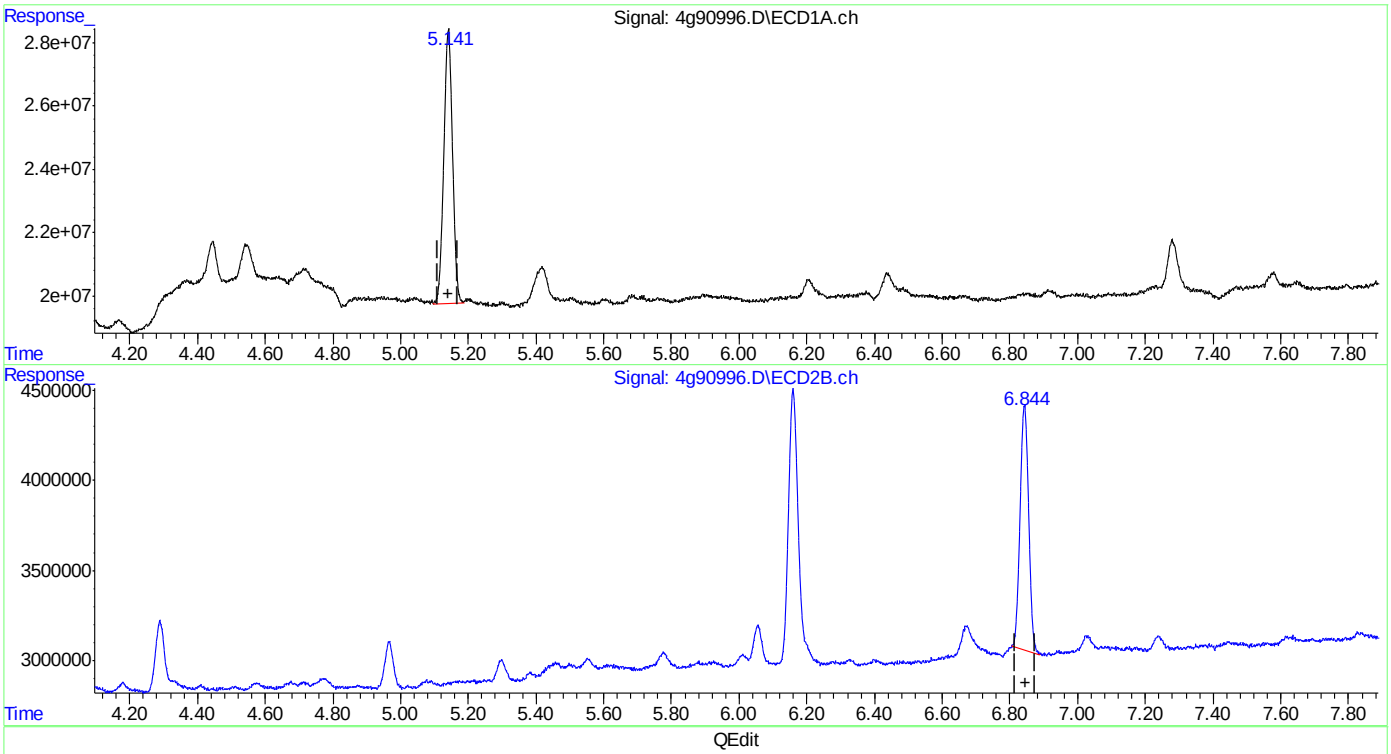
Parameter	CAS	Sig#	R.T. (min.)	Reason
Dieldrin	60-57-1	2	6.84	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90996.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:01 pm
Operator : kristend
Sample : jc62879-4
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:53:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(16) Dieldrin (MA)
5.141min 5.817 PPB
response 153851829

(16) Dieldrin #2 (MA)
6.843min 5.217 PPB
response 23975995

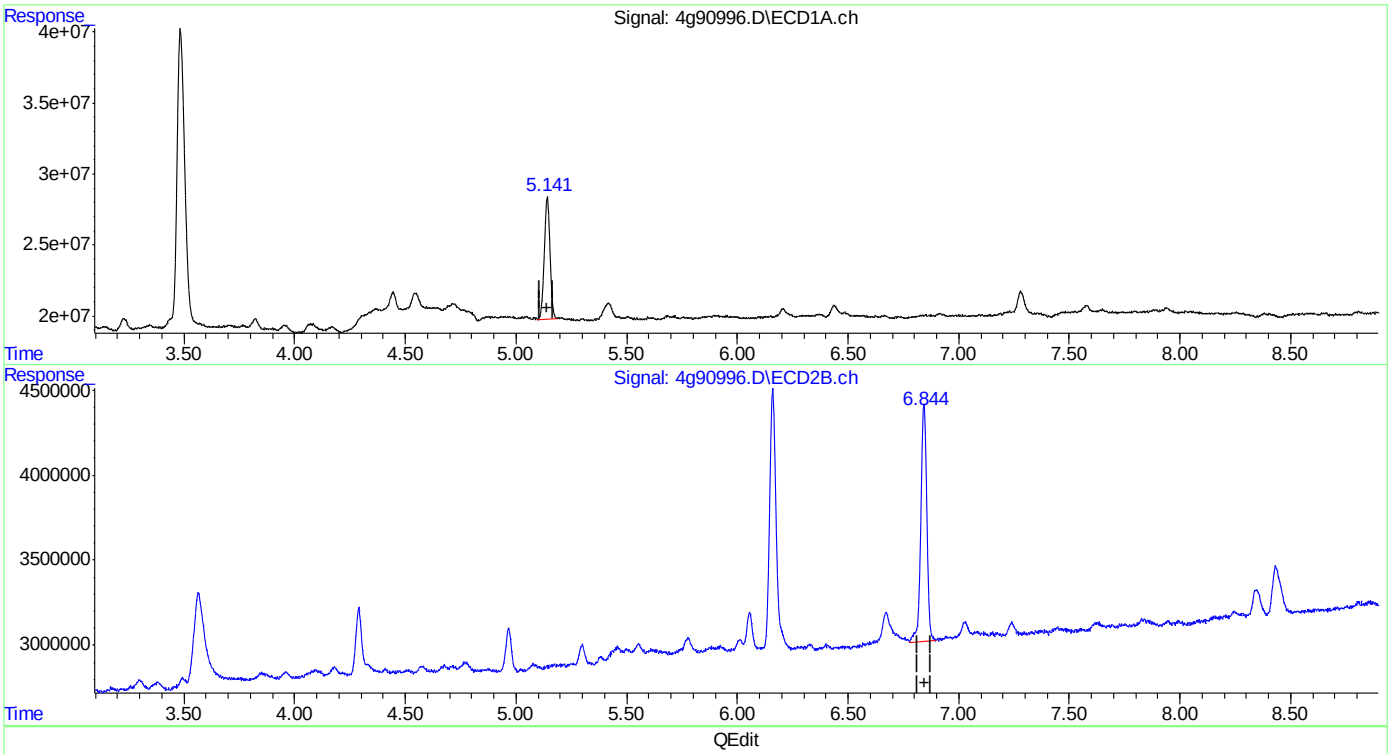
(+) = Expected Retention Time
4PST2366.M Tue Mar 27 15:53:55 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90996.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:01 pm
Operator : kristend
Sample : jc62879-4
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:53:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(16) Dieldrin (MA)
5.141min 5.817 PPB
response 153851829

(16) Dieldrin #2 (MA)
6.844min 5.695 PPB m
response 26173536

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/27/18 16:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90997.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:18 pm
Operator : kristend
Sample : jc62879-5
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:55:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.465	1.883	1315.2E6	237.0E6	50.000	50.000
27) I	1-bromo-2...	1.465	1.883	1315.2E6	237.0E6	50.000	50.000
33) I	1-bromo-2...	1.465	1.883	1315.2E6	237.0E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.074	2.761	757.5E6	130.9E6	29.372	30.005
	Spiked Amount 40.000	Range 30 - 150		Recovery =		73.43%	75.01%
26) SA	Decachlor...	9.304	11.806	522.3E6	75008078	22.372m	20.750
	Spiked Amount 40.000			Recovery =		55.93%	51.88%
	Target Compounds						
	SemiQuant Compounds - Not Calibrated on this Instrument						

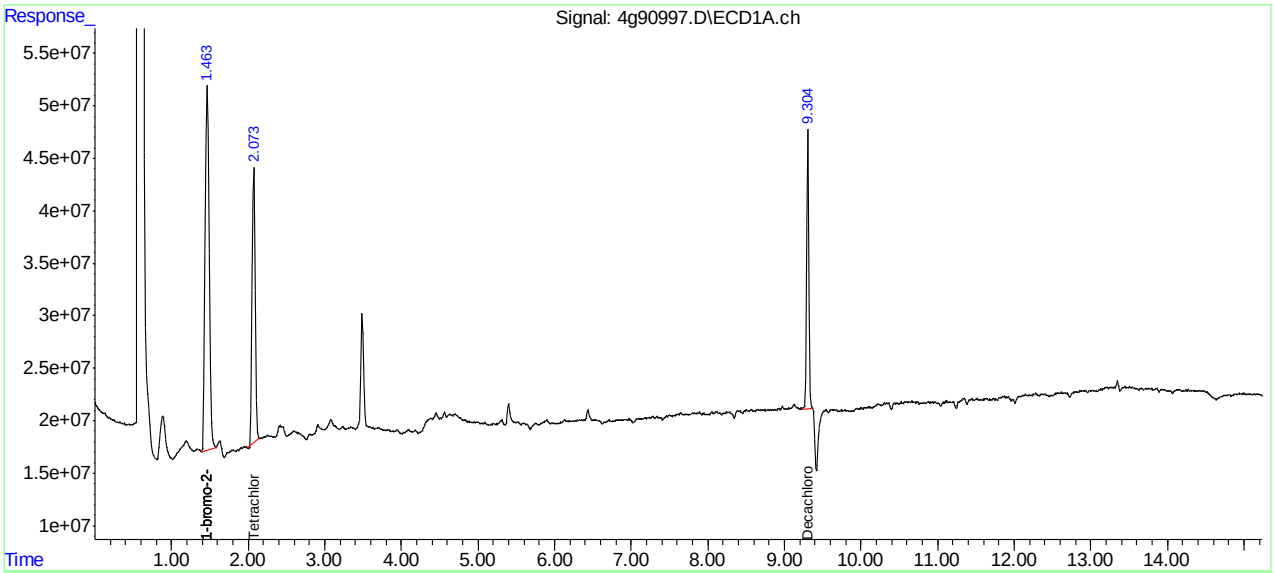
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

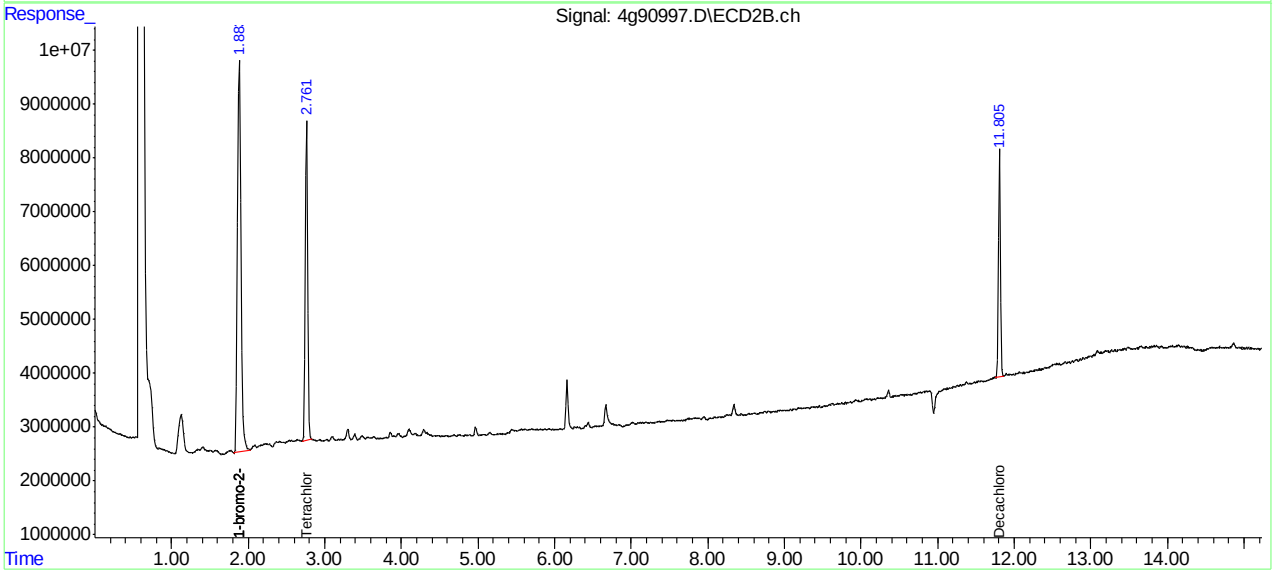
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90997.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:18 pm
Operator : kristend
Sample : jc62879-5
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:55:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	JC62879-5	**Method:**	SW846 8081B
Lab FileID:	4G90997.D	**Analyst approved:**	03/27/18 15:59 Kristen Drake
Injection Time:	03/27/18 13:18	**Supervisor approved:**	03/27/18 16:32 Gwendolyn Burns

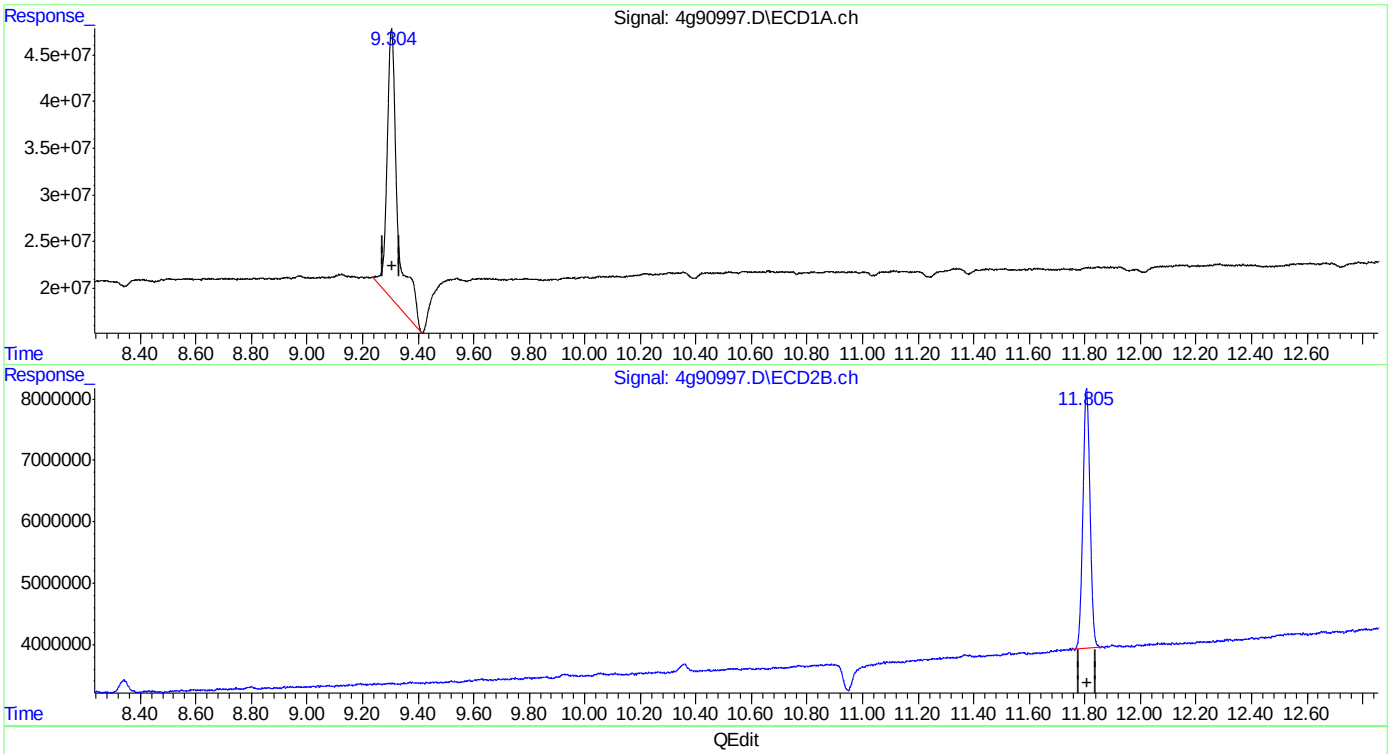
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.30	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90997.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:18 pm
Operator : kristend
Sample : jc62879-5
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:54:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(26) Decachlorobiphenyl (SA)
9.304min 32.698 PPB
response 763407922

(26) Decachlorobiphenyl #2 (SA)
11.806min 20.750 PPB
response 75008078

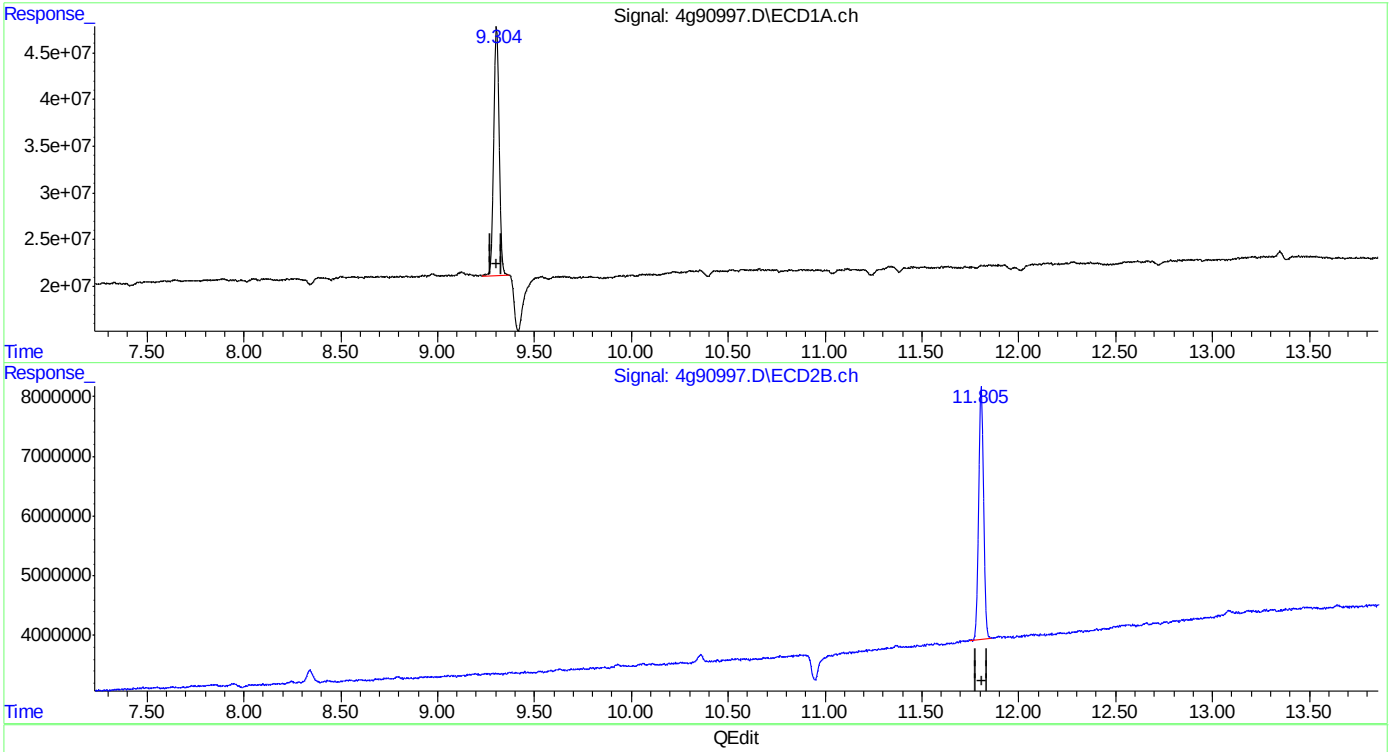
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90997.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:18 pm
Operator : kristend
Sample : jc62879-5
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:54:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(26) Decachlorobiphenyl (SA)
9.304min 22.372 PPB m
response 522328799

(26) Decachlorobiphenyl #2 (SA)
11.806min 20.750 PPB
response 75008078

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/27/18 16:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90998.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:34 pm
Operator : kristend
Sample : jc62879-6
Misc : op10876,g4g2399,295,,,2,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:57:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.467	1.882	1316.0E6	237.0E6	50.000	50.000
27) I	1-bromo-2...	1.467	1.882	1316.0E6	237.0E6	50.000	50.000
33) I	1-bromo-2...	1.467	1.882	1316.0E6	237.0E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.076	2.760	858.9E6	142.9E6	33.385	32.767
	Spiked Amount 40.000	Range 30 - 150		Recovery =		83.46%	81.92%
26) SA	Decachlor...	9.303	11.805	745.1E6	106.4E6	31.894m	29.430
	Spiked Amount 40.000			Recovery =		79.73%	73.58%
	Target Compounds						
	SemiQuant Compounds - Not Calibrated on this Instrument						

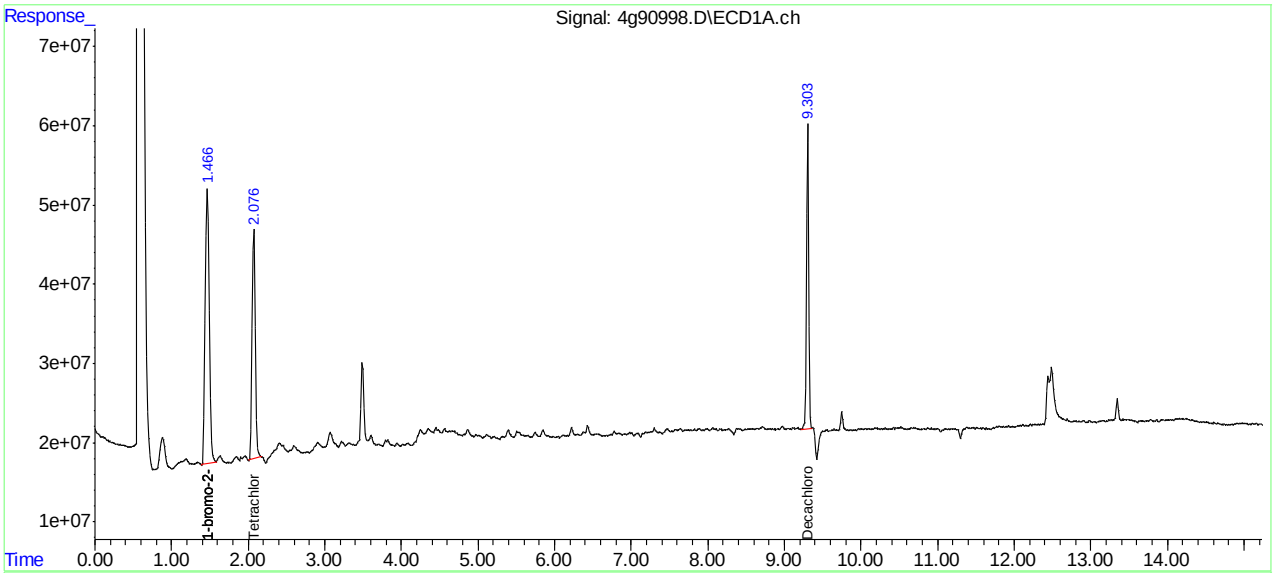
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

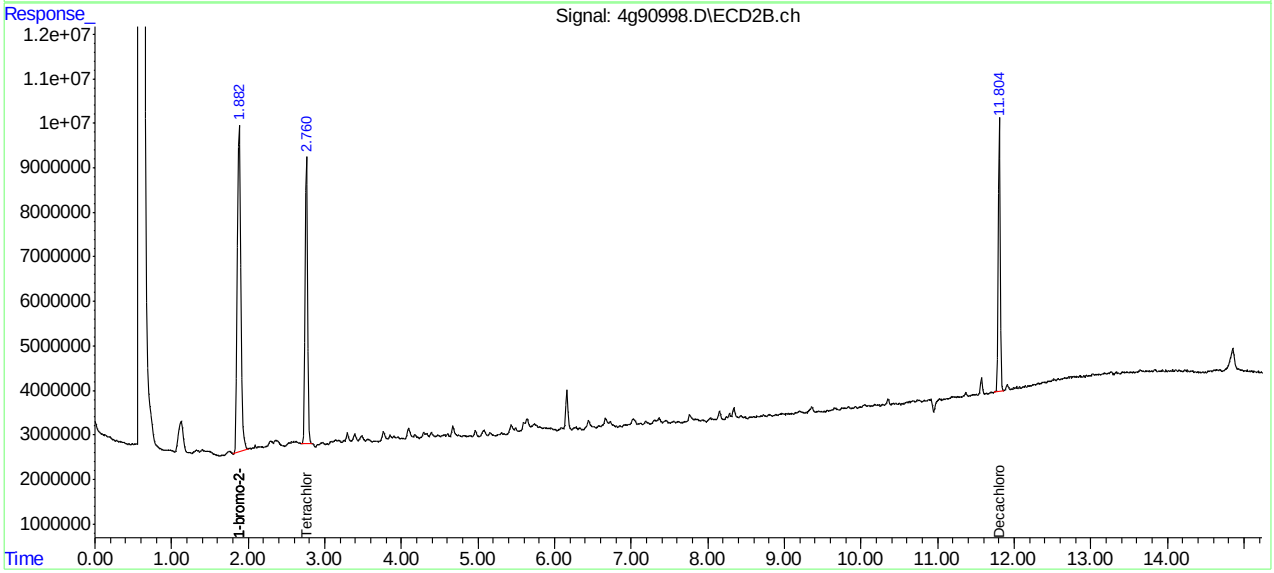
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90998.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:34 pm
Operator : kristend
Sample : jc62879-6
Misc : op10876,g4g2399,295,,,2,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:57:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	JC62879-6	**Method:**	SW846 8081B
Lab FileID:	4G90998.D	**Analyst approved:**	03/27/18 15:59 Kristen Drake
Injection Time:	03/27/18 13:34	**Supervisor approved:**	03/27/18 16:32 Gwendolyn Burns

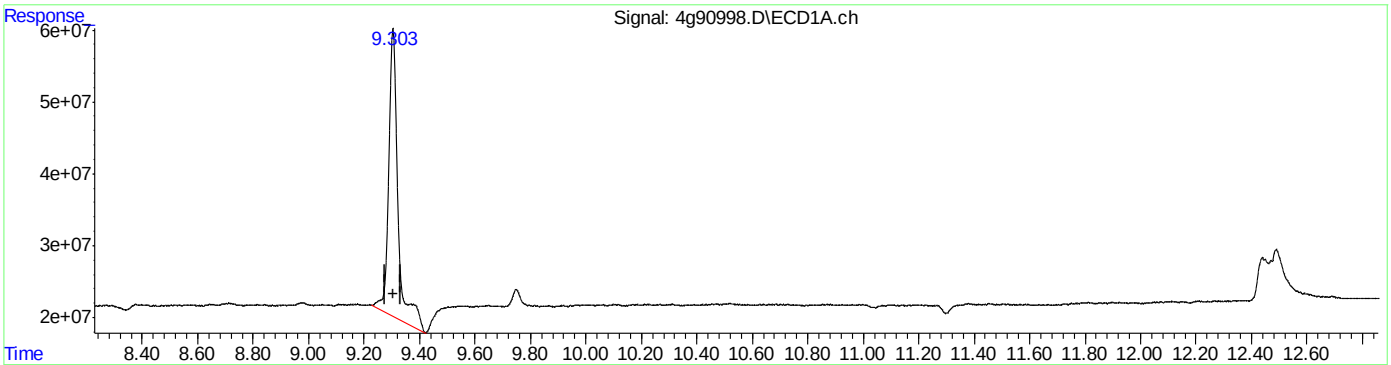
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.30	Poorly defined baseline

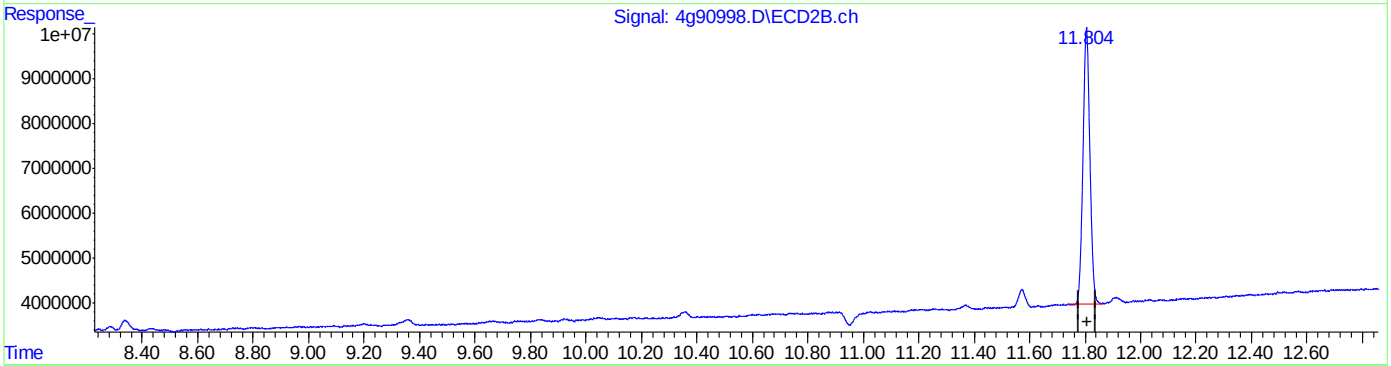
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90998.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:34 pm
Operator : kristend
Sample : jc62879-6
Misc : op10876,g4g2399,295,,,2,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:55:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)
9.304min 39.767 PPB
response 929017824

(26) Decachlorobiphenyl #2 (SA)
11.805min 29.430 PPB
response 106409277

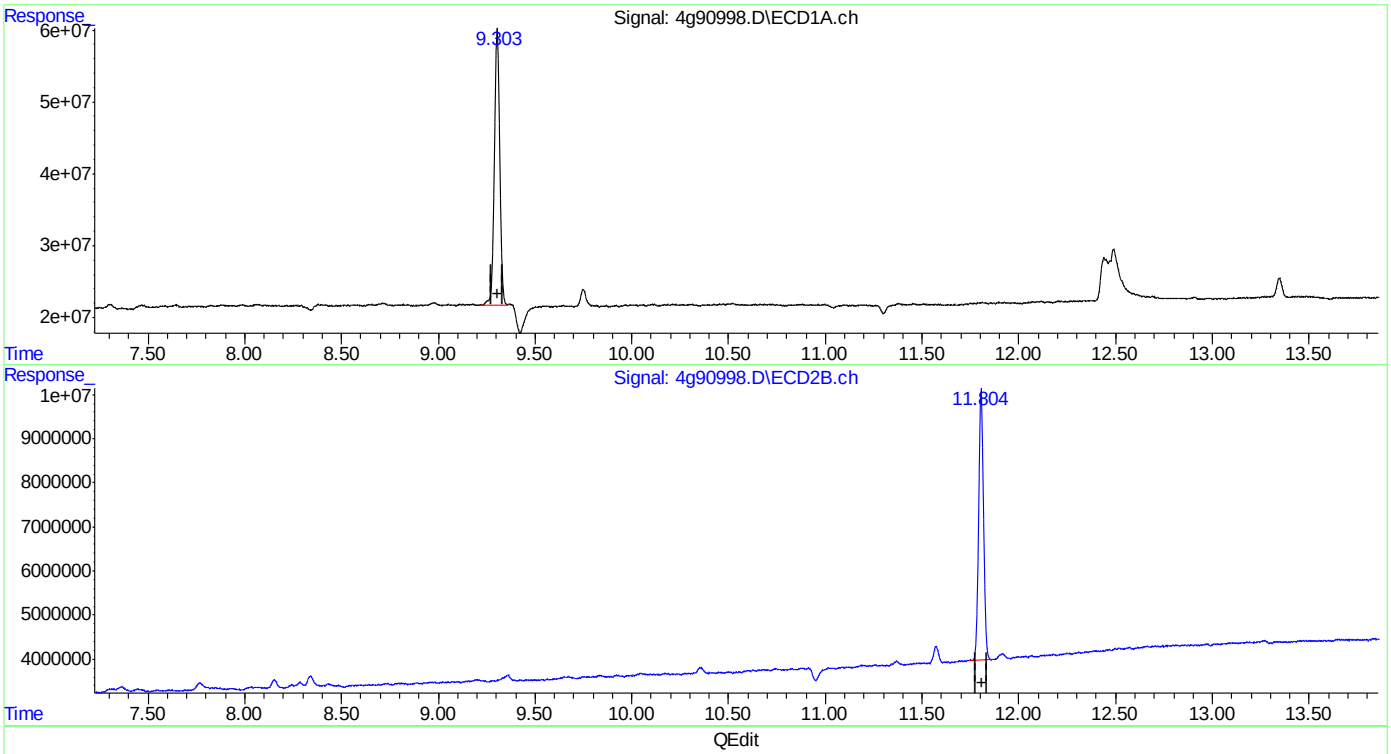
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90998.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:34 pm
Operator : kristend
Sample : jc62879-6
Misc : op10876,g4g2399,295,,,2,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:55:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(26) Decachlorobiphenyl (SA)
9.303min 31.894 PPB m
response 745080607

(26) Decachlorobiphenyl #2 (SA)
11.805min 29.430 PPB
response 106409277

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/27/18 16:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90999.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:51 pm
Operator : kristend
Sample : jc62879-7
Misc : op10876,g4g2399,290,,,2,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:47:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.464	1.883	1408.1E6	256.3E6	50.000	50.000
27) I	1-bromo-2...	1.464	1.883	1408.1E6	256.3E6	50.000	50.000
33) I	1-bromo-2...	1.464	1.883	1408.1E6	256.3E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.071	2.762	823.0E6	143.5E6	29.815	30.412
	Spiked Amount 40.000	Range 30 - 150		Recovery =		74.54%	76.03%
26) SA	Decachlor...	9.301	11.807	624.8E6	88143549	24.996m	22.545
	Spiked Amount 40.000			Recovery =		62.49%	56.36%
	Target Compounds						
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

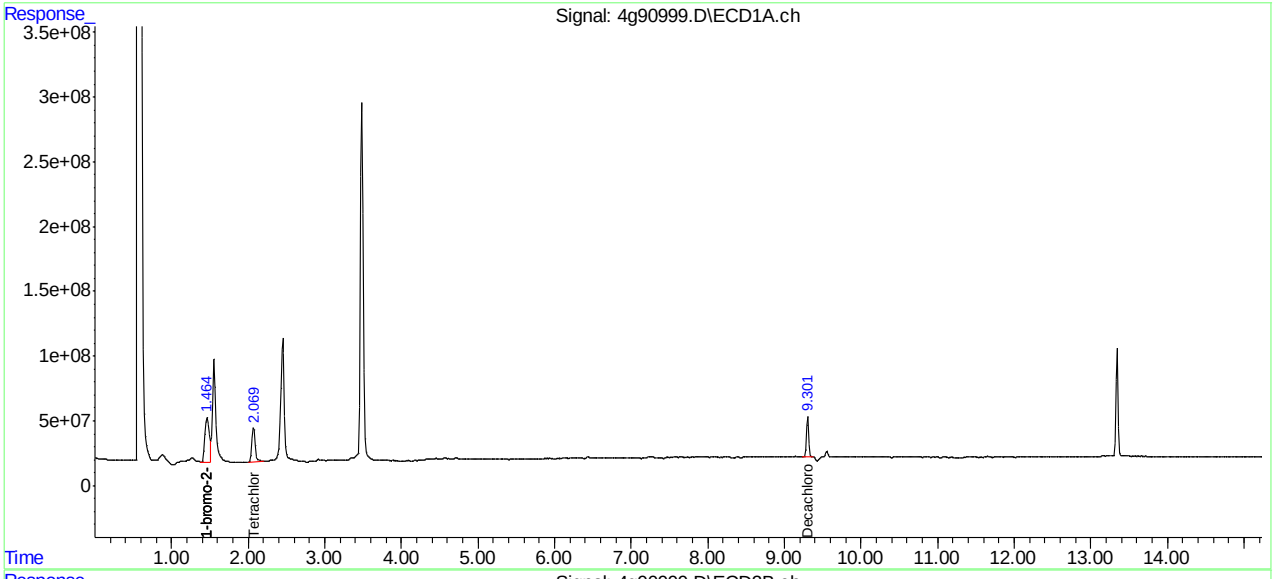
11.1.7 11

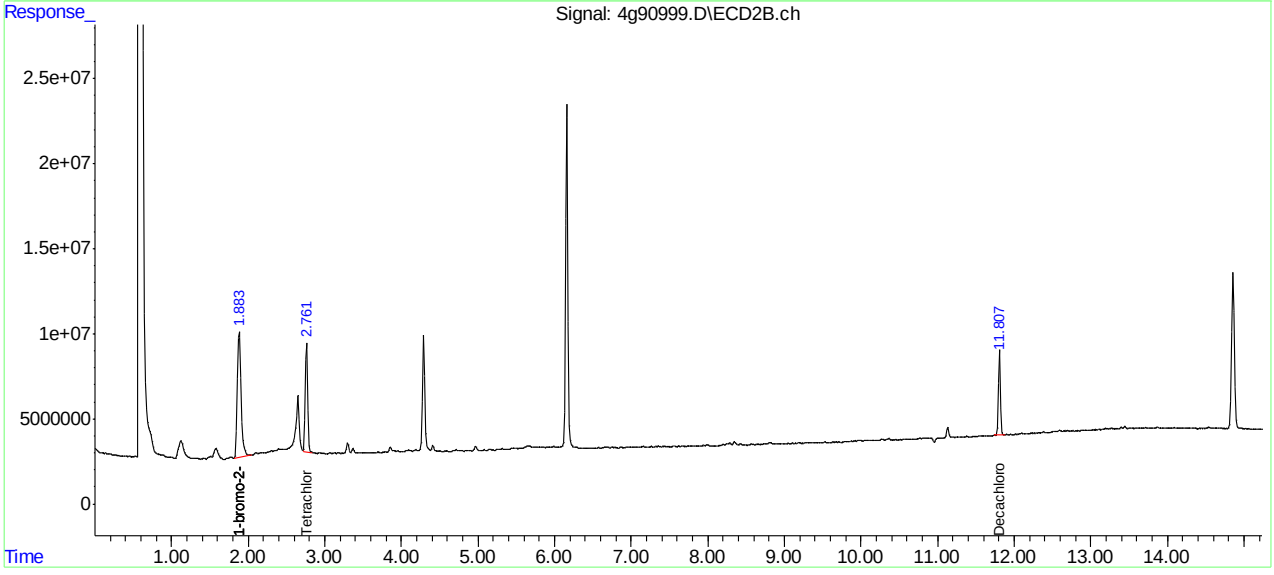
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90999.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:51 pm
Operator : kristend
Sample : jc62879-7
Misc : op10876,g4g2399,290,,,2,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:47:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	JC62879-7	**Method:**	SW846 8081B
Lab FileID:	4G90999.D	**Analyst approved:**	03/27/18 15:59 Kristen Drake
Injection Time:	03/27/18 13:51	**Supervisor approved:**	03/27/18 16:32 Gwendolyn Burns

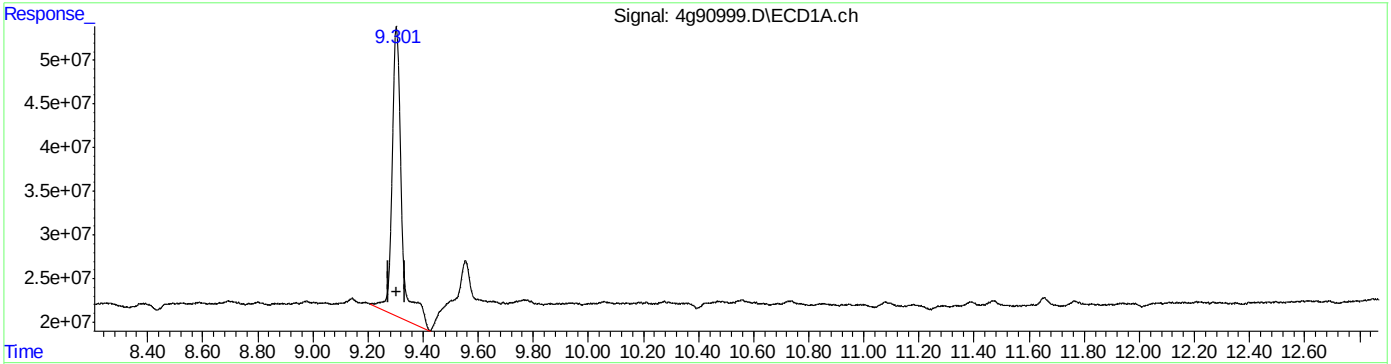
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.30	Poorly defined baseline

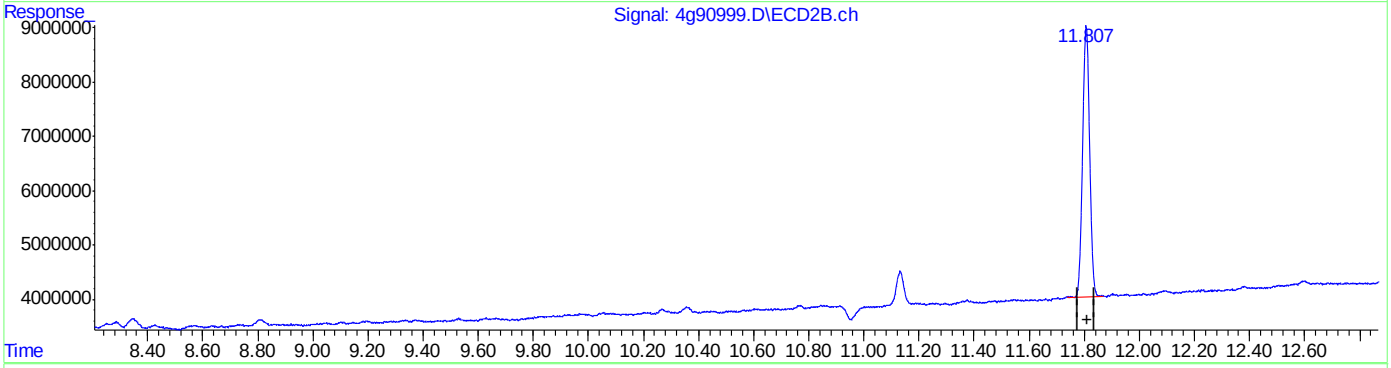
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90999.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:51 pm
Operator : kristend
Sample : jc62879-7
Misc : op10876,g4g2399,290,,,2,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:46:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)
9.303min 32.196 PPB
response 804836929

(26) Decachlorobiphenyl #2 (SA)
11.807min 22.545 PPB
response 88143549

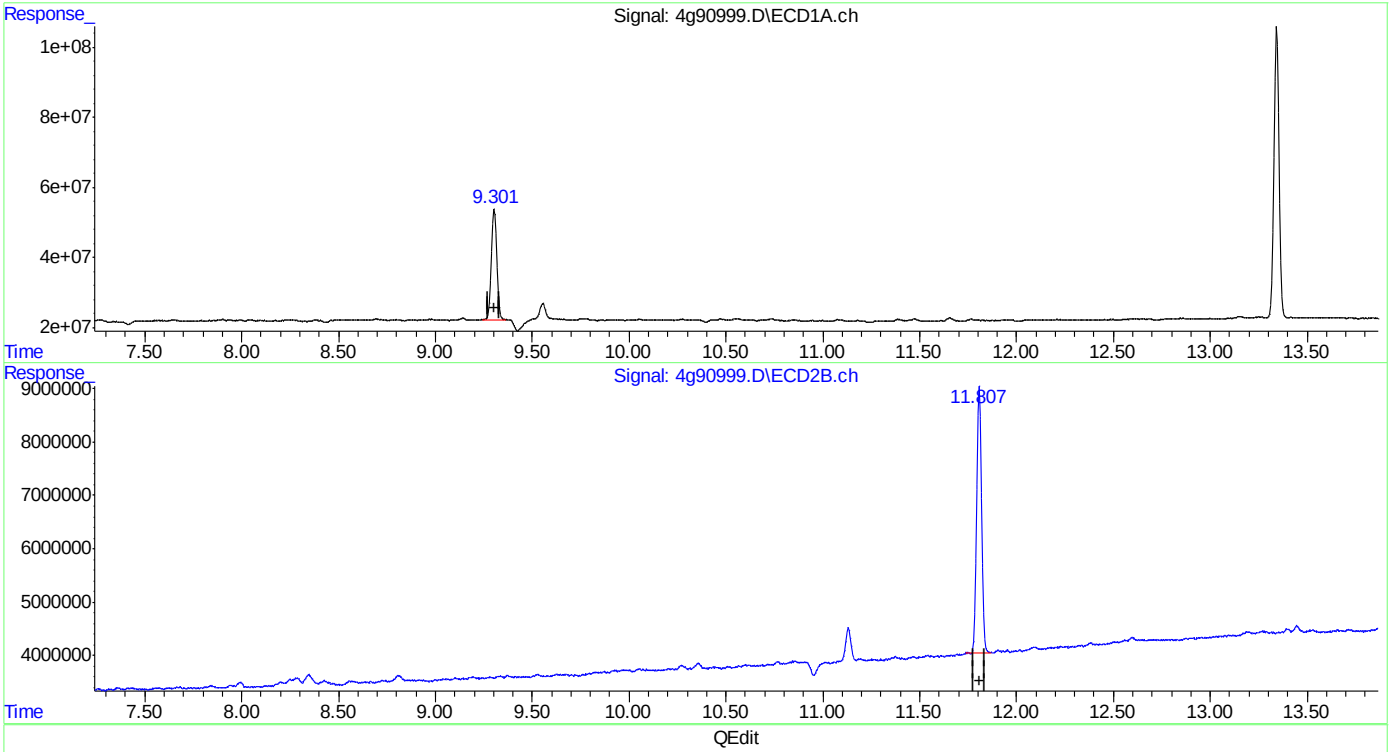
(+) = Expected Retention Time
4PST2366.M Tue Mar 27 15:47:32 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90999.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 1:51 pm
Operator : kristend
Sample : jc62879-7
Misc : op10876,g4g2399,290,,,2,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 15:46:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(26) Decachlorobiphenyl (SA)
9.301min 24.996 PPB m
response 624843421

(26) Decachlorobiphenyl #2 (SA)
11.807min 22.545 PPB
response 88143549

(+) = Expected Retention Time
4PST2366.M Tue Mar 27 15:47:38 2018 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144707.D\ECD1A.CH Vial: 29
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144707.D\ECD2B.CH
Acq On : 3-28-18 02:18:07 AM Operator: christp
Sample : jc62879-8 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:45 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.45	472.1E6	106.9E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	472.1E6	106.9E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	472.1E6	106.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.78	3.35	281.5E6	62242884	33.678	32.067
Spiked Amount	40.000	Range 30 - 150		Recovery =		84.19%	80.17%
26) SA	Decachlorobiphen	10.12	12.02	297.2E6	46709062	43.548	33.329
Spiked Amount	40.000			Recovery =		108.87%	83.32%
	Target Compounds						

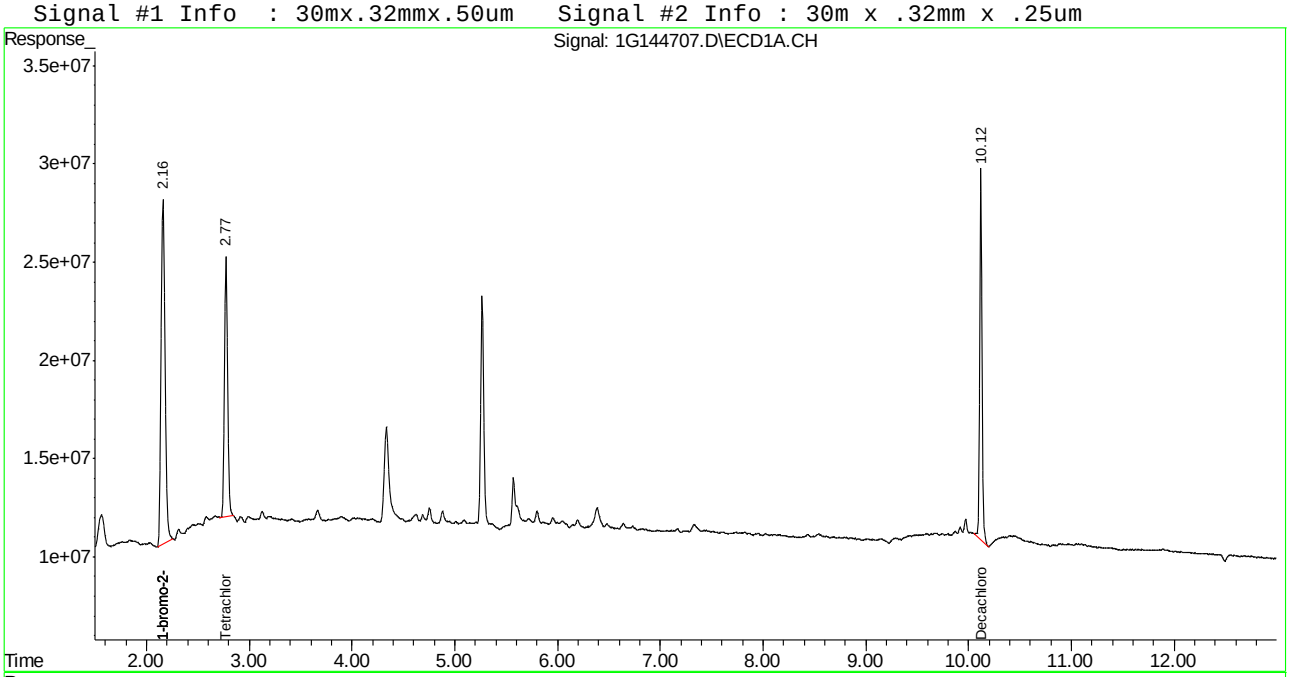
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144707.D 1PST4557.M Wed Mar 28 08:45:46 2018 RPT1 Page 1

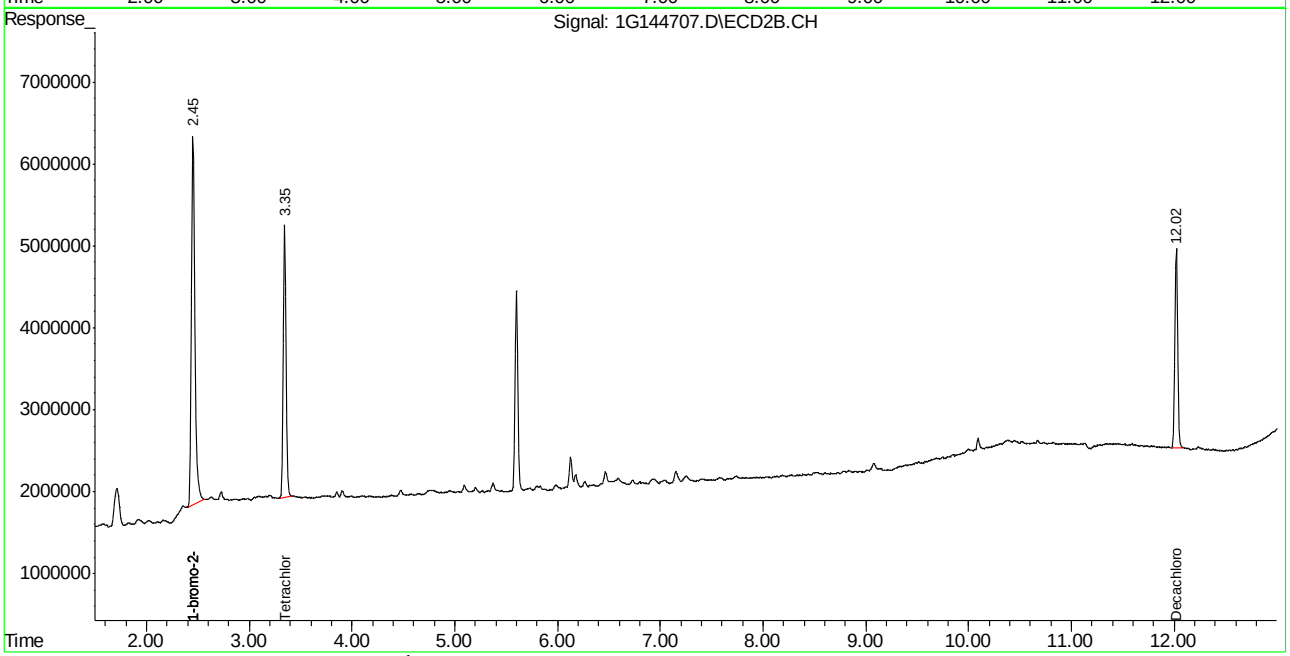
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144707.D\ECD1A.CH Vial: 29
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144707.D\ECD2B.CH
Acq On : 3-28-18 02:18:07 AM Operator: christp
Sample : jc62879-8 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:45 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 09:44

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:48 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.45	564.1E6	115.3E6	50.000m	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	588.2E6	115.3E6	50.000m	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	597.5E6	115.3E6	50.000m	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.78	3.35	196.7E6	44435533	19.701m	21.239
	Spiked Amount 40.000	Range 30 - 150		Recovery =		49.25%	53.10%
26) SA	Decachlorobiphen	10.13	12.03	71385448	14097719	8.754m	9.333
	Spiked Amount 40.000			Recovery =		21.88%	23.33%
	Target Compounds						

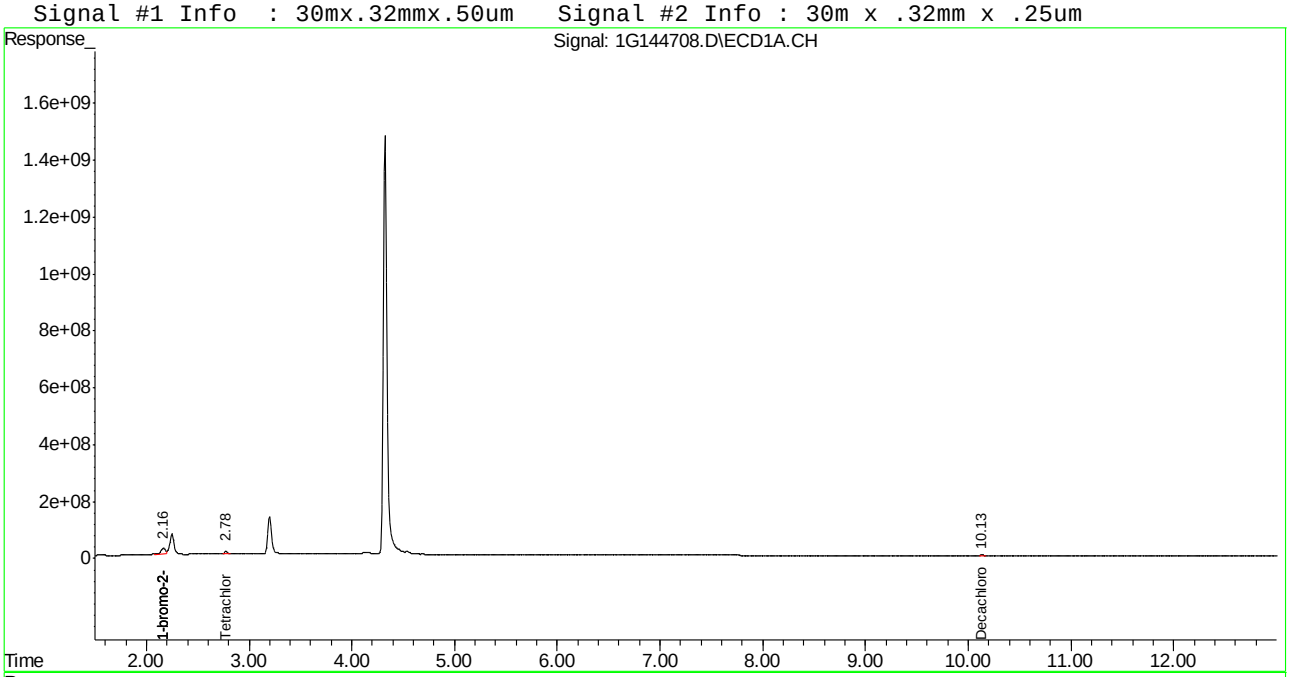
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144708.D 1PST4557.M Wed Mar 28 08:48:45 2018 RPT1 Page 1

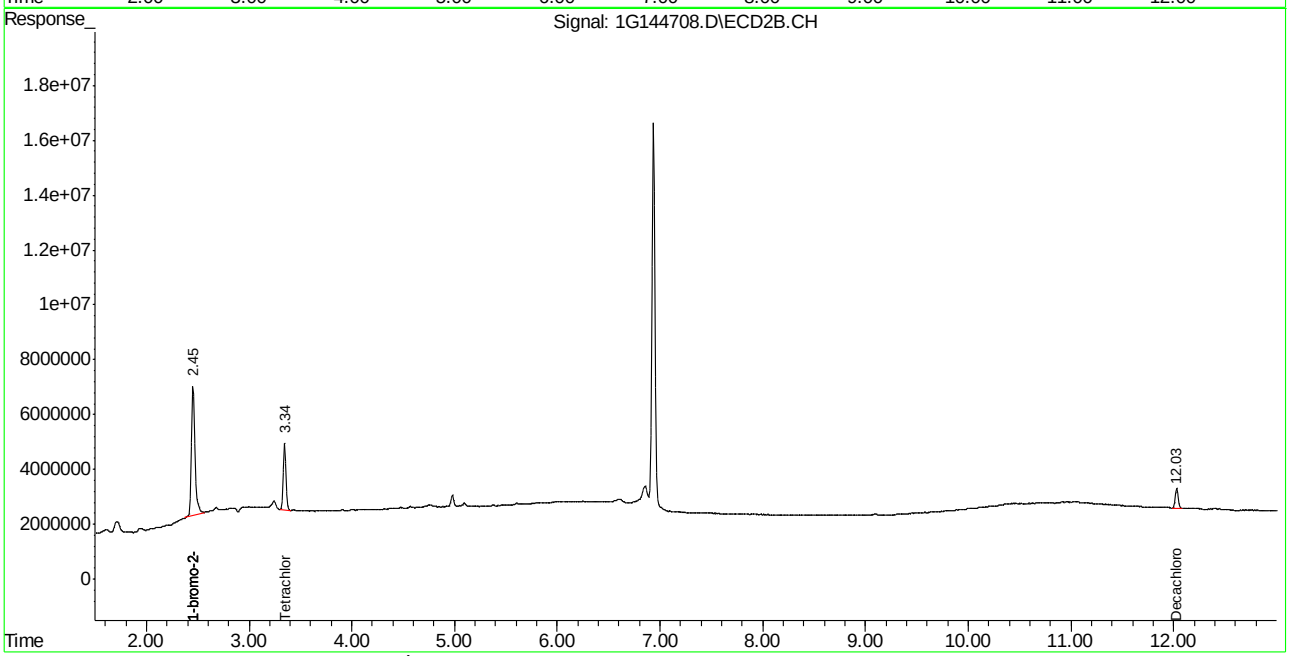
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:48 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

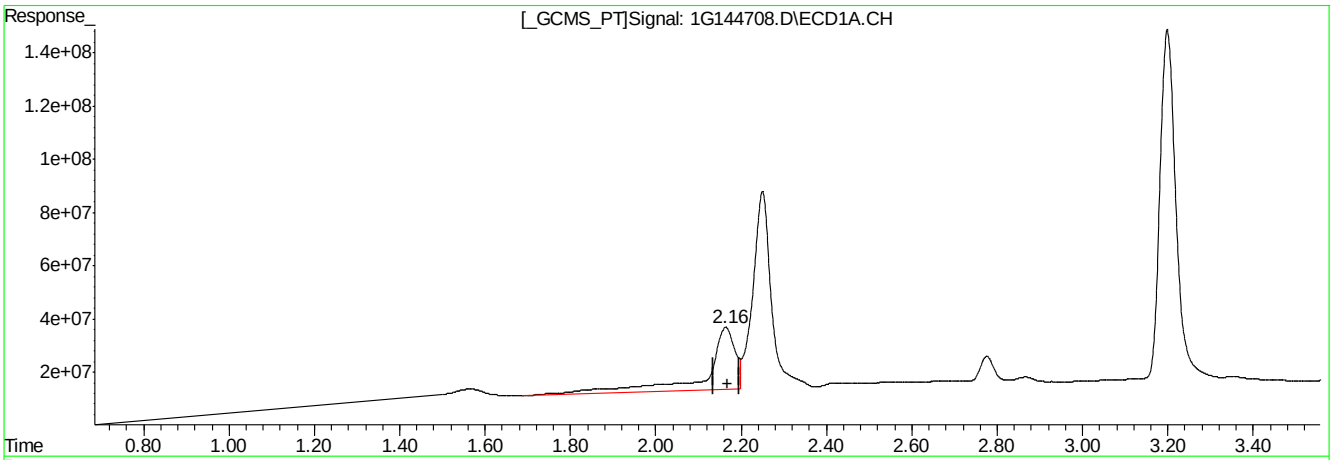
Sample Number:	JC62879-9	**Method:**	SW846 8081B
Lab FileID:	1G144708.D	**Analyst approved:**	03/28/18 09:29 Dharmistha Mehta
Injection Time:	03/28/18 02:35	**Supervisor approved:**	03/29/18 09:44 Gwendolyn Burns

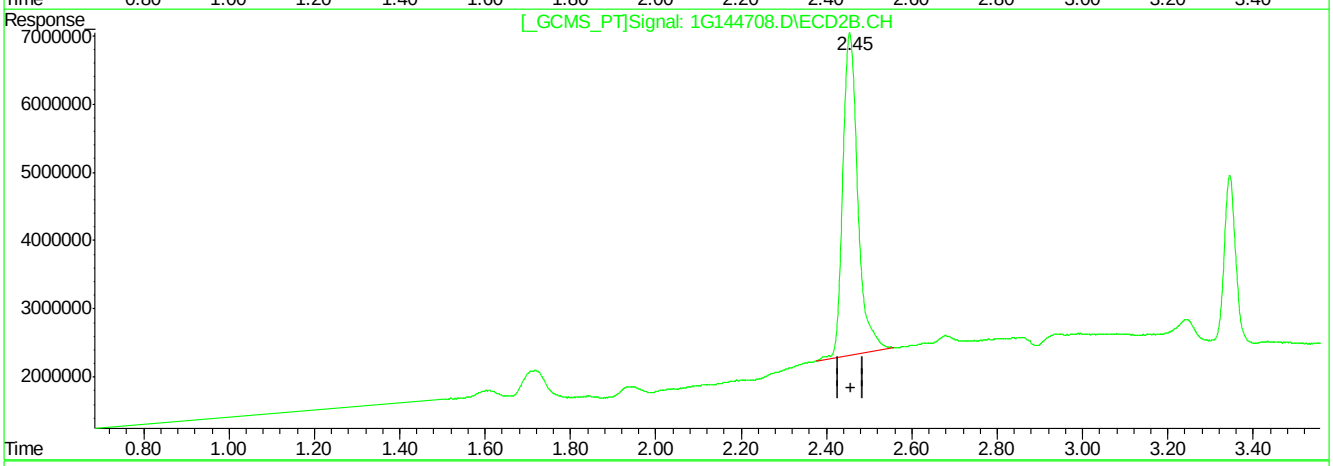
Parameter	CAS	Sig#	R.T. (min.)	Reason
1-Bromo-2-nitrobenzene	577-19-5	1	2.16	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:46 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(1) 1-bromo-2-nitrobenzene (I)

2.16min 50.000PPB

response 1143176456

(1) 1-bromo-2-nitrobenzene #2 (I)

2.45min 50.000PPB

response 115258454

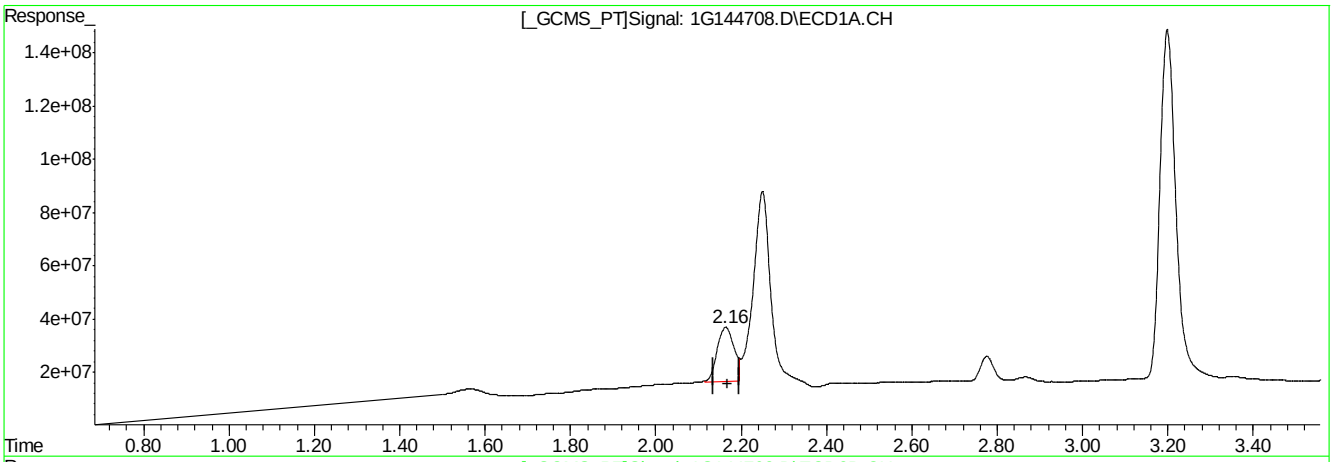
(+) = Expected Retention Time
1G144708.D 1PST4557.M Wed Mar 28 08:46:45 2018 RPT1

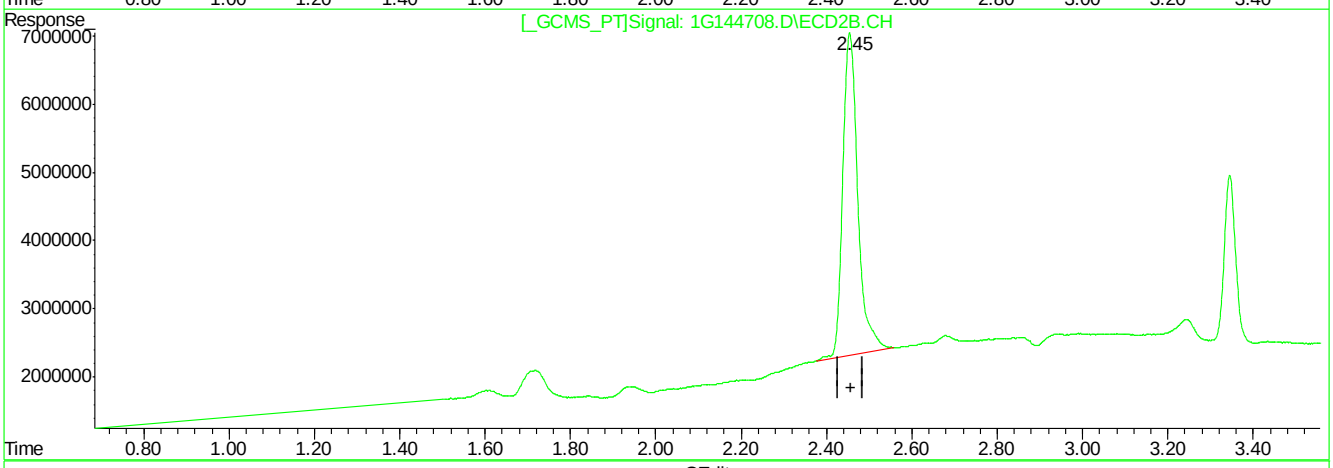
11.1.9.2 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:46 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(1) 1-bromo-2-nitrobenzene (I)

2.16min 50.000PPB m

response 564134012

(1) 1-bromo-2-nitrobenzene #2 (I)

2.45min 50.000PPB

response 115258454

(+) = Expected Retention Time
1G144708.D 1PST4557.M Wed Mar 28 08:46:55 2018 RPT1

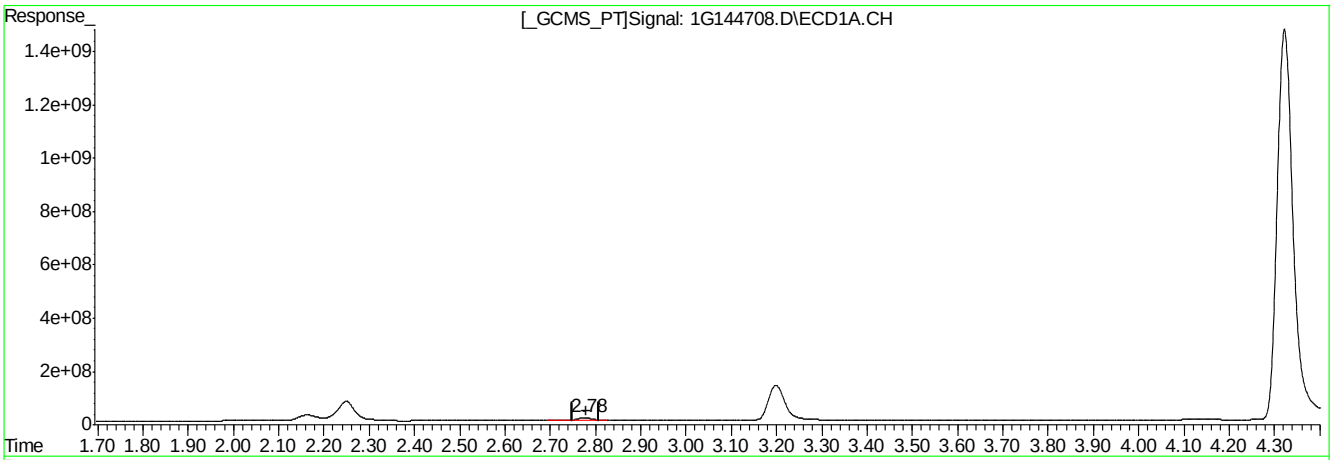
11.1.9.3 11

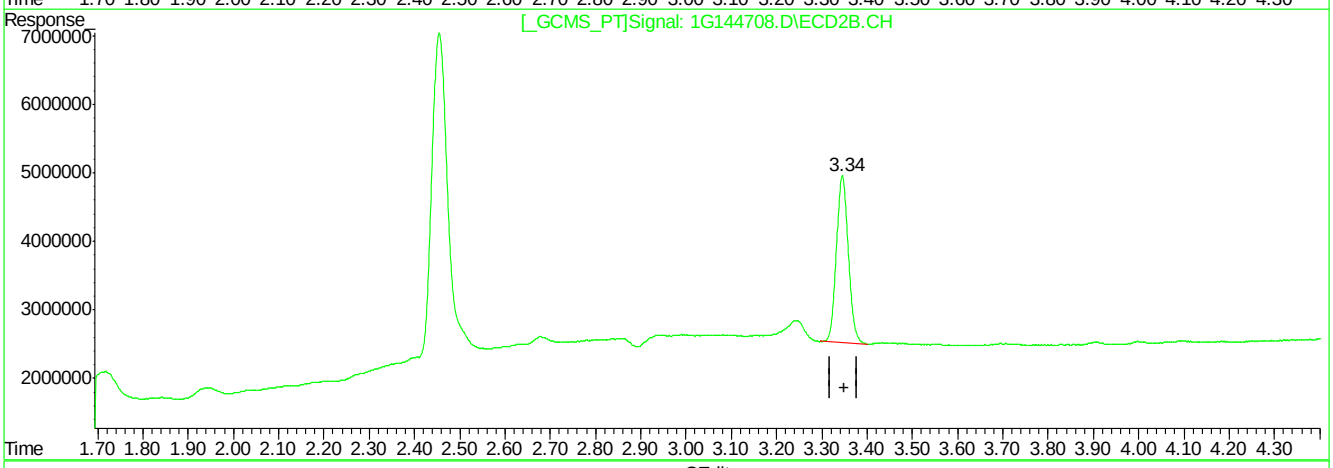
1G144708.D edits: 1-bromo-2-nitrobenzene

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:46 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(2) Tetrachloro-m-xylene (SAB)

2.78min 18.731PPB

response 187053152

(2) Tetrachloro-m-xylene #2 (SAB)

3.35min 21.239PPB

response 44435533

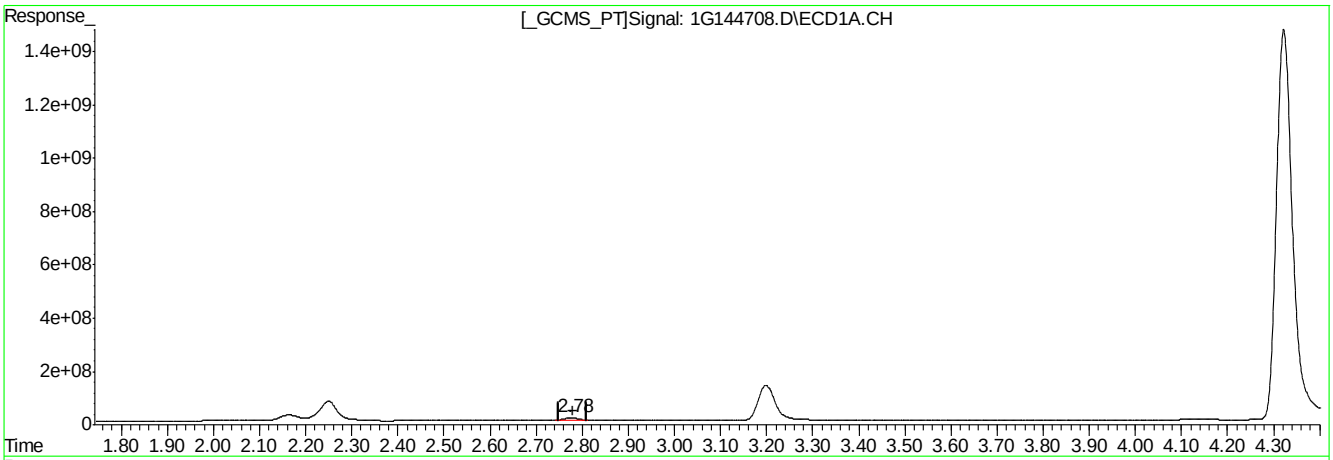
(+) = Expected Retention Time
1G144708.D 1PST4557.M Wed Mar 28 08:47:02 2018 RPT1

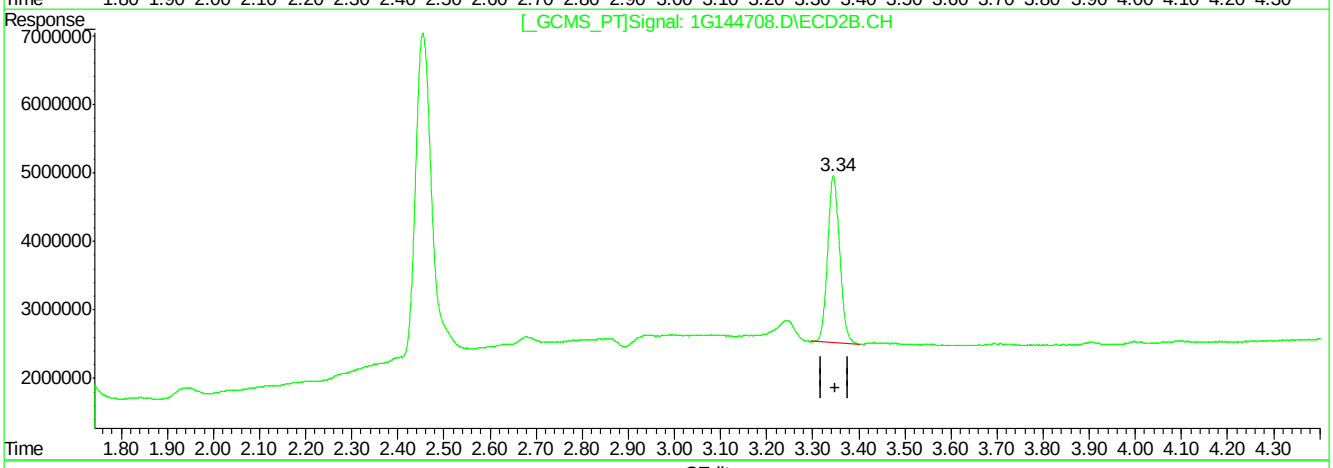
11.1.9.4
11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:46 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(2) Tetrachloro-m-xylene (SAB)

2.78min 19.701PPB m

response 196740713

(2) Tetrachloro-m-xylene #2 (SAB)

3.35min 21.239PPB

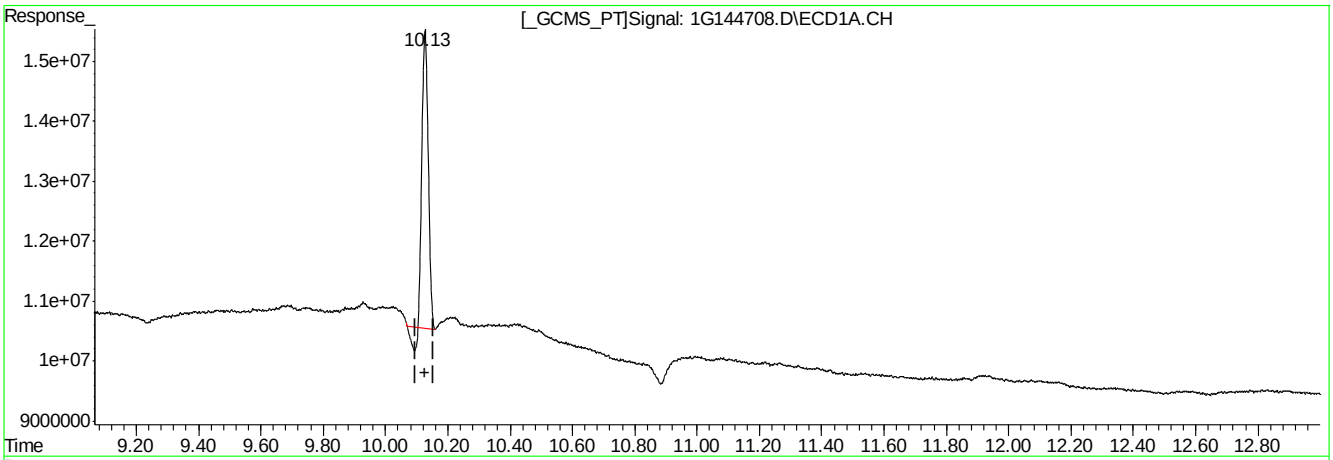
response 44435533

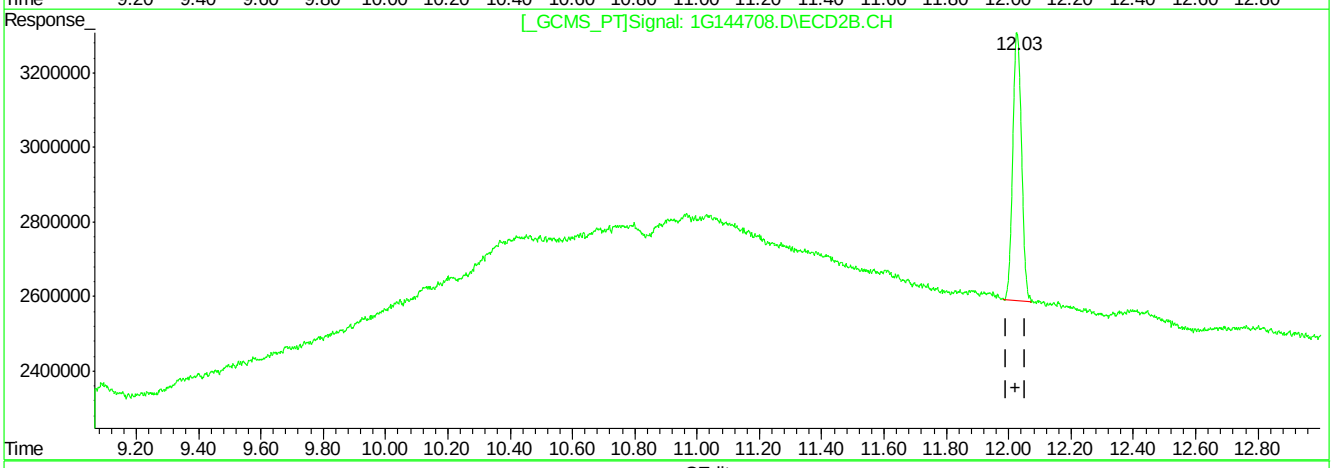
(+) = Expected Retention Time
1G144708.D 1PST4557.M Wed Mar 28 08:47:18 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:46 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.13min 8.227PPB

response 67089319

(26) Decachlorobiphenyl #2 (SA)

12.03min 9.333PPB

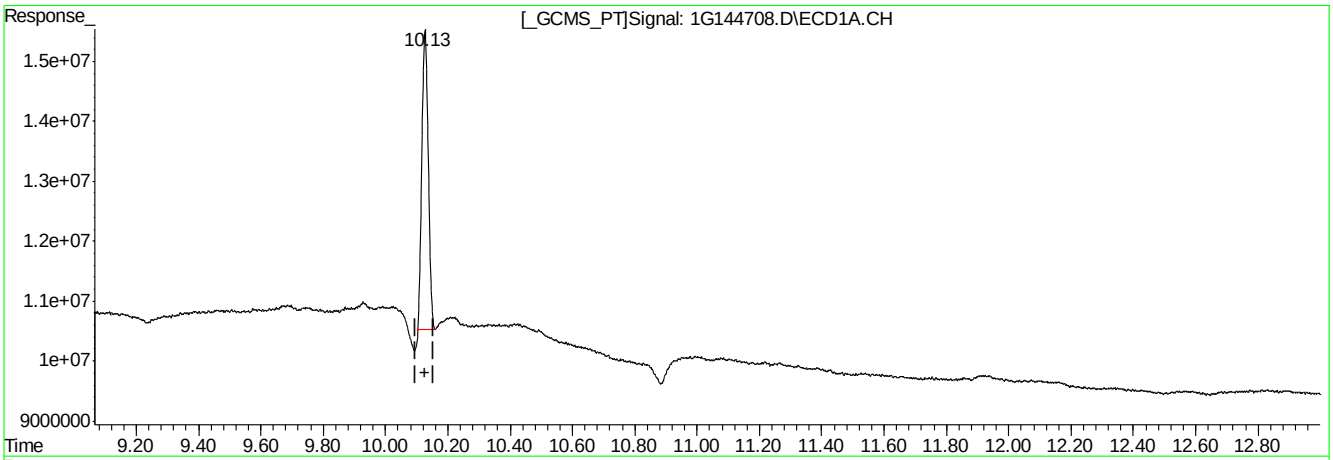
response 14097719

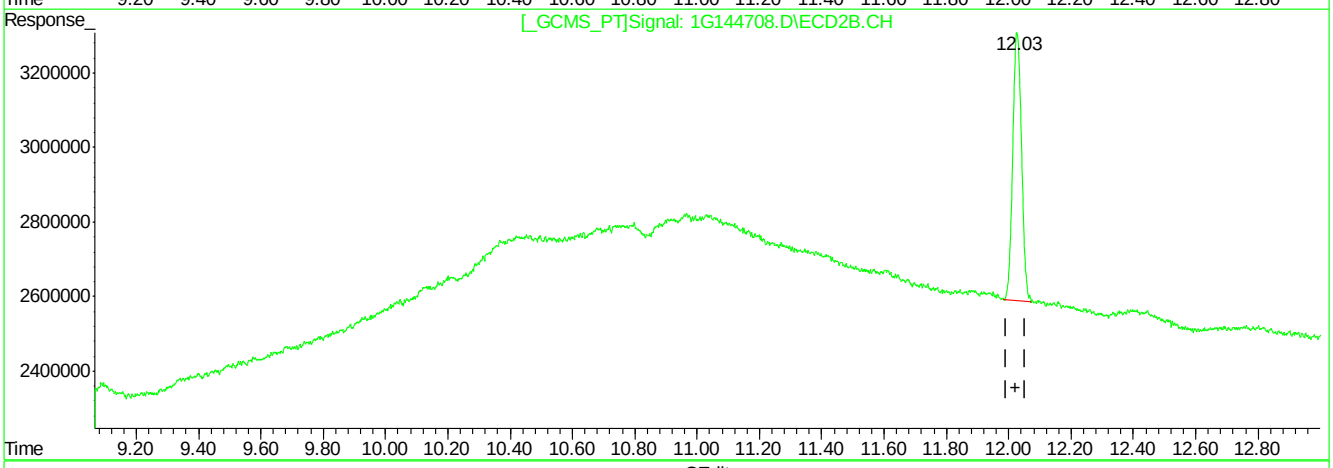
(+) = Expected Retention Time
1G144708.D 1PST4557.M Wed Mar 28 08:47:42 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:46 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.13min 8.754PPB m

response 71385448

(26) Decachlorobiphenyl #2 (SA)

12.03min 9.333PPB

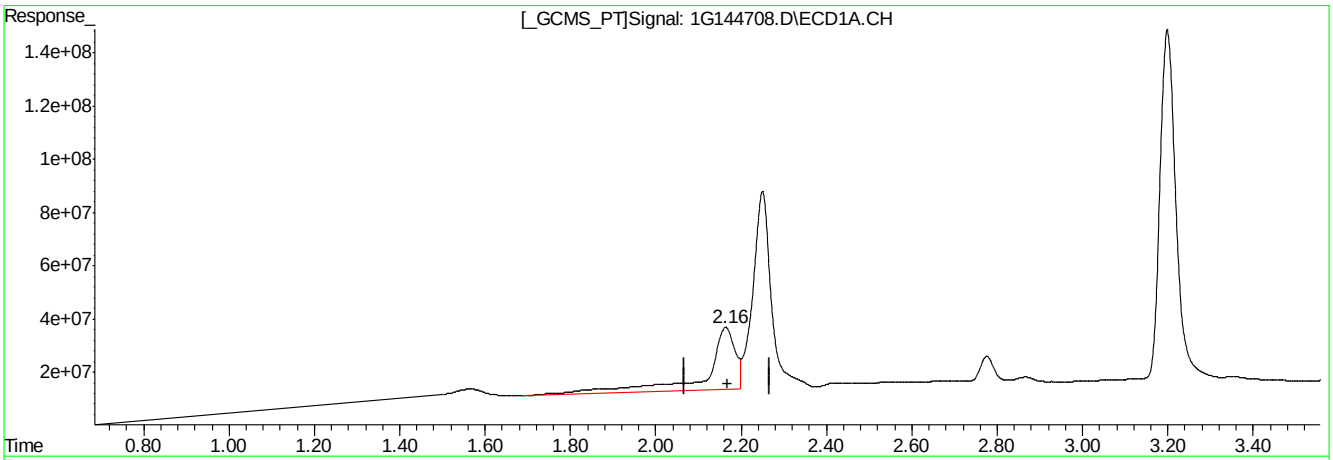
response 14097719

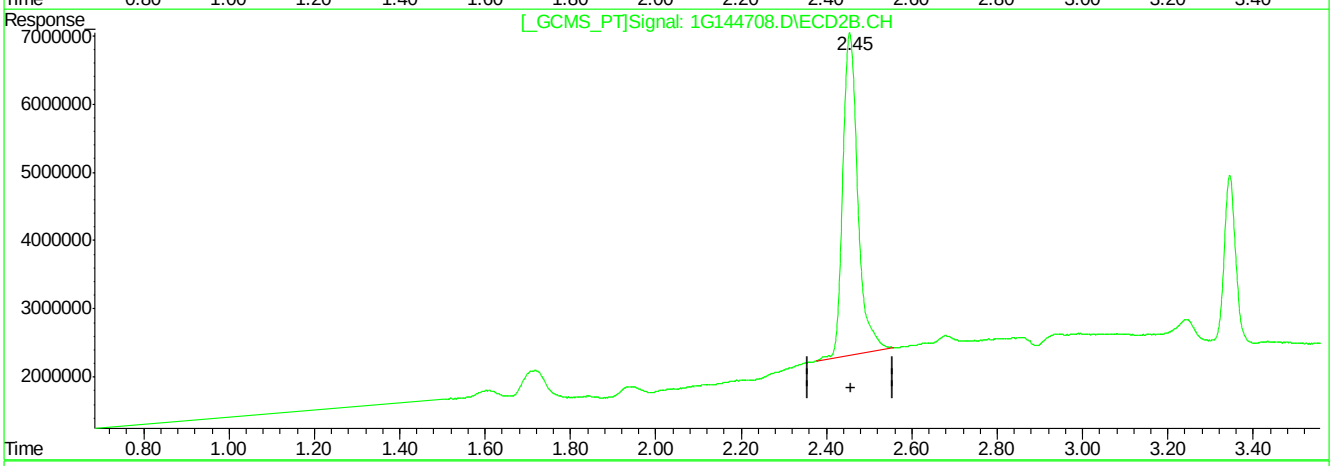
(+) = Expected Retention Time
1G144708.D 1PST4557.M Wed Mar 28 08:47:56 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:46 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(27) 1-bromo-2-nitrobenzeneA (I)

2.16min 50.000PPB

response 1143176456

(27) 1-bromo-2-nitrobenzeneA #2 (I)

2.45min 50.000PPB

response 115258454

(+) = Expected Retention Time
1G144708.D 1PST4557.M Wed Mar 28 08:48:03 2018 RPT1

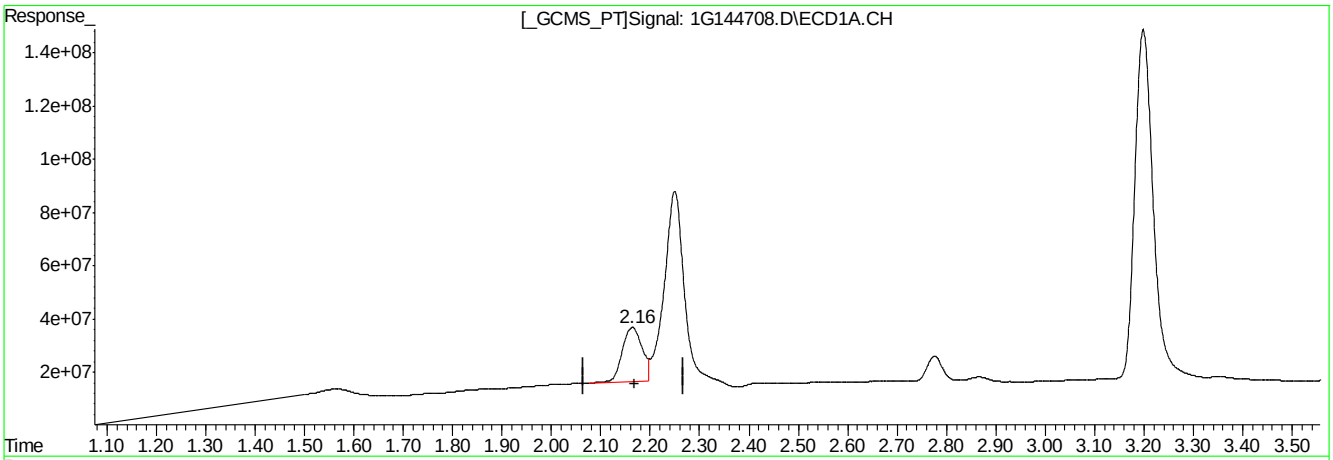
11.1.9.8 11

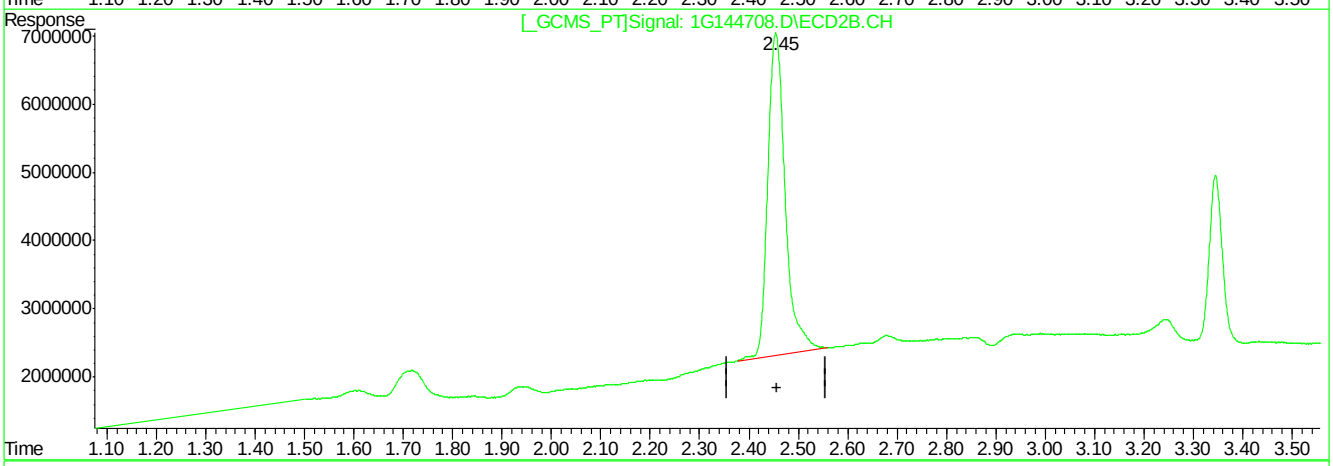
1G144708.D edits: 1-bromo-2-nitrobenzeneA

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:46 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(27) 1-bromo-2-nitrobenzeneA (I)

2.16min 50.000PPB m

response 588220739

(27) 1-bromo-2-nitrobenzeneA #2 (I)

2.45min 50.000PPB

response 115258454

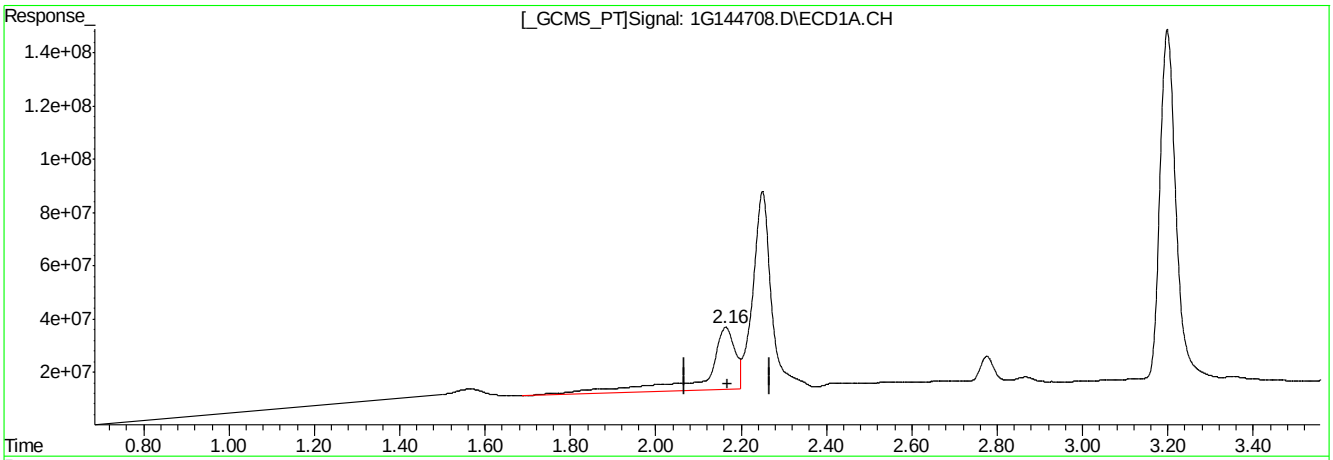
(+) = Expected Retention Time
1G144708.D 1PST4557.M Wed Mar 28 08:48:16 2018 RPT1

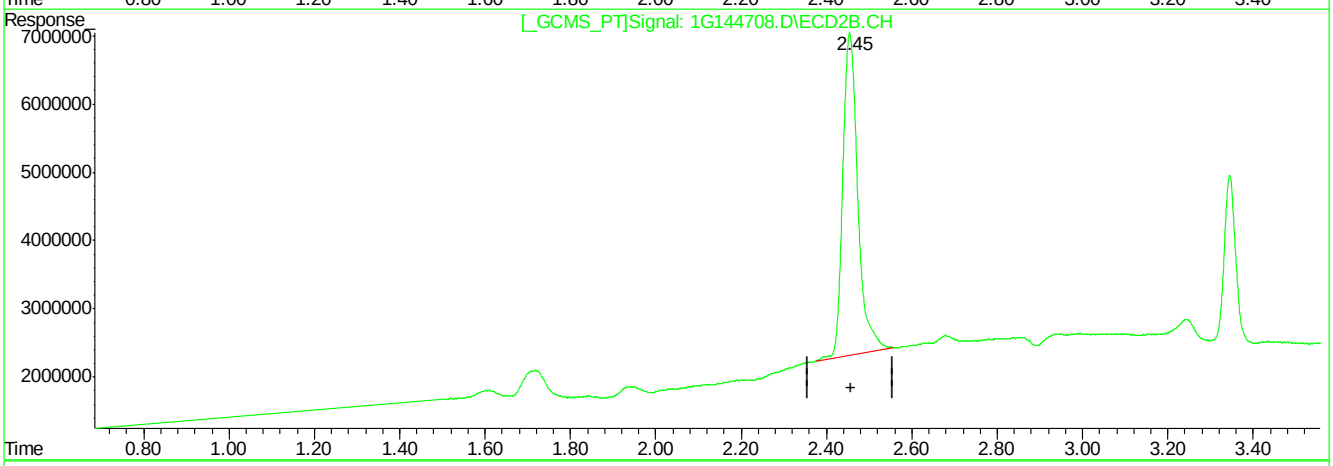
1G144708.D edits: 1-bromo-2-nitrobenzeneA

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:46 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(33) 1-bromo-2-nitrobenzeneB (I)

2.16min 50.000PPB

response 1143176456

(33) 1-bromo-2-nitrobenzeneB #2 (I)

2.45min 50.000PPB

response 115258454

(+) = Expected Retention Time
1G144708.D 1PST4557.M Wed Mar 28 08:48:23 2018 RPT1

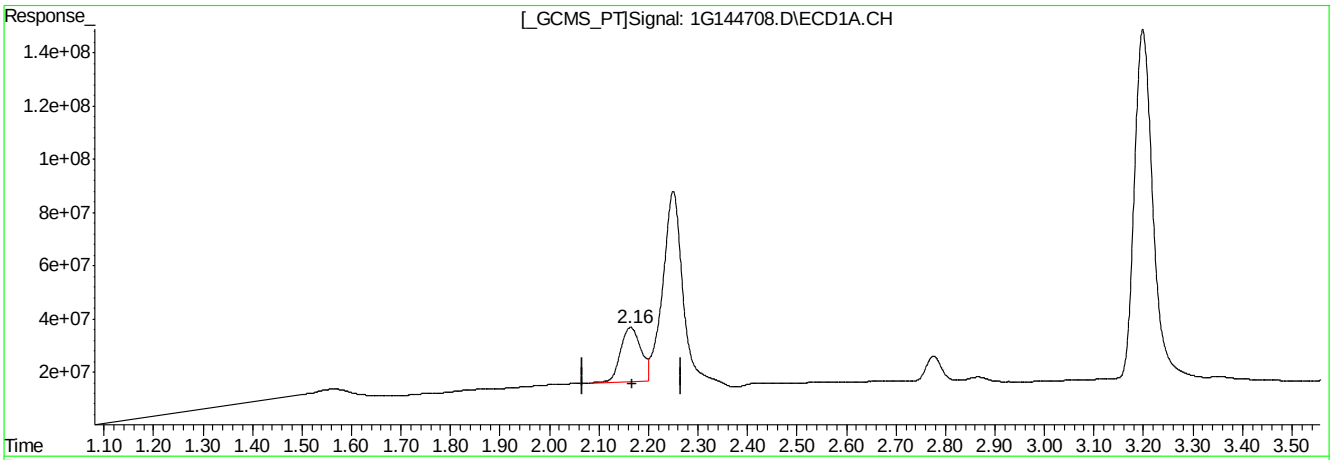
11.1.9.10 11

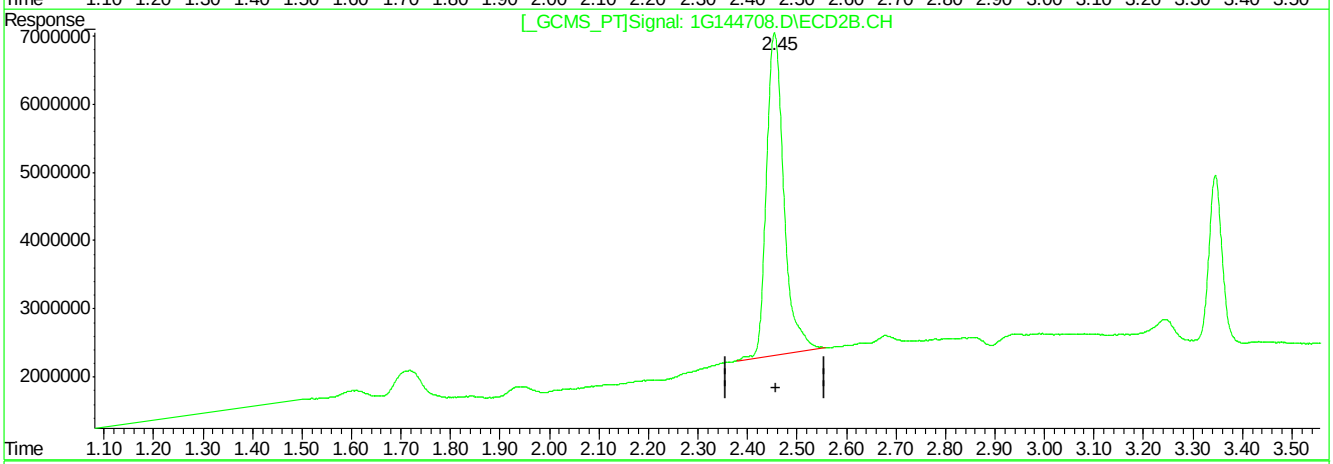
1G144708.D edits: 1-bromo-2-nitrobenzeneB

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144708.D\ECD2B.CH
Acq On : 3-28-18 02:35:21 AM Operator: christp
Sample : jc62879-9 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:46 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(33) 1-bromo-2-nitrobenzeneB (I)

2.16min 50.000PPB m

response 597461159

(33) 1-bromo-2-nitrobenzeneB #2 (I)

2.45min 50.000PPB

response 115258454

(+) = Expected Retention Time
1G144708.D 1PST4557.M Wed Mar 28 08:48:35 2018 RPT1

1G144708.D edits: 1-bromo-2-nitrobenzeneB

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144711.D\ECD1A.CH Vial: 33
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144711.D\ECD2B.CH
Acq On : 3-28-18 03:27:05 AM Operator: christp
Sample : jc62879-10 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:57 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.17	2.46	462.4E6	112.3E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.17	2.46	462.4E6	112.3E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.17	2.46	462.4E6	112.3E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.78	3.35	261.6E6	60642290	31.962	29.760
Spiked Amount	40.000	Range	30 - 150	Recovery	=	79.91%	74.40%
26) SA	Decachlorobiphen	10.12	12.02	280.0E6	44143760	41.888	30.004
Spiked Amount	40.000			Recovery	=	104.72%	75.01%
	Target Compounds						

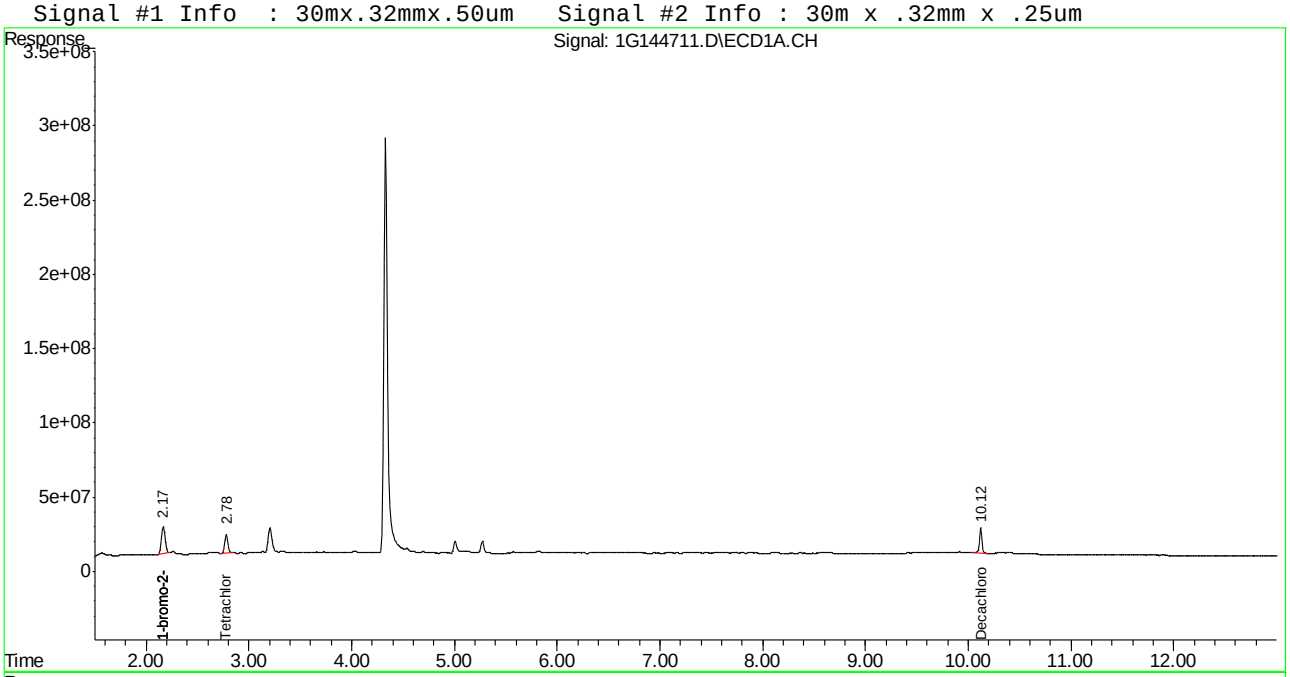
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144711.D 1PST4557.M Wed Mar 28 08:57:29 2018 RPT1 Page 1

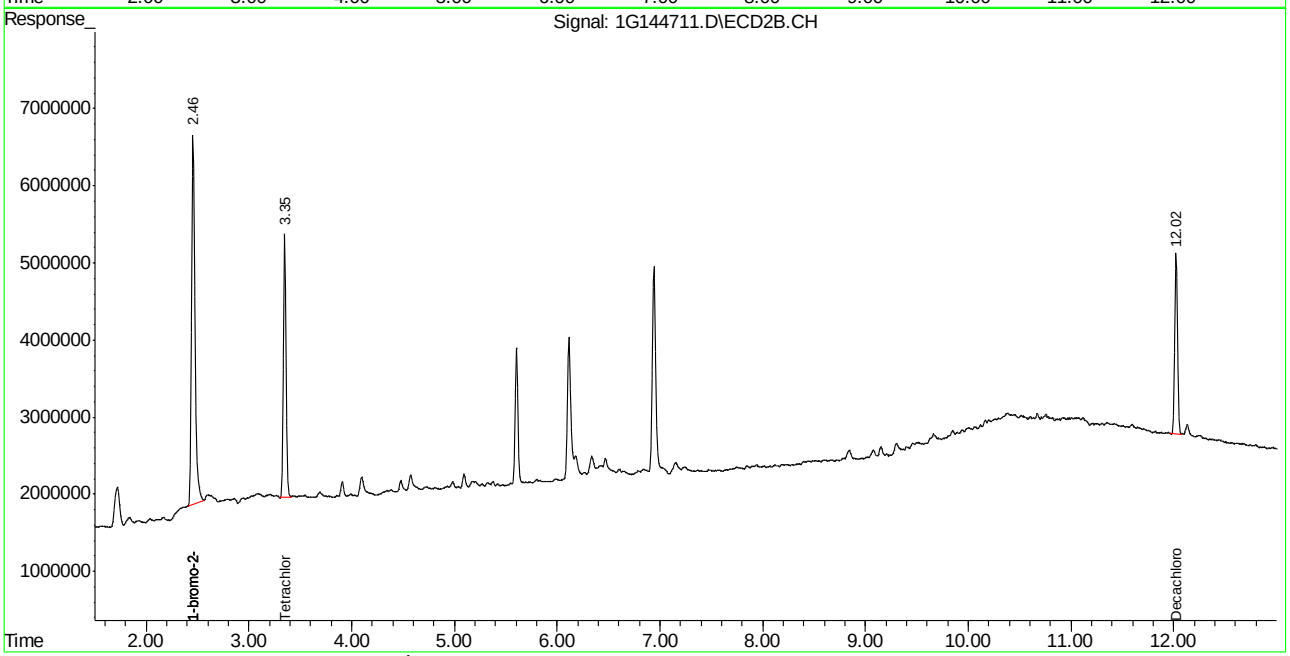
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144711.D\ECD1A.CH Vial: 33
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144711.D\ECD2B.CH
Acq On : 3-28-18 03:27:05 AM Operator: christp
Sample : jc62879-10 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:57 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





1G144711.D 1PST4557.M Wed Mar 28 08:57:30 2018 RPT1 Page 2

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144712.D\ECD1A.CH Vial: 34
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144712.D\ECD2B.CH
Acq On : 3-28-18 03:44:07 AM Operator: christp
Sample : jc62879-11 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:58 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.45	532.0E6	120.8E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	532.0E6	120.8E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	532.0E6	120.8E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.77	3.35	310.1E6	69364550	32.933	31.632
Spiked Amount	40.000	Range	30 - 150	Recovery	=	82.33%	79.08%
26) SA	Decachlorobiphen	10.13	12.03	237.4E6	43716168	30.870	27.612
Spiked Amount	40.000			Recovery	=	77.18%	69.03%
	Target Compounds						
16) MA	Dieldrin	6.04	7.60	78456810	16529663	7.786	6.725

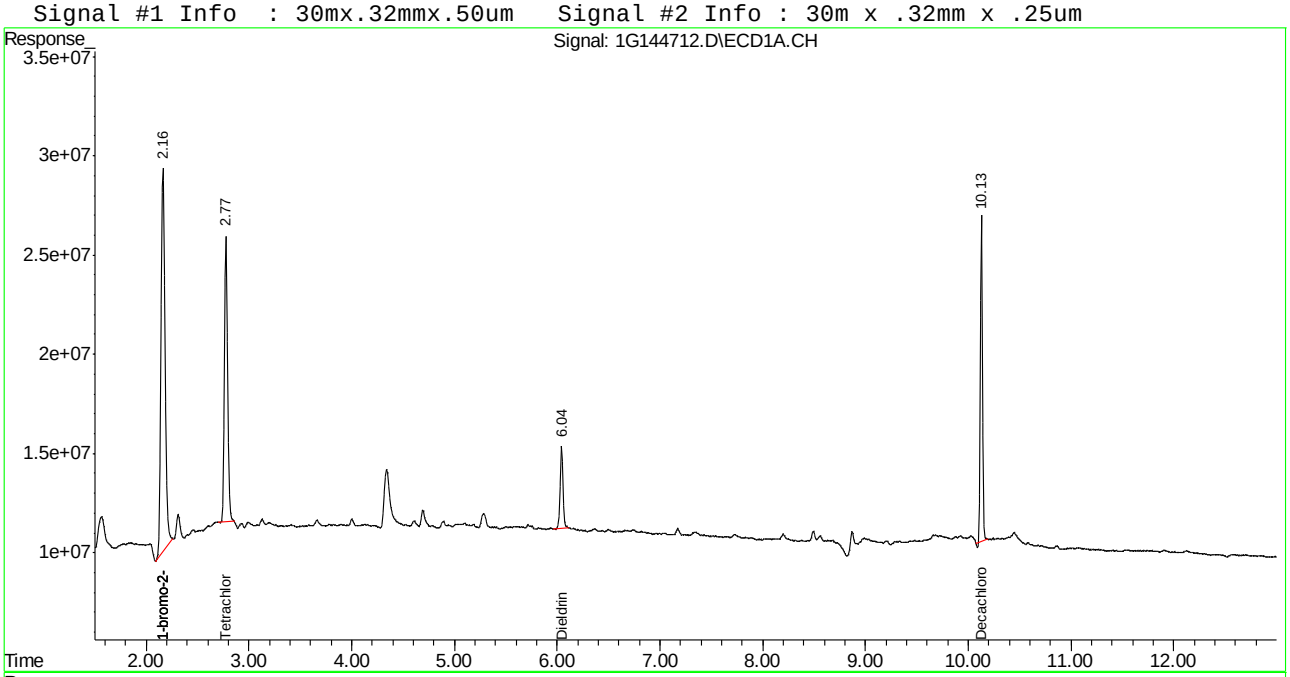
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144712.D 1PST4557.M Wed Mar 28 08:58:28 2018 RPT1 Page 1

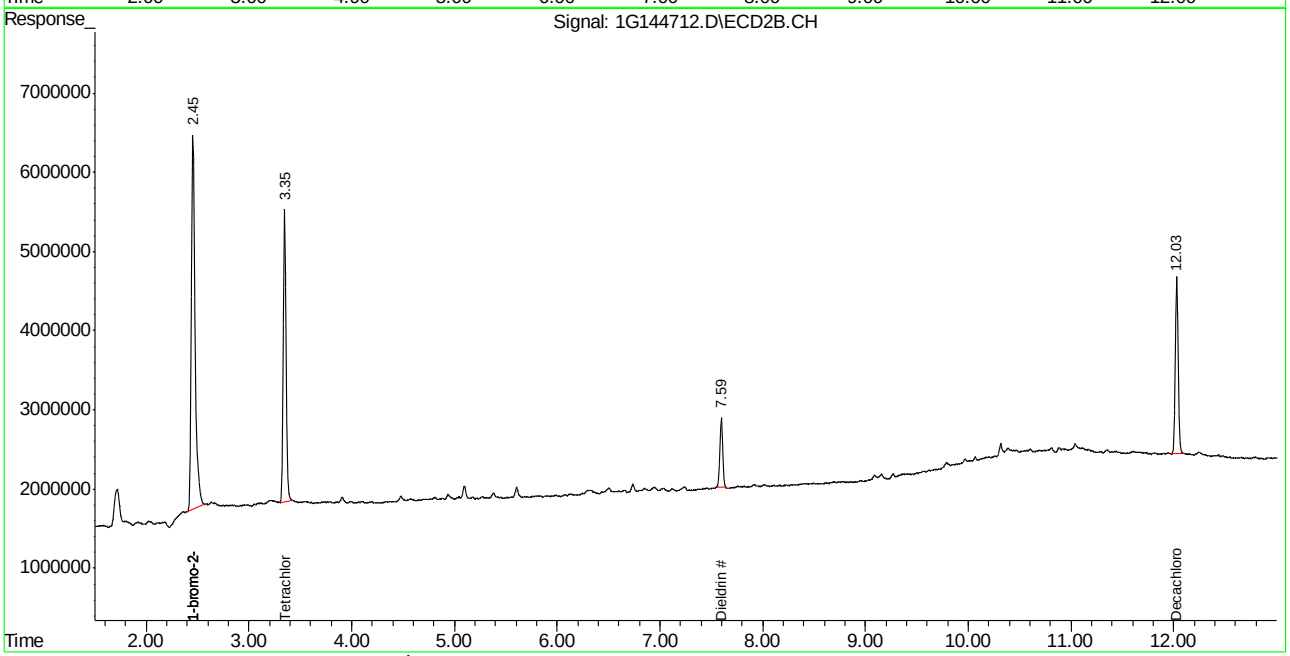
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144712.D\ECD1A.CH Vial: 34
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144712.D\ECD2B.CH
Acq On : 3-28-18 03:44:07 AM Operator: christp
Sample : jc62879-11 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:58 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144715.D\ECD1A.CH Vial: 37
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144715.D\ECD2B.CH
Acq On : 3-28-18 04:35:39 AM Operator: christp
Sample : jc62879-12 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:03 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.46	445.6E6	100.1E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.46	445.6E6	100.1E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.46	445.6E6	100.1E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.78	3.35	282.9E6	64566248	35.858	35.541
Spiked Amount	40.000	Range	30 - 150	Recovery	=	89.64%	88.85%
26) SA	Decachlorobiphen	10.13	12.03	251.7E6	41911732	39.068	31.953
Spiked Amount	40.000			Recovery	=	97.67%	79.88%
	Target Compounds						

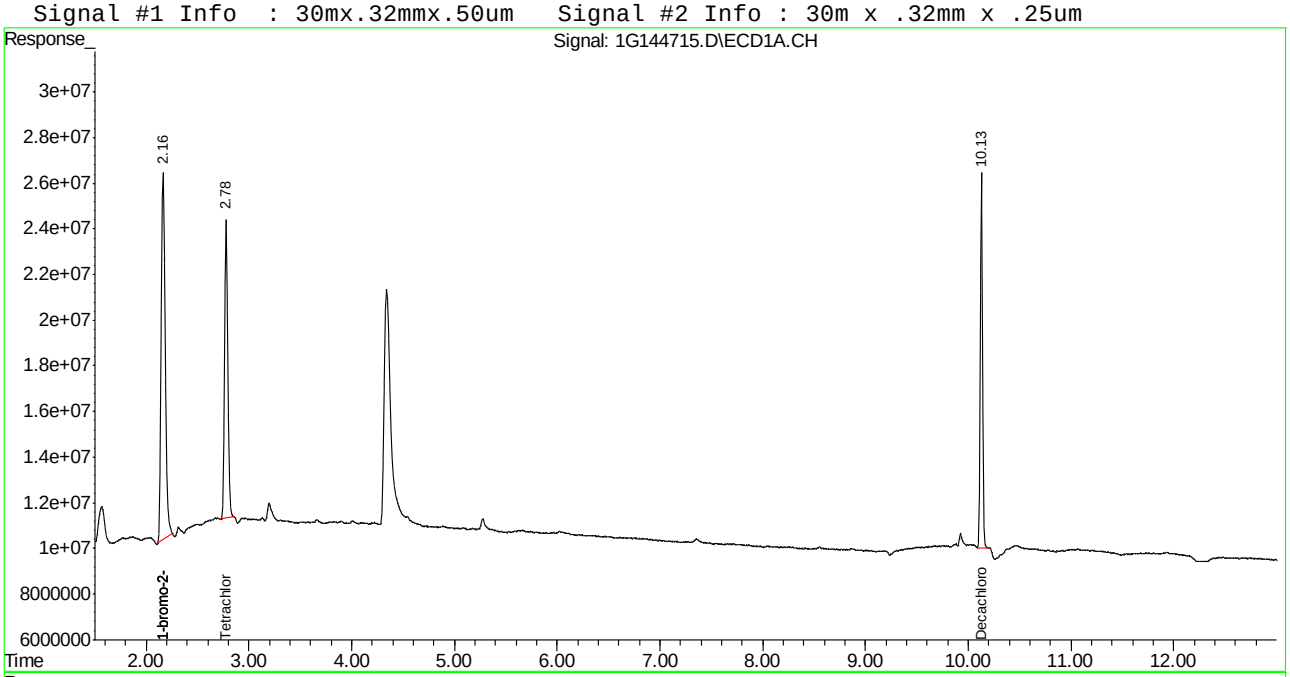
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144715.D 1PST4557.M Wed Mar 28 09:03:45 2018 RPT1 Page 1

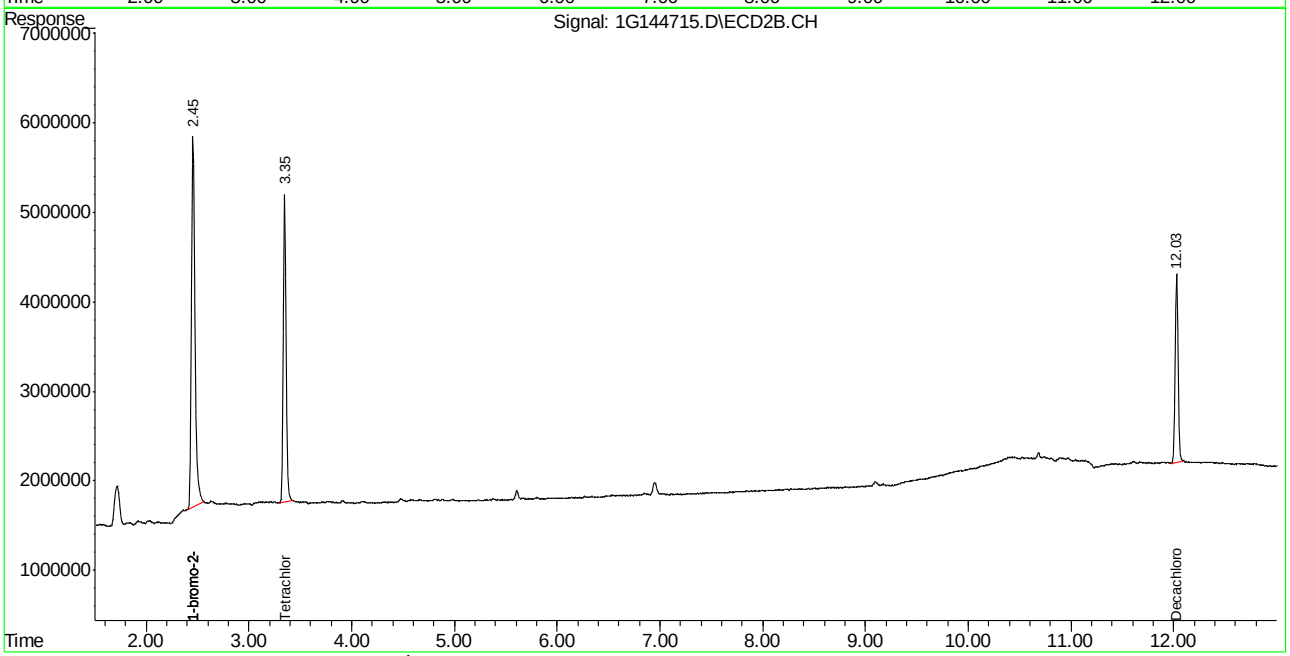
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144715.D\ECD1A.CH Vial: 37
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144715.D\ECD2B.CH
Acq On : 3-28-18 04:35:39 AM Operator: christp
Sample : jc62879-12 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:03 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\1G4598\1G144716.D\ECD1A.CH Vial: 38
Acq On : 3-28-18 04:52:45 AM Operator: christp
Sample : jc62879-13 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\MSDCHEM\1\DATA\1G4598\1G144716.D\ECD2B.CH Vial: 38
Acq On : 3-28-18 04:52:44 AM Operator: christp
Sample : jc62879-13 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Mar 28 9:04 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.45	653.1E6	119.4E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	653.1E6	119.4E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	653.1E6	119.4E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.77	3.34	241.6E6	53953312	20.896	24.900
Spiked Amount	40.000	Range	30 - 150	Recovery	=	52.24%	62.25%
26) SA	Decachlorobiphen	10.13	12.03	183.1E6	28756780	19.394	18.382
Spiked Amount	40.000			Recovery	=	48.48%	45.95%
	Target Compounds						

(f)=RT Delta > 1/2 Window (m)=manual int.
1G144716.D 1PST4557.M Wed Mar 28 09:04:36 2018 RPT1 Page 1

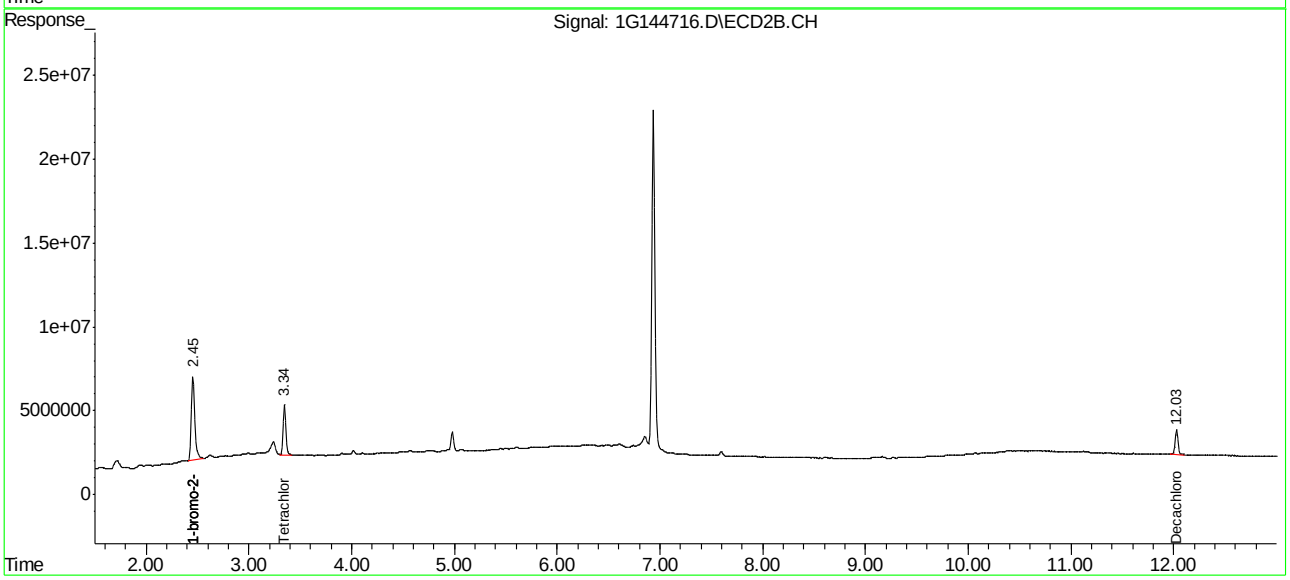
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\1G4598\1G144716.D\ECD1A.CH Vial: 38
Acq On : 3-28-18 04:52:45 AM Operator: christp
Sample : jc62879-13 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\MSDCHEM\1\DATA\1G4598\1G144716.D\ECD2B.CH Vial: 38
Acq On : 3-28-18 04:52:44 AM Operator: christp
Sample : jc62879-13 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Mar 28 9:04 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144717.D\ECD1A.CH Vial: 39
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144717.D\ECD2B.CH
Acq On : 3-28-18 05:09:57 AM Operator: christp
Sample : jc62879-14 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:05 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.45	534.0E6	114.6E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	534.0E6	114.6E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	534.0E6	114.6E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.78	3.35	297.7E6	67727736	31.491	32.551
Spiked Amount	40.000	Range	30 - 150	Recovery	=	78.73%	81.38%
26) SA	Decachlorobiphen	10.13	12.02	173.3E6	27311450	22.451	18.180
Spiked Amount	40.000			Recovery	=	56.13%	45.45%
	Target Compounds						

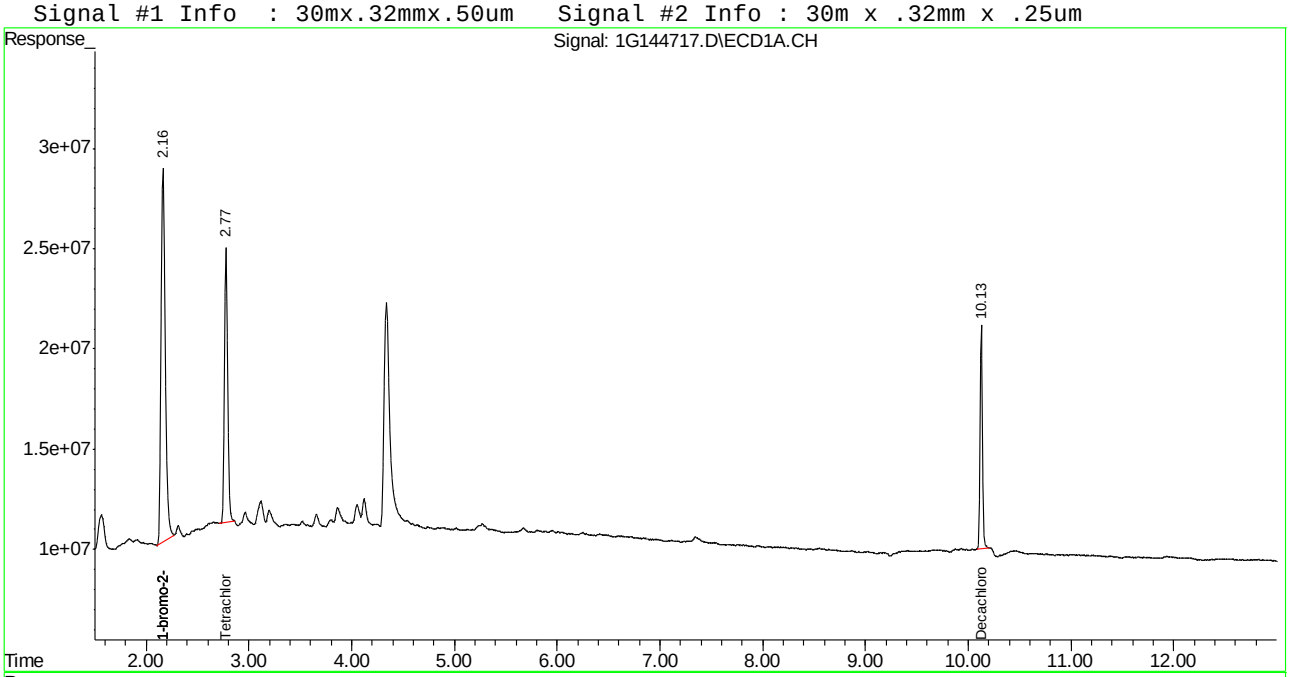
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144717.D 1PST4557.M Wed Mar 28 09:05:21 2018 RPT1 Page 1

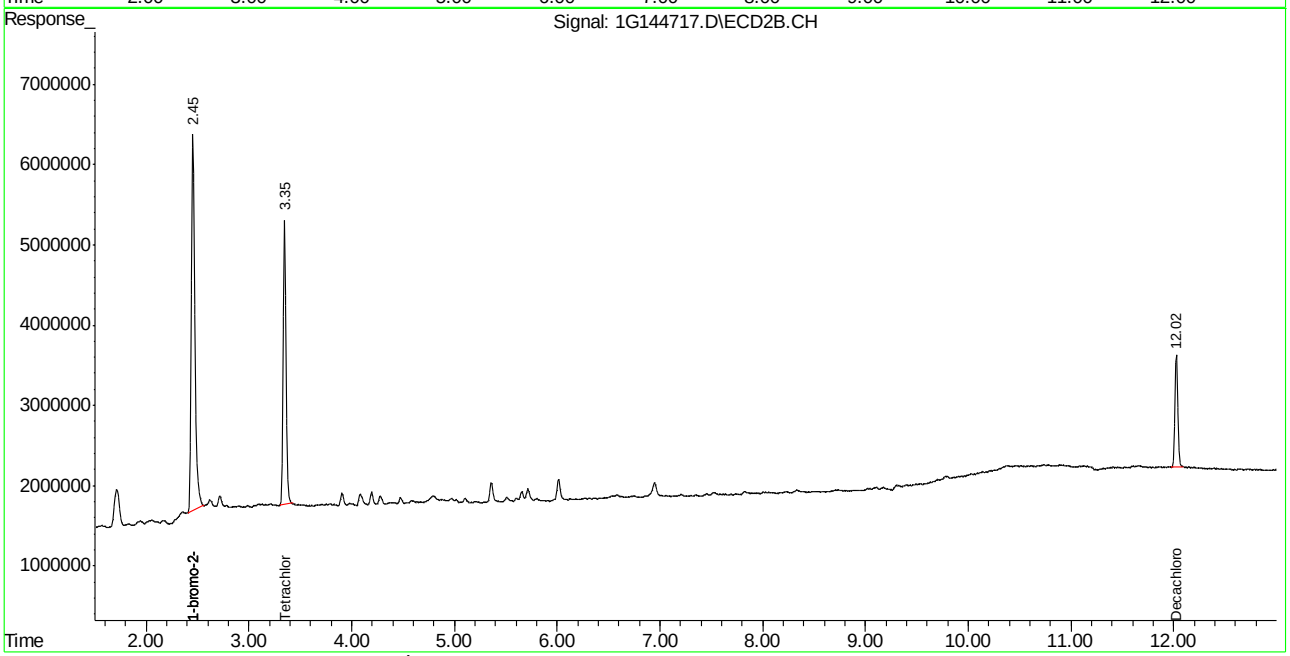
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144717.D\ECD1A.CH Vial: 39
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144717.D\ECD2B.CH
Acq On : 3-28-18 05:09:57 AM Operator: christp
Sample : jc62879-14 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:05 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144718.D\ECD1A.CH Vial: 40
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144718.D\ECD2B.CH
Acq On : 3-28-18 05:27:06 AM Operator: christp
Sample : jc62879-15 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:06 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.45	502.8E6	119.3E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	502.8E6	119.3E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	502.8E6	119.3E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.77	3.35	249.0E6	59184418	27.977	27.336
Spiked Amount	40.000	Range	30 - 150	Recovery	=	69.94%	68.34%
26) SA	Decachlorobiphen	10.12	12.03	148.6E6	23720682	20.440	15.174
Spiked Amount	40.000			Recovery	=	51.10%	37.93%
	Target Compounds						

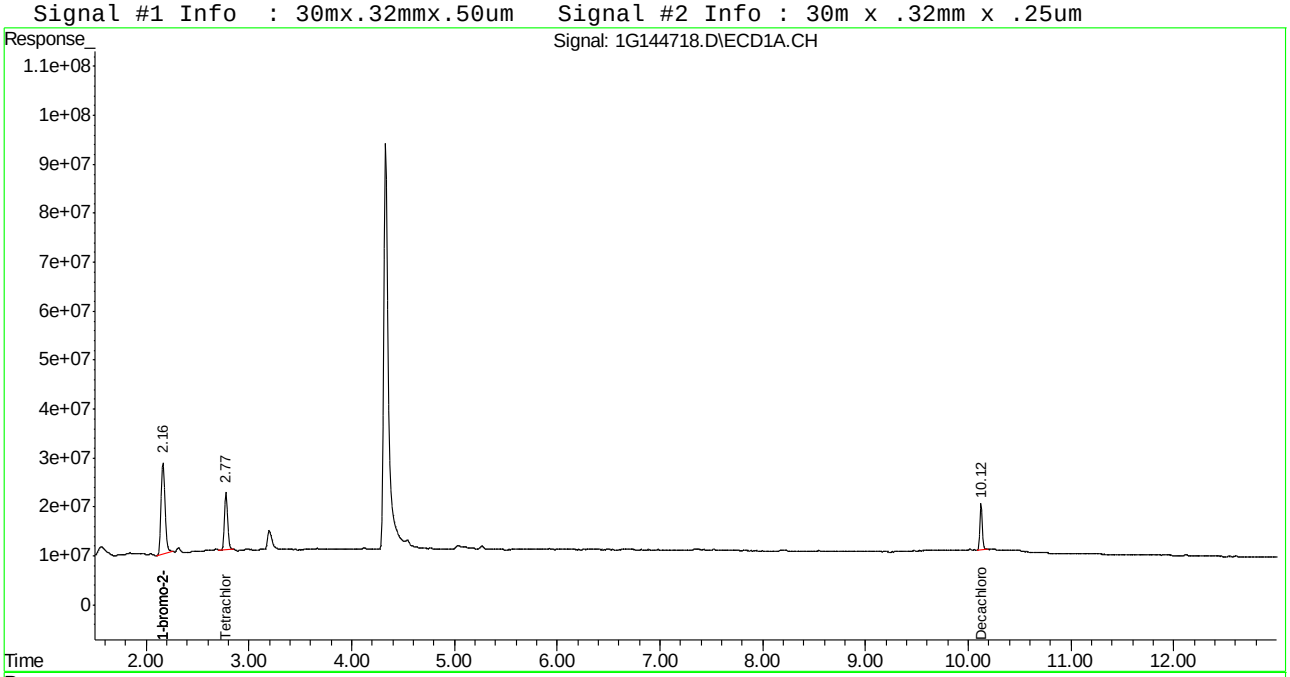
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144718.D 1PST4557.M Wed Mar 28 09:06:14 2018 RPT1 Page 1

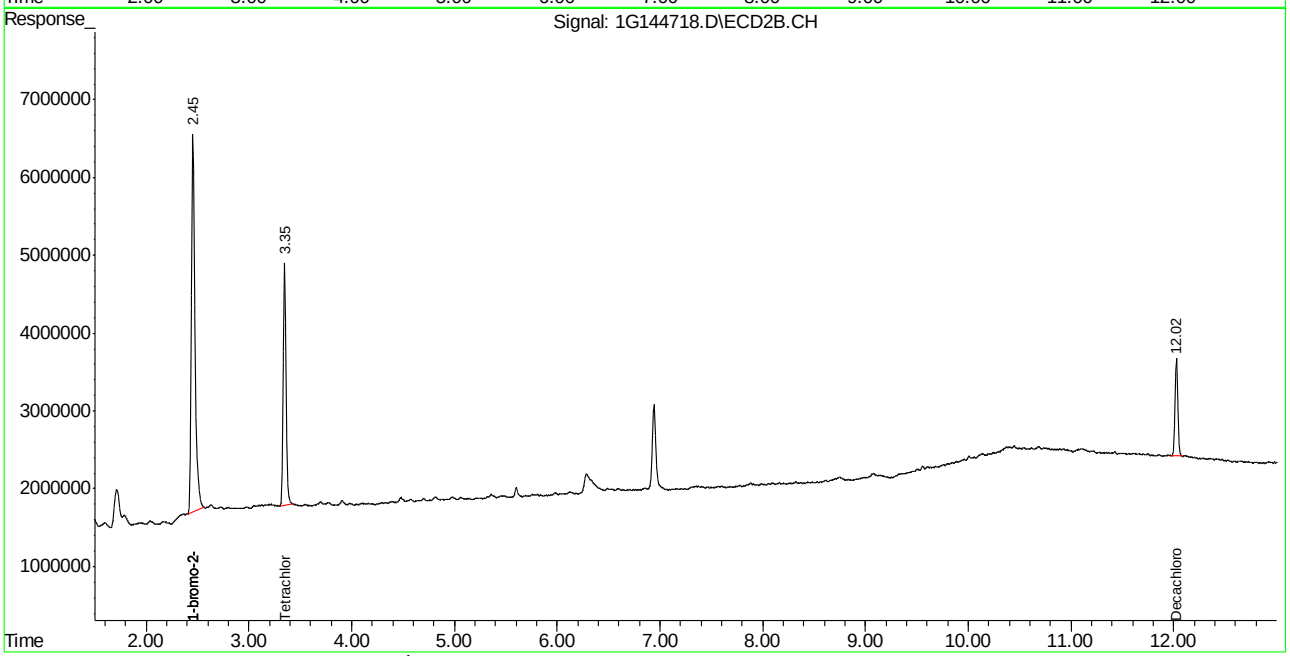
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144718.D\ECD1A.CH Vial: 40
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144718.D\ECD2B.CH
Acq On : 3-28-18 05:27:06 AM Operator: christp
Sample : jc62879-15 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:06 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 09:44

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\1G4598\1G144719.D\ECD1A.CH Vial: 41
Acq On : 3-28-18 05:44:23 AM Operator: christp
Sample : jc62879-16 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\MSDCHEM\1\DATA\1G4598\1G144719.D\ECD2B.CH Vial: 41
Acq On : 3-28-18 05:44:24 AM Operator: christp
Sample : jc62879-16 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Mar 28 9:06 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.45	498.1E6	118.3E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	498.1E6	118.3E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	498.1E6	118.3E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.77	3.34	260.7E6	61825816	29.570	28.800
	Spiked Amount 40.000	Range 30 - 150		Recovery =		73.92%	72.00%
26) SA	Decachlorobiphen	10.12	12.02	148.5E6	23710928	20.623m	15.298
	Spiked Amount 40.000			Recovery =		51.56%	38.25%
	Target Compounds						

(f)=RT Delta > 1/2 Window (m)=manual int.
1G144719.D 1PST4557.M Wed Mar 28 09:07:11 2018 RPT1 Page 1

11.1.16
11

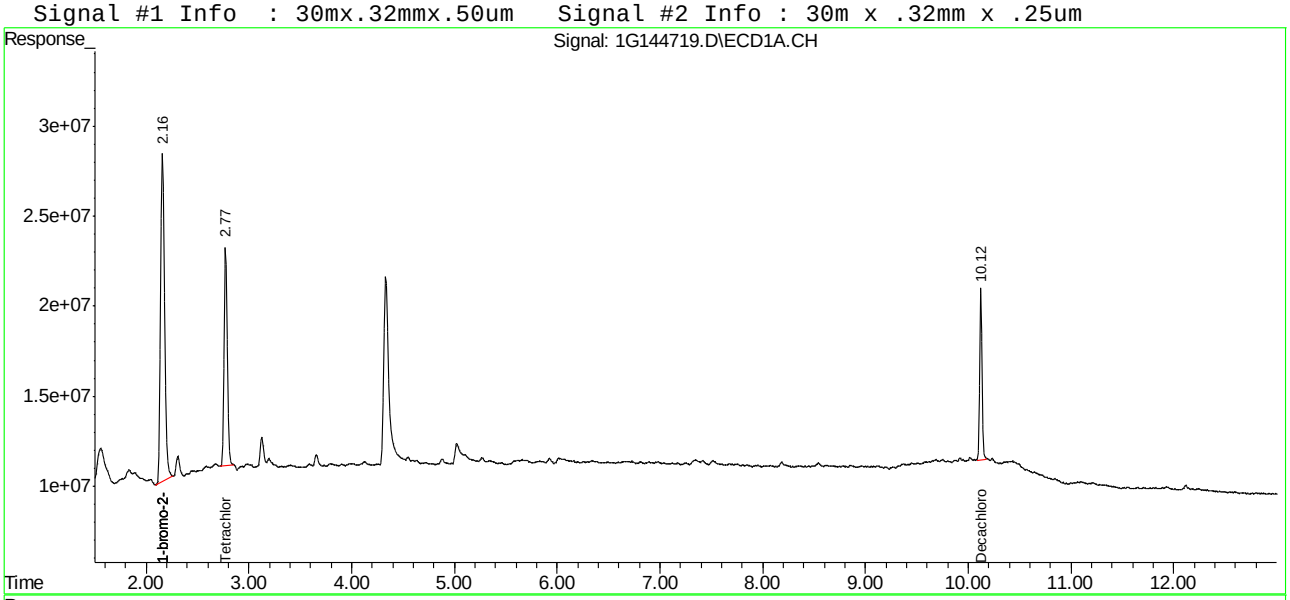
Quantitation Report (QT Reviewed)

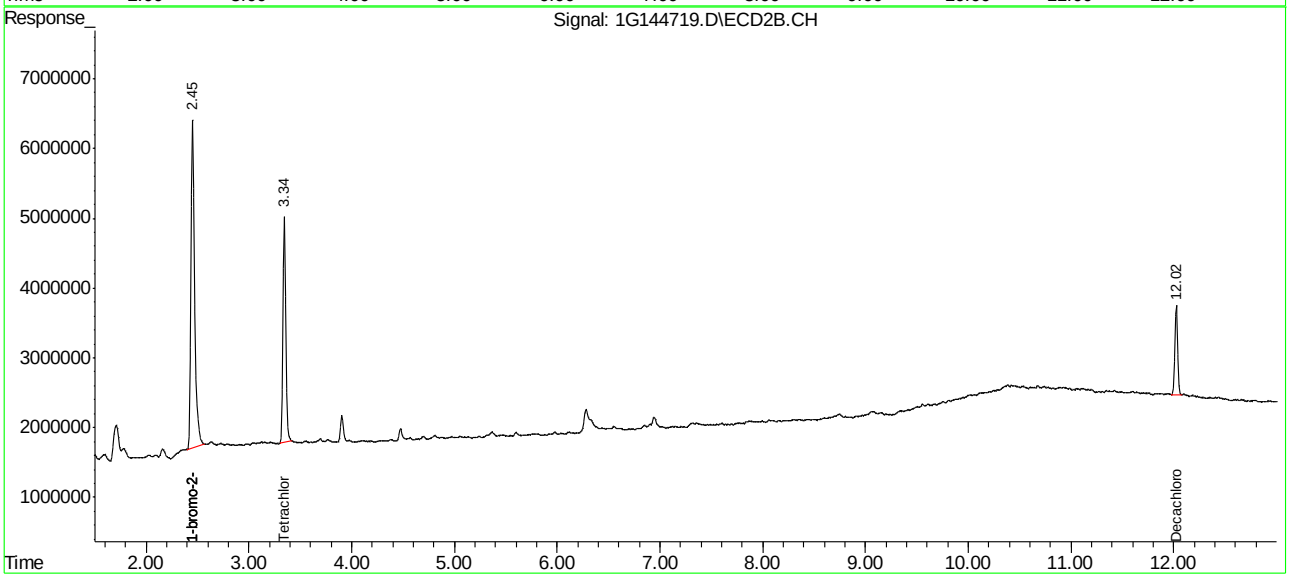
Data File : C:\MSDCHEM\1\DATA\1G4598\1G144719.D\ECD1A.CH Vial: 41
Acq On : 3-28-18 05:44:23 AM Operator: christp
Sample : jc62879-16 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\MSDCHEM\1\DATA\1G4598\1G144719.D\ECD2B.CH Vial: 41
Acq On : 3-28-18 05:44:24 AM Operator: christp
Sample : jc62879-16 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Mar 28 9:06 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	JC62879-16	**Method:**	SW846 8081B
Lab FileID:	1G144719.D	**Analyst approved:**	03/28/18 09:30 Dharmistha Mehta
Injection Time:	03/28/18 05:44	**Supervisor approved:**	03/29/18 09:44 Gwendolyn Burns

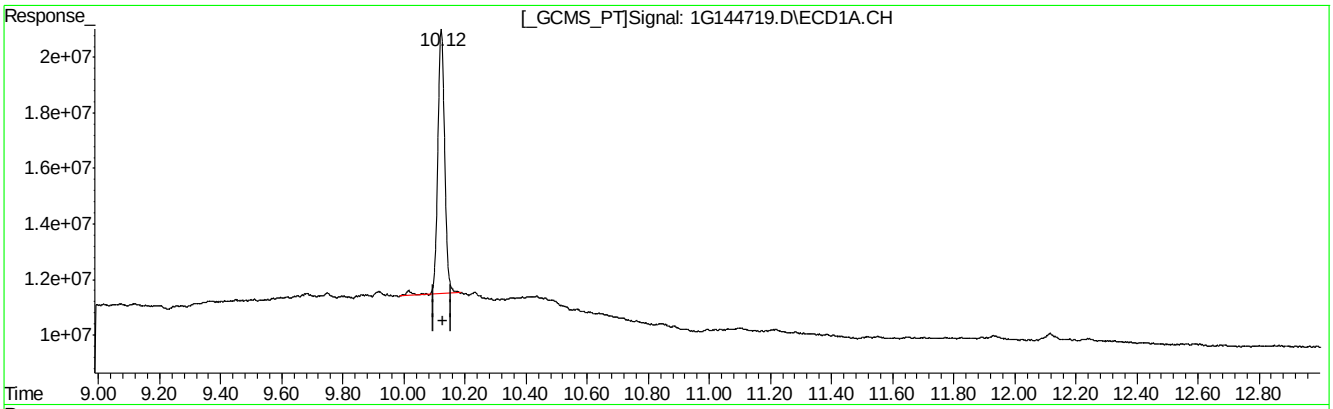
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	10.12	Poorly defined baseline

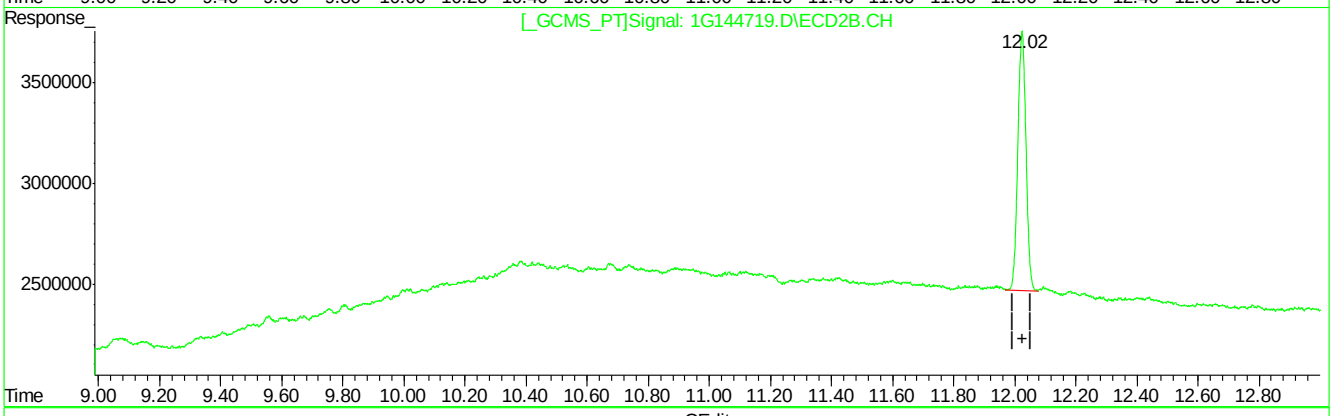
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\1G4598\1G144719.D\ECD1A.CH Vial: 41
Acq On : 3-28-18 05:44:23 AM Operator: christp
Sample : jc62879-16 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\MSDCHEM\1\DATA\1G4598\1G144719.D\ECD2B.CH Vial: 41
Acq On : 3-28-18 05:44:24 AM Operator: christp
Sample : jc62879-16 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Mar 28 9:06 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.12min 20.755PPB

response 149427624

(26) Decachlorobiphenyl #2 (SA)

12.02min 15.298PPB

response 23710928

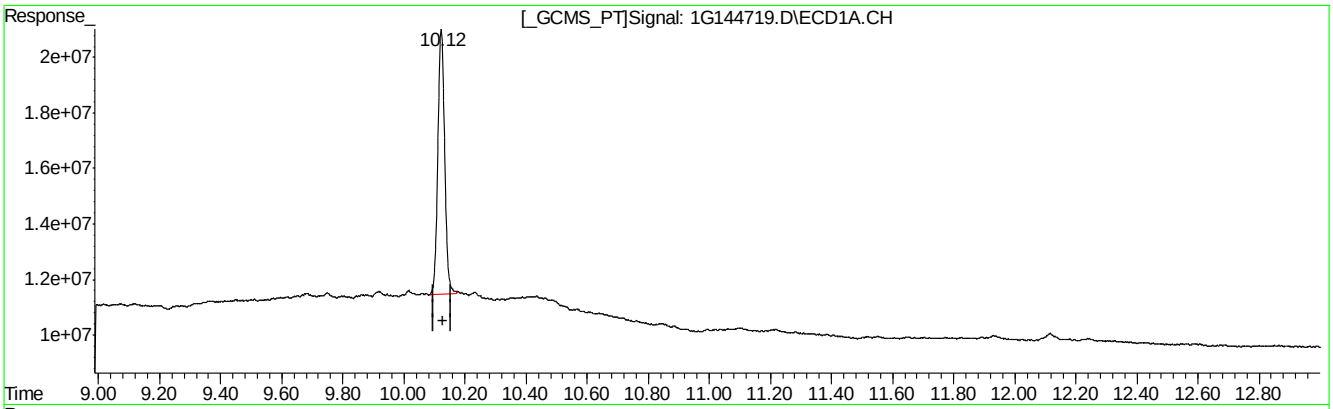
(+) = Expected Retention Time
1G144719.D 1PST4557.M Wed Mar 28 09:06:53 2018 RPT1

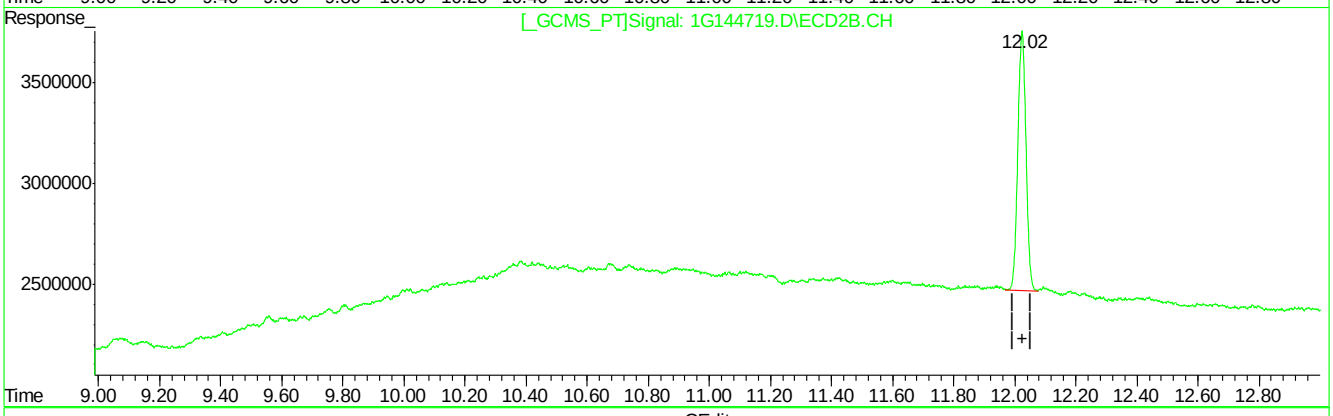
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\1G4598\1G144719.D\ECD1A.CH Vial: 41
Acq On : 3-28-18 05:44:23 AM Operator: christp
Sample : jc62879-16 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\MSDCHEM\1\DATA\1G4598\1G144719.D\ECD2B.CH Vial: 41
Acq On : 3-28-18 05:44:24 AM Operator: christp
Sample : jc62879-16 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile : AUTOINT2.E
Quant Time: Mar 28 9:06 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.12min 20.623PPB m

response 148476882

(26) Decachlorobiphenyl #2 (SA)

12.02min 15.298PPB

response 23710928

(+) = Expected Retention Time
1G144719.D 1PST4557.M Wed Mar 28 09:07:01 2018 RPT1

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 09:44

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144720.D\ECD1A.CH Vial: 42
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144720.D\ECD2B.CH
Acq On : 3-28-18 06:01:41 AM Operator: christp
Sample : jc62879-17 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:13 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.45	513.8E6	117.1E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	513.8E6	117.1E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	513.8E6	117.1E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.78	3.35	311.1E6	69924180	34.203	32.895
Spiked Amount	40.000	Range	30 - 150	Recovery	=	85.51%	82.24%
26) SA	Decachlorobiphen	10.12	12.03	299.5E6	50927207	40.323m	33.183
Spiked Amount	40.000			Recovery	=	100.81%	82.96%
	Target Compounds						

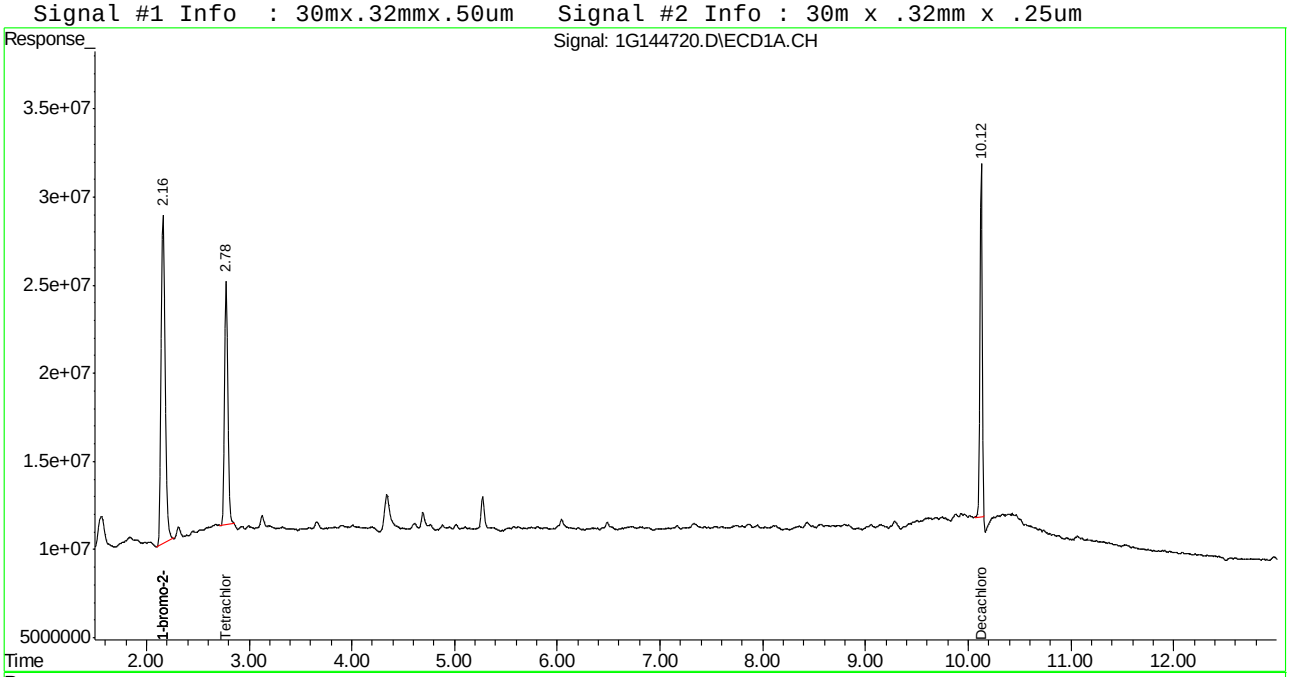
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144720.D 1PST4557.M Wed Mar 28 09:13:34 2018 RPT1 Page 1

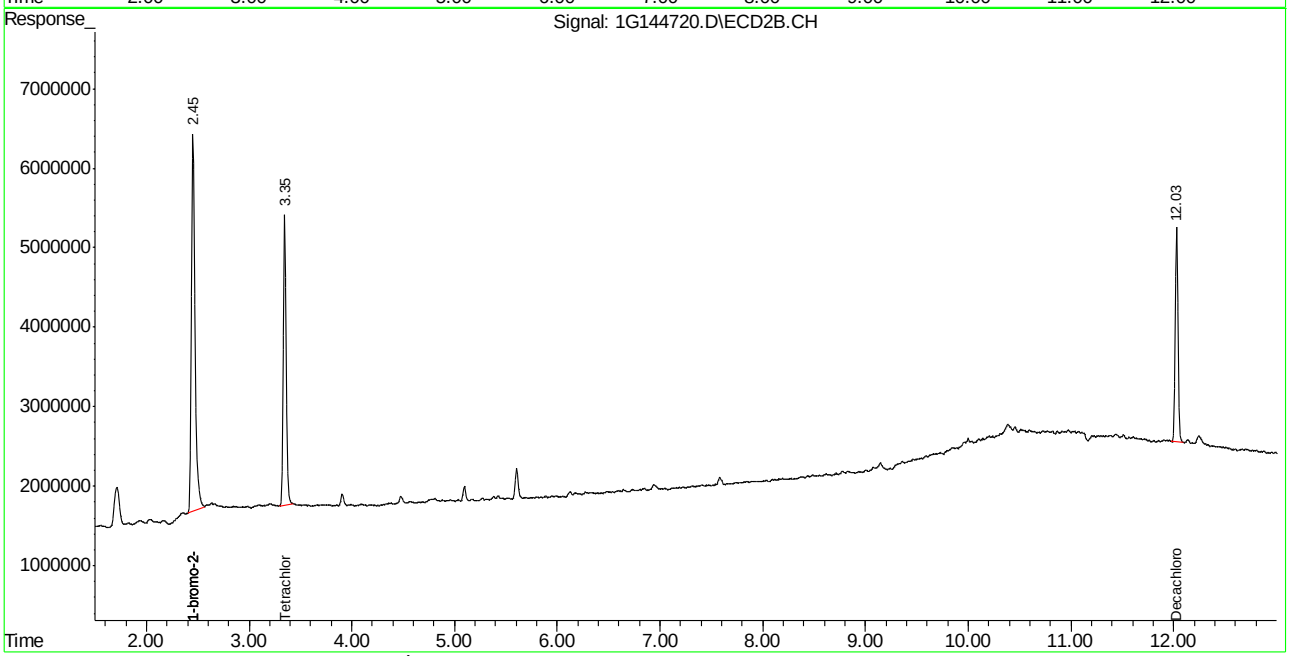
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144720.D\ECD1A.CH Vial: 42
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144720.D\ECD2B.CH
Acq On : 3-28-18 06:01:41 AM Operator: christp
Sample : jc62879-17 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:13 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

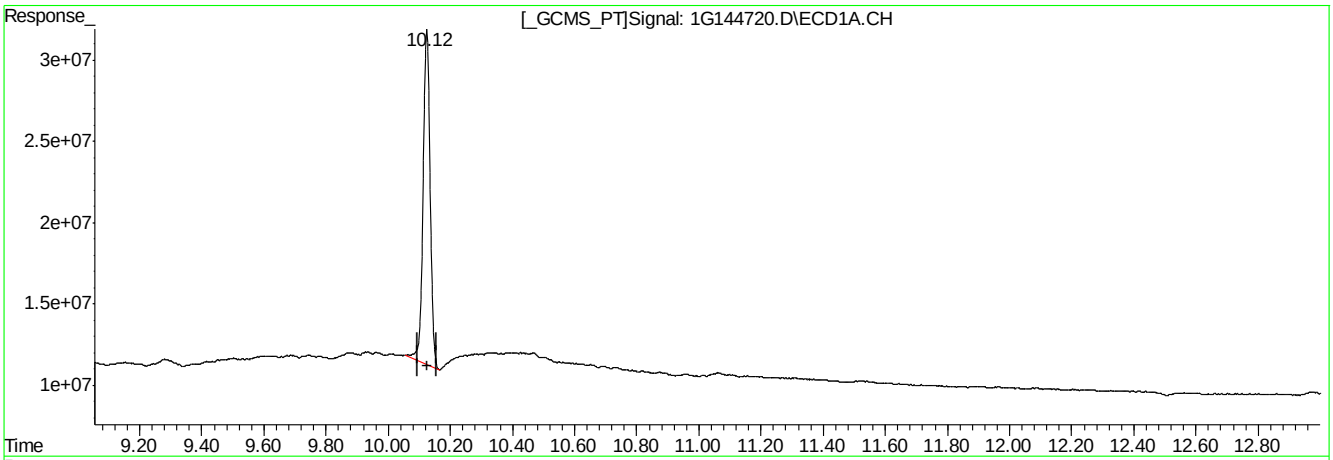
Sample Number:	JC62879-17	**Method:**	SW846 8081B
Lab FileID:	1G144720.D	**Analyst approved:**	03/28/18 09:30 Dharmistha Mehta
Injection Time:	03/28/18 06:01	**Supervisor approved:**	03/29/18 09:44 Gwendolyn Burns

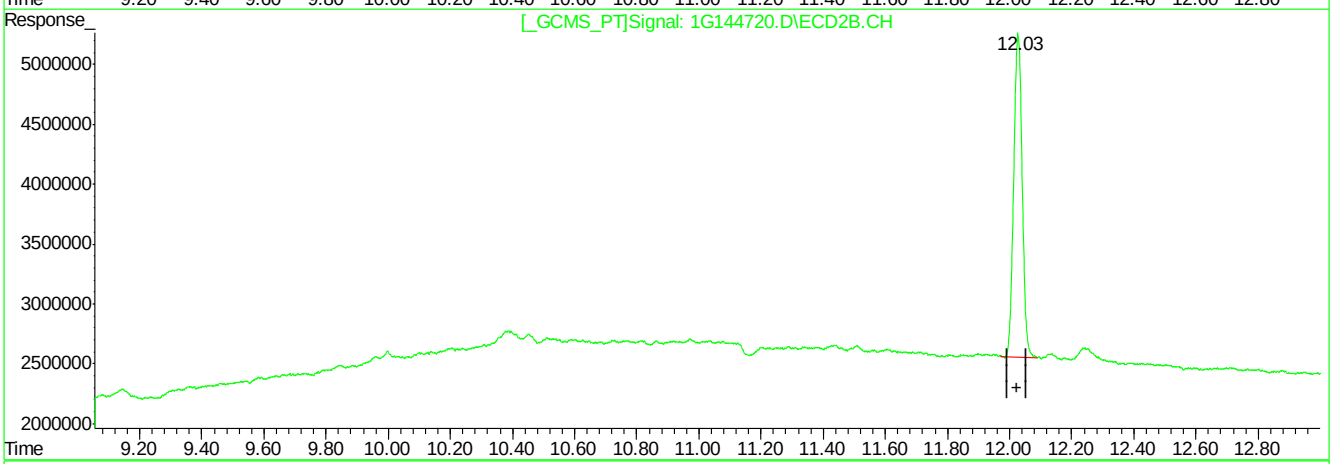
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	10.12	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144720.D\ECD1A.CH Vial: 42
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144720.D\ECD2B.CH
Acq On : 3-28-18 06:01:41 AM Operator: christp
Sample : jc62879-17 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.12min 43.568PPB

response 323555892

(26) Decachlorobiphenyl #2 (SA)

12.03min 33.183PPB

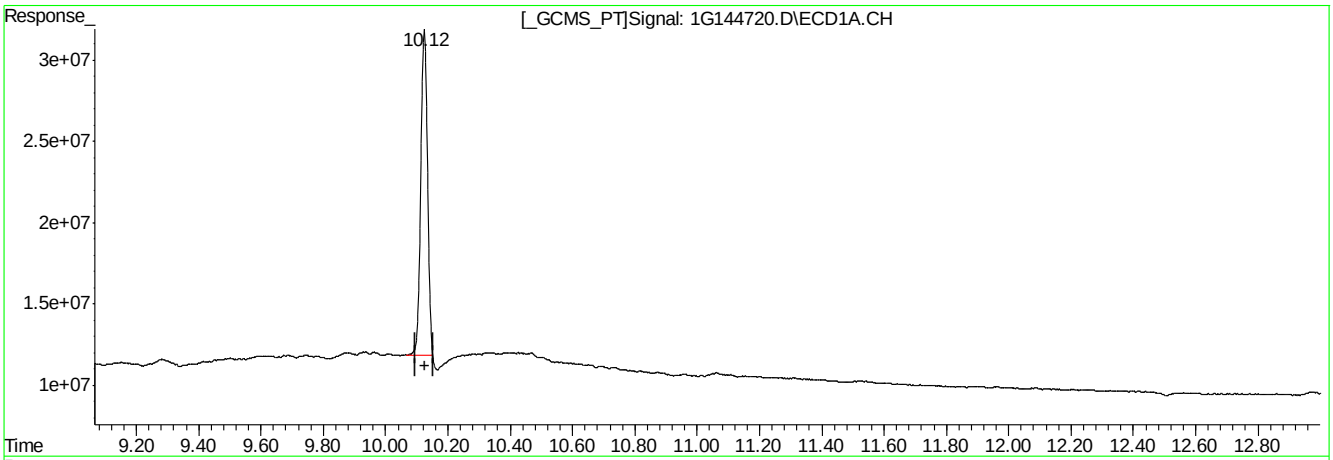
response 50927207

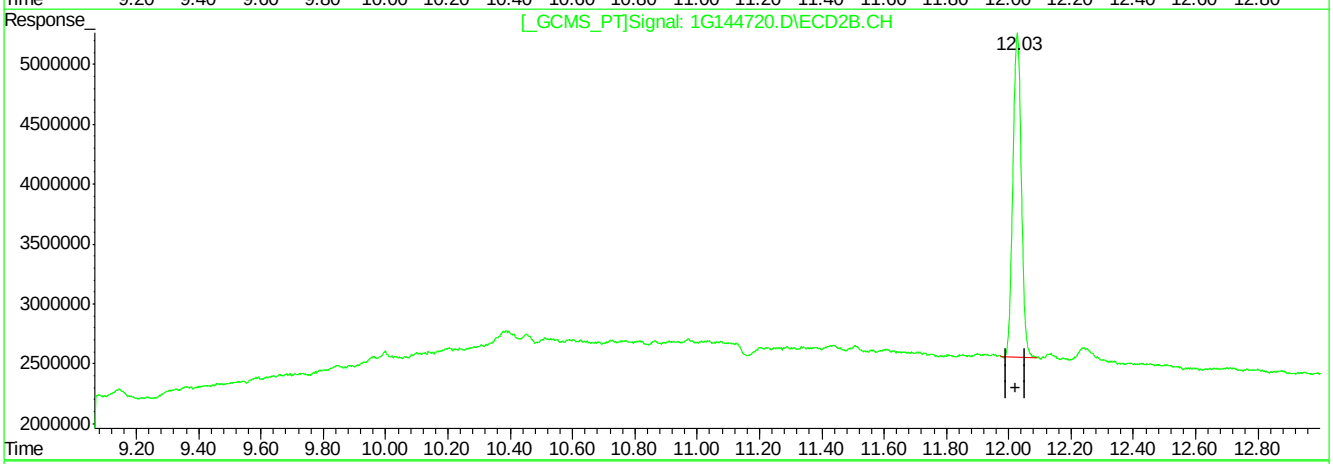
(+) = Expected Retention Time
1G144720.D 1PST4557.M Wed Mar 28 09:13:09 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144720.D\ECD1A.CH Vial: 42
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144720.D\ECD2B.CH
Acq On : 3-28-18 06:01:41 AM Operator: christp
Sample : jc62879-17 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.12min 40.323PPB m

response 299458023

(26) Decachlorobiphenyl #2 (SA)

12.03min 33.183PPB

response 50927207

(+) = Expected Retention Time
1G144720.D 1PST4557.M Wed Mar 28 09:13:22 2018 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144725.D\ECD1A.CH Vial: 43
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144725.D\ECD2B.CH
Acq On : 3-28-18 07:27:51 AM Operator: christp
Sample : jc62879-18 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:14 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.45	600.9E6	114.6E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	600.9E6	114.6E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	600.9E6	114.6E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.78	3.35	290.2E6	65789316	27.285	31.619
Spiked Amount	40.000	Range	30 - 150	Recovery	=	68.21%	79.05%
26) SA	Decachlorobiphen	10.12	12.02	90415037	14092203	10.409	9.381
Spiked Amount	40.000			Recovery	=	26.02%	23.45%
	Target Compounds						

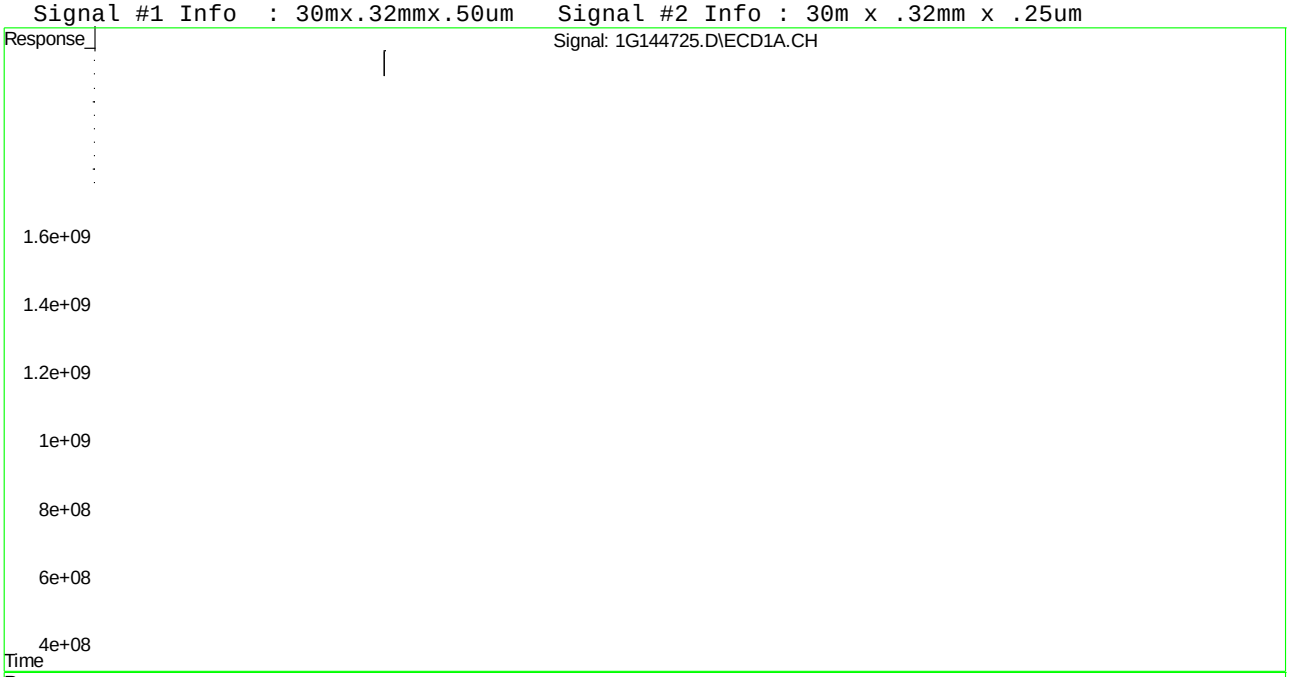
(f)=RT Delta > 1/2 Window (m)=manual int.

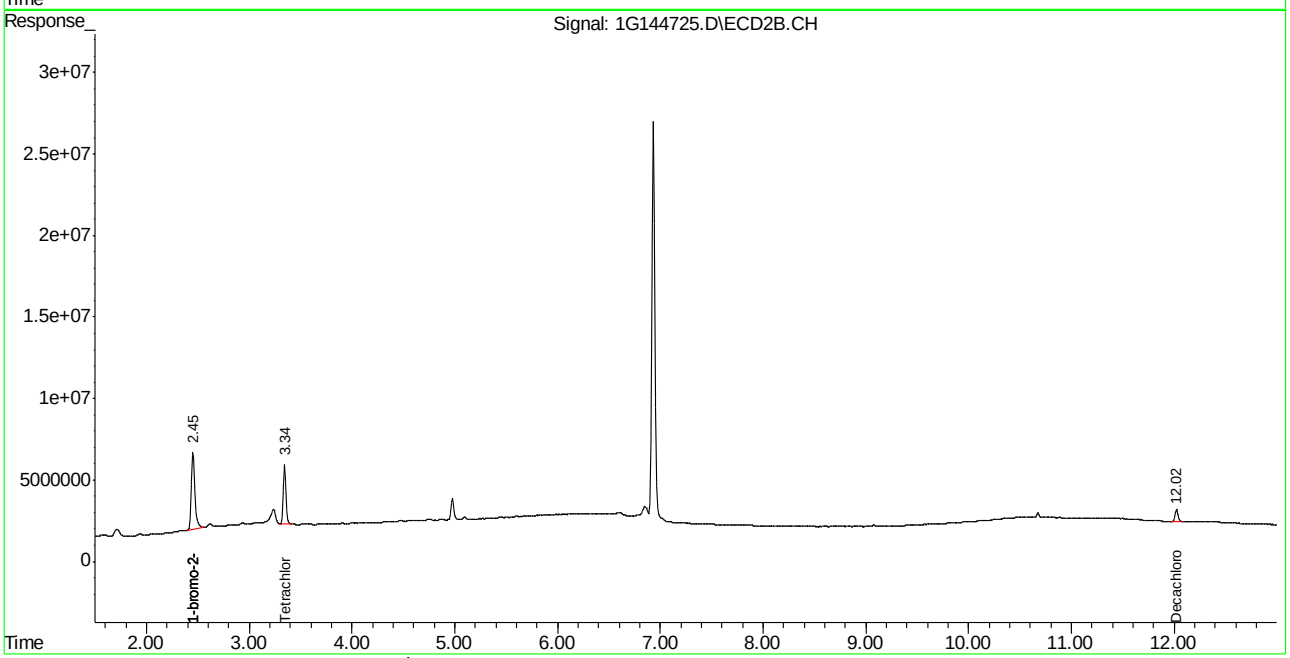
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144725.D\ECD1A.CH Vial: 43
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144725.D\ECD2B.CH
Acq On : 3-28-18 07:27:51 AM Operator: christp
Sample : jc62879-18 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:14 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144726.D\ECD1A.CH Vial: 44
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144726.D\ECD2B.CH
Acq On : 3-28-18 07:44:54 AM Operator: christp
Sample : jc62879-20 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:15 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.45	488.6E6	117.4E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	488.6E6	117.4E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	488.6E6	117.4E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.77	3.35	285.4E6	64998600	33.001	30.505
Spiked Amount	40.000	Range	30 - 150	Recovery	=	82.50%	76.26%
26) SA	Decachlorobiphen	10.13	12.03	295.1E6	47091968	41.785	30.610
Spiked Amount	40.000			Recovery	=	104.46%	76.53%
	Target Compounds						

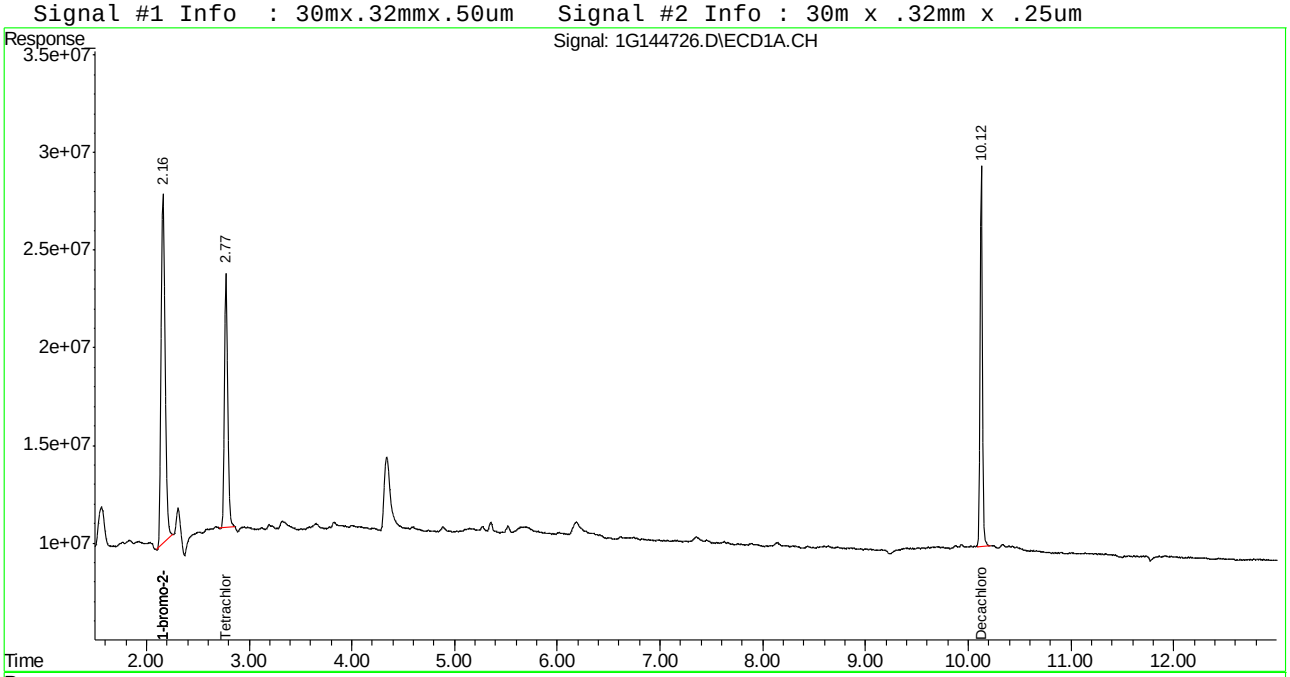
(f)=RT Delta > 1/2 Window (m)=manual int.

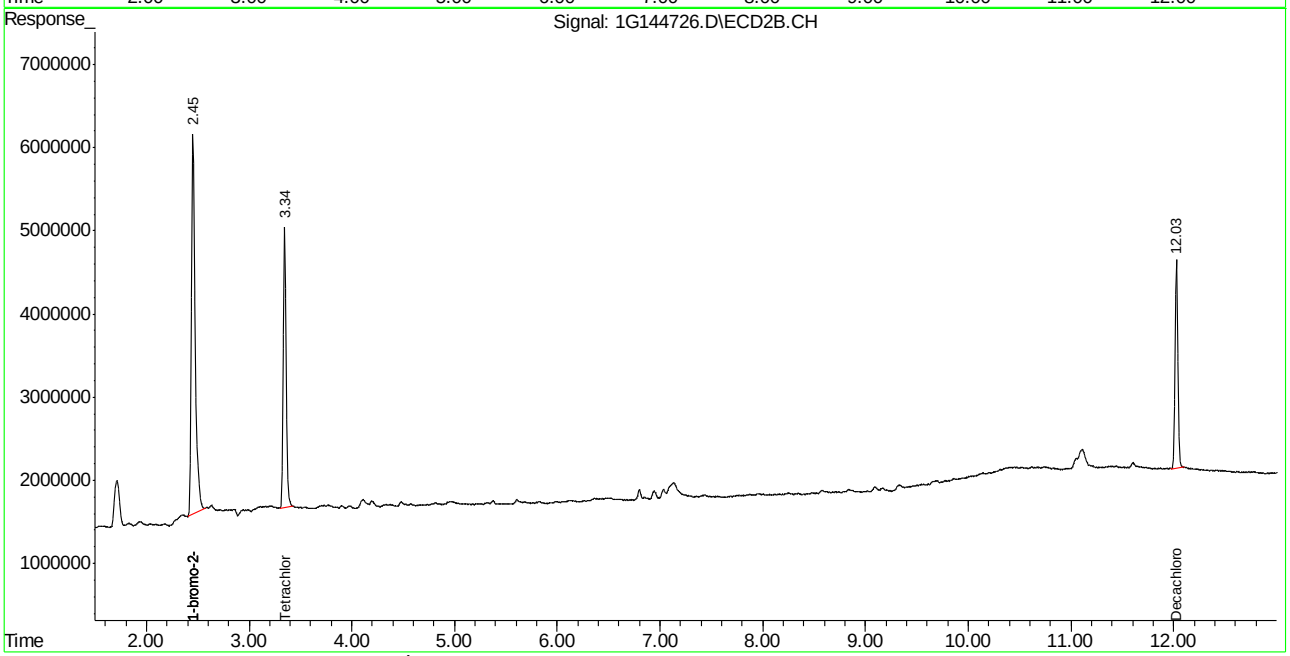
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144726.D\ECD1A.CH Vial: 44
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144726.D\ECD2B.CH
Acq On : 3-28-18 07:44:54 AM Operator: christp
Sample : jc62879-20 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:15 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181182.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181182.D\ECD2B.CH
Acq On : 27 Mar 2018 2:15 pm Operator: humarahb
Sample : jc62879-1 Inst : gcef
Misc : op10875,GEF6202,275,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:38 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachloro-m-xy	3.20	4.20	356405	509472	30.828	32.724
Spiked Amount 40.000			Recovery	=	77.07%	81.81%
51) S Decachlorobiphen	14.17	17.30f	479742	591808	28.029	28.190
Spiked Amount 40.000			Recovery	=	70.07%	70.47%
Target Compounds						

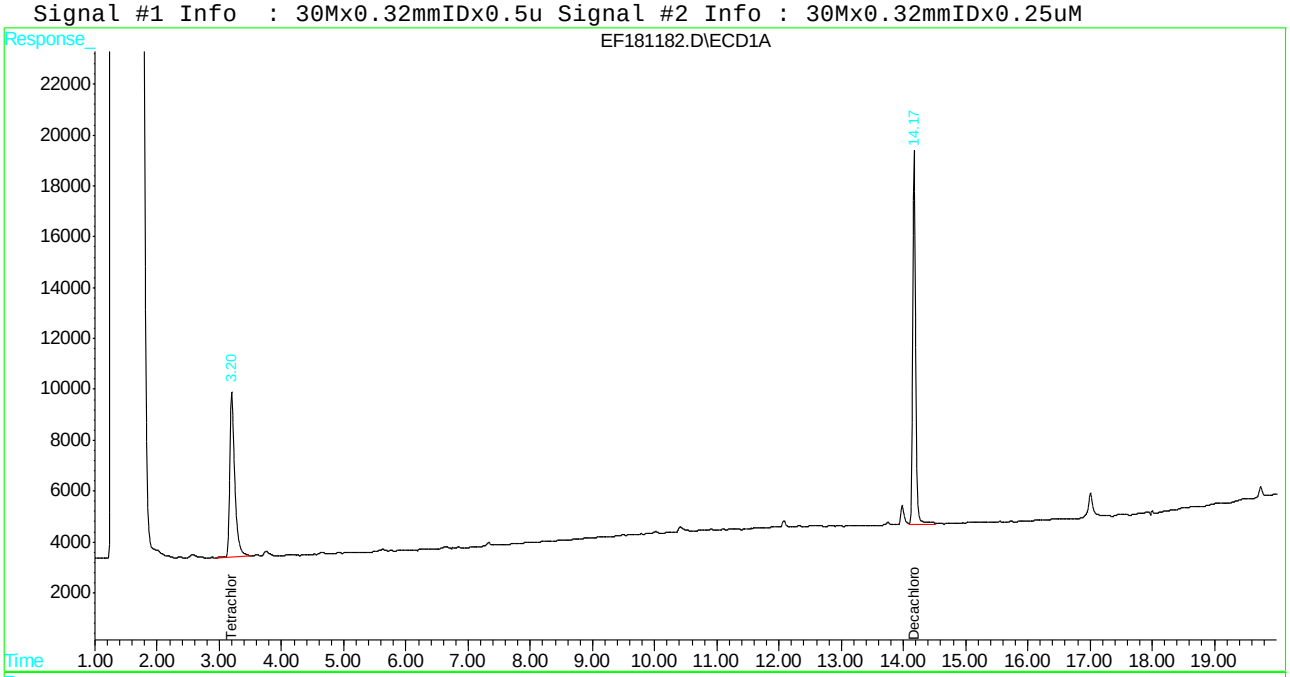
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181182.D PCB6195.M Tue Mar 27 14:39:00 2018 GCEF Page 1

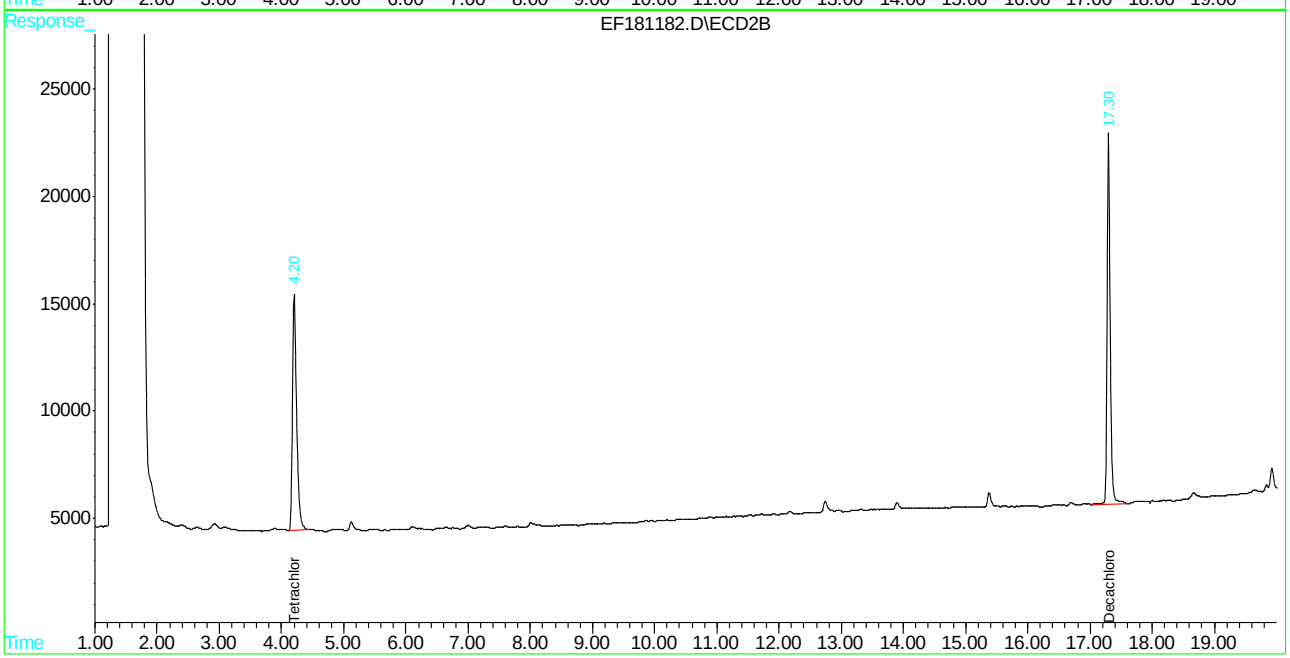
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181182.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181182.D\ECD2B.CH
Acq On : 27 Mar 2018 2:15 pm Operator: humarahb
Sample : jc62879-1 Inst : gcef
Misc : op10875,GEF6202,275,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:38 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/28/18 16:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181183.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181183.D\ECD2B.CH
Acq On : 27 Mar 2018 2:40 pm Operator: humarahb
Sample : jc62879-2 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 15:14 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.20	4.21	240633	325657	20.814	20.917
	Spiked Amount 40.000			Recovery	=	52.03%	52.29%
51)	S Decachlorobiphen	14.17	17.30	336872	434364	19.681m	20.690
	Spiked Amount 40.000			Recovery	=	49.20%	51.73%
	Target Compounds						

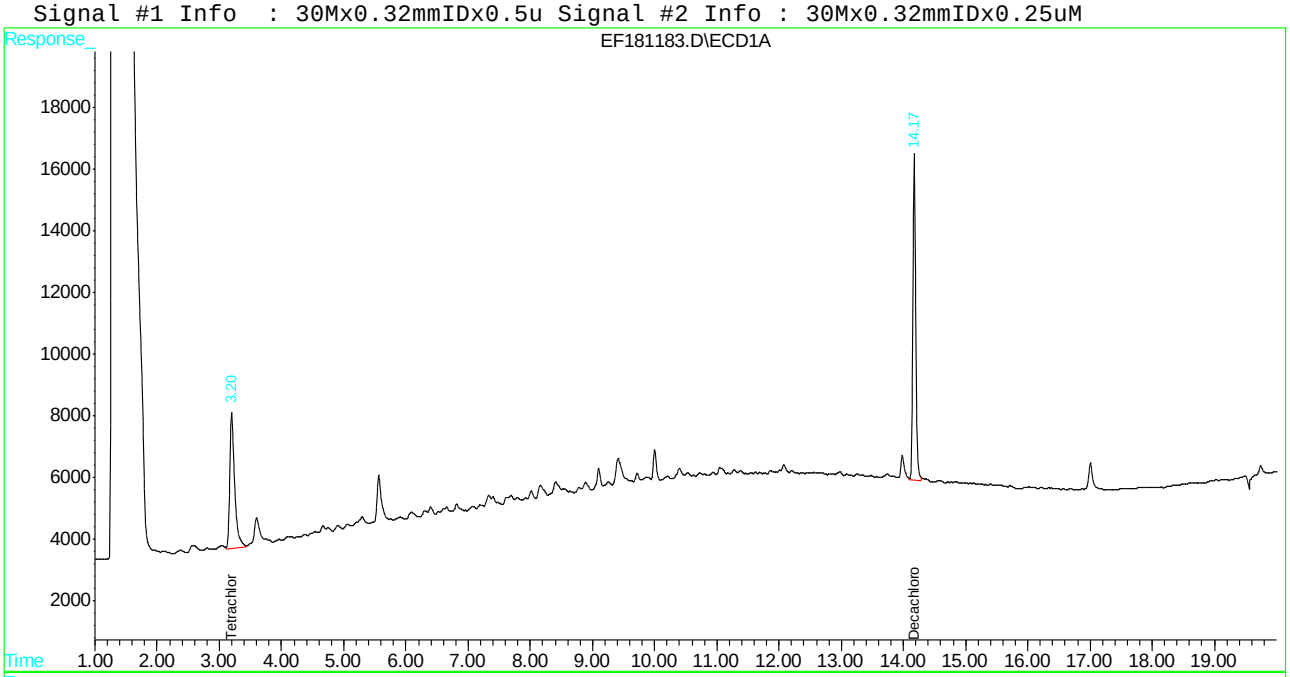
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181183.D PCB6195.M Tue Mar 27 15:15:44 2018 GCEF Page 1

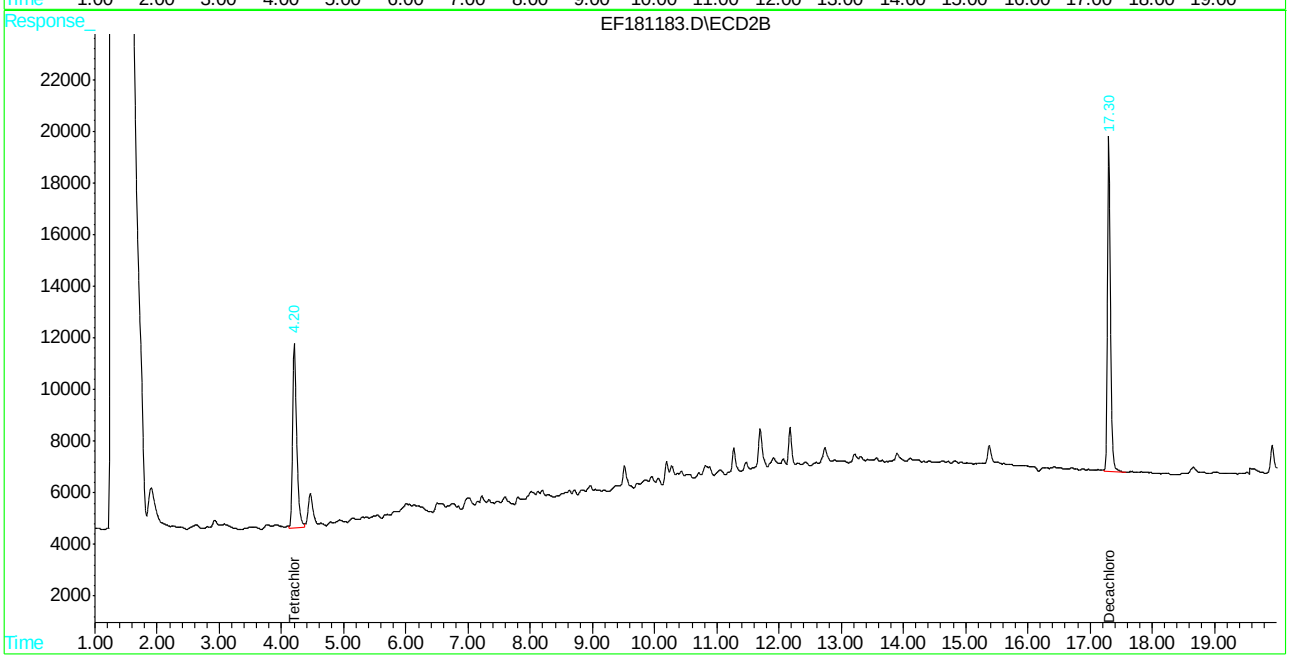
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181183.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181183.D\ECD2B.CH
Acq On : 27 Mar 2018 2:40 pm Operator: humarahb
Sample : jc62879-2 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 15:14 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

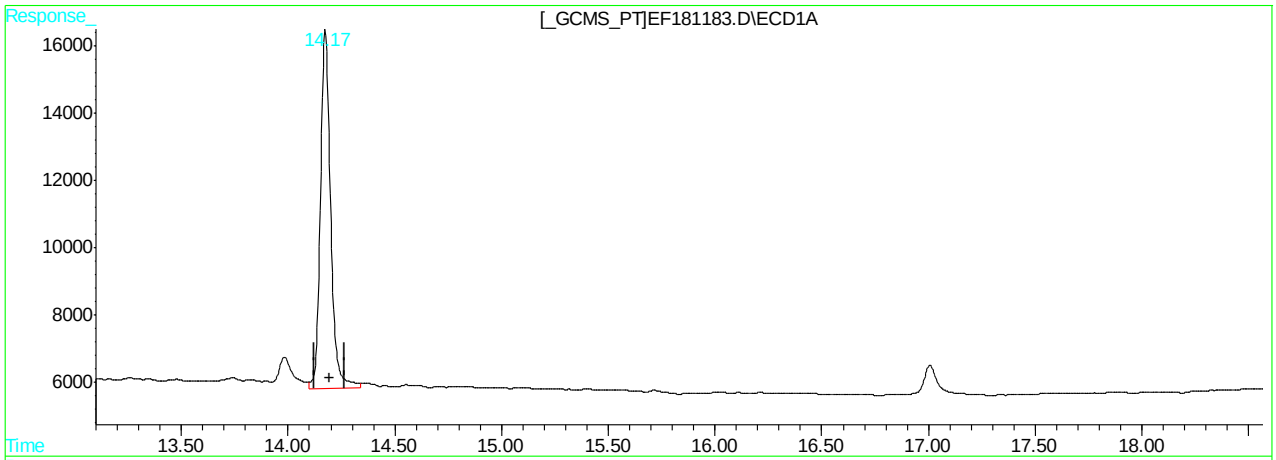
Sample Number:	JC62879-2	**Method:**	SW846 8082A
Lab FileID:	EF181183.D	**Analyst approved:**	03/27/18 16:52 Tianwei Ruan
Injection Time:	03/27/18 14:40	**Supervisor approved:**	03/28/18 16:47 Gwendolyn Burns

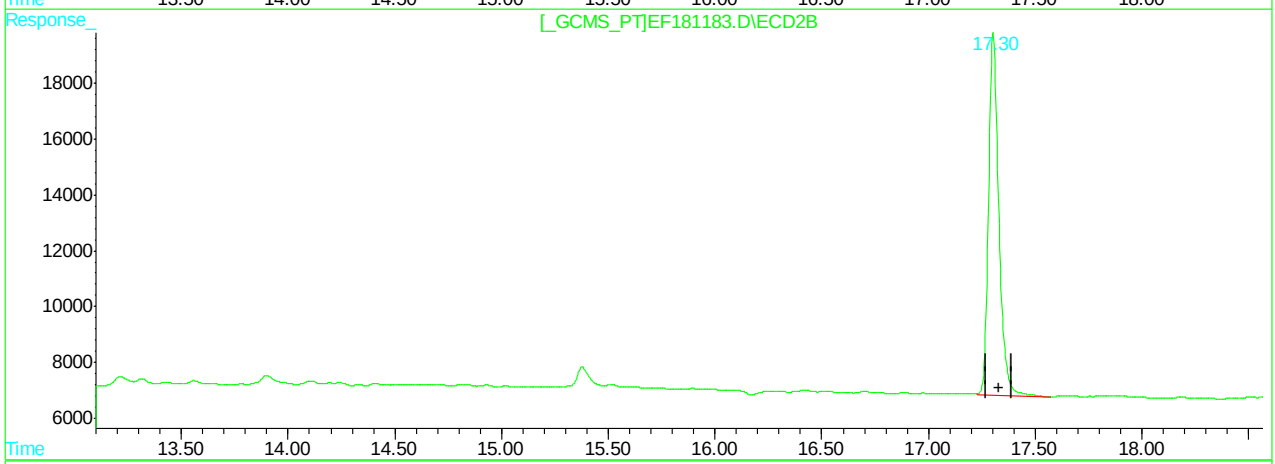
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	14.17	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181183.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181183.D\ECD2B.CH
Acq On : 27 Mar 2018 2:40 pm Operator: humarahb
Sample : jc62879-2 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 15:14 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.17min 20.823PPB

response 356410

(51) Decachlorobiphenyl #2 (S)

17.30min 20.690PPB

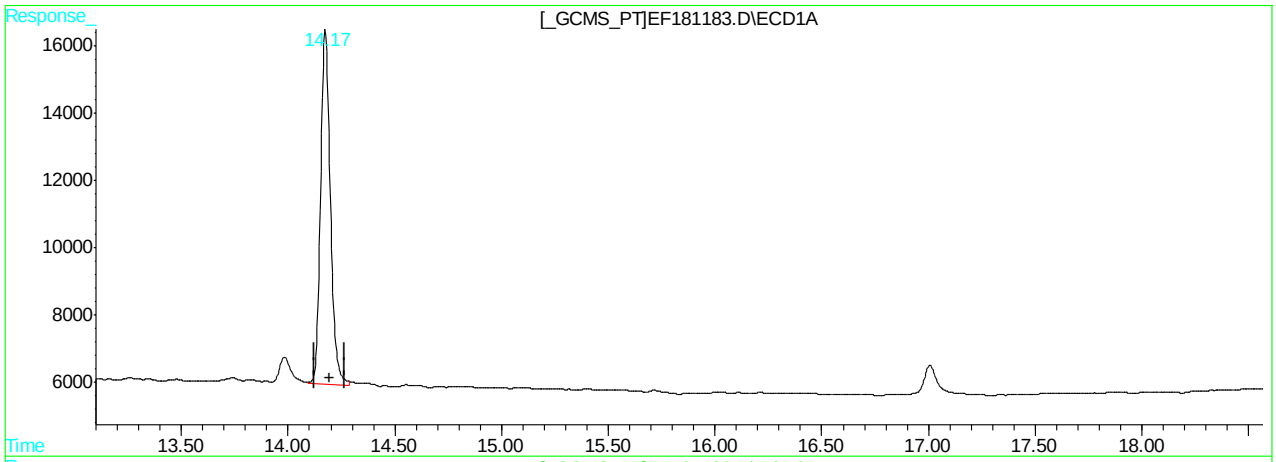
response 434364

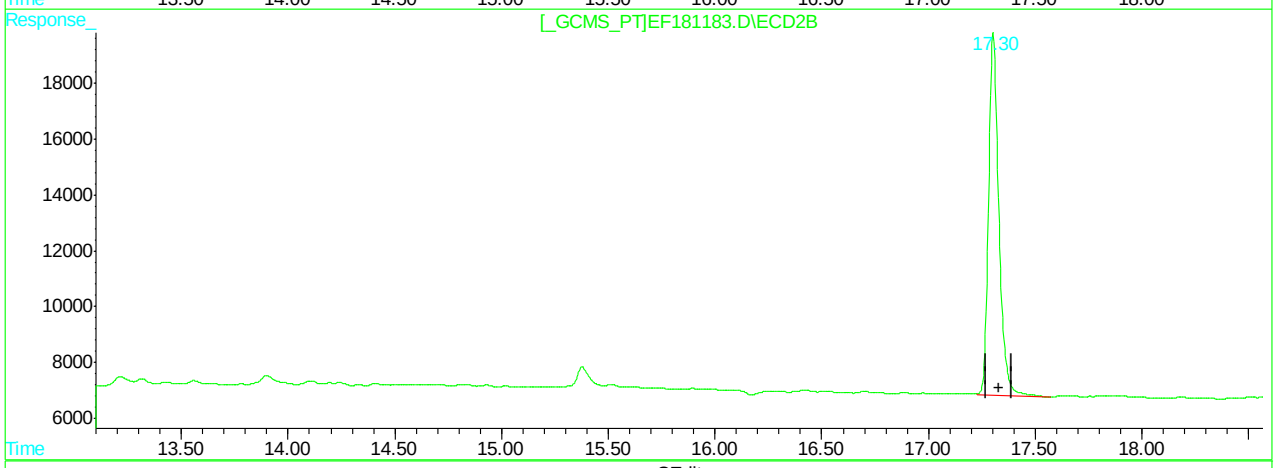
(+) = Expected Retention Time
EF181183.D PCB6195.M Tue Mar 27 15:14:54 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181183.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181183.D\ECD2B.CH
Acq On : 27 Mar 2018 2:40 pm Operator: humarahb
Sample : jc62879-2 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 15:14 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.17min 19.681PPB m

response 336872

(51) Decachlorobiphenyl #2 (S)

17.30min 20.690PPB

response 434364

(+) = Expected Retention Time
EF181183.D PCB6195.M Tue Mar 27 15:15:04 2018 GCEF

11.1.21.3 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/28/18 16:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181184.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181184.D\ECD2B.CH
Acq On : 27 Mar 2018 3:05 pm Operator: humarahb
Sample : jc62879-3 Inst : gcef
Misc : op10875,GEF6202,280,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 16:20 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.20	4.21	387878	546472	33.551	35.100
	Spiked Amount 40.000			Recovery	=	83.88%	87.75%
51)	S Decachlorobiphen	14.17	17.30f	407798	511706	23.825m	24.375m
	Spiked Amount 40.000			Recovery	=	59.56%	60.94%
	Target Compounds						

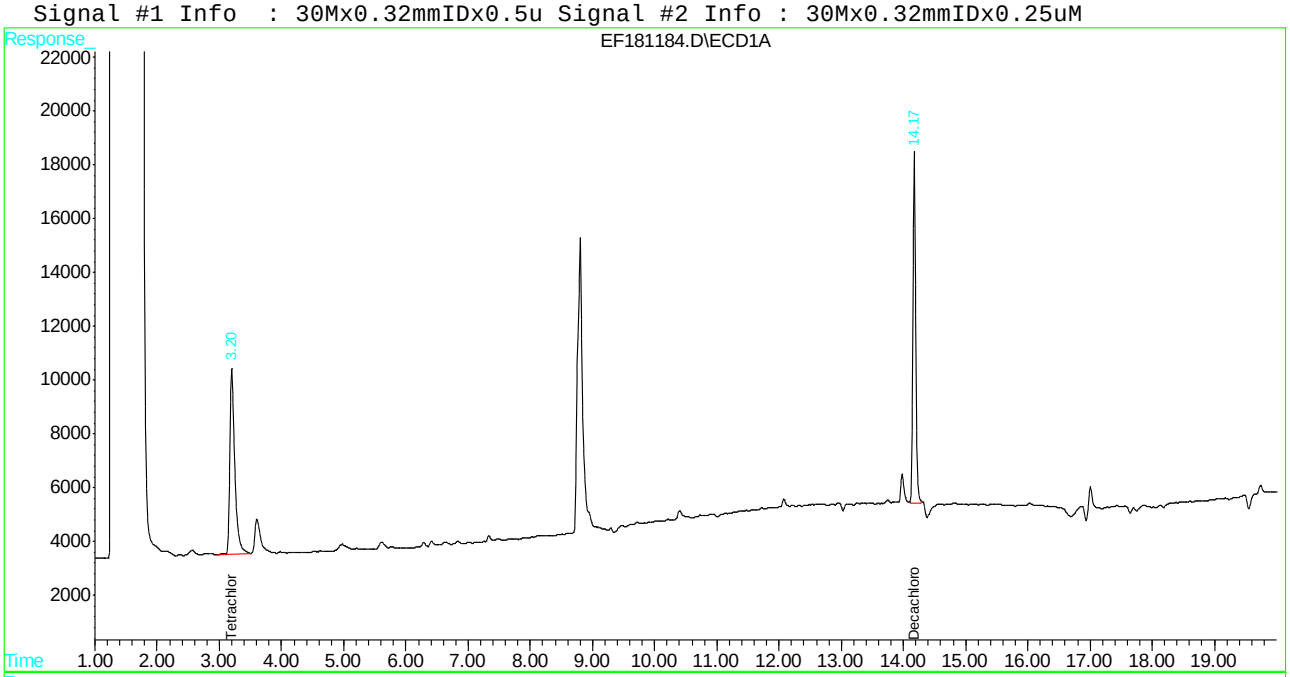
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181184.D PCB6195.M Tue Mar 27 16:20:26 2018 GCEF Page 1

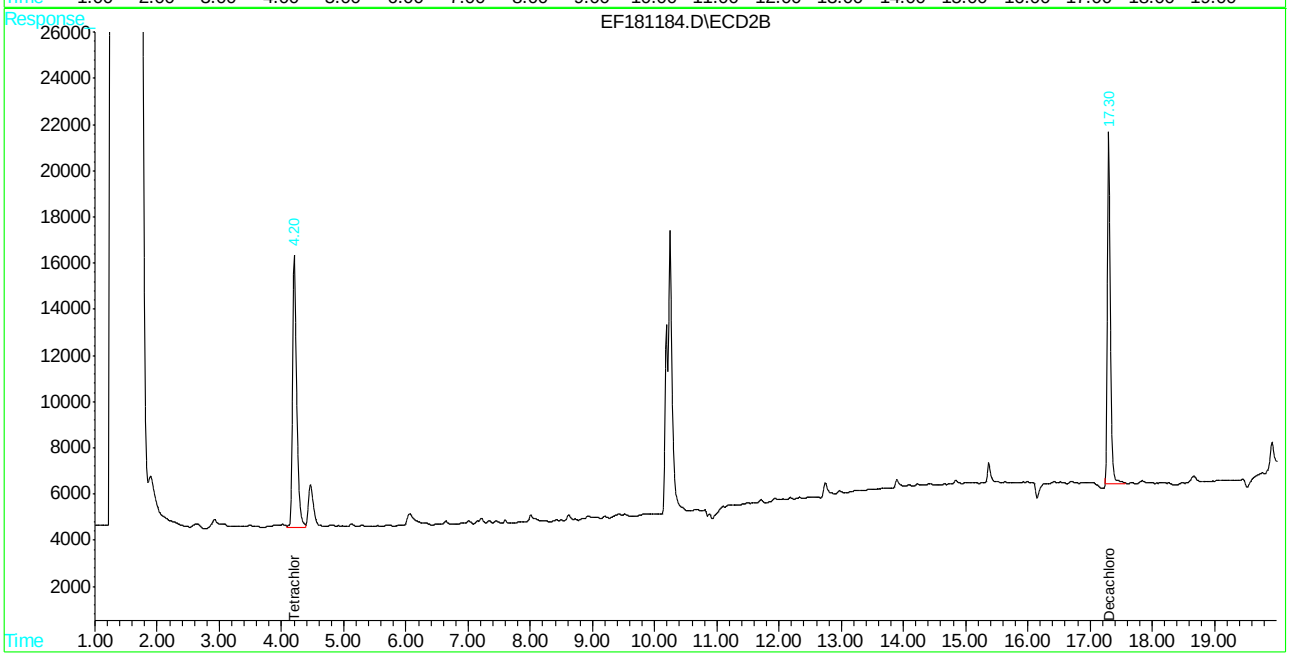
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181184.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181184.D\ECD2B.CH
Acq On : 27 Mar 2018 3:05 pm Operator: humarahb
Sample : jc62879-3 Inst : gcef
Misc : op10875,GEF6202,280,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 16:20 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

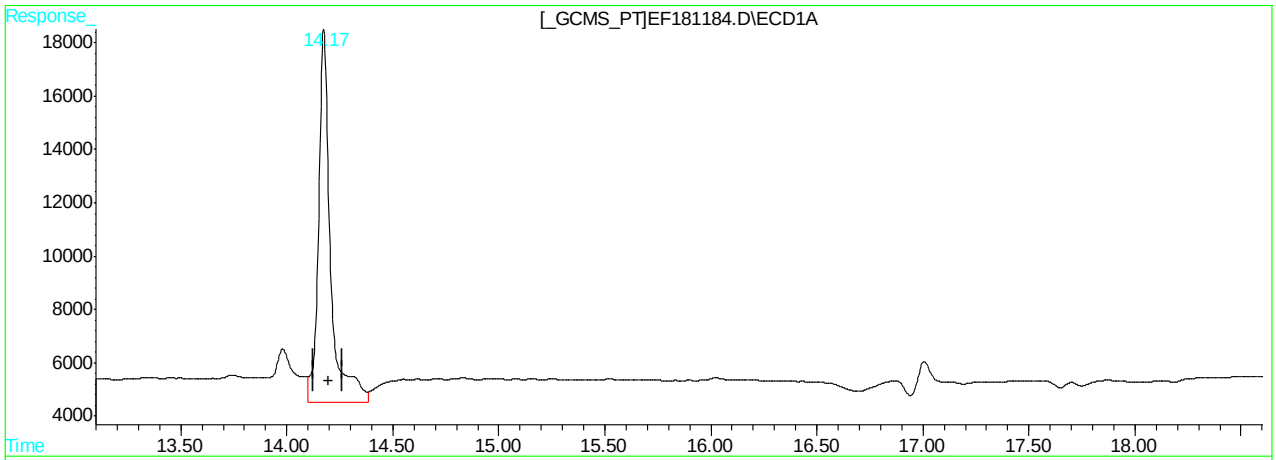
Sample Number: JC62879-3
Lab FileID: EF181184.D
Injection Time: 03/27/18 15:05
Method: SW846 8082A
Analyst approved: 03/27/18 16:52 Tianwei Ruan
Supervisor approved: 03/28/18 16:47 Gwendolyn Burns

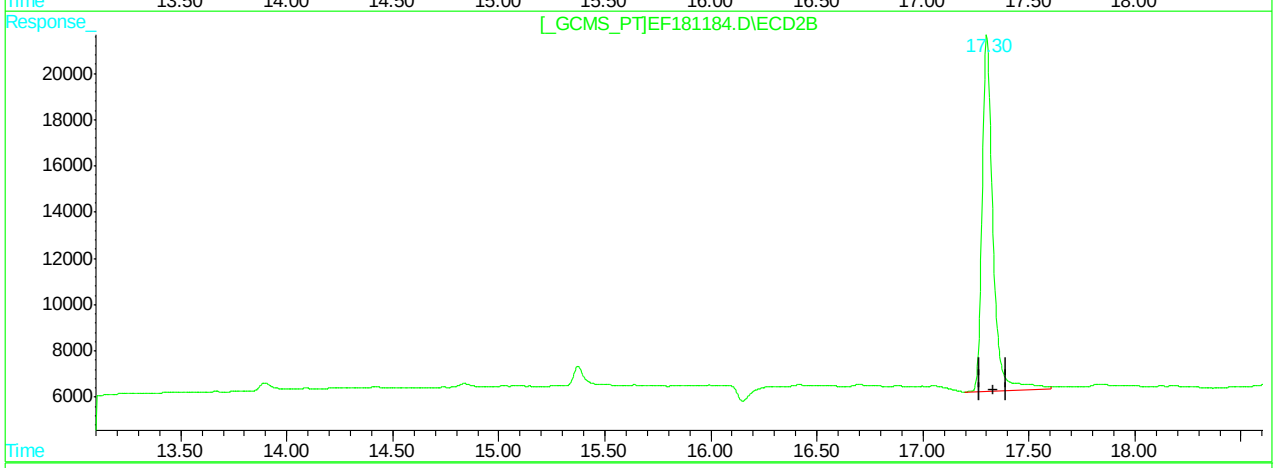
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	14.17	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.30	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181184.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181184.D\ECD2B.CH
Acq On : 27 Mar 2018 3:05 pm Operator: humarahb
Sample : jc62879-3 Inst : gcef
Misc : op10875,GEF6202,280,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 16:19 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 32.201PPB

response 551154

(51) Decachlorobiphenyl #2 (S)

17.30min 25.975PPB

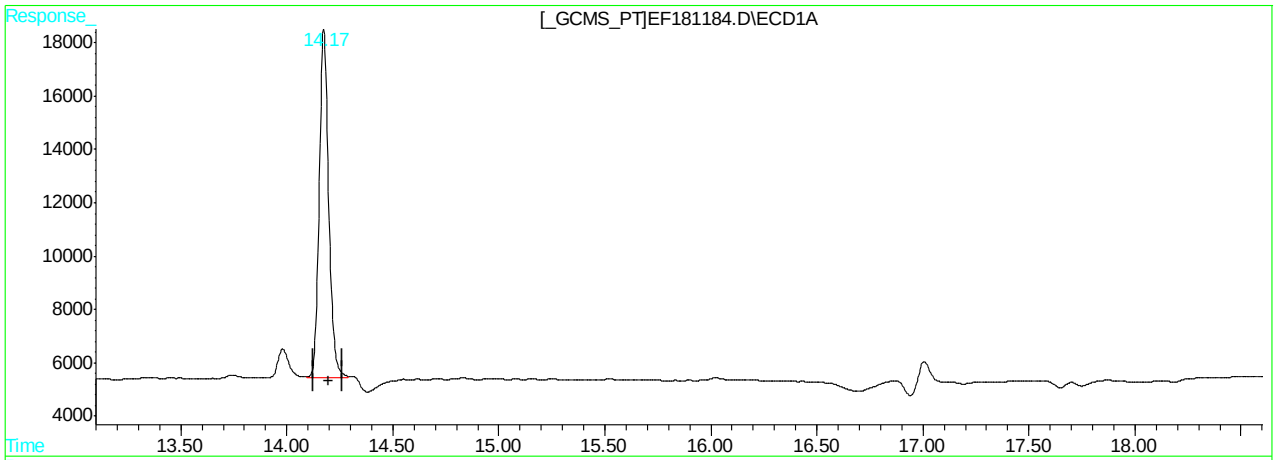
response 545298

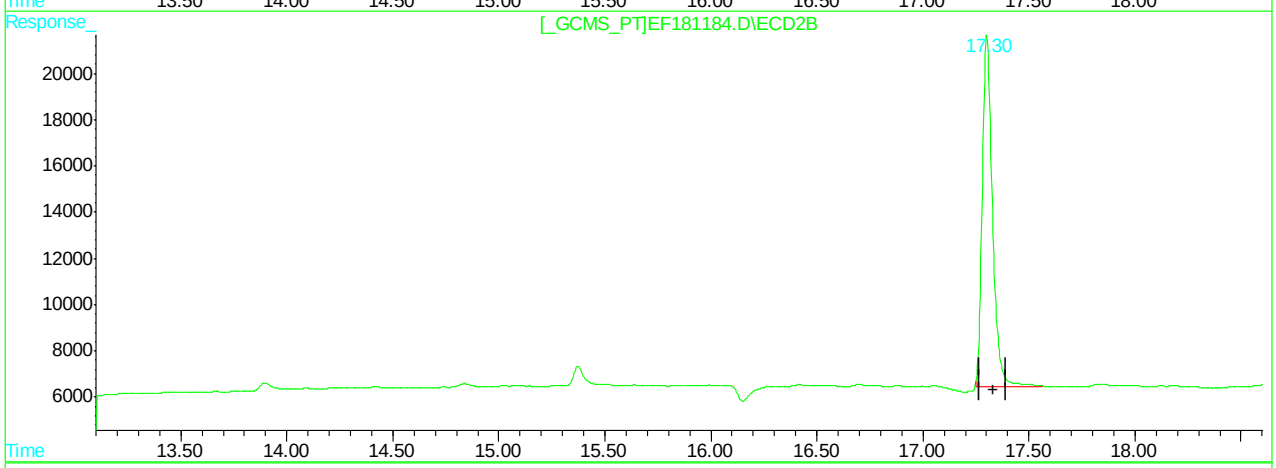
(+) = Expected Retention Time
EF181184.D PCB6195.M Tue Mar 27 16:20:06 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181184.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181184.D\ECD2B.CH
Acq On : 27 Mar 2018 3:05 pm Operator: humarahb
Sample : jc62879-3 Inst : gcef
Misc : op10875,GEF6202,280,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 16:19 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.17min 23.825PPB m

response 407798

(51) Decachlorobiphenyl #2 (S)

17.30min 24.375PPB m

response 511706

(+) = Expected Retention Time
EF181184.D PCB6195.M Tue Mar 27 16:20:21 2018 GCEF

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181189.D\ECD1A.CH Vial: 16
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181189.D\ECD2B.CH
Acq On : 27 Mar 2018 5:10 pm Operator: humarahb
Sample : jc62879-4 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:37 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachloro-m-xy	3.20	4.21	343568	508145	29.718	32.638
Spiked Amount 40.000			Recovery =		74.30%	81.59%
51) S Decachlorobiphen	14.18	17.31	440498	543299	25.736	25.879
Spiked Amount 40.000			Recovery =		64.34%	64.70%
Target Compounds						

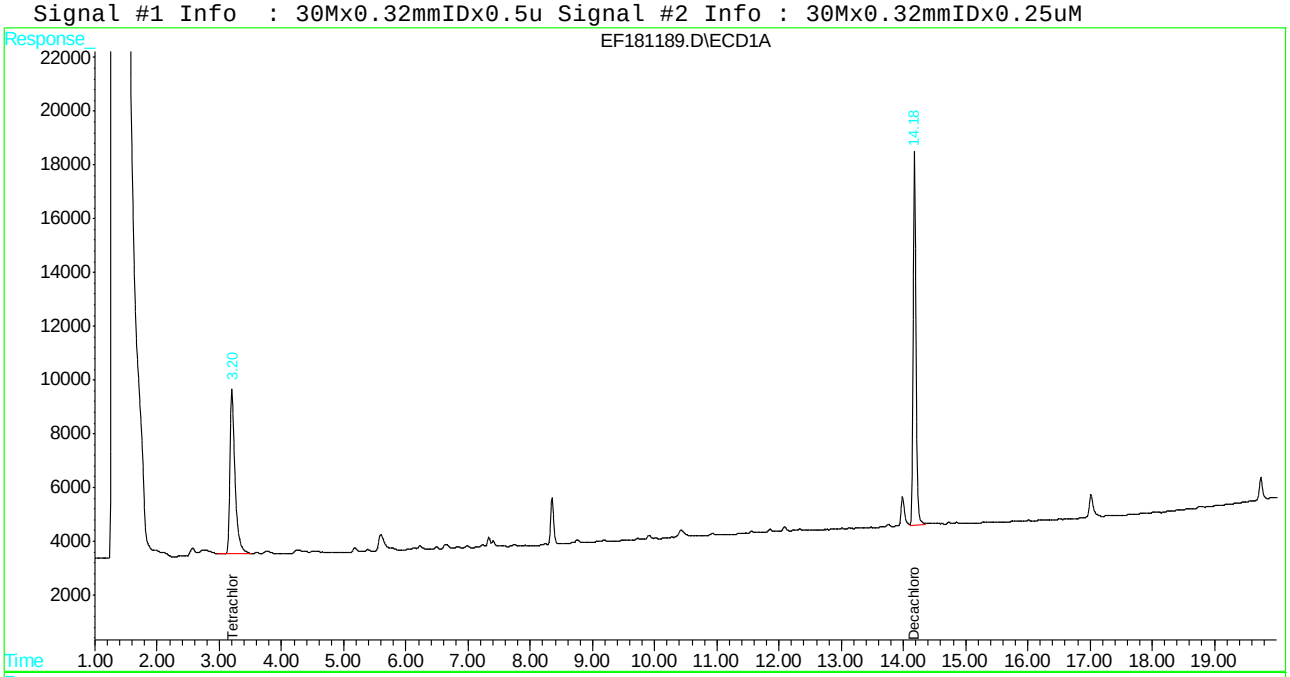
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181189.D PCB6195.M Wed Mar 28 08:37:55 2018 GCEF Page 1

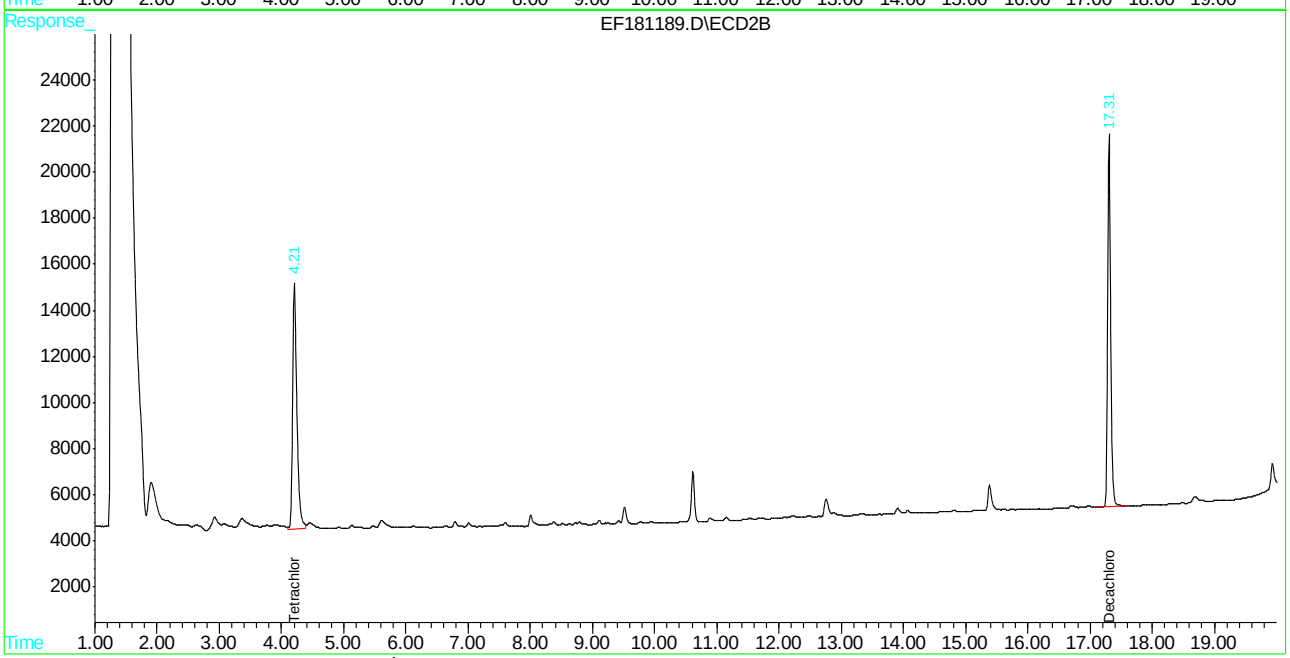
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181189.D\ECD1A.CH Vial: 16
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181189.D\ECD2B.CH
Acq On : 27 Mar 2018 5:10 pm Operator: humarahb
Sample : jc62879-4 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:37 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/28/18 16:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181190.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181190.D\ECD2B.CH
Acq On : 27 Mar 2018 5:35 pm Operator: humarahb
Sample : jc62879-5 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:39 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.20	4.21	356071	512418	30.799	32.913
	Spiked Amount 40.000			Recovery	=	77.00%	82.28%
51)	S Decachlorobiphen	14.18	17.31	387988	483967	22.668m	23.053m
	Spiked Amount 40.000			Recovery	=	56.67%	57.63%
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181190.D PCB6195.M Wed Mar 28 08:39:16 2018 GCEF Page 1

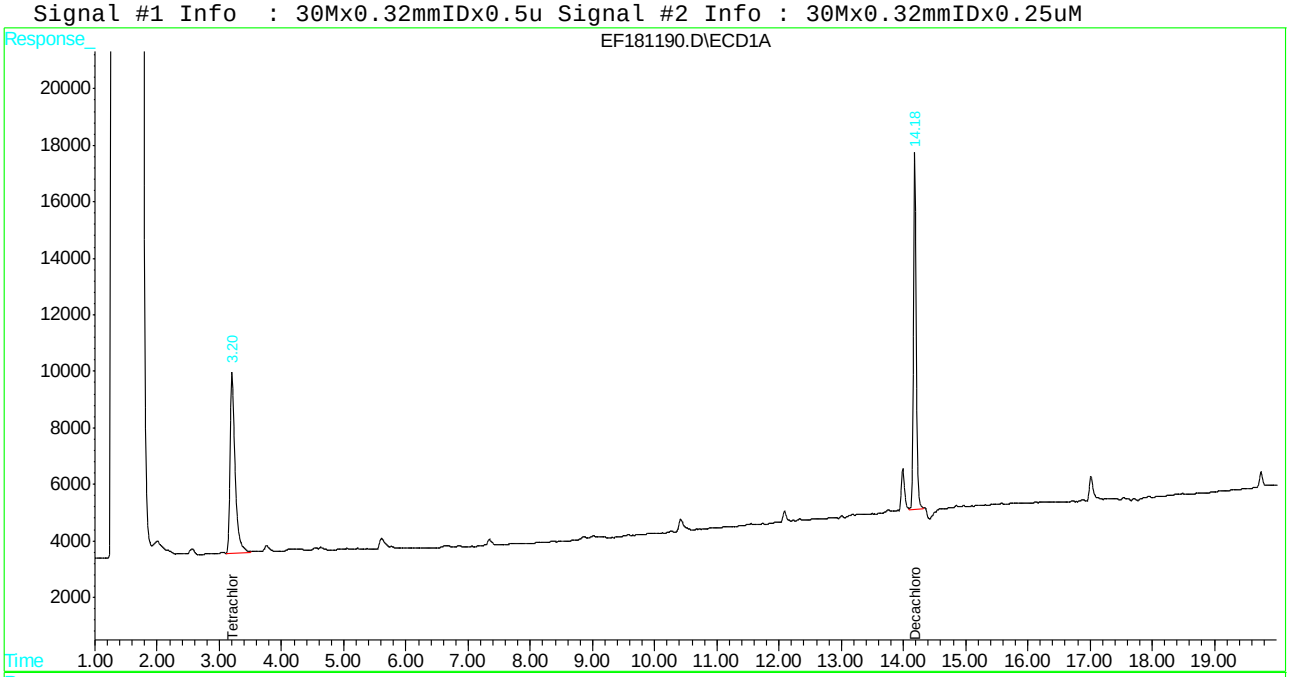
11.1.24
11

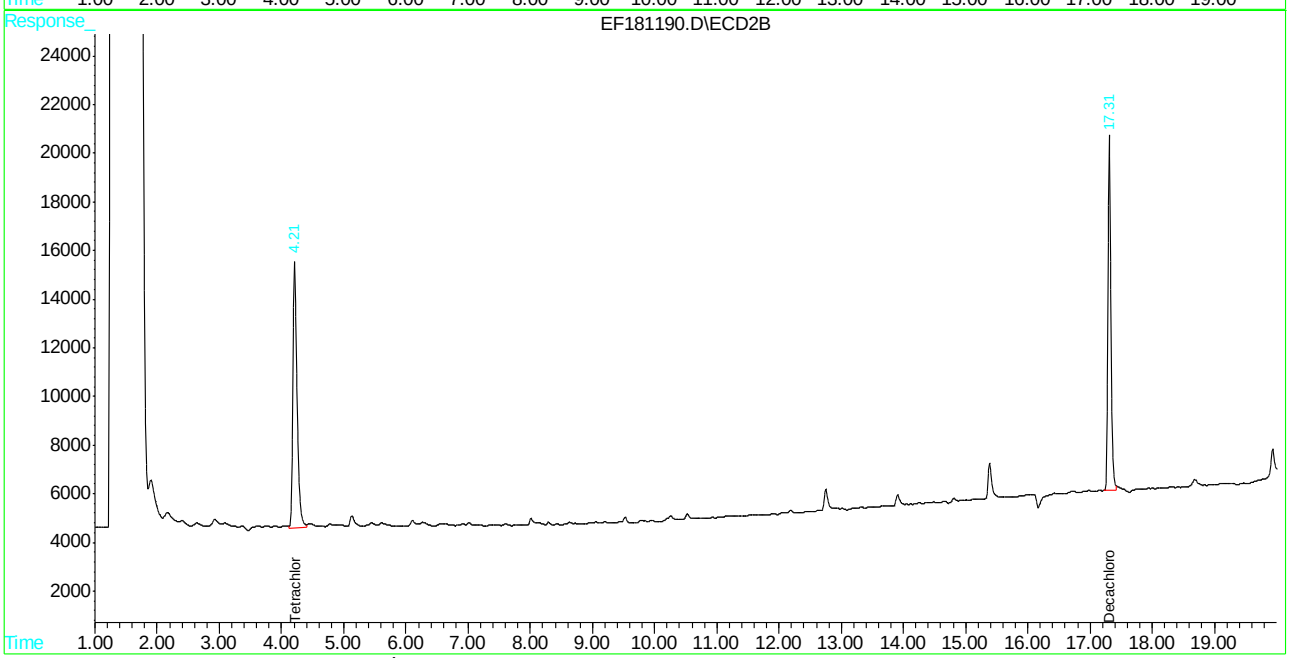
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181190.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181190.D\ECD2B.CH
Acq On : 27 Mar 2018 5:35 pm Operator: humarahb
Sample : jc62879-5 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:39 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

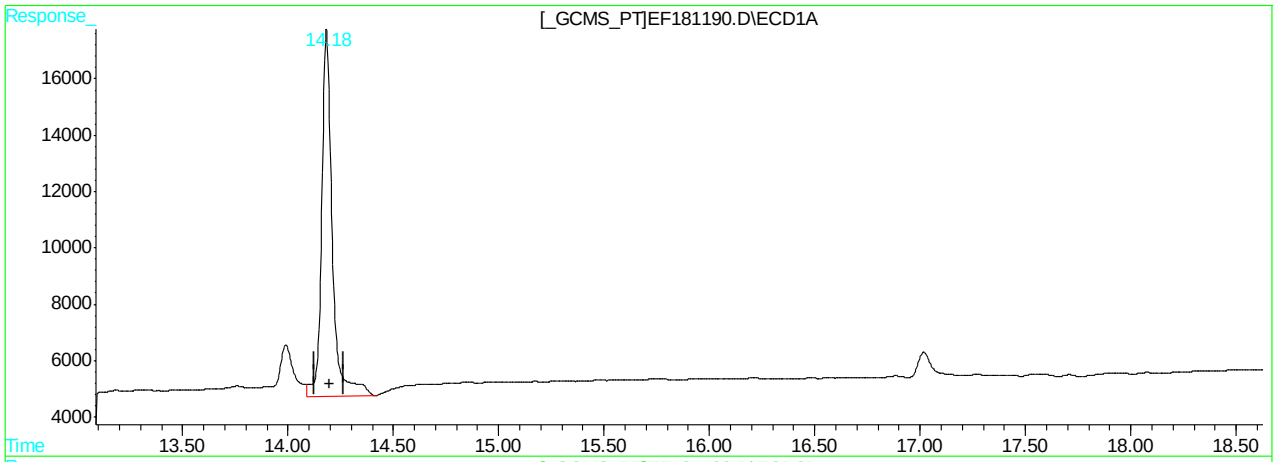
Sample Number:	JC62879-5	**Method:**	SW846 8082A
Lab FileID:	EF181190.D	**Analyst approved:**	03/28/18 09:27 Tianwei Ruan
Injection Time:	03/27/18 17:35	**Supervisor approved:**	03/28/18 16:47 Gwendolyn Burns

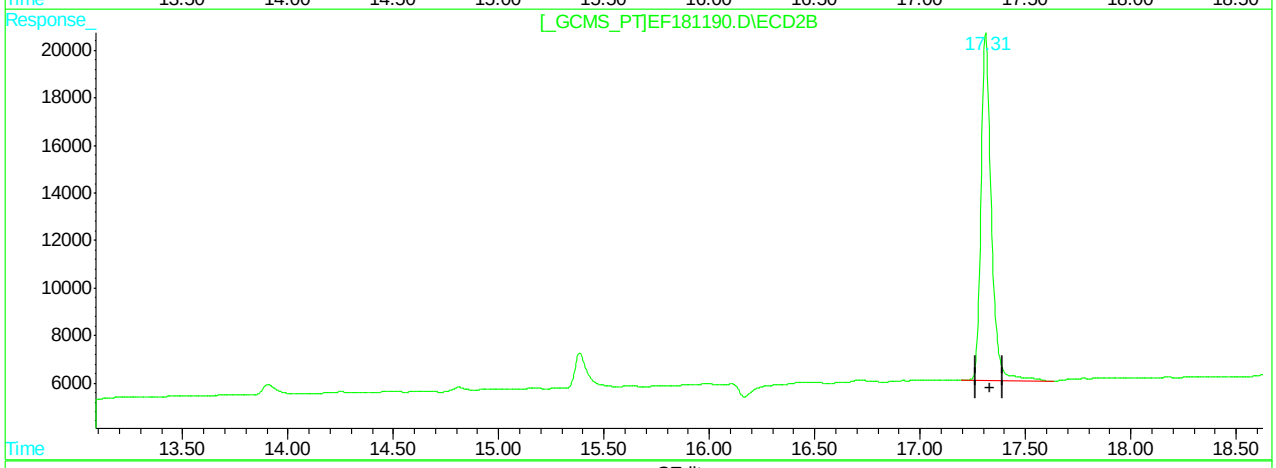
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.31	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181190.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181190.D\ECD2B.CH
Acq On : 27 Mar 2018 5:35 pm Operator: humarahb
Sample : jc62879-5 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:38 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 26.689PPB

response 456818

(51) Decachlorobiphenyl #2 (S)

17.31min 24.021PPB

response 504292

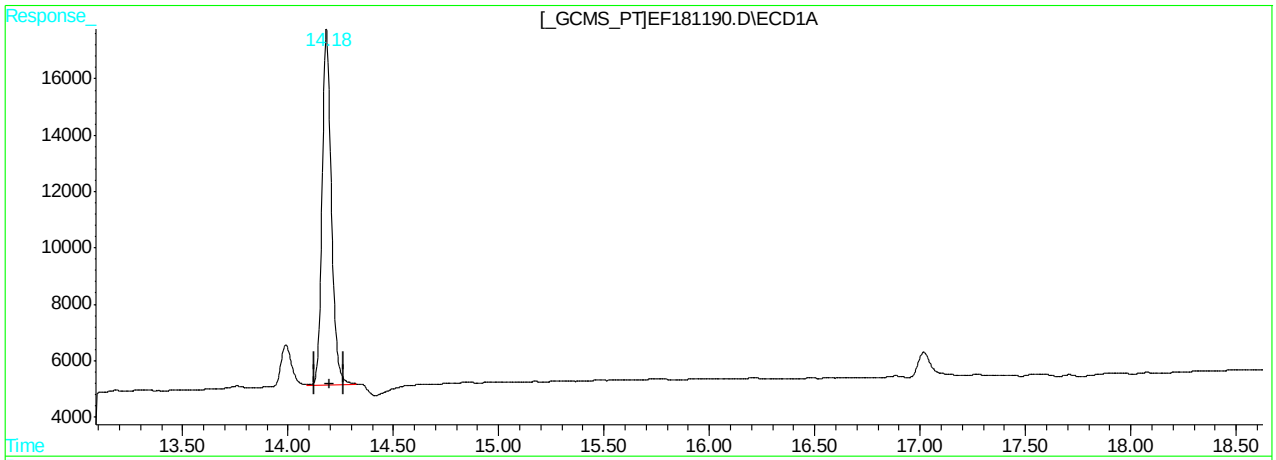
(+) = Expected Retention Time
EF181190.D PCB6195.M Wed Mar 28 08:38:44 2018 GCEF

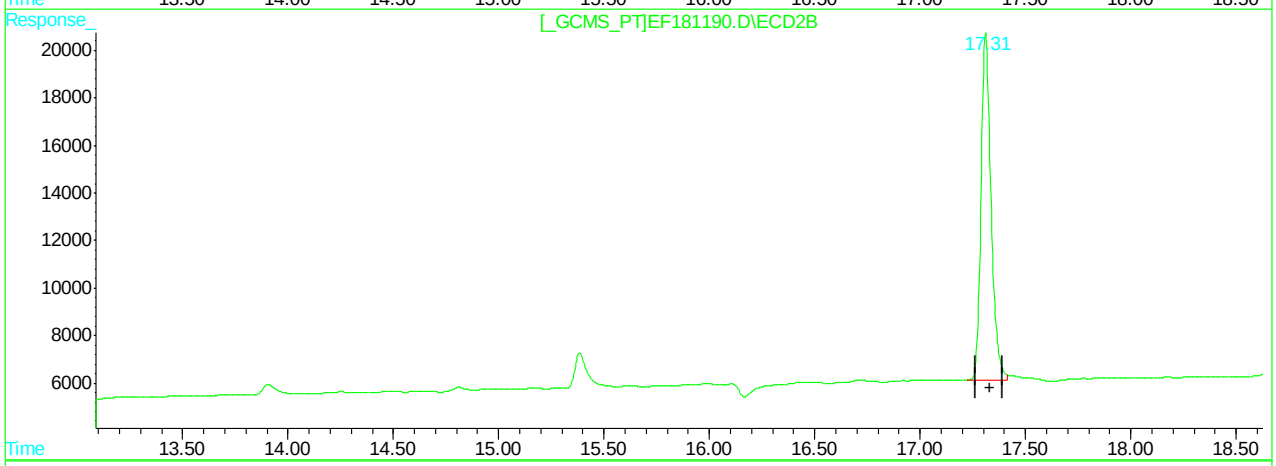
11.1.24.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181190.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181190.D\ECD2B.CH
Acq On : 27 Mar 2018 5:35 pm Operator: humarahb
Sample : jc62879-5 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:38 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 22.668PPB m

response 387988

(51) Decachlorobiphenyl #2 (S)

17.31min 23.053PPB m

response 483967

(+) = Expected Retention Time
EF181190.D PCB6195.M Wed Mar 28 08:38:57 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/28/18 16:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181191.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181191.D\ECD2B.CH
Acq On : 27 Mar 2018 6:00 pm Operator: humarahb
Sample : jc62879-6 Inst : gcef
Misc : op10875,GEF6202,295,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:42 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachloro-m-xy	3.21	4.21	314209	461346	27.178	29.632
Spiked Amount 40.000			Recovery	=	67.94%	74.08%
51) S Decachlorobiphen	14.18	17.31	468549	562387	27.375m	26.789
Spiked Amount 40.000			Recovery	=	68.44%	66.97%
Target Compounds						

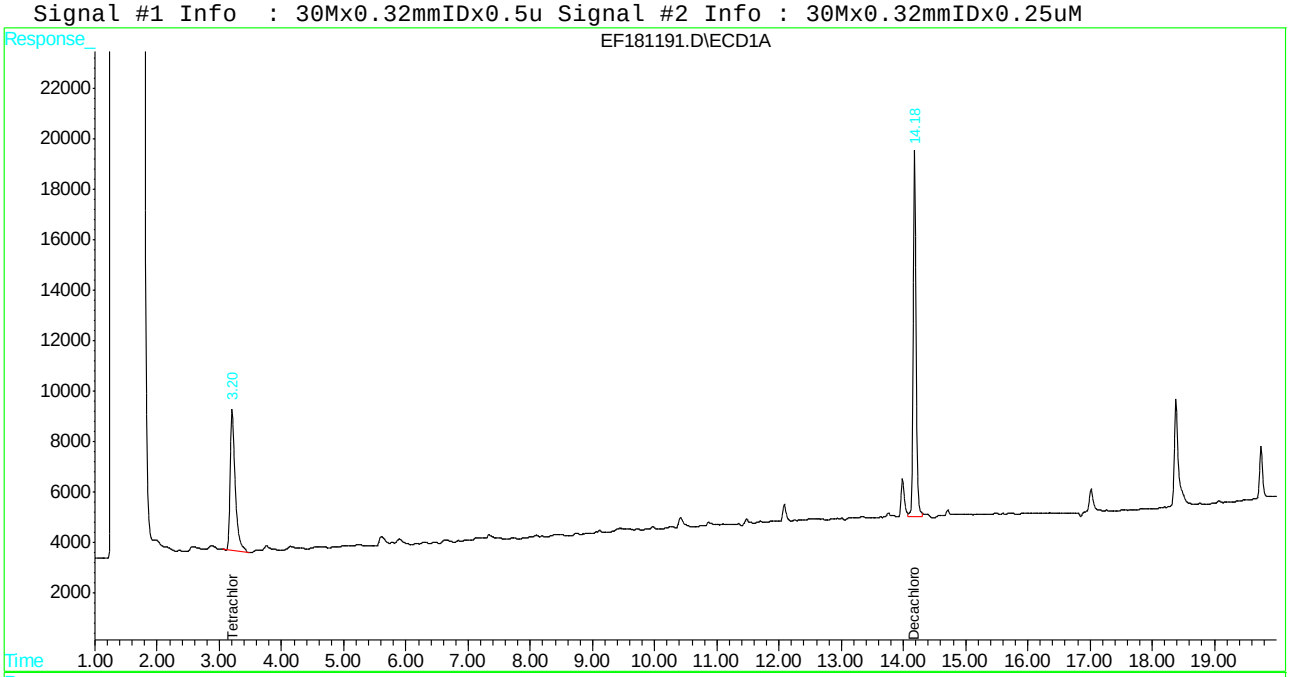
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181191.D PCB6195.M Wed Mar 28 08:42:20 2018 GCEF Page 1

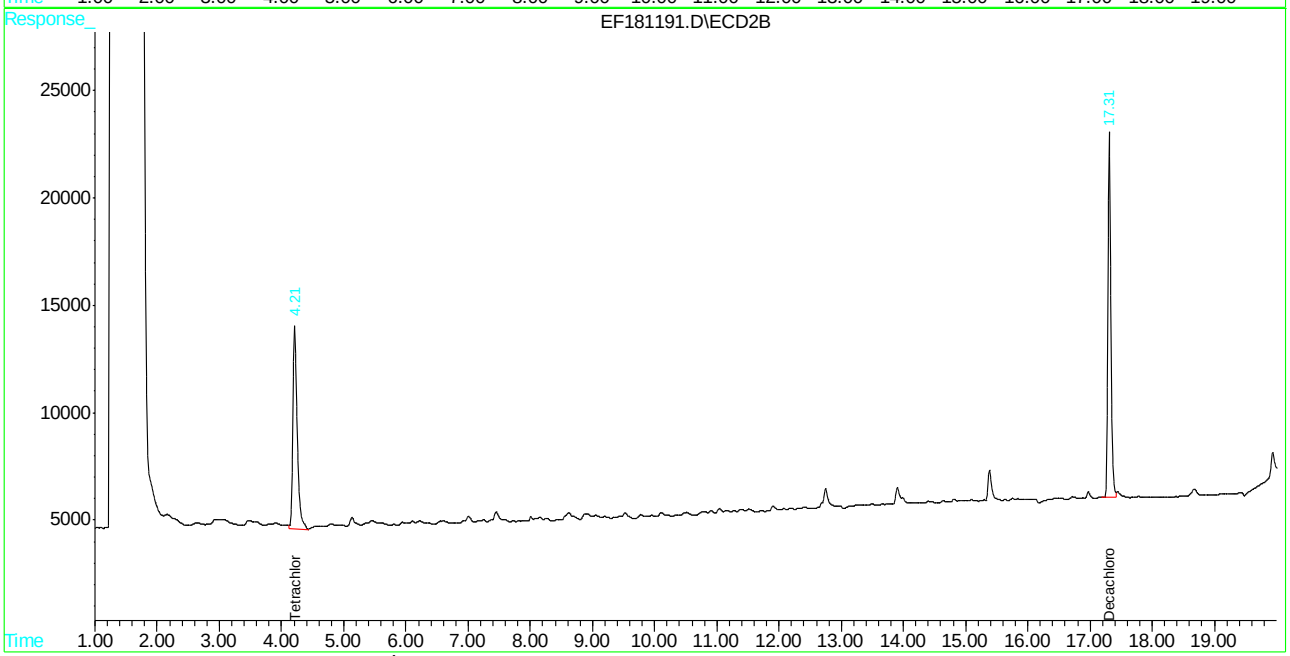
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181191.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181191.D\ECD2B.CH
Acq On : 27 Mar 2018 6:00 pm Operator: humarahb
Sample : jc62879-6 Inst : gcef
Misc : op10875,GEF6202,295,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:42 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

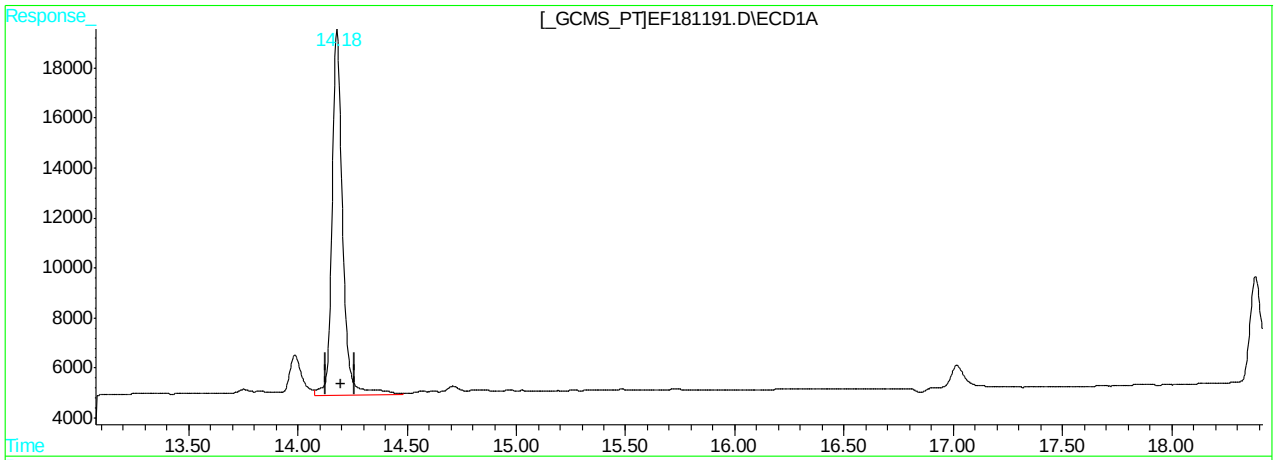
Sample Number:	JC62879-6	**Method:**	SW846 8082A
Lab FileID:	EF181191.D	**Analyst approved:**	03/28/18 09:27 Tianwei Ruan
Injection Time:	03/27/18 18:00	**Supervisor approved:**	03/28/18 16:47 Gwendolyn Burns

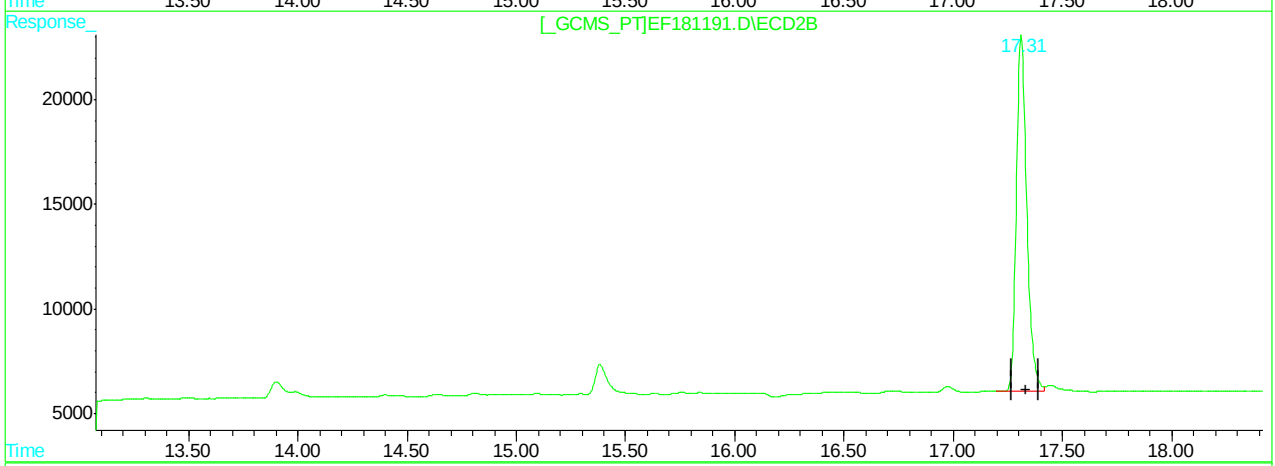
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181191.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181191.D\ECD2B.CH
Acq On : 27 Mar 2018 6:00 pm Operator: humarahb
Sample : jc62879-6 Inst : gcef
Misc : op10875,GEF6202,295,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:41 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 28.807PPB

response 493060

(51) Decachlorobiphenyl #2 (S)

17.31min 26.789PPB

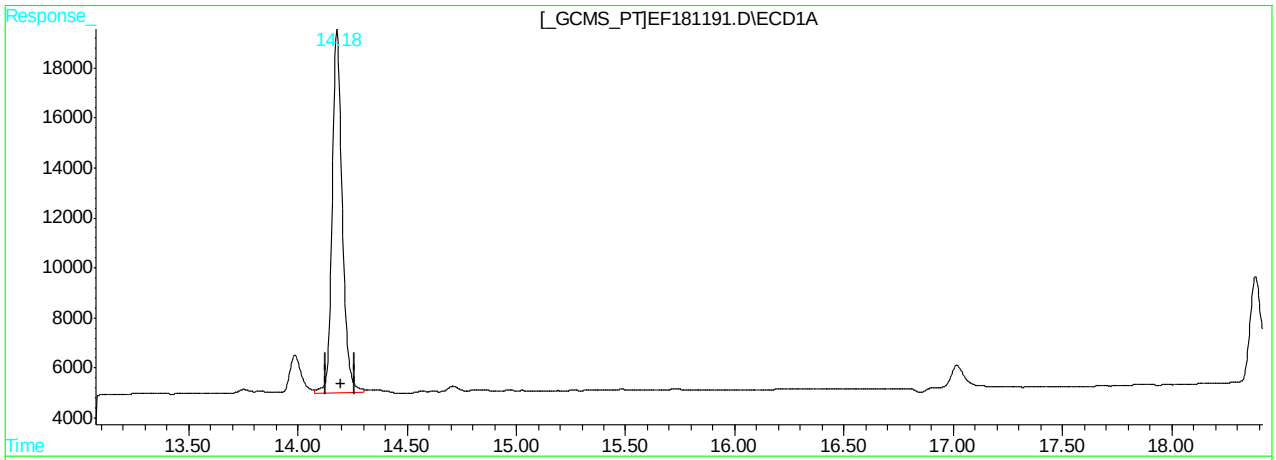
response 562387

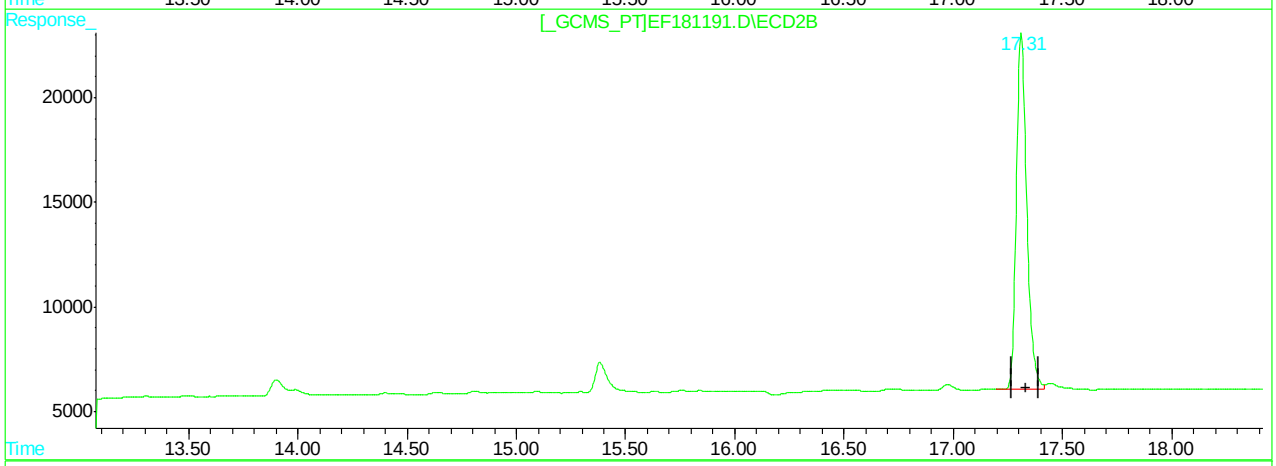
(+) = Expected Retention Time
EF181191.D PCB6195.M Wed Mar 28 08:42:00 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181191.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181191.D\ECD2B.CH
Acq On : 27 Mar 2018 6:00 pm Operator: humarahb
Sample : jc62879-6 Inst : gcef
Misc : op10875,GEF6202,295,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:41 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 27.375PPB m

response 468549

(51) Decachlorobiphenyl #2 (S)

17.31min 26.789PPB

response 562387

(+) = Expected Retention Time
EF181191.D PCB6195.M Wed Mar 28 08:42:12 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/28/18 16:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181192.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181192.D\ECD2B.CH
Acq On : 27 Mar 2018 6:25 pm Operator: humarahb
Sample : jc62879-7 Inst : gcef
Misc : op10875,GEF6202,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:43 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachloro-m-xy	3.21	4.21	352378	515587	30.480	33.116
Spiked Amount 40.000			Recovery =		76.20%	82.79%
51) S Decachlorobiphen	14.18	17.31	469275	531712	27.417m	25.328m
Spiked Amount 40.000			Recovery =		68.54%	63.32%
Target Compounds						

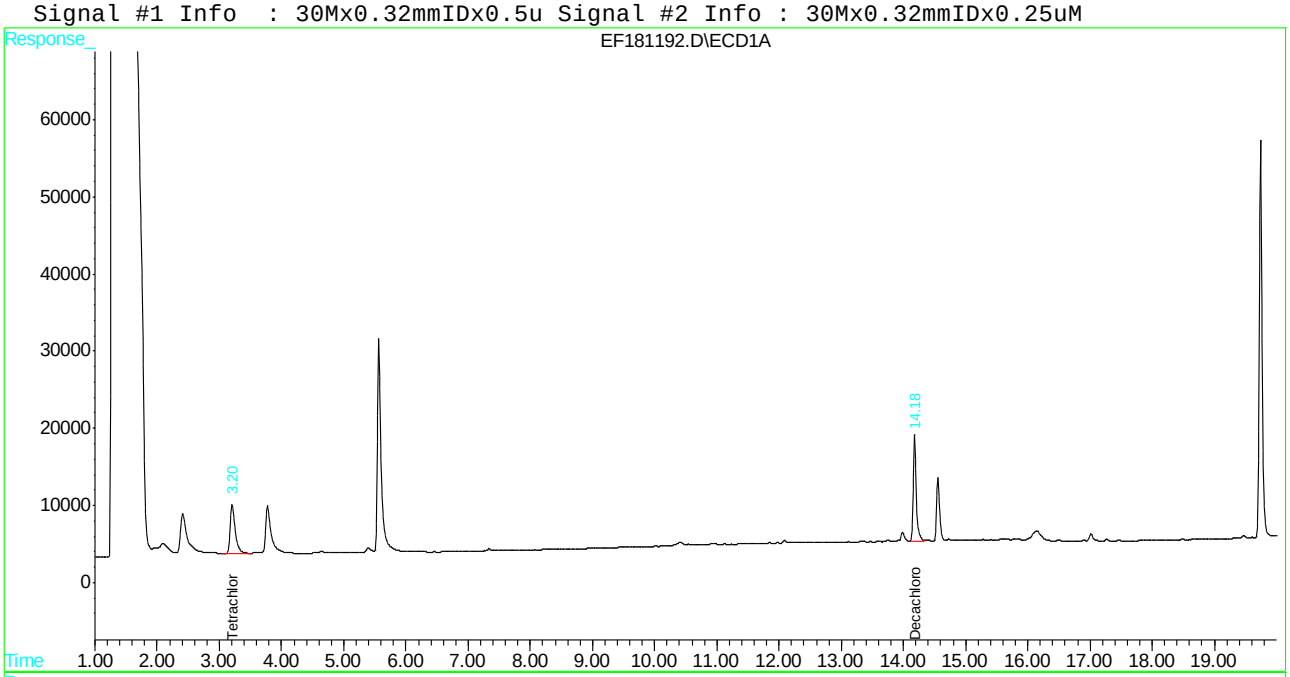
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181192.D PCB6195.M Wed Mar 28 08:43:20 2018 GCEF Page 1

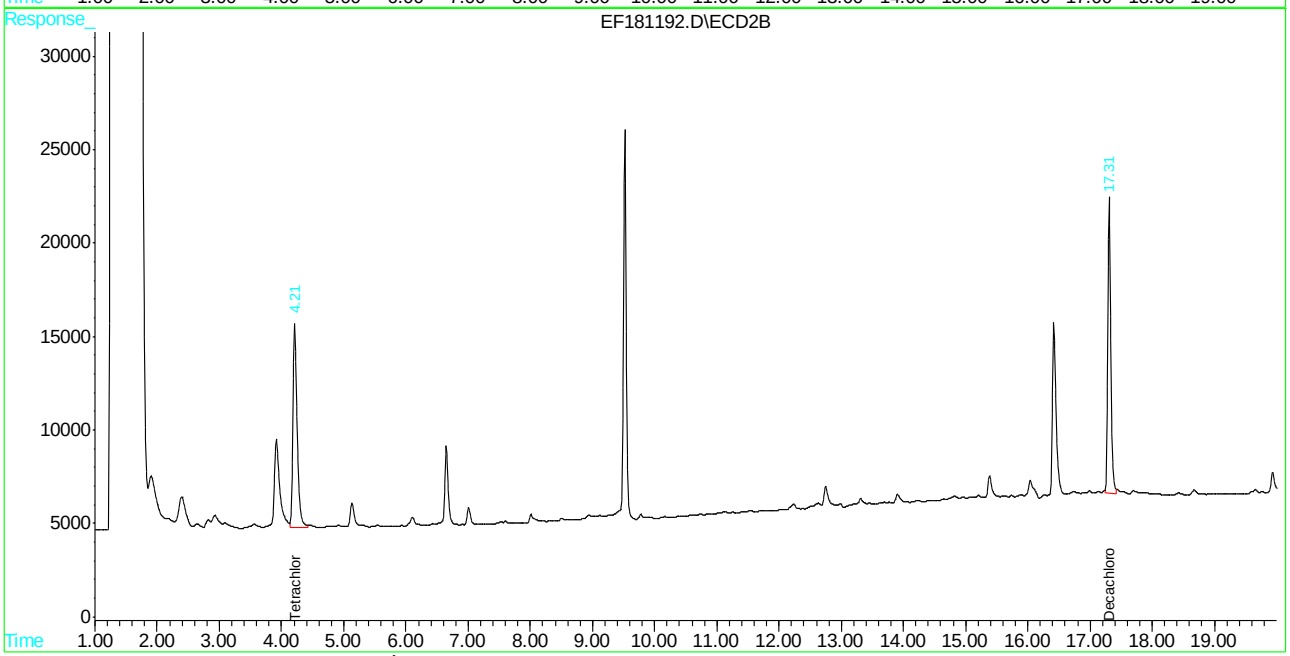
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181192.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181192.D\ECD2B.CH
Acq On : 27 Mar 2018 6:25 pm Operator: humarahb
Sample : jc62879-7 Inst : gcef
Misc : op10875,GEF6202,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:43 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

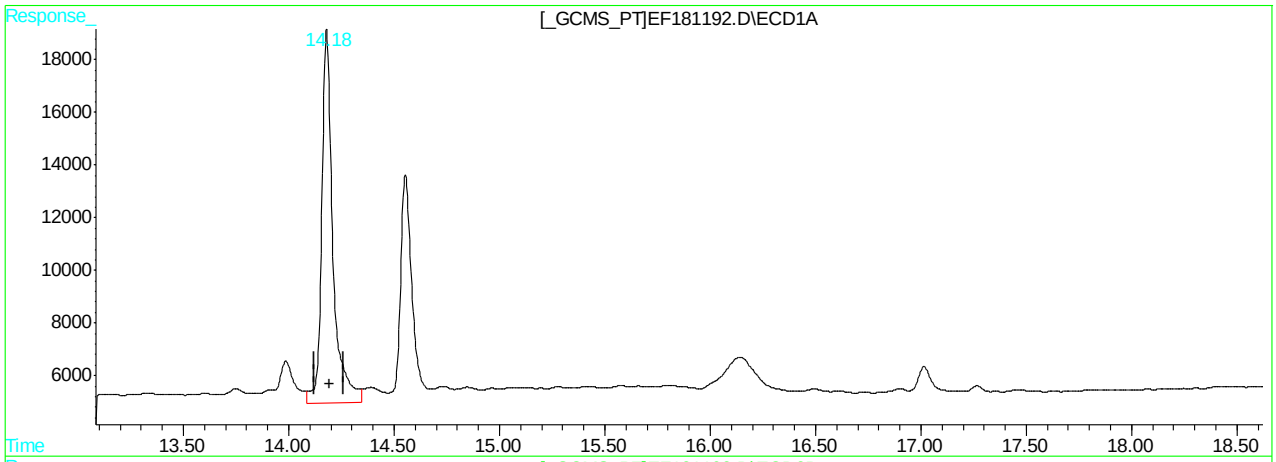
Sample Number: JC62879-7
Lab FileID: EF181192.D
Injection Time: 03/27/18 18:25
Method: SW846 8082A
Analyst approved: 03/28/18 09:27 Tianwei Ruan
Supervisor approved: 03/28/18 16:47 Gwendolyn Burns

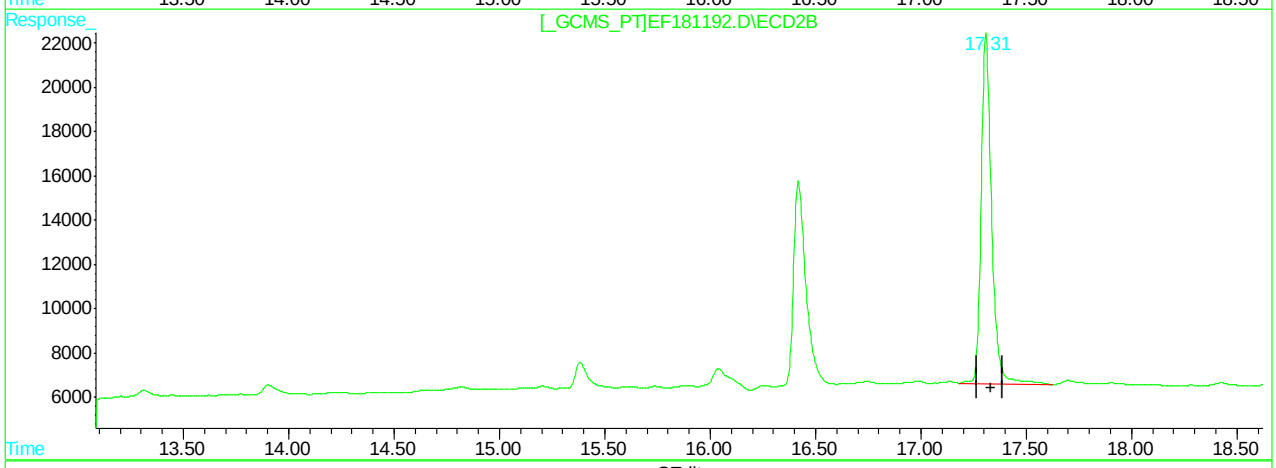
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.31	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181192.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181192.D\ECD2B.CH
Acq On : 27 Mar 2018 6:25 pm Operator: humarahb
Sample : jc62879-7 Inst : gcef
Misc : op10875,GEF6202,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 30.920PPB

response 529232

(51) Decachlorobiphenyl #2 (S)

17.31min 26.114PPB

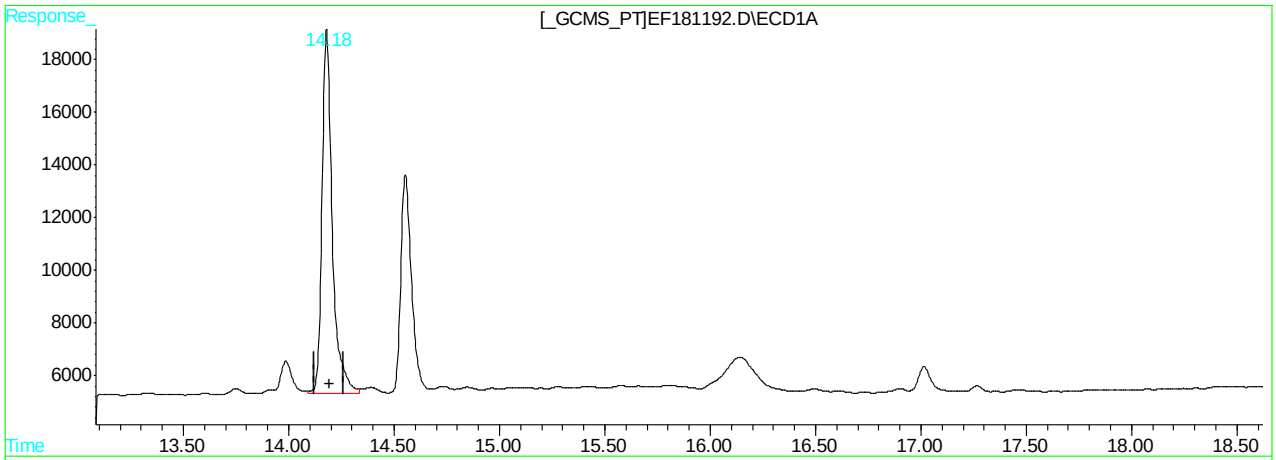
response 548224

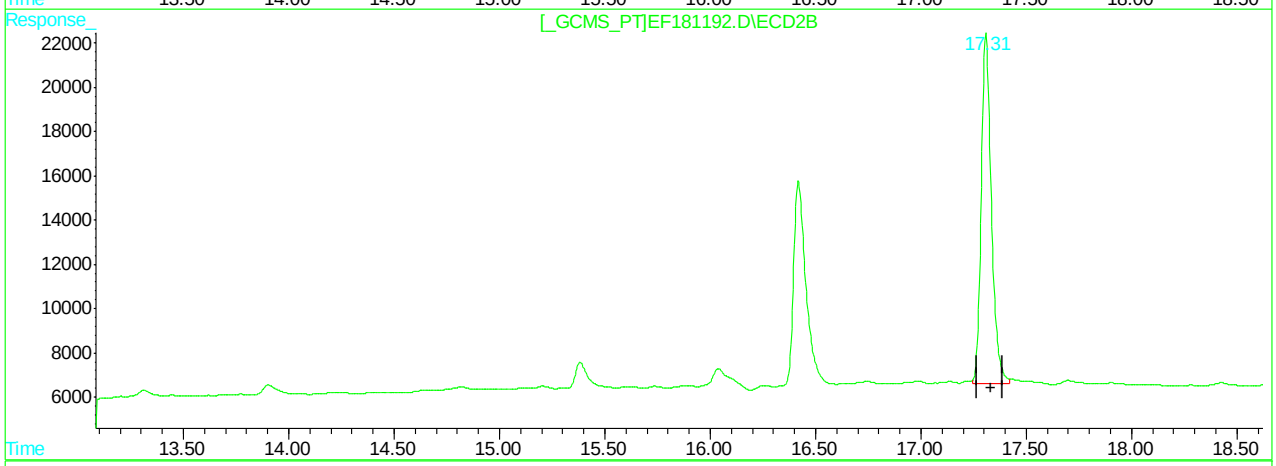
(+) = Expected Retention Time
EF181192.D PCB6195.M Wed Mar 28 08:42:58 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181192.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181192.D\ECD2B.CH
Acq On : 27 Mar 2018 6:25 pm Operator: humarahb
Sample : jc62879-7 Inst : gcef
Misc : op10875,GEF6202,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 27.417PPB m

response 469275

(51) Decachlorobiphenyl #2 (S)

17.31min 25.328PPB m

response 531712

(+) = Expected Retention Time
EF181192.D PCB6195.M Wed Mar 28 08:43:13 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181224.D\ECD1A.CH Vial: 44
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181224.D\ECD2B.CH
Acq On : 28 Mar 2018 8:19 pm Operator: humarahb
Sample : jc62879-8 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:49 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachloro-m-xy	3.22	4.22	388128	556234	33.572	35.727
Spiked Amount 40.000			Recovery	=	83.93%	89.32%
51) S Decachlorobiphen	14.20	17.33	549536	685132	32.106m	32.635
Spiked Amount 40.000			Recovery	=	80.27%	81.59%
Target Compounds						

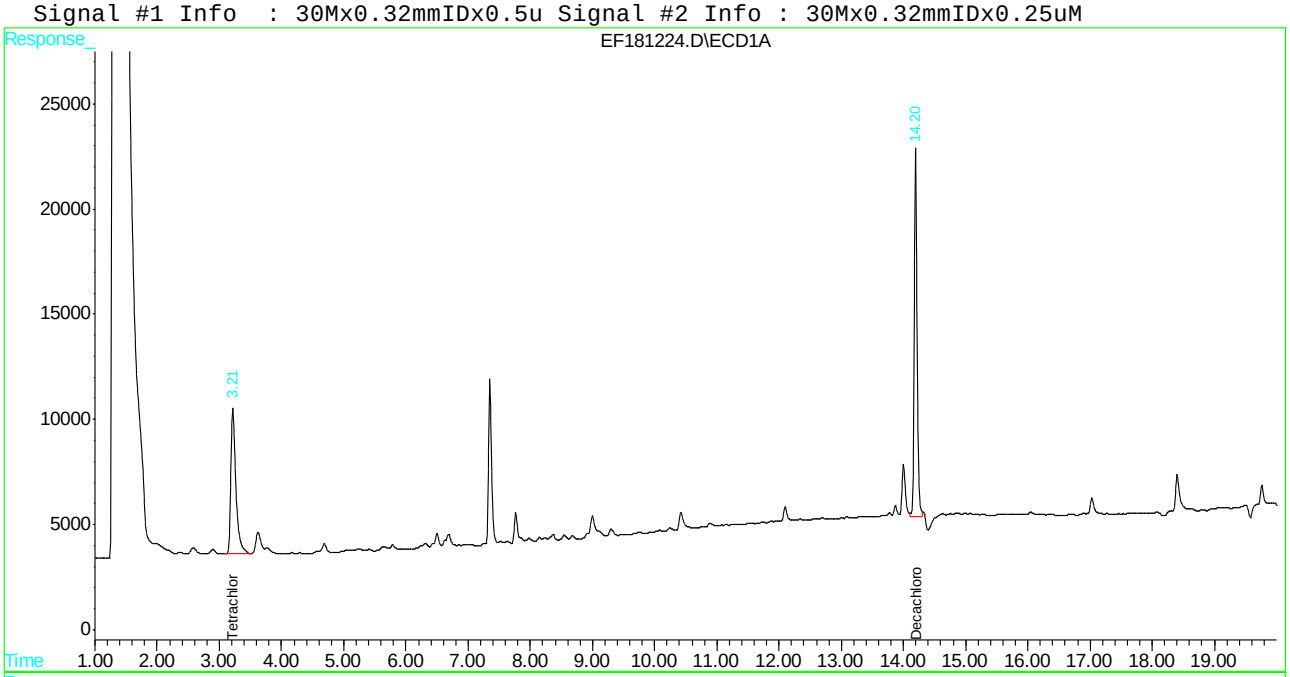
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181224.D PCB6195.M Thu Mar 29 09:50:03 2018 GCEF Page 1

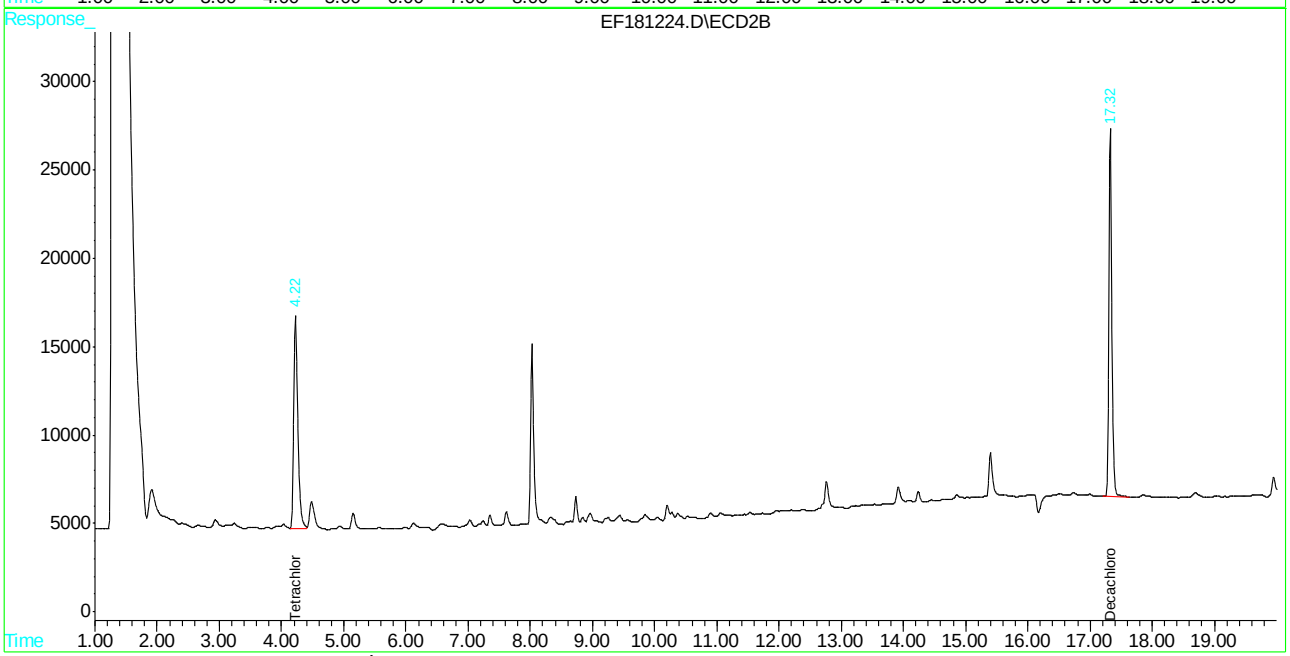
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181224.D\ECD1A.CH Vial: 44
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181224.D\ECD2B.CH
Acq On : 28 Mar 2018 8:19 pm Operator: humarahb
Sample : jc62879-8 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:49 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

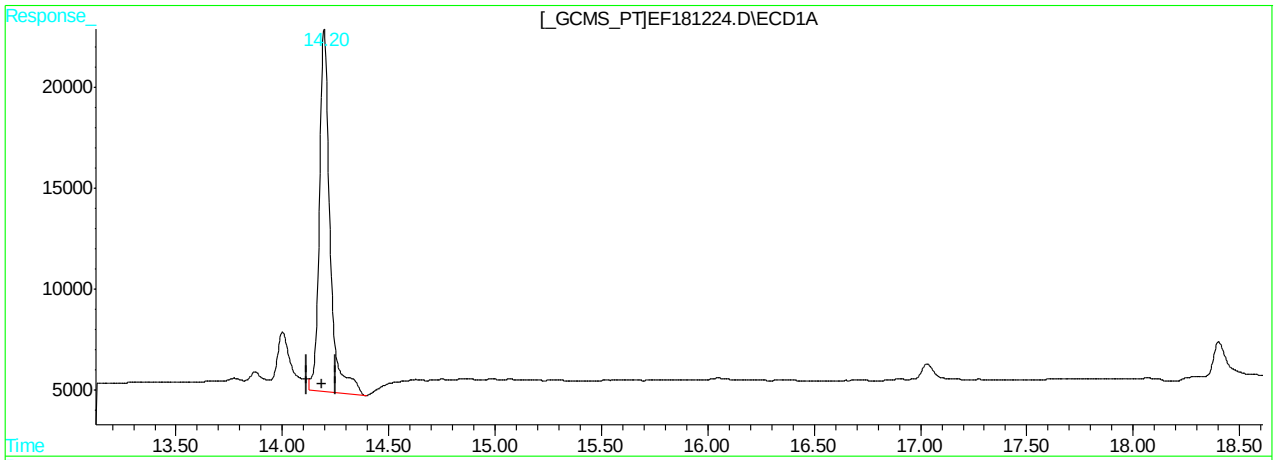
Sample Number:	JC62879-8	**Method:**	SW846 8082A
Lab FileID:	EF181224.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/28/18 20:19	**Supervisor approved:**	03/29/18 17:48 Gwendolyn Burns

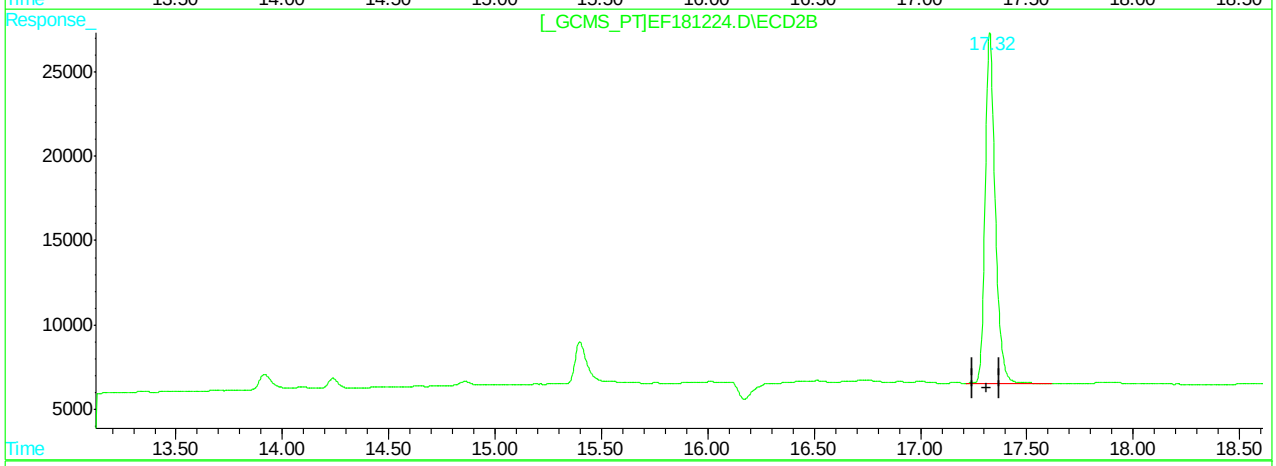
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	14.20	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181224.D\ECD1A.CH Vial: 44
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181224.D\ECD2B.CH
Acq On : 28 Mar 2018 8:19 pm Operator: humarahb
Sample : jc62879-8 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:48 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 36.624PPB

response 626865

(51) Decachlorobiphenyl #2 (S)

17.33min 32.635PPB

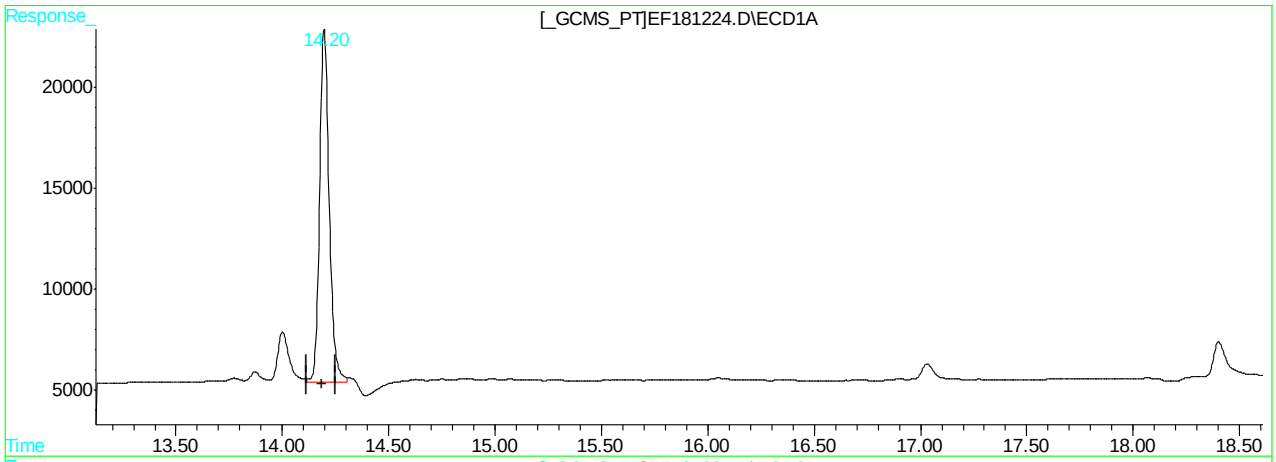
response 685132

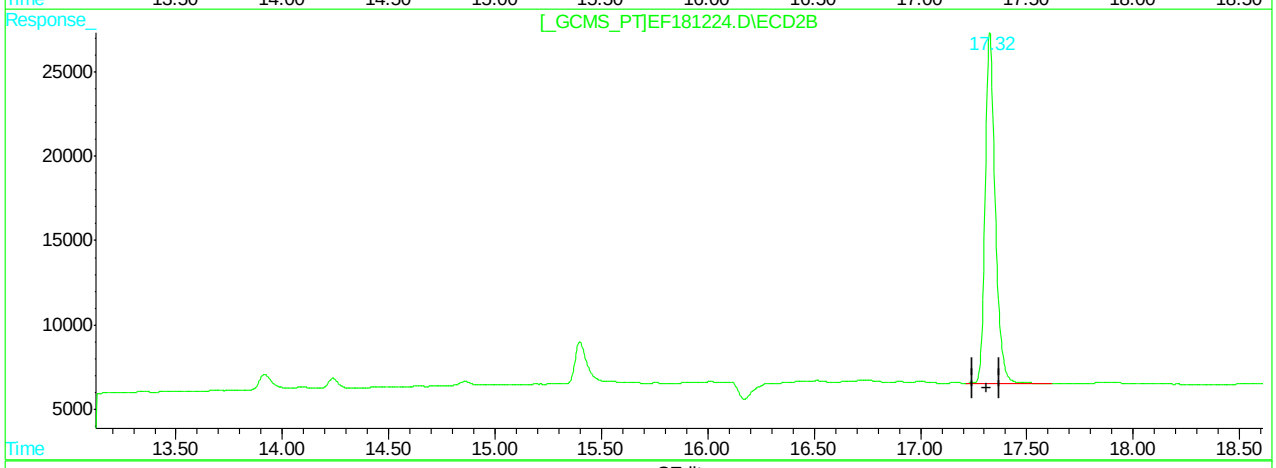
(+) = Expected Retention Time
EF181224.D PCB6195.M Thu Mar 29 09:49:52 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181224.D\ECD1A.CH Vial: 44
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181224.D\ECD2B.CH
Acq On : 28 Mar 2018 8:19 pm Operator: humarahb
Sample : jc62879-8 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:48 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 32.106PPB m

response 549536

(51) Decachlorobiphenyl #2 (S)

17.33min 32.635PPB

response 685132

(+) = Expected Retention Time
EF181224.D PCB6195.M Thu Mar 29 09:49:57 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181220.D\ECD1A.CH Vial: 40
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181220.D\ECD2B.CH
Acq On : 28 Mar 2018 6:39 pm Operator: humarahb
Sample : jc62879-9 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:38 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachloro-m-xy	3.21	4.22	248742	329395	21.516m	21.157m
Spiked Amount 40.000			Recovery =		53.79%	52.89%
51) S Decachlorobiphen	14.20	17.33	200793	238975	11.731	11.383
Spiked Amount 40.000			Recovery =		29.33%	28.46%
Target Compounds						

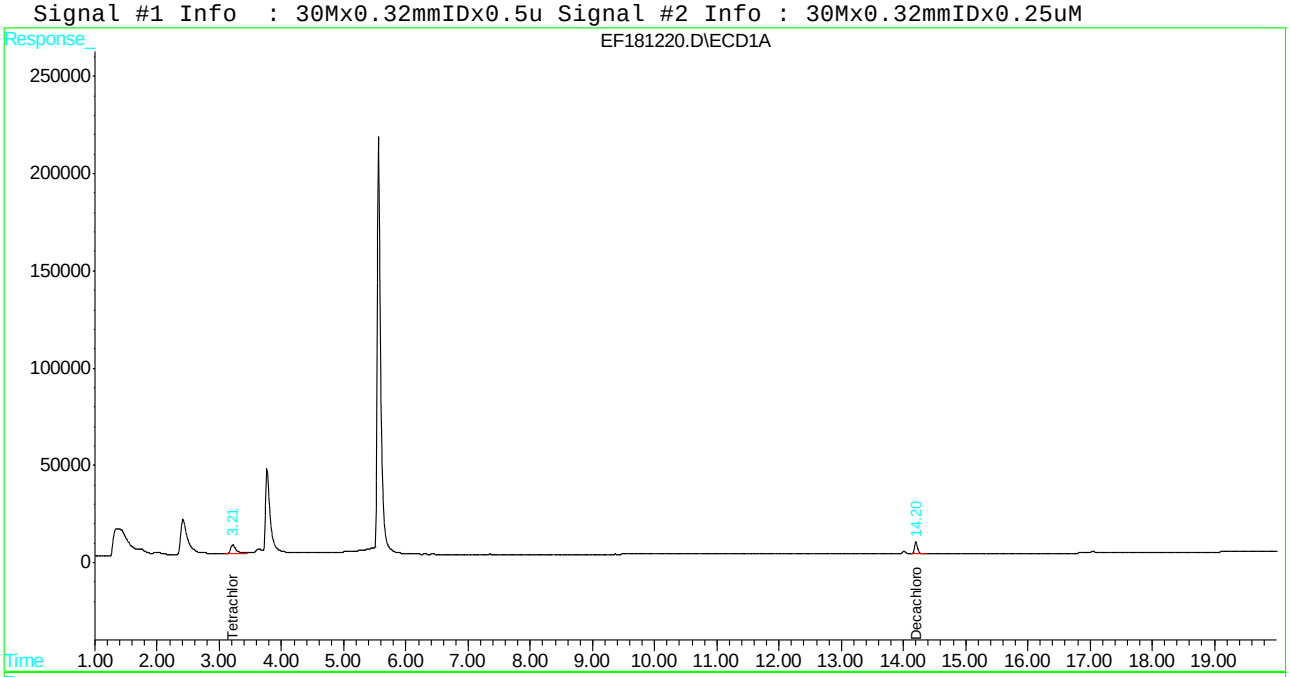
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181220.D PCB6195.M Thu Mar 29 09:38:59 2018 GCEF Page 1

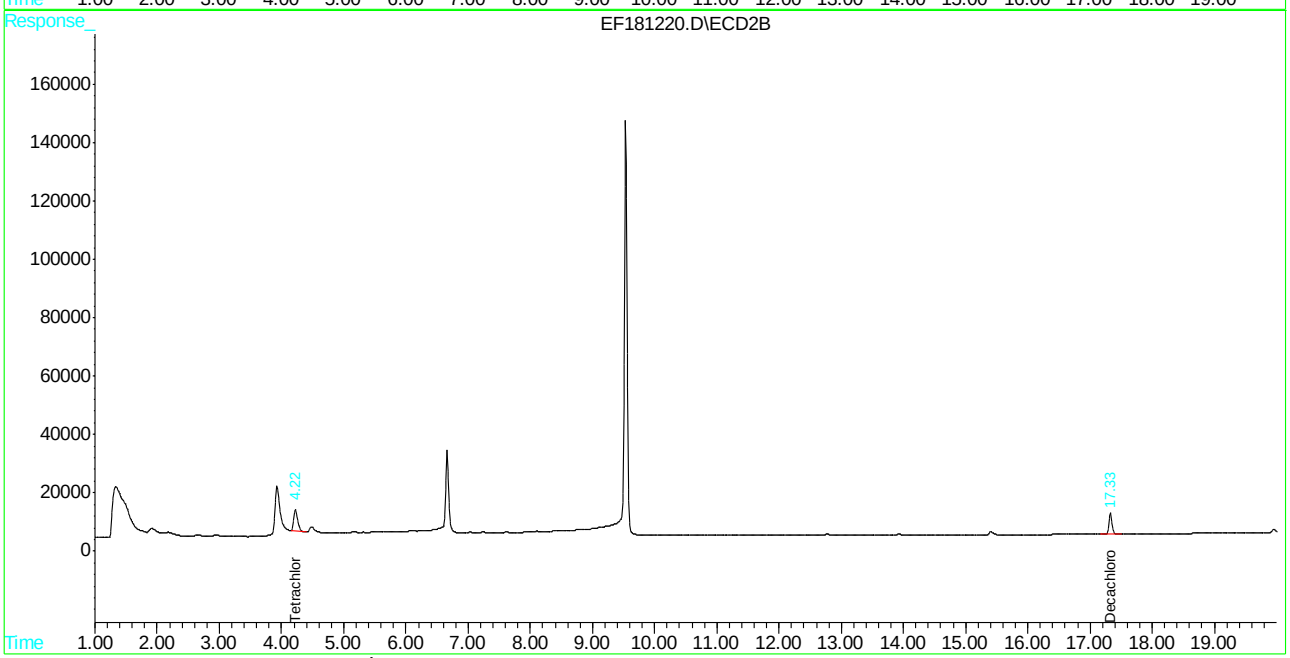
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181220.D\ECD1A.CH Vial: 40
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181220.D\ECD2B.CH
Acq On : 28 Mar 2018 6:39 pm Operator: humarahb
Sample : jc62879-9 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:38 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

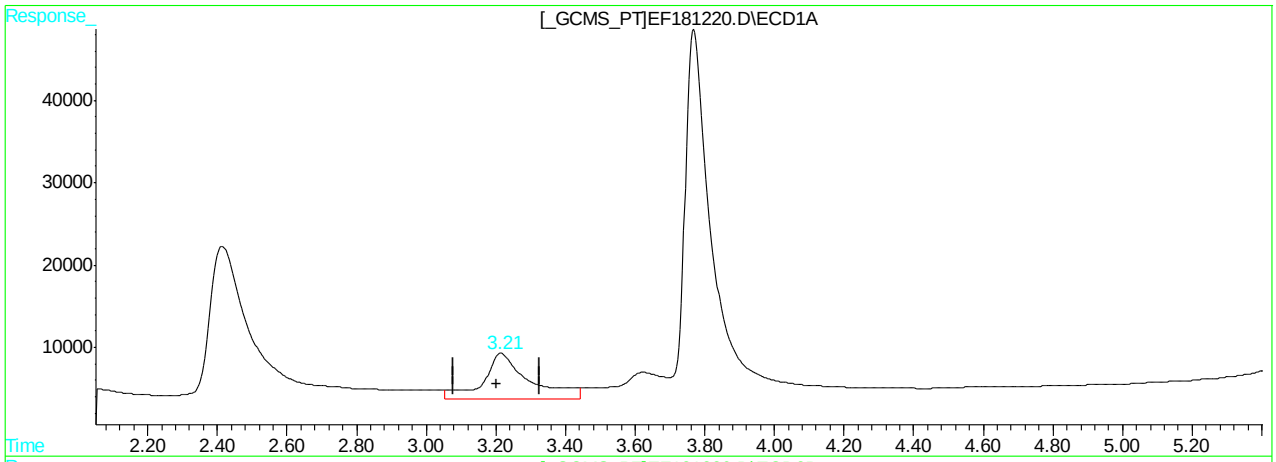
Sample Number:	JC62879-9	**Method:**	SW846 8082A
Lab FileID:	EF181220.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/28/18 18:39	**Supervisor approved:**	03/29/18 17:48 Gwendolyn Burns

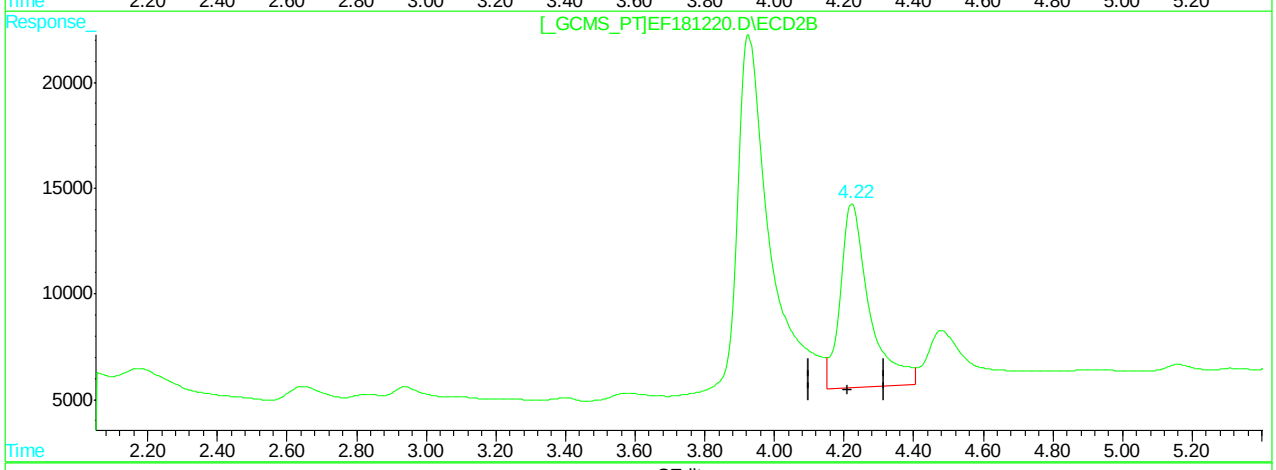
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.21	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	4.22	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181220.D\ECD1A.CH Vial: 40
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181220.D\ECD2B.CH
Acq On : 28 Mar 2018 6:39 pm Operator: humarahb
Sample : jc62879-9 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:38 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.22min 45.251PPB

response 523147

(1) Tetrachloro-m-xylene #2 (S)

4.22min 32.043PPB

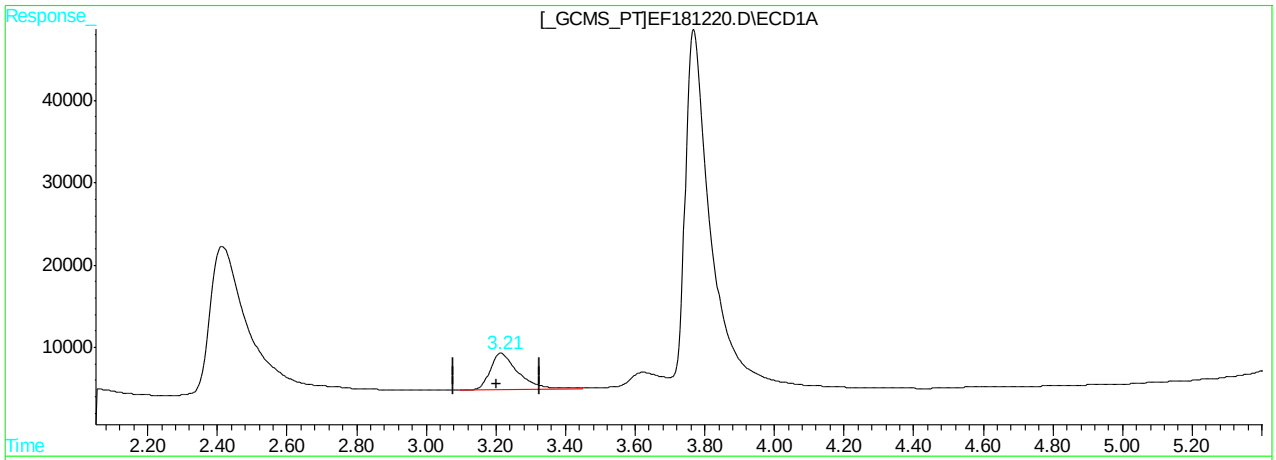
response 498878

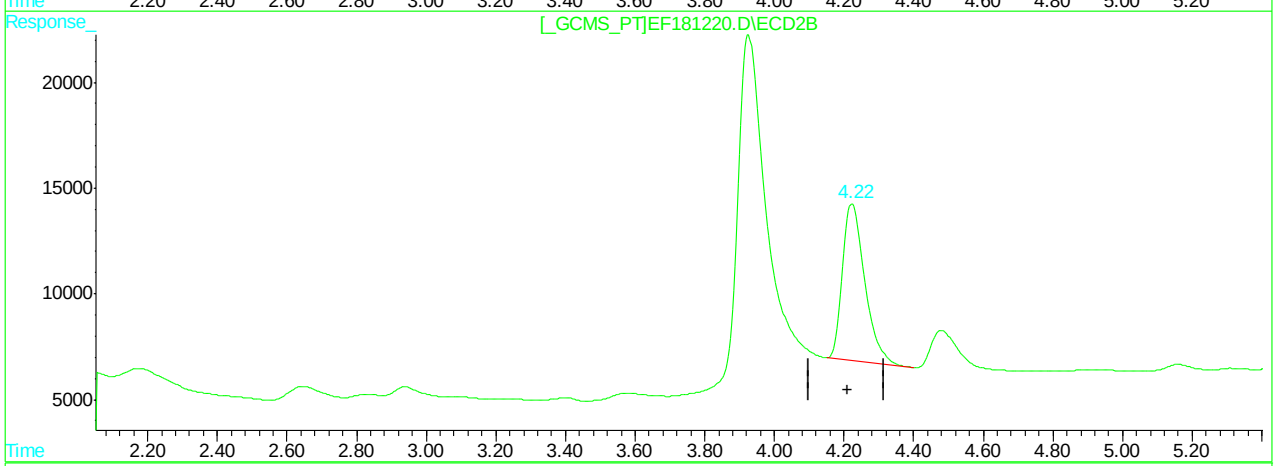
(+) = Expected Retention Time
EF181220.D PCB6195.M Thu Mar 29 09:38:42 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181220.D\ECD1A.CH Vial: 40
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181220.D\ECD2B.CH
Acq On : 28 Mar 2018 6:39 pm Operator: humarahb
Sample : jc62879-9 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:38 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 21.516PPB m

response 248742

(1) Tetrachloro-m-xylene #2 (S)

4.22min 21.157PPB m

response 329395

(+) = Expected Retention Time
EF181220.D PCB6195.M Thu Mar 29 09:38:50 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD1A.CH Vial: 46
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD2B.CH
Acq On : 28 Mar 2018 10:24 pm Operator: humarahb
Sample : jc62879-10 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:51 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.21	4.22	352594	494742	30.499m	31.778
	Spiked Amount 40.000			Recovery	=	76.25%	79.44%
51)	S Decachlorobiphen	14.19	17.32	497556	614769	29.069m	29.284
	Spiked Amount 40.000			Recovery	=	72.67%	73.21%
	Target Compounds						

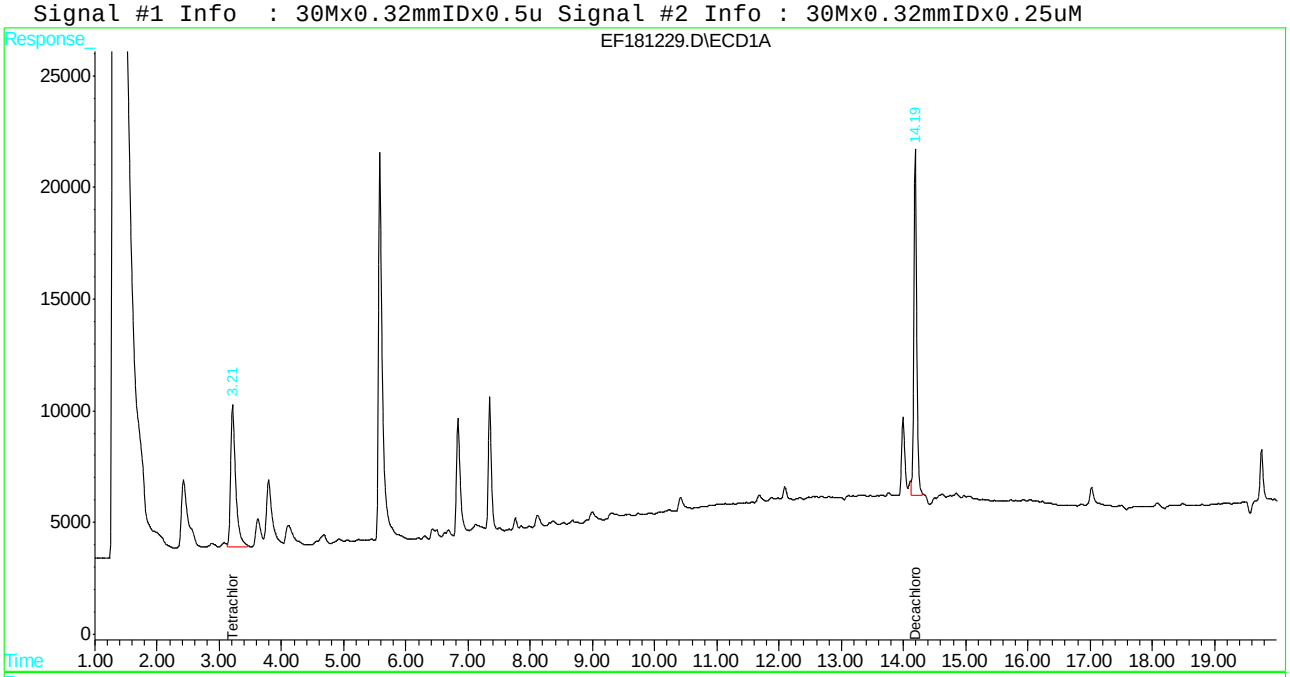
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181229.D PCB6195.M Thu Mar 29 09:51:21 2018 GCEF Page 1

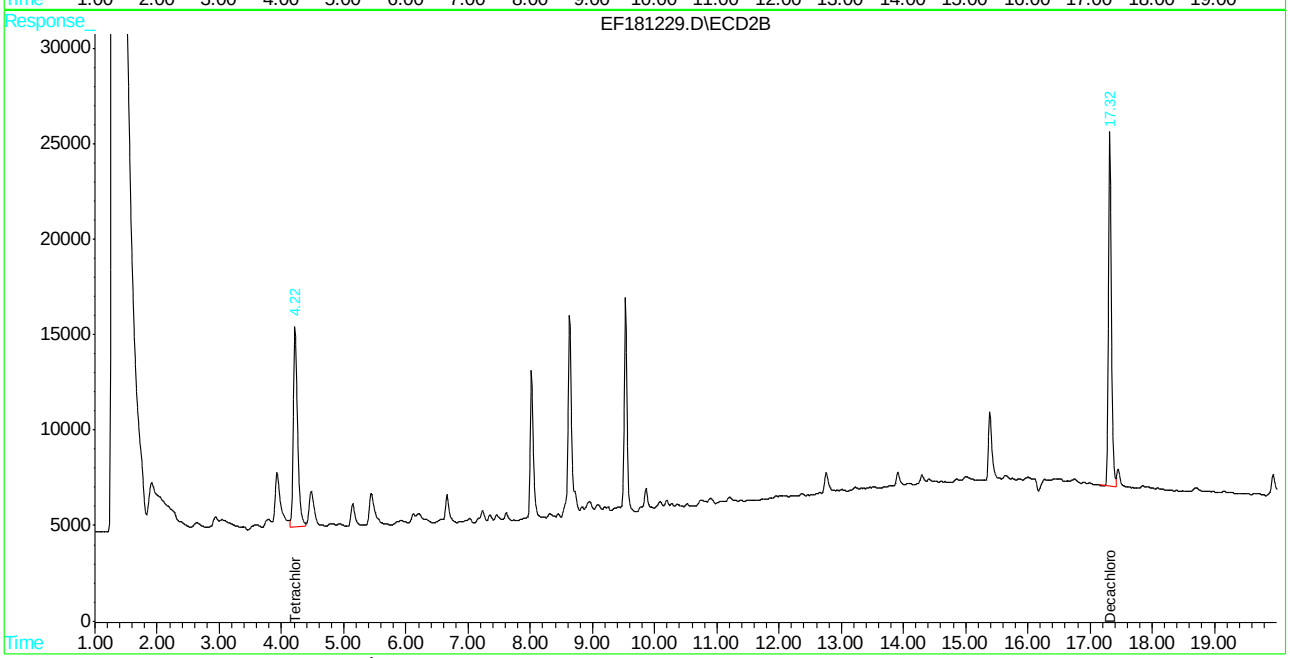
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD1A.CH Vial: 46
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD2B.CH
Acq On : 28 Mar 2018 10:24 pm Operator: humarahb
Sample : jc62879-10 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:51 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

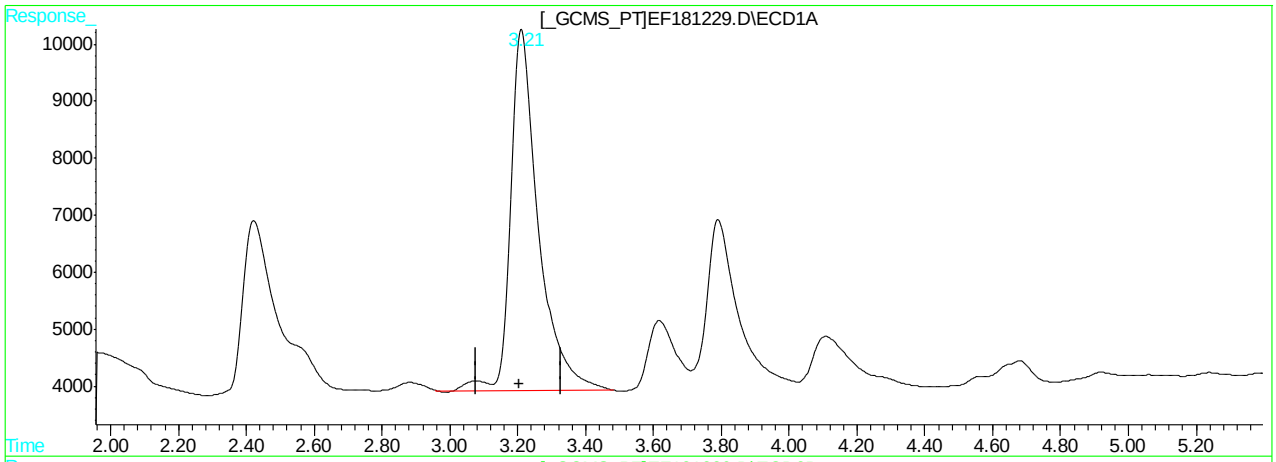
Sample Number:	JC62879-10	**Method:**	SW846 8082A
Lab FileID:	EF181229.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/28/18 22:24	**Supervisor approved:**	03/29/18 17:48 Gwendolyn Burns

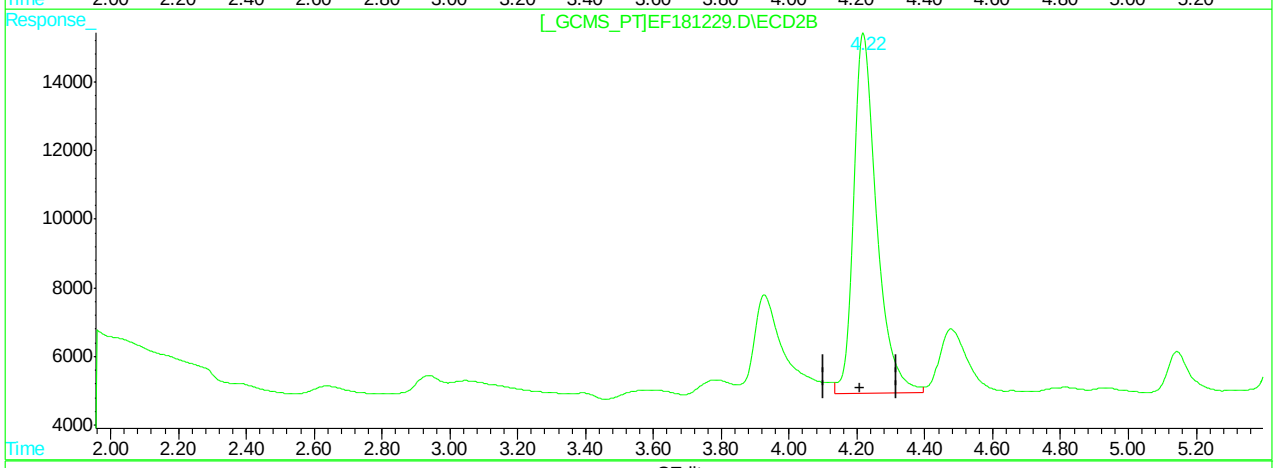
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.21	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD1A.CH Vial: 46
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD2B.CH
Acq On : 28 Mar 2018 10:24 pm Operator: humarahb
Sample : jc62879-10 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:50 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 31.229PPB

response 361035

(1) Tetrachloro-m-xylene #2 (S)

4.22min 31.778PPB

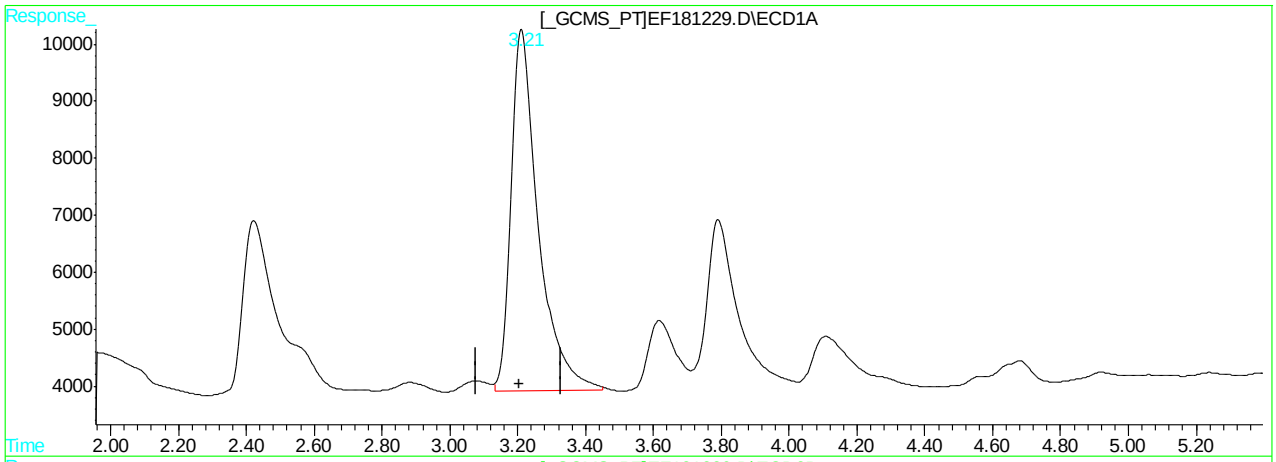
response 494742

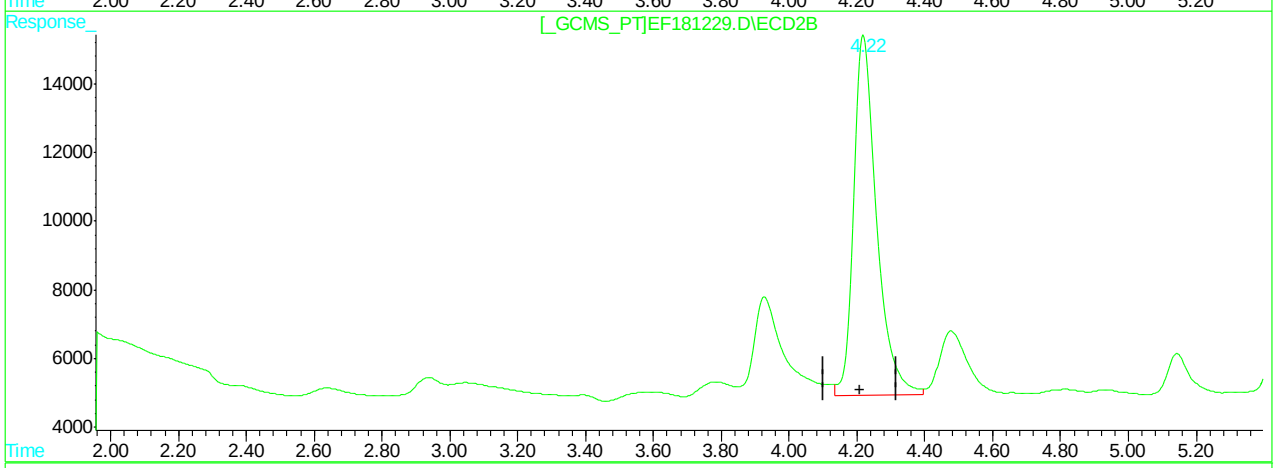
(+) = Expected Retention Time
EF181229.D PCB6195.M Thu Mar 29 09:50:48 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD1A.CH Vial: 46
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD2B.CH
Acq On : 28 Mar 2018 10:24 pm Operator: humarahb
Sample : jc62879-10 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:50 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 30.499PPB m

response 352594

(1) Tetrachloro-m-xylene #2 (S)

4.22min 31.778PPB

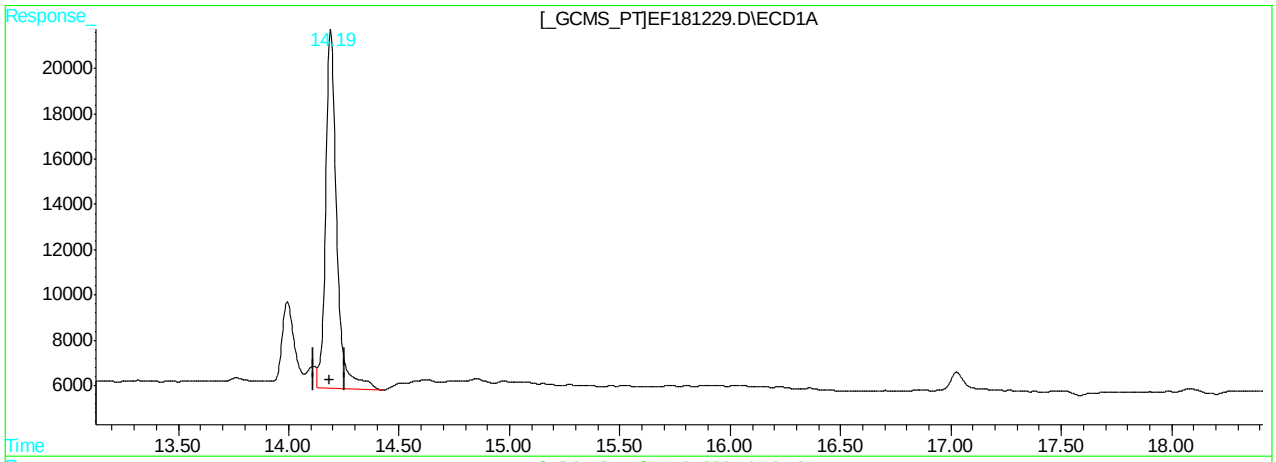
response 494742

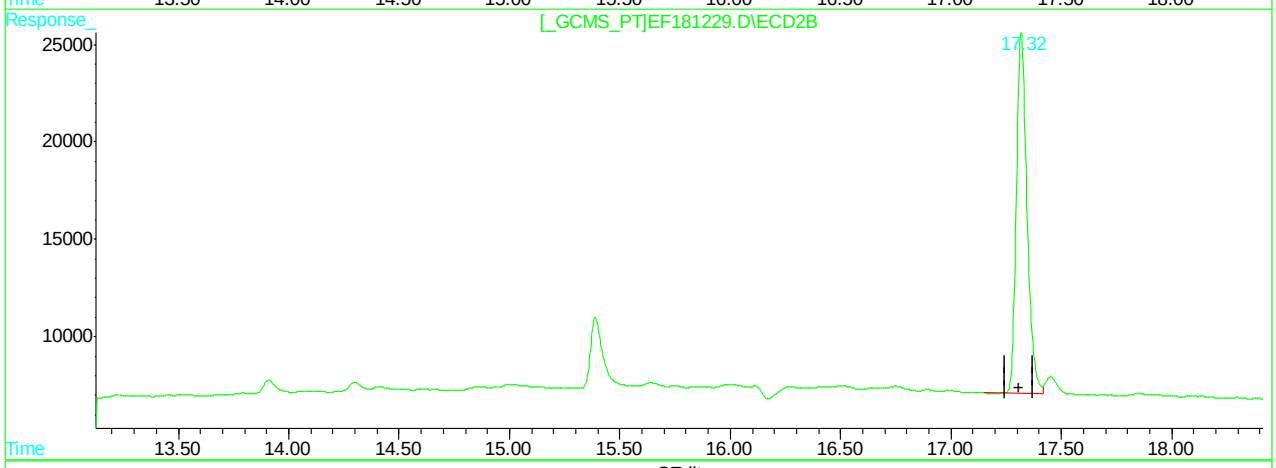
(+) = Expected Retention Time
EF181229.D PCB6195.M Thu Mar 29 09:50:53 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD1A.CH Vial: 46
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD2B.CH
Acq On : 28 Mar 2018 10:24 pm Operator: humarahb
Sample : jc62879-10 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:50 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 32.217PPB

response 551428

(51) Decachlorobiphenyl #2 (S)

17.32min 29.284PPB

response 614769

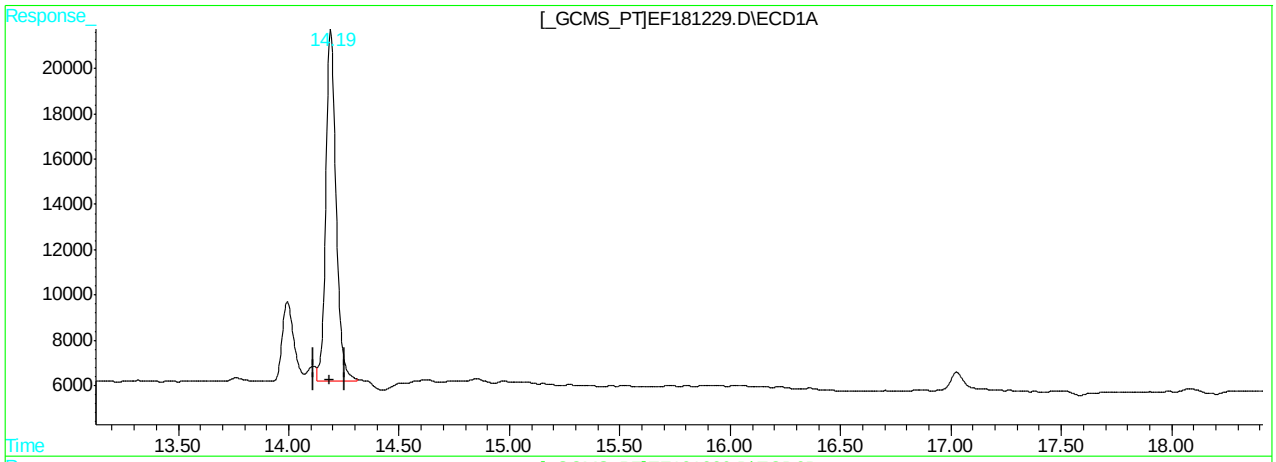
(+) = Expected Retention Time
EF181229.D PCB6195.M Thu Mar 29 09:50:56 2018 GCEF

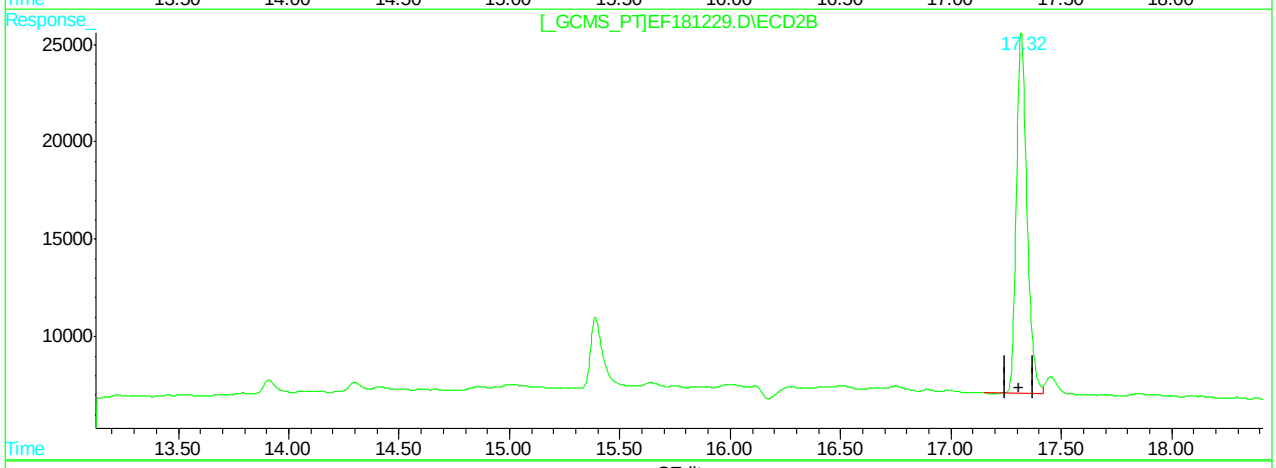
11.1.29.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD1A.CH Vial: 46
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181229.D\ECD2B.CH
Acq On : 28 Mar 2018 10:24 pm Operator: humarahb
Sample : jc62879-10 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:50 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 29.069PPB m

response 497556

(51) Decachlorobiphenyl #2 (S)

17.32min 29.284PPB

response 614769

(+) = Expected Retention Time
EF181229.D PCB6195.M Thu Mar 29 09:51:04 2018 GCEF

11.1.29.5 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181230.D\ECD1A.CH Vial: 47
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181230.D\ECD2B.CH
Acq On : 28 Mar 2018 10:49 pm Operator: humarahb
Sample : jc62879-11 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:52 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.21	4.22	404397	573288	34.980	36.823
	Spiked Amount 40.000			Recovery	=	87.45%	92.06%
51)	S Decachlorobiphen	14.20	17.33	547117	575591	31.965	27.418m
	Spiked Amount 40.000			Recovery	=	79.91%	68.55%
	Target Compounds						

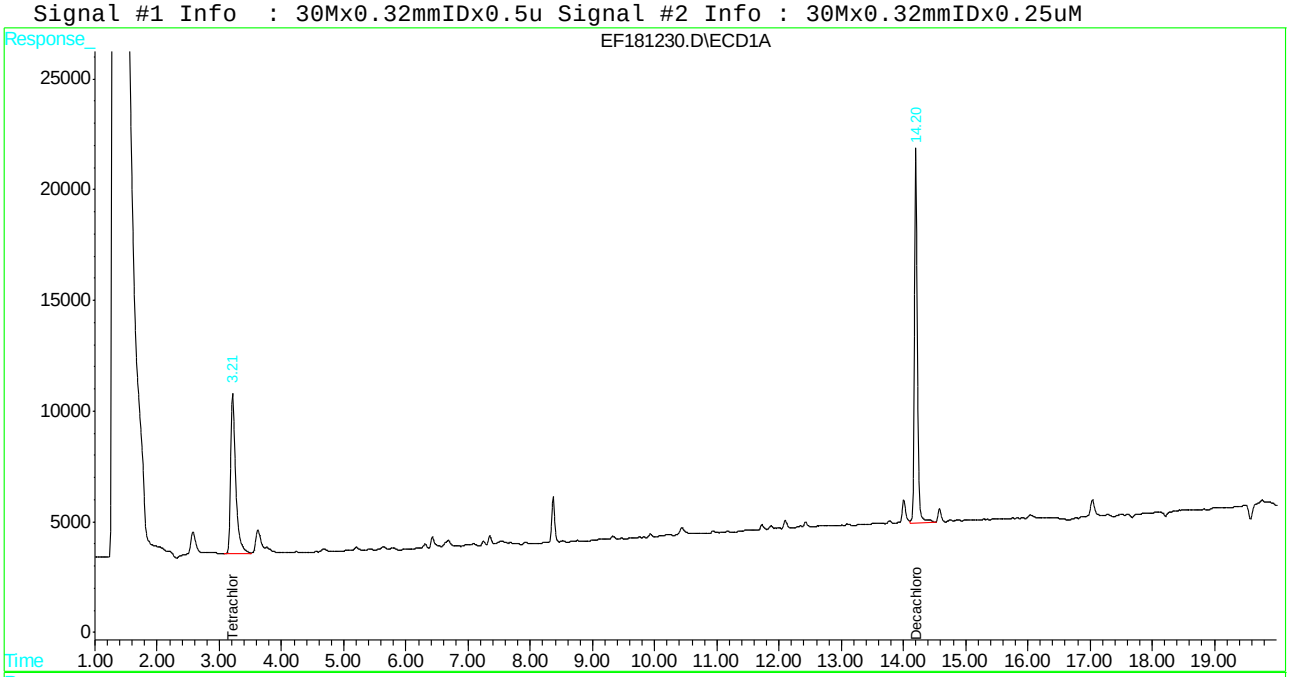
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181230.D PCB6195.M Thu Mar 29 09:52:18 2018 GCEF Page 1

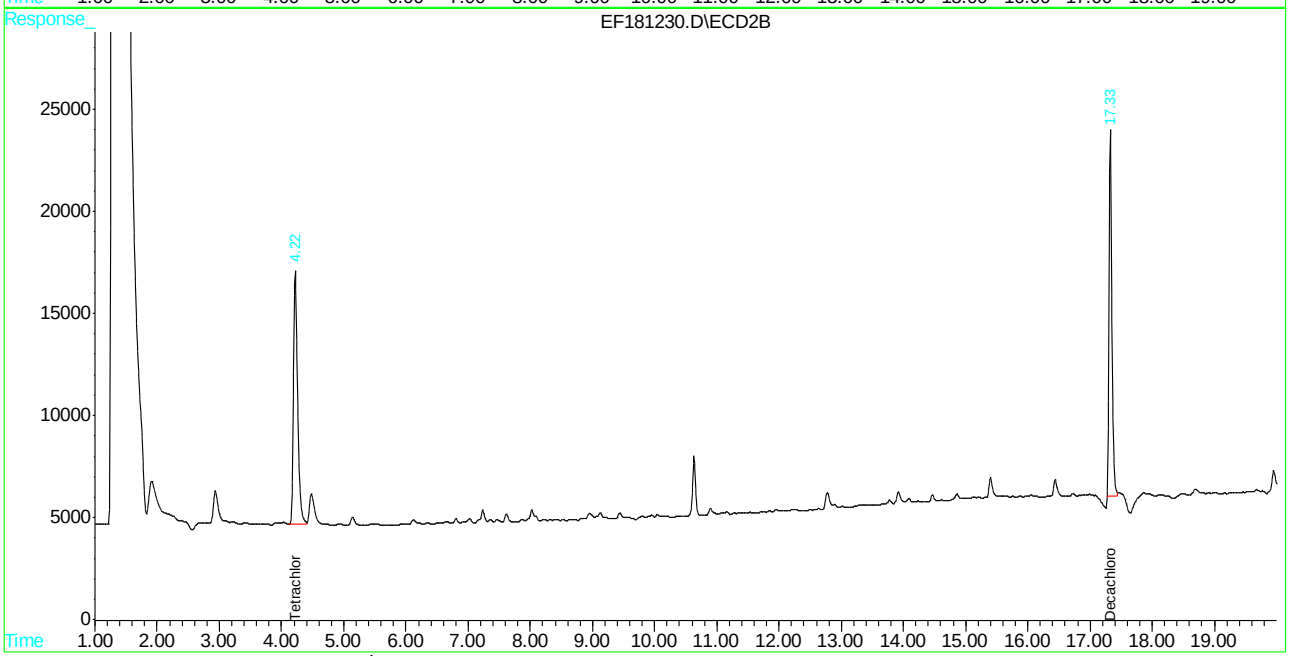
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181230.D\ECD1A.CH Vial: 47
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181230.D\ECD2B.CH
Acq On : 28 Mar 2018 10:49 pm Operator: humarahb
Sample : jc62879-11 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:52 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

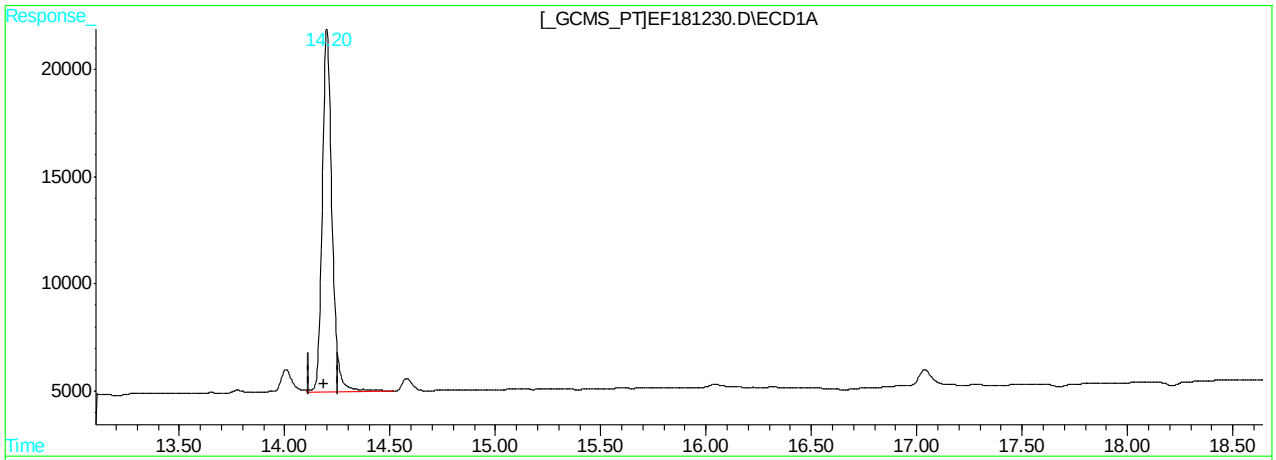
Sample Number:	JC62879-11	**Method:**	SW846 8082A
Lab FileID:	EF181230.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/28/18 22:49	**Supervisor approved:**	03/29/18 17:48 Gwendolyn Burns

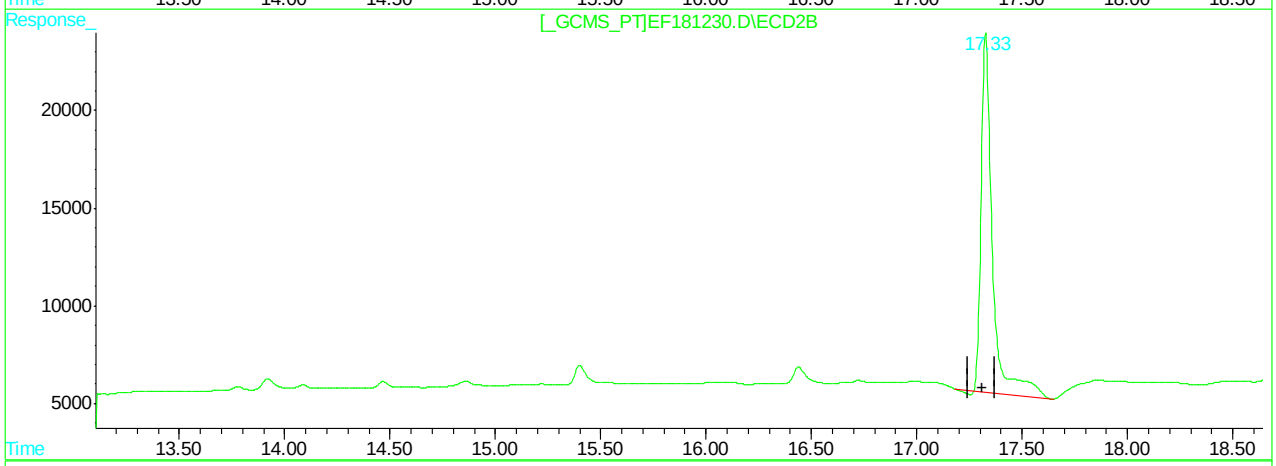
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181230.D\ECD1A.CH Vial: 47
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181230.D\ECD2B.CH
Acq On : 28 Mar 2018 10:49 pm Operator: humarahb
Sample : jc62879-11 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:51 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 31.965PPB

response 547117

(51) Decachlorobiphenyl #2 (S)

17.33min 32.616PPB

response 684731

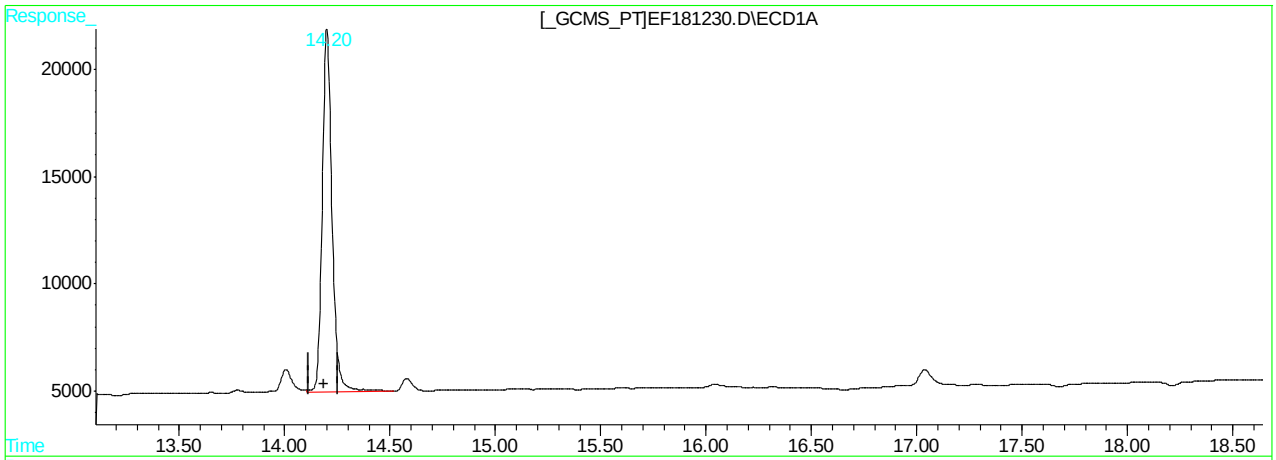
(+) = Expected Retention Time
EF181230.D PCB6195.M Thu Mar 29 09:52:02 2018 GCEF

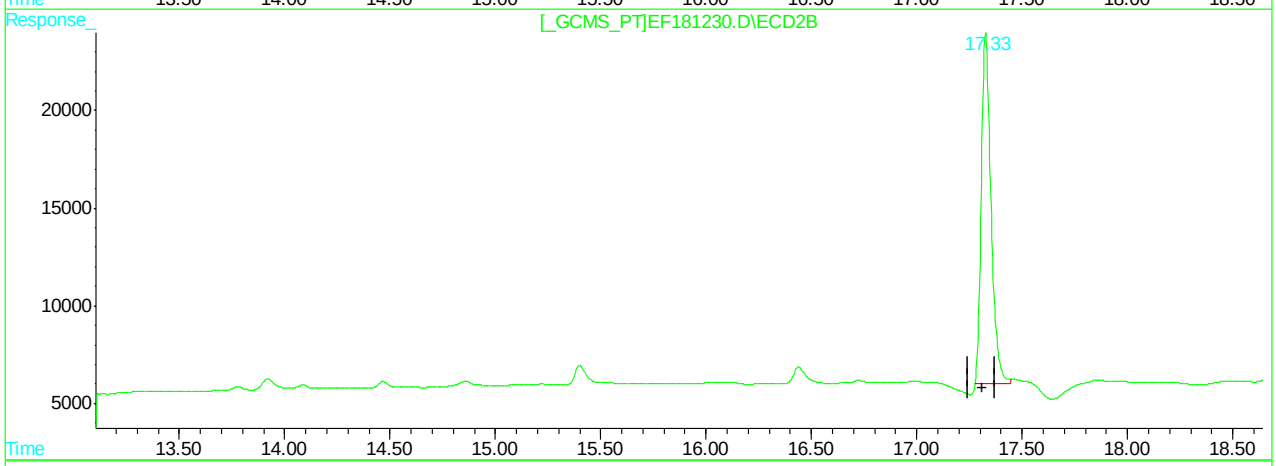
11.1.30.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181230.D\ECD1A.CH Vial: 47
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181230.D\ECD2B.CH
Acq On : 28 Mar 2018 10:49 pm Operator: humarahb
Sample : jc62879-11 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:51 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 31.965PPB

response 547117

(51) Decachlorobiphenyl #2 (S)

17.33min 27.418PPB m

response 575591

(+) = Expected Retention Time
EF181230.D PCB6195.M Thu Mar 29 09:52:12 2018 GCEF

11.1.30.3 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181233.D\ECD1A.CH Vial: 50
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181233.D\ECD2B.CH
Acq On : 29 Mar 2018 12:04 am Operator: humarahb
Sample : jc62879-12 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:57 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachloro-m-xy	3.21	4.22	374538	521332	32.397	33.485
Spiked Amount 40.000			Recovery =		80.99%	83.71%
51) S Decachlorobiphen	14.19	17.32	564826	610887	32.999m	29.099m
Spiked Amount 40.000			Recovery =		82.50%	72.75%
Target Compounds						

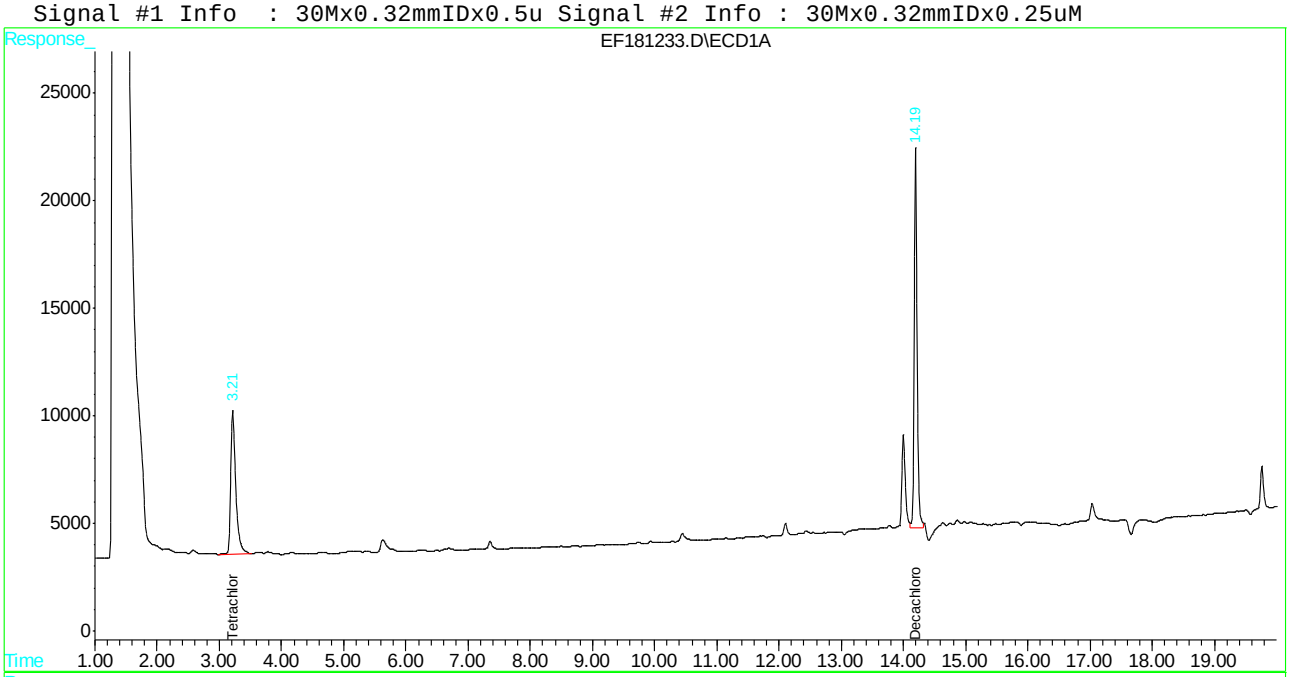
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181233.D PCB6195.M Thu Mar 29 09:57:13 2018 GCEF Page 1

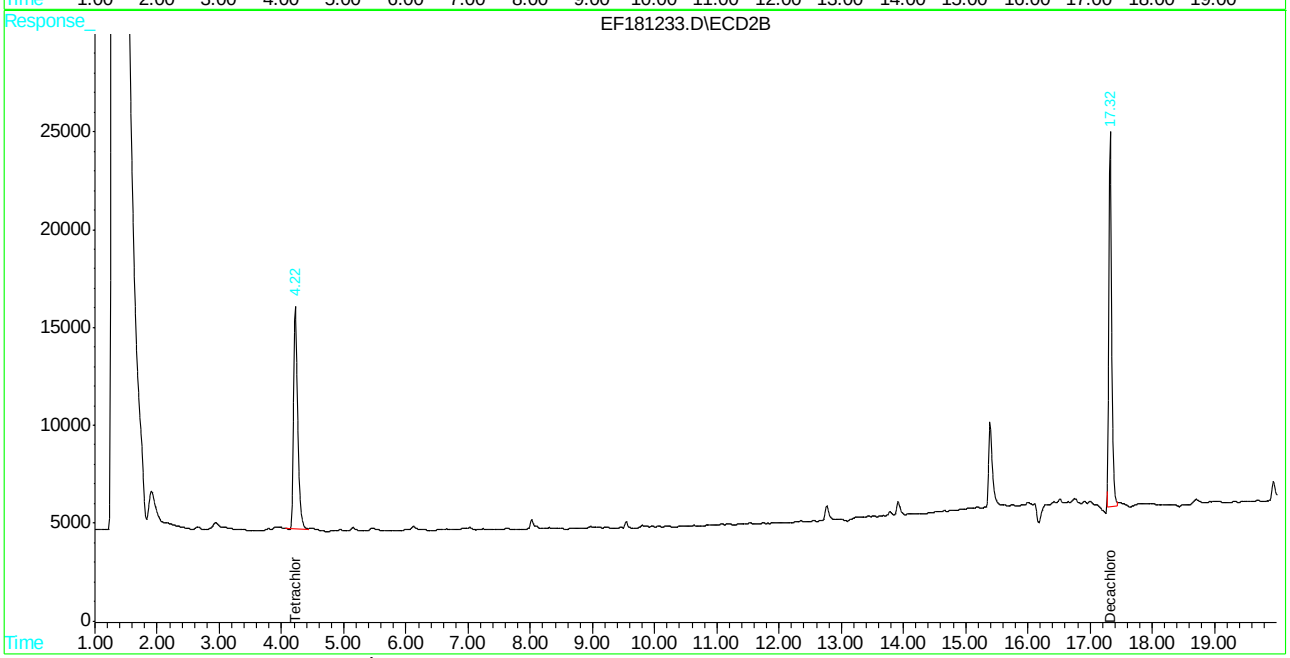
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181233.D\ECD1A.CH Vial: 50
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181233.D\ECD2B.CH
Acq On : 29 Mar 2018 12:04 am Operator: humarahb
Sample : jc62879-12 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:57 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

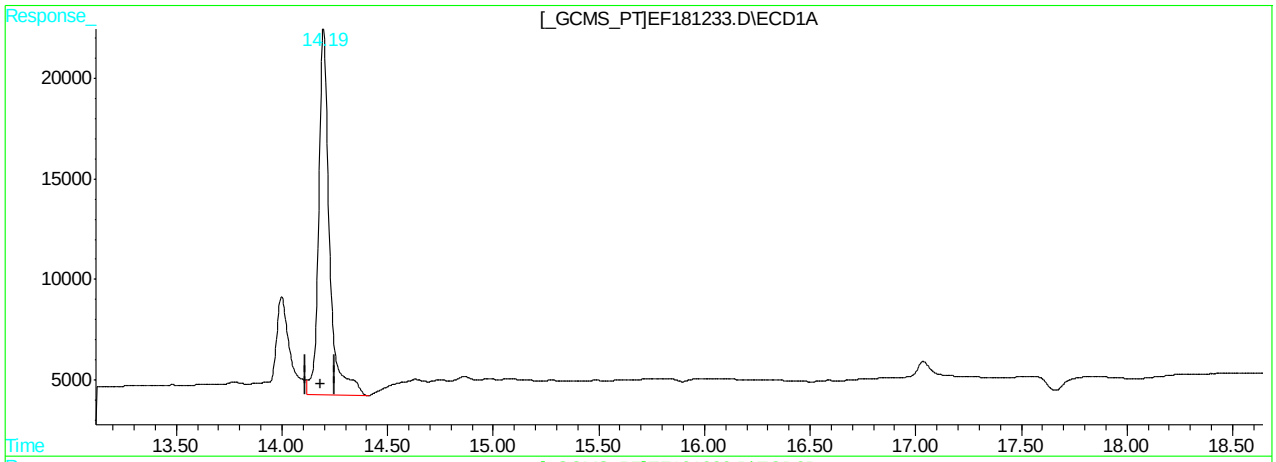
Sample Number:	JC62879-12	**Method:**	SW846 8082A
Lab FileID:	EF181233.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/29/18 00:04	**Supervisor approved:**	03/29/18 17:48 Gwendolyn Burns

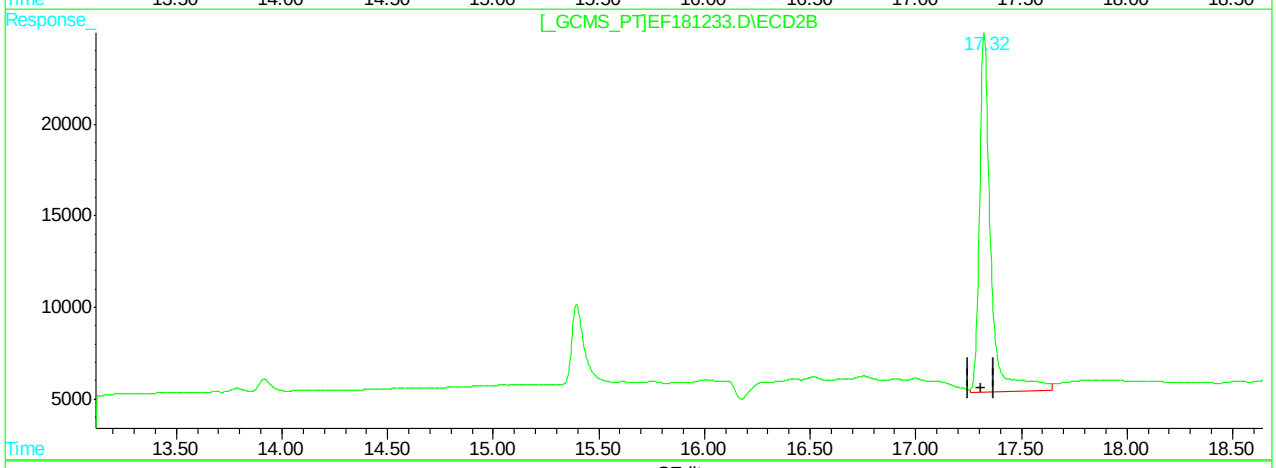
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181233.D\ECD1A.CH Vial: 50
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181233.D\ECD2B.CH
Acq On : 29 Mar 2018 12:04 am Operator: humarahb
Sample : jc62879-12 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 37.962PPB

response 649773

(51) Decachlorobiphenyl #2 (S)

17.32min 34.506PPB

response 724399

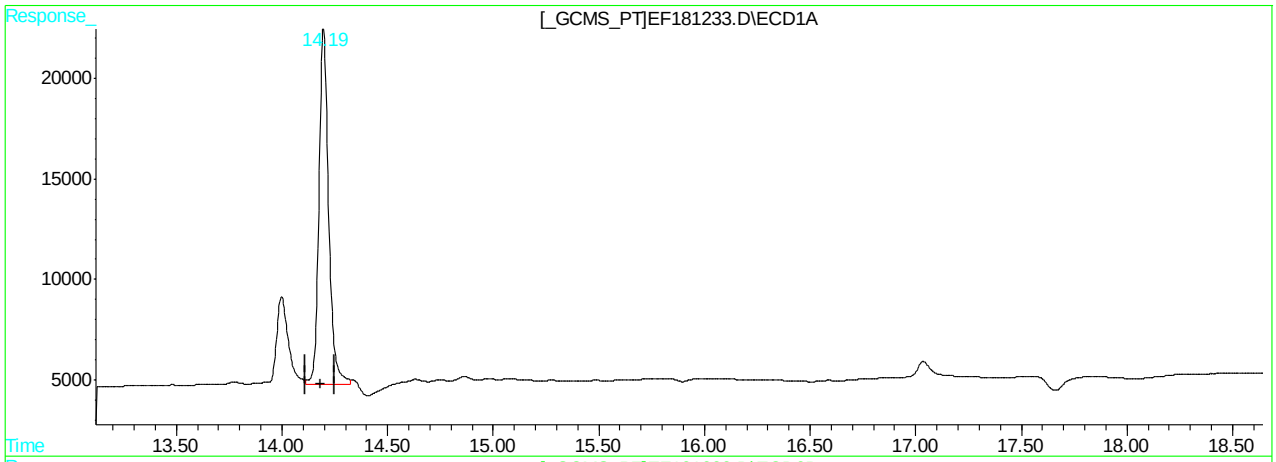
(+) = Expected Retention Time
EF181233.D PCB6195.M Thu Mar 29 09:56:58 2018 GCEF

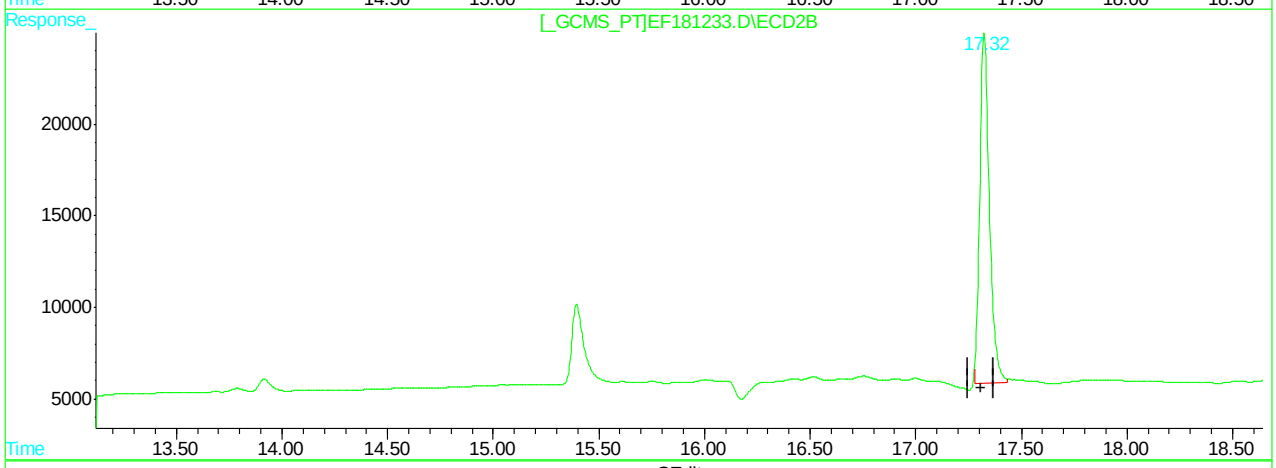
11.1.31.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181233.D\ECD1A.CH Vial: 50
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181233.D\ECD2B.CH
Acq On : 29 Mar 2018 12:04 am Operator: humarahb
Sample : jc62879-12 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 32.999PPB m

response 564826

(51) Decachlorobiphenyl #2 (S)

17.32min 29.099PPB m

response 610887

(+) = Expected Retention Time
EF181233.D PCB6195.M Thu Mar 29 09:57:07 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD1A.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD2B.CH
Acq On : 29 Mar 2018 12:29 am Operator: humarahb
Sample : jc62879-13 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:58 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.22	4.22	334878	398478	28.966	25.594m
	Spiked Amount 40.000			Recovery =		72.42%	63.98%
51) S	Decachlorobiphen	14.19	17.32	371757	467446	21.720m	22.266
	Spiked Amount 40.000			Recovery =		54.30%	55.66%
	Target Compounds						

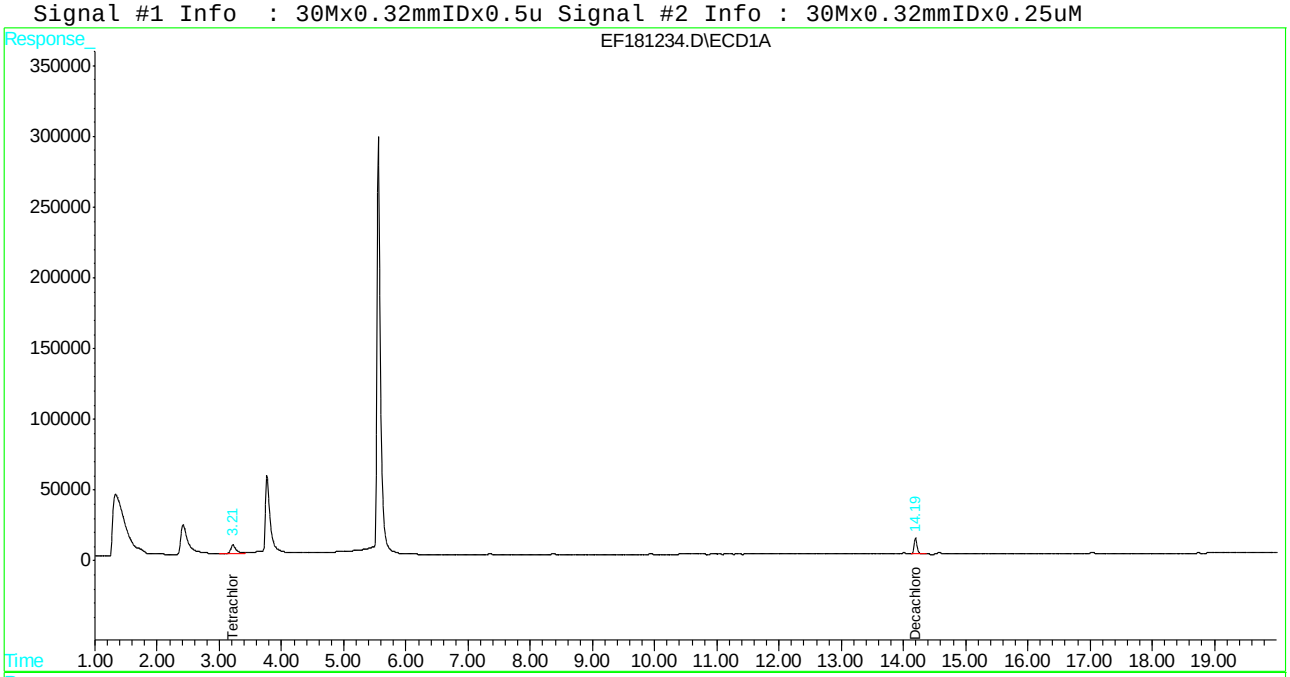
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

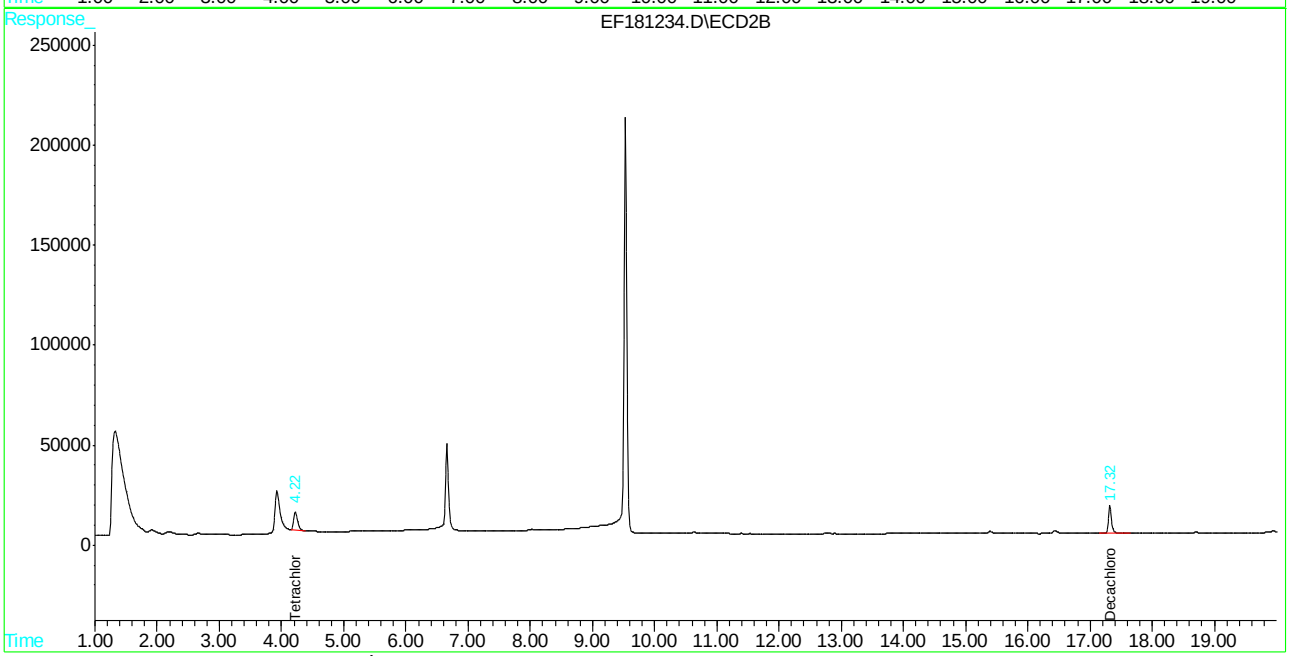
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD1A.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD2B.CH
Acq On : 29 Mar 2018 12:29 am Operator: humarahb
Sample : jc62879-13 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:58 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

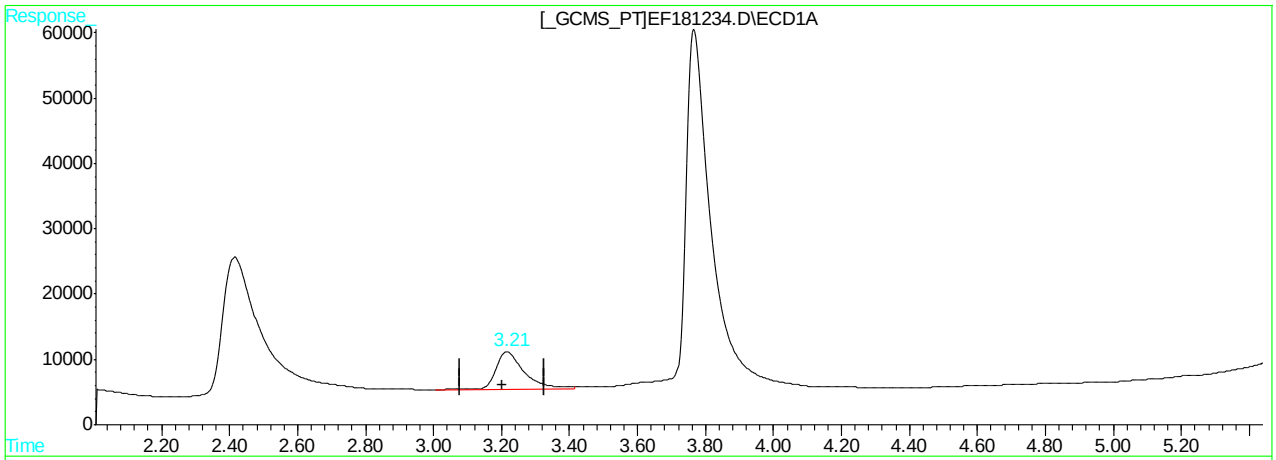
Sample Number:	JC62879-13	**Method:**	SW846 8082A
Lab FileID:	EF181234.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/29/18 00:29	**Supervisor approved:**	03/29/18 17:48 Gwendolyn Burns

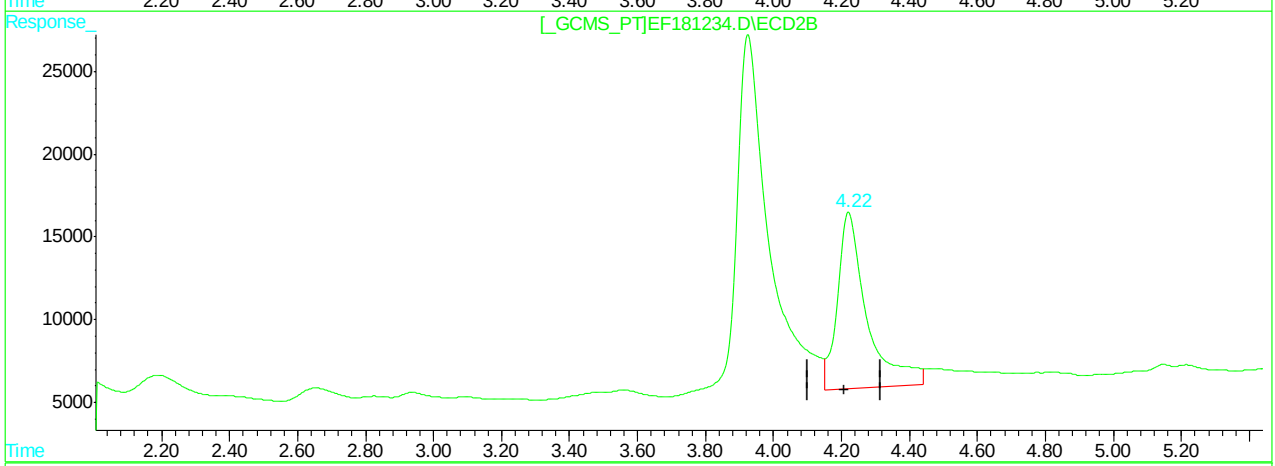
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	4.22	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD1A.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD2B.CH
Acq On : 29 Mar 2018 12:29 am Operator: humarahb
Sample : jc62879-13 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:57 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.22min 28.966PPB

response 334878

(1) Tetrachloro-m-xylene #2 (S)

4.22min 41.593PPB

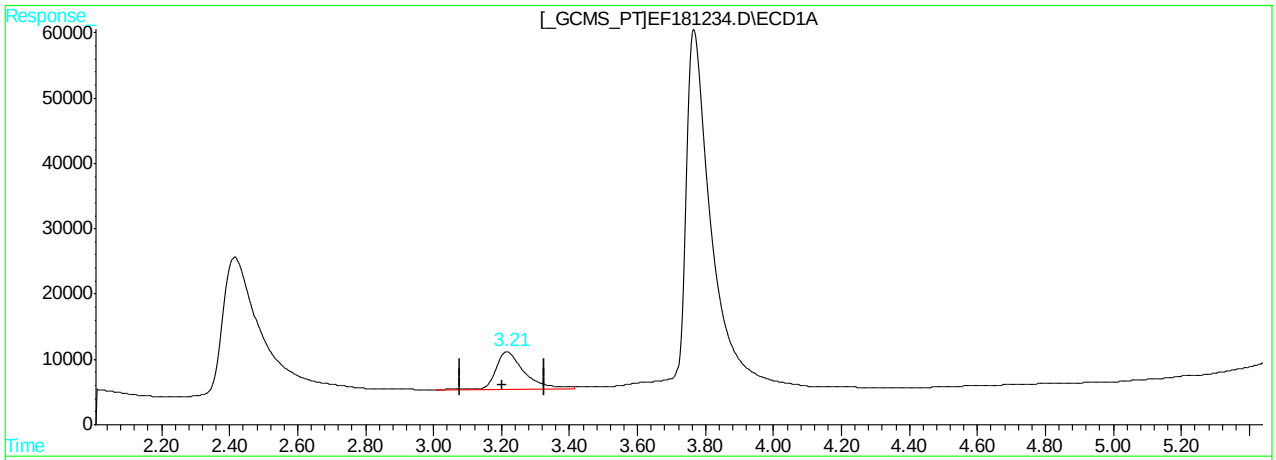
response 647556

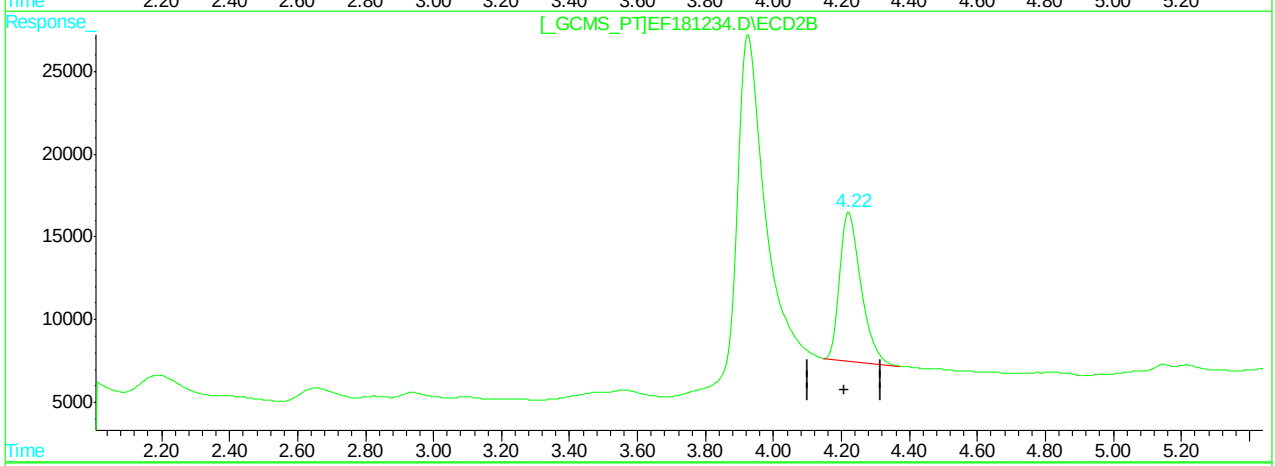
(+) = Expected Retention Time
EF181234.D PCB6195.M Thu Mar 29 09:57:56 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD1A.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD2B.CH
Acq On : 29 Mar 2018 12:29 am Operator: humarahb
Sample : jc62879-13 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:57 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.22min 28.966PPB

response 334878

(1) Tetrachloro-m-xylene #2 (S)

4.22min 25.594PPB m

response 398478

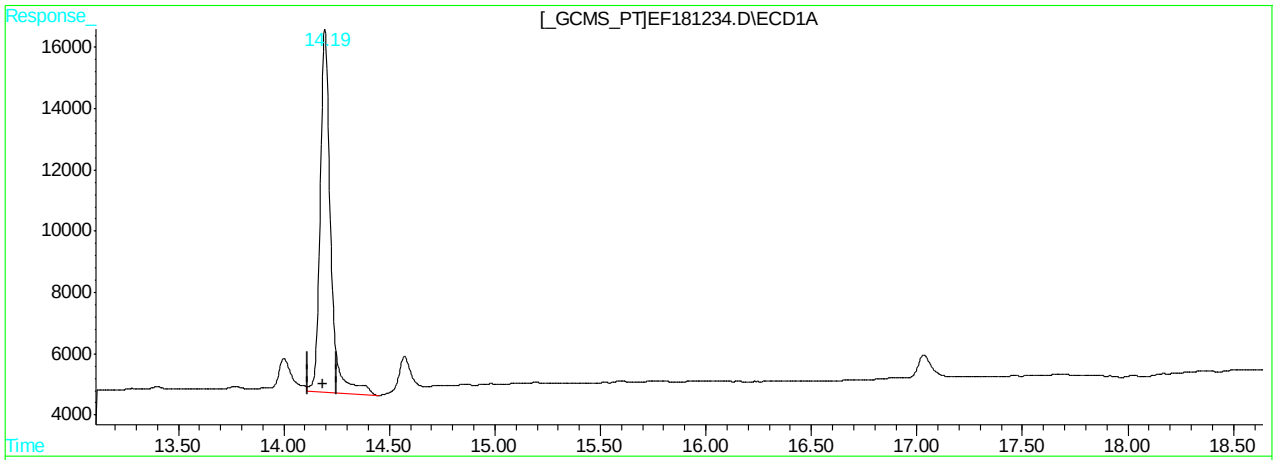
(+) = Expected Retention Time
EF181234.D PCB6195.M Thu Mar 29 09:58:03 2018 GCEF

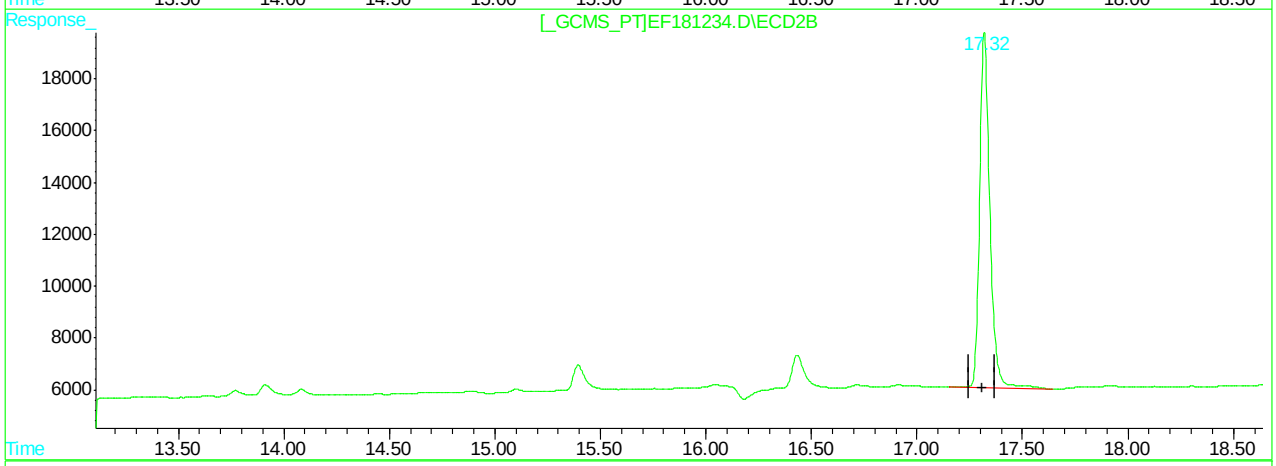
11.1.32.3

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD1A.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD2B.CH
Acq On : 29 Mar 2018 12:29 am Operator: humarahb
Sample : jc62879-13 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:57 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 24.145PPB

response 413268

(51) Decachlorobiphenyl #2 (S)

17.32min 22.266PPB

response 467446

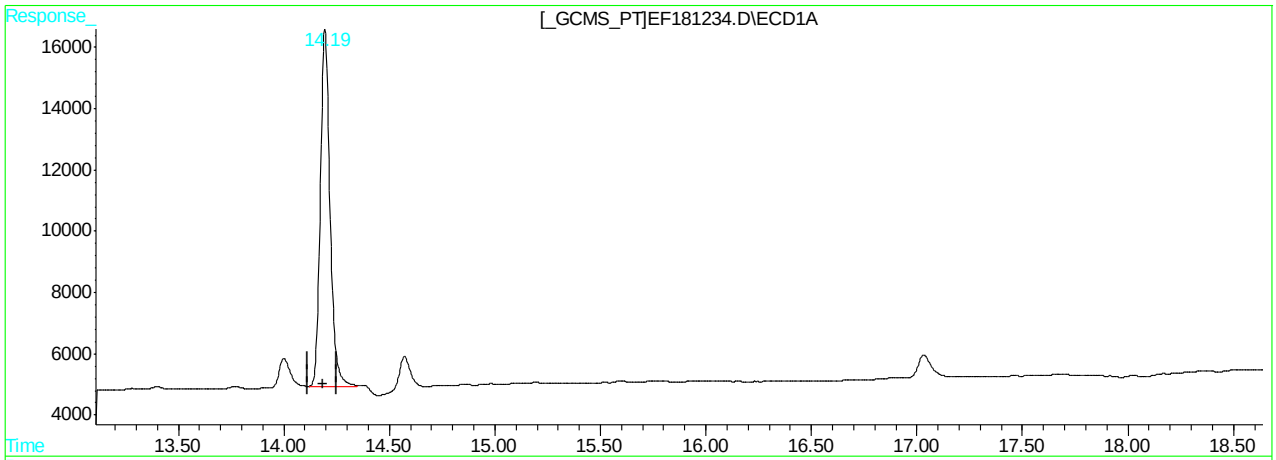
(+) = Expected Retention Time
EF181234.D PCB6195.M Thu Mar 29 09:58:07 2018 GCEF

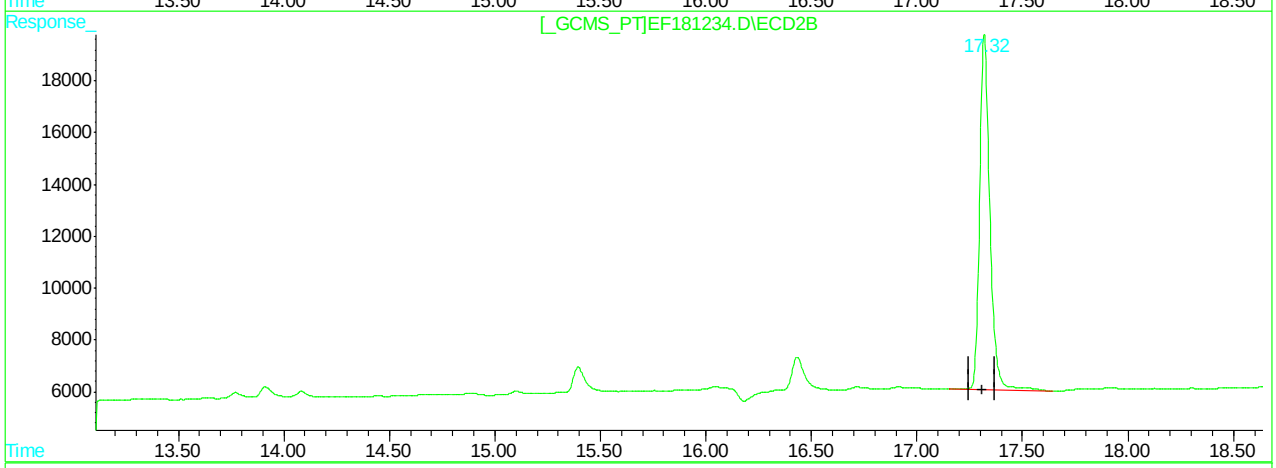
11.1.32.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD1A.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181234.D\ECD2B.CH
Acq On : 29 Mar 2018 12:29 am Operator: humarahb
Sample : jc62879-13 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:57 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 21.720PPB m

response 371757

(51) Decachlorobiphenyl #2 (S)

17.32min 22.266PPB

response 467446

(+) = Expected Retention Time
EF181234.D PCB6195.M Thu Mar 29 09:58:13 2018 GCEF

11.1.32.5 11

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD1A.CH Vial: 52
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD2B.CH
Acq On : 29 Mar 2018 12:54 am Operator: humarahb
Sample : jc62879-14 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:00 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.21	4.22	396759	551066	34.319m	35.395
	Spiked Amount 40.000			Recovery	=	85.80%	88.49%
51)	S Decachlorobiphen	14.19	17.32	353053	432526	20.627m	20.603m
	Spiked Amount 40.000			Recovery	=	51.57%	51.51%
	Target Compounds						

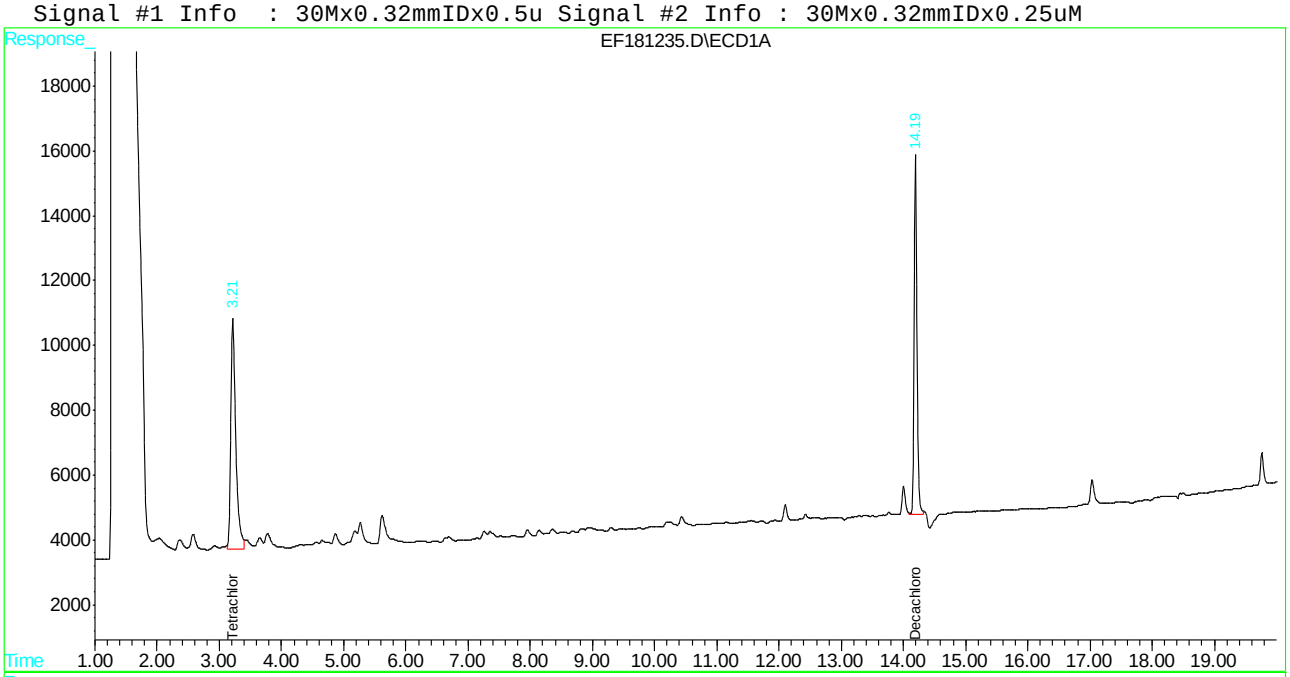
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181235.D PCB6195.M Thu Mar 29 10:00:43 2018 GCEF Page 1

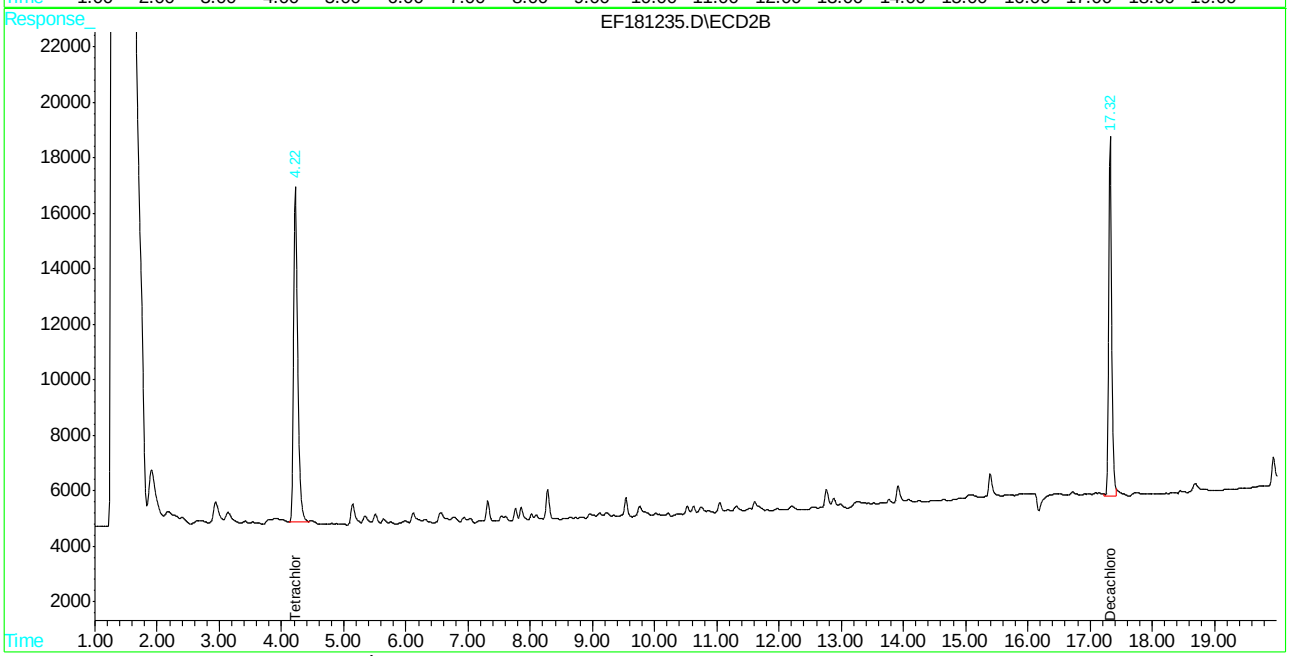
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD1A.CH Vial: 52
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD2B.CH
Acq On : 29 Mar 2018 12:54 am Operator: humarahb
Sample : jc62879-14 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:00 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





EF181235.D PCB6195.M Thu Mar 29 10:00:44 2018 GCEF Page 2

Manual Integration Approval Summary

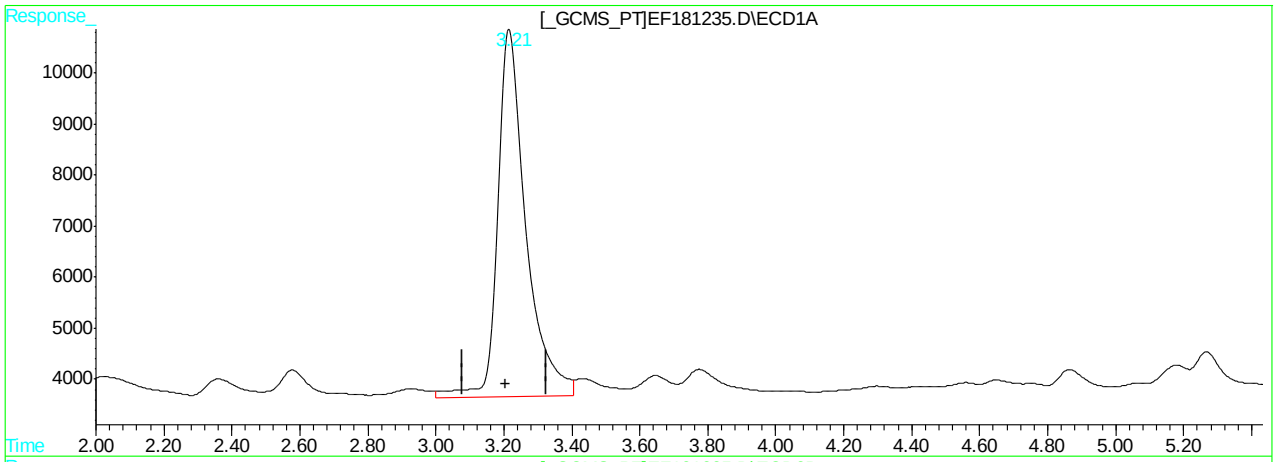
Sample Number:	JC62879-14	**Method:**	SW846 8082A
Lab FileID:	EF181235.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/29/18 00:54	**Supervisor approved:**	03/29/18 17:48 Gwendolyn Burns

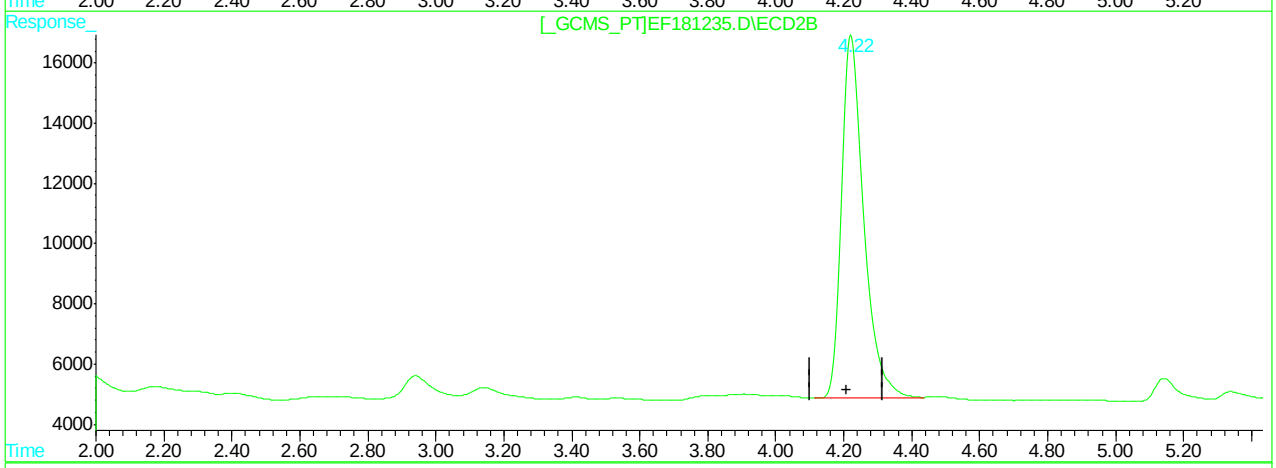
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.21	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD1A.CH Vial: 52
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD2B.CH
Acq On : 29 Mar 2018 12:54 am Operator: humarahb
Sample : jc62879-14 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:58 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.22min 36.128PPB

response 417669

(1) Tetrachloro-m-xylene #2 (S)

4.22min 35.395PPB

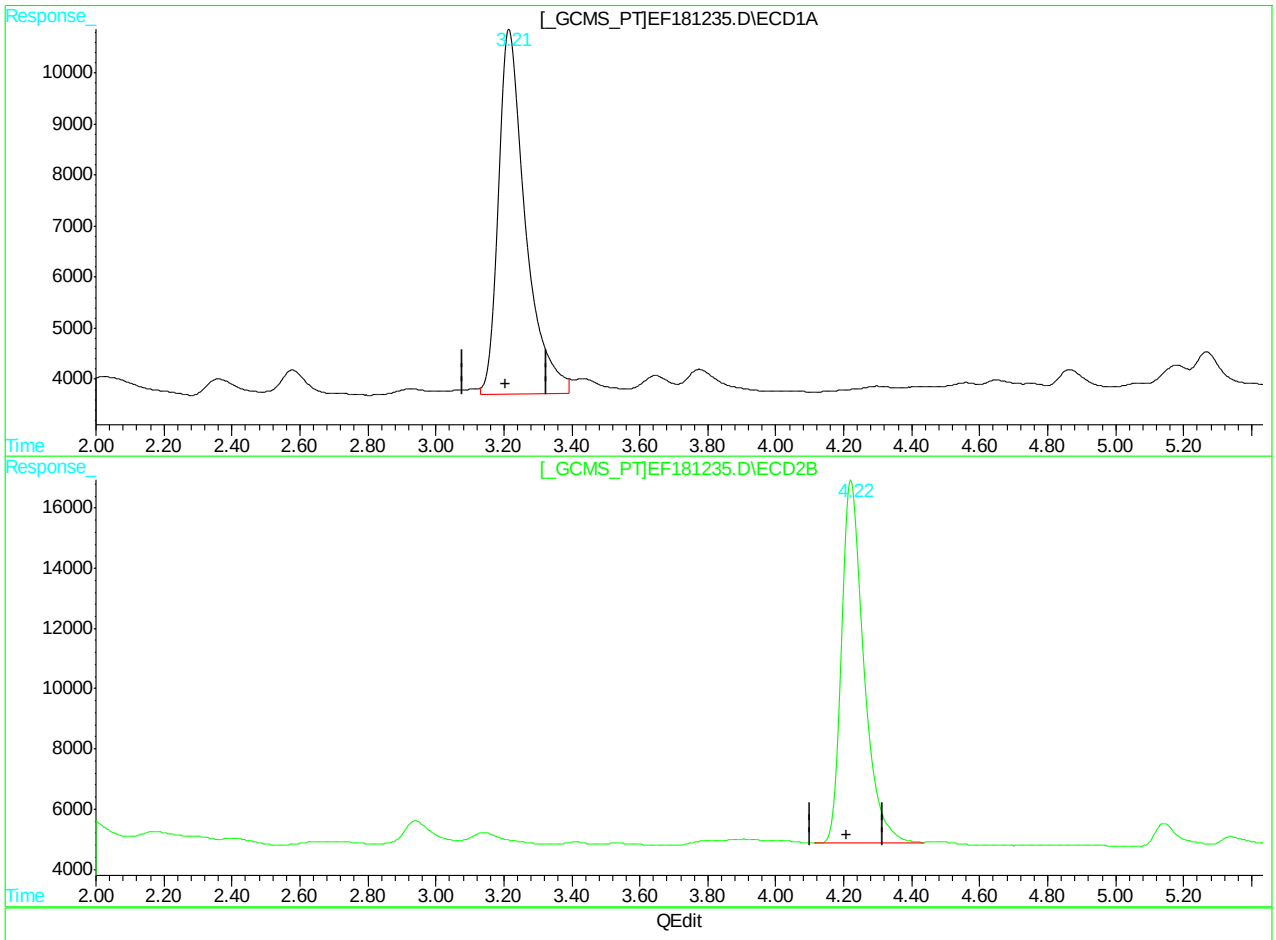
response 551066

(+) = Expected Retention Time
EF181235.D PCB6195.M Thu Mar 29 09:59:43 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD1A.CH Vial: 52
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD2B.CH
Acq On : 29 Mar 2018 12:54 am Operator: humarahb
Sample : jc62879-14 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:58 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.21min 34.319PPB m

response 396759

(1) Tetrachloro-m-xylene #2 (S)

4.22min 35.395PPB

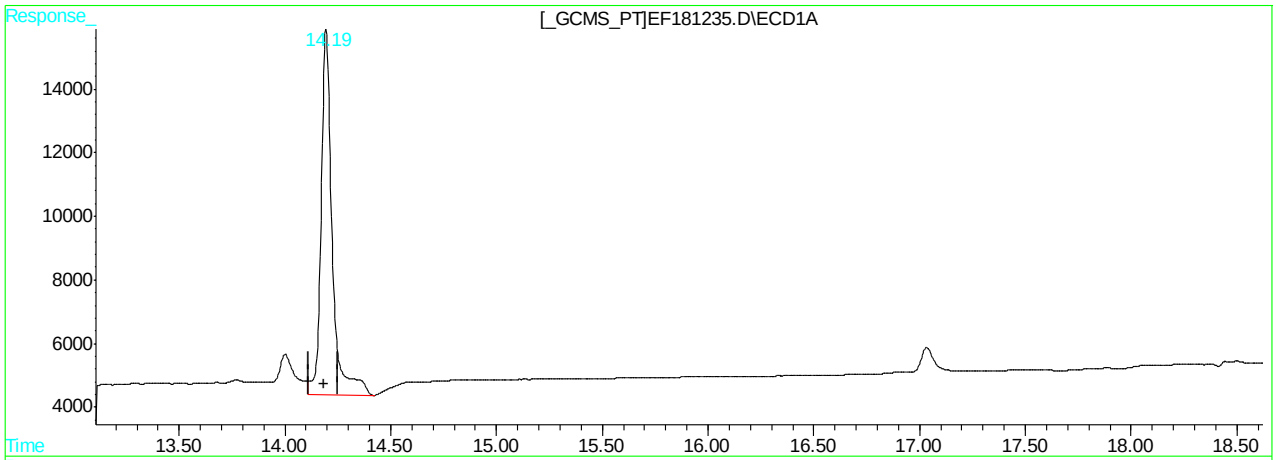
response 551066

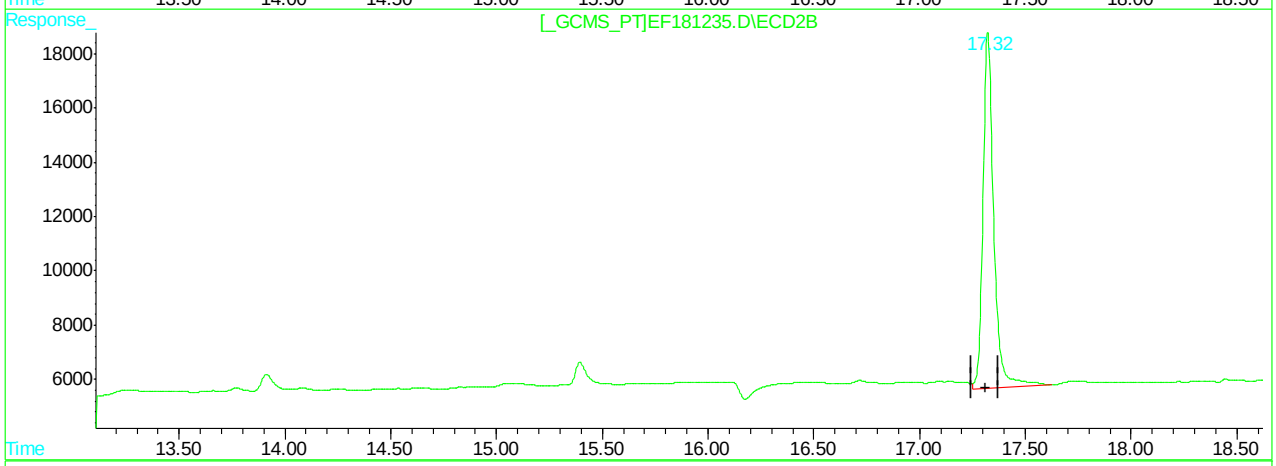
(+) = Expected Retention Time
EF181235.D PCB6195.M Thu Mar 29 09:59:52 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD1A.CH Vial: 52
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD2B.CH
Acq On : 29 Mar 2018 12:54 am Operator: humarahb
Sample : jc62879-14 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:58 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 24.753PPB

response 423671

(51) Decachlorobiphenyl #2 (S)

17.32min 22.167PPB

response 465364

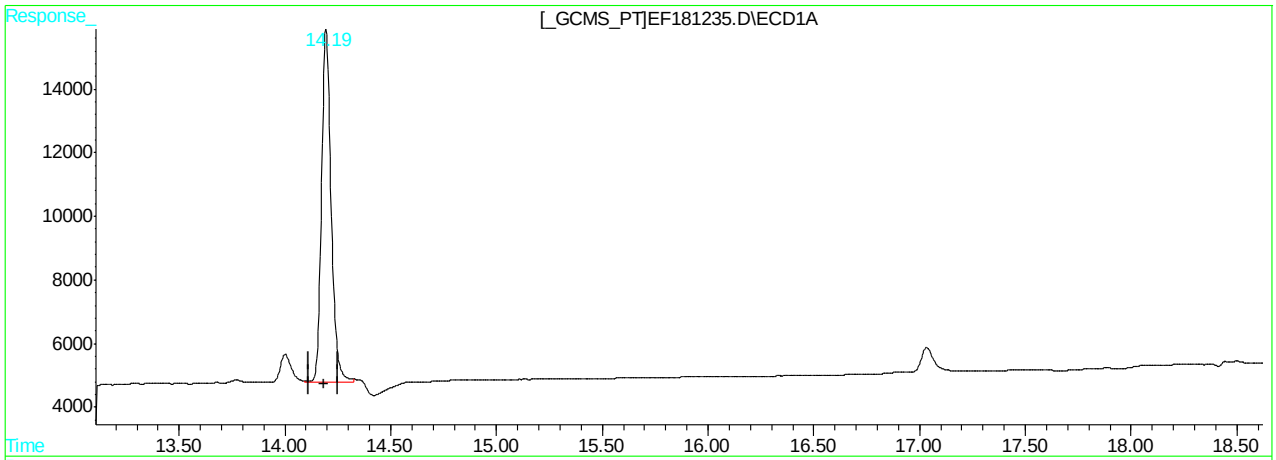
(+) = Expected Retention Time
EF181235.D PCB6195.M Thu Mar 29 10:00:08 2018 GCEF

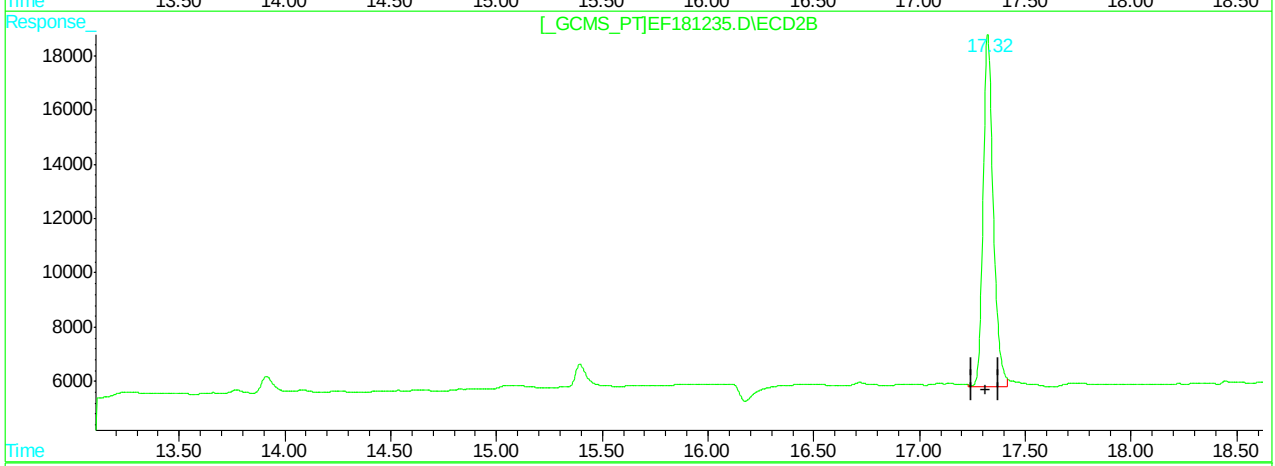
11.1.33.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD1A.CH Vial: 52
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181235.D\ECD2B.CH
Acq On : 29 Mar 2018 12:54 am Operator: humarahb
Sample : jc62879-14 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:58 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 20.627PPB m

response 353053

(51) Decachlorobiphenyl #2 (S)

17.32min 20.603PPB m

response 432526

(+) = Expected Retention Time
EF181235.D PCB6195.M Thu Mar 29 10:00:16 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181240.D\ECD1A.CH Vial: 54
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181240.D\ECD2B.CH
Acq On : 29 Mar 2018 2:59 am Operator: humarahb
Sample : jc62879-15 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:02 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.22	4.22	336165	461077	29.078	29.615
	Spiked Amount 40.000			Recovery	=	72.69%	74.04%
51)	S Decachlorobiphen	14.20	17.32	304111	363791	17.767	17.329m
	Spiked Amount 40.000			Recovery	=	44.42%	43.32%
	Target Compounds						

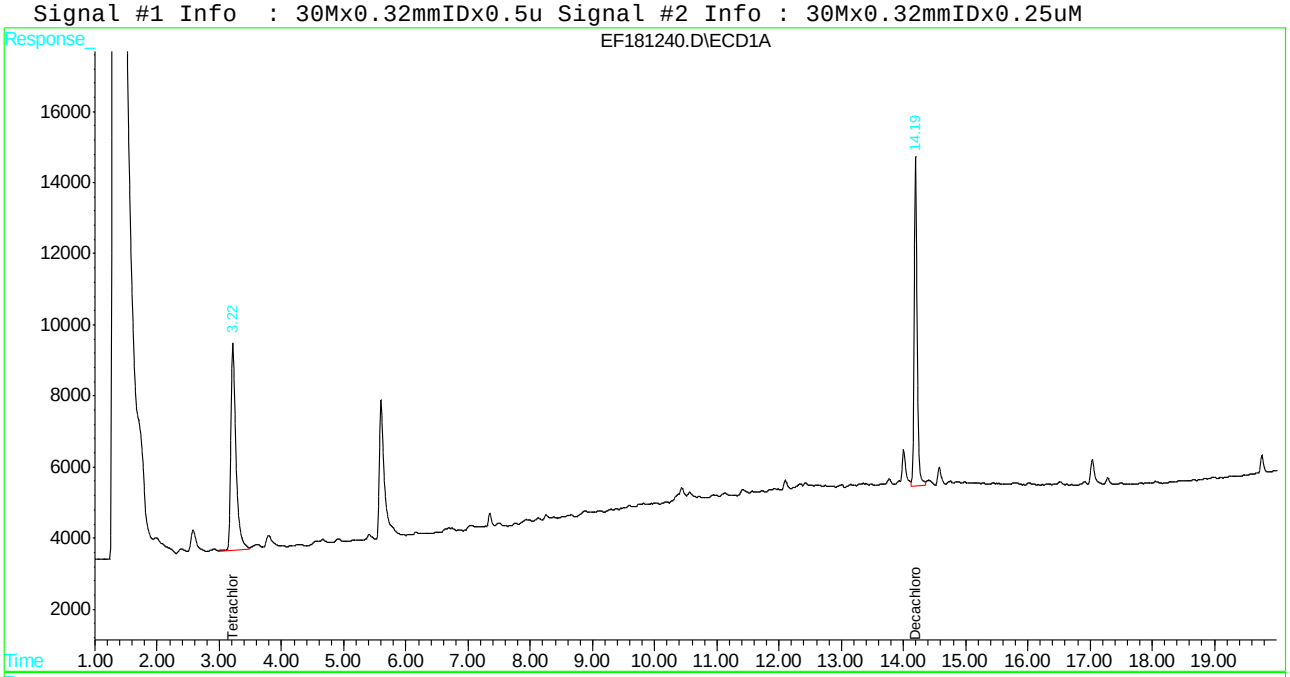
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181240.D PCB6195.M Thu Mar 29 10:02:26 2018 GCEF Page 1

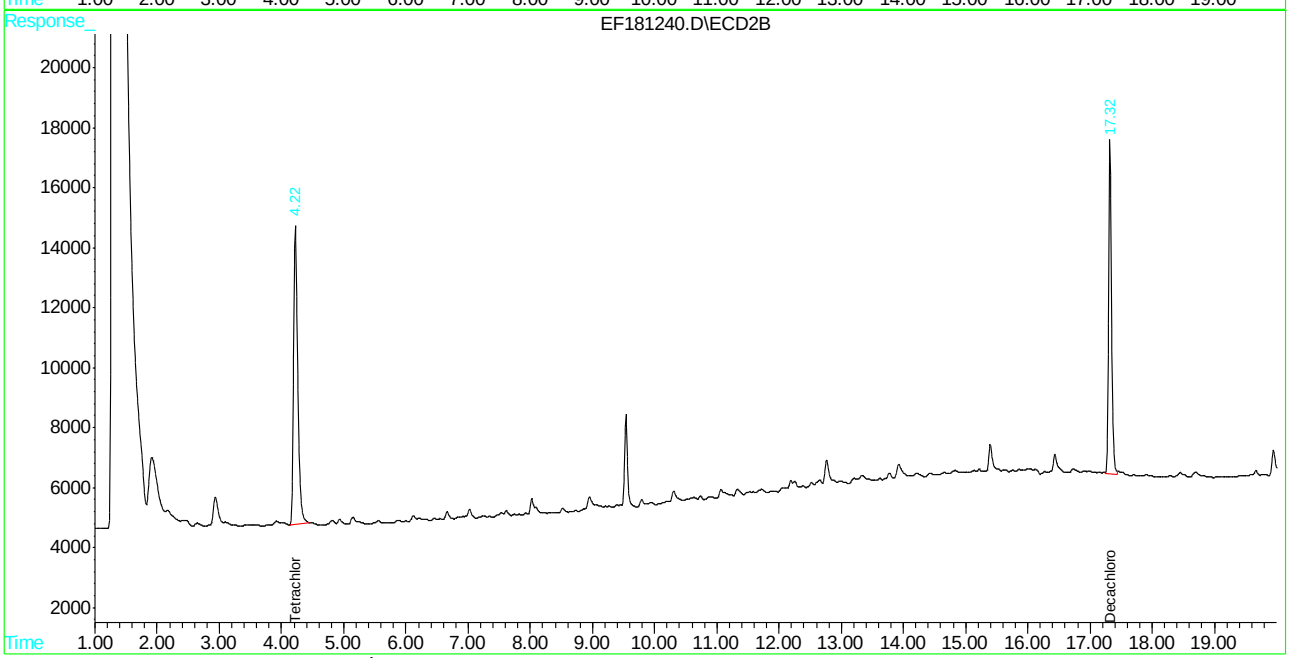
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181240.D\ECD1A.CH Vial: 54
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181240.D\ECD2B.CH
Acq On : 29 Mar 2018 2:59 am Operator: humarahb
Sample : jc62879-15 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:02 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

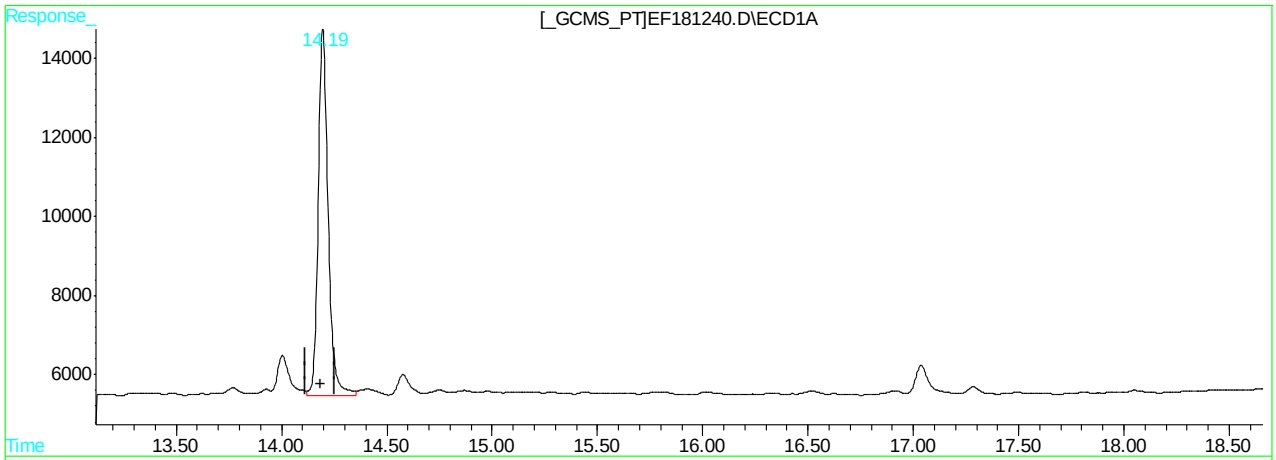
Sample Number:	JC62879-15	**Method:**	SW846 8082A
Lab FileID:	EF181240.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/29/18 02:59	**Supervisor approved:**	03/29/18 17:48 Gwendolyn Burns

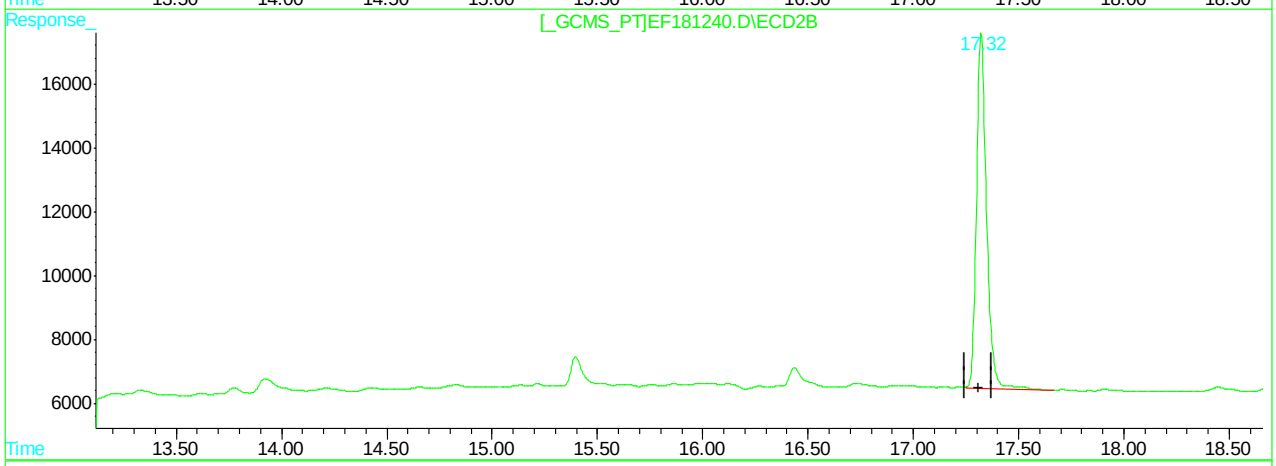
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181240.D\ECD1A.CH Vial: 54
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181240.D\ECD2B.CH
Acq On : 29 Mar 2018 2:59 am Operator: humarahb
Sample : jc62879-15 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:01 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 17.767PPB

response 304111

(51) Decachlorobiphenyl #2 (S)

17.32min 17.698PPB

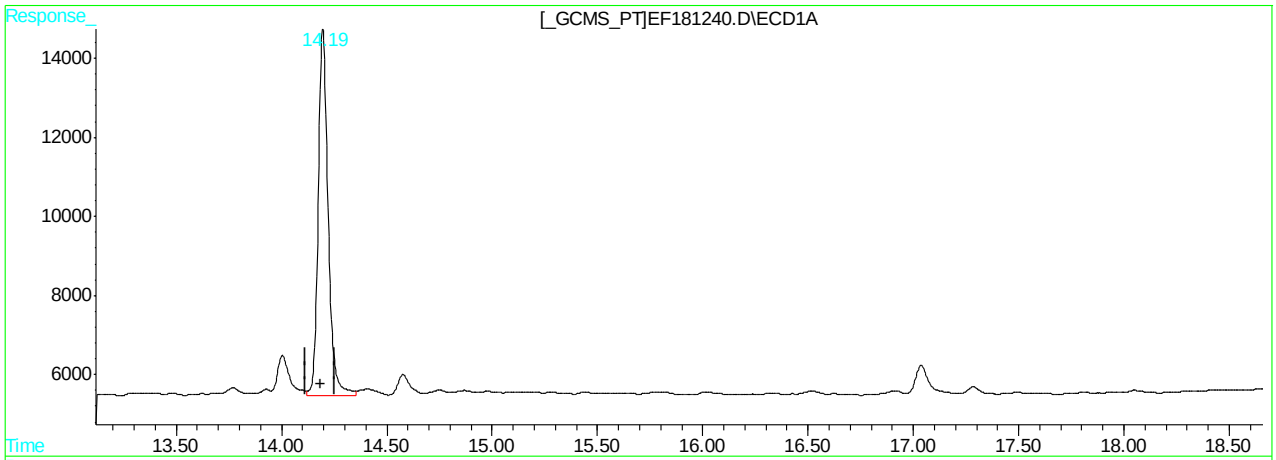
response 371550

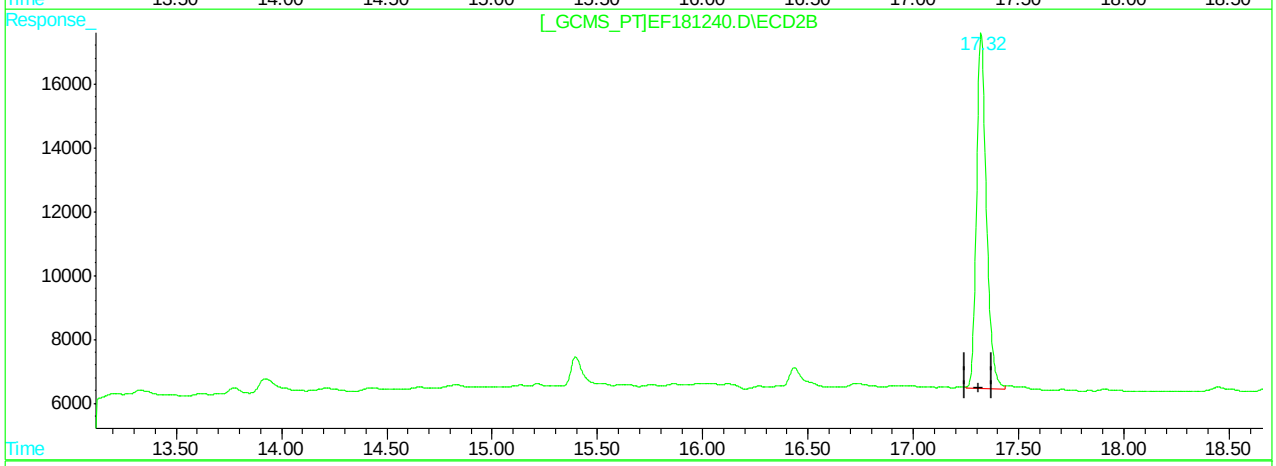
(+) = Expected Retention Time
EF181240.D PCB6195.M Thu Mar 29 10:02:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181240.D\ECD1A.CH Vial: 54
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181240.D\ECD2B.CH
Acq On : 29 Mar 2018 2:59 am Operator: humarahb
Sample : jc62879-15 Inst : gcef
Misc : op10884,GEF6203,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:01 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 17.767PPB

response 304111

(51) Decachlorobiphenyl #2 (S)

17.32min 17.329PPB m

response 363791

(+) = Expected Retention Time
EF181240.D PCB6195.M Thu Mar 29 10:02:20 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD1A.CH Vial: 55
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD2B.CH
Acq On : 29 Mar 2018 3:24 am Operator: humarahb
Sample : jc62879-16 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:03 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.21	4.22	329771	465354	28.525m	29.890m
	Spiked Amount 40.000			Recovery	=	71.31%	74.72%
51)	S Decachlorobiphen	14.19	17.32	270593	335286	15.809m	15.971m
	Spiked Amount 40.000			Recovery	=	39.52%	39.93%
	Target Compounds						

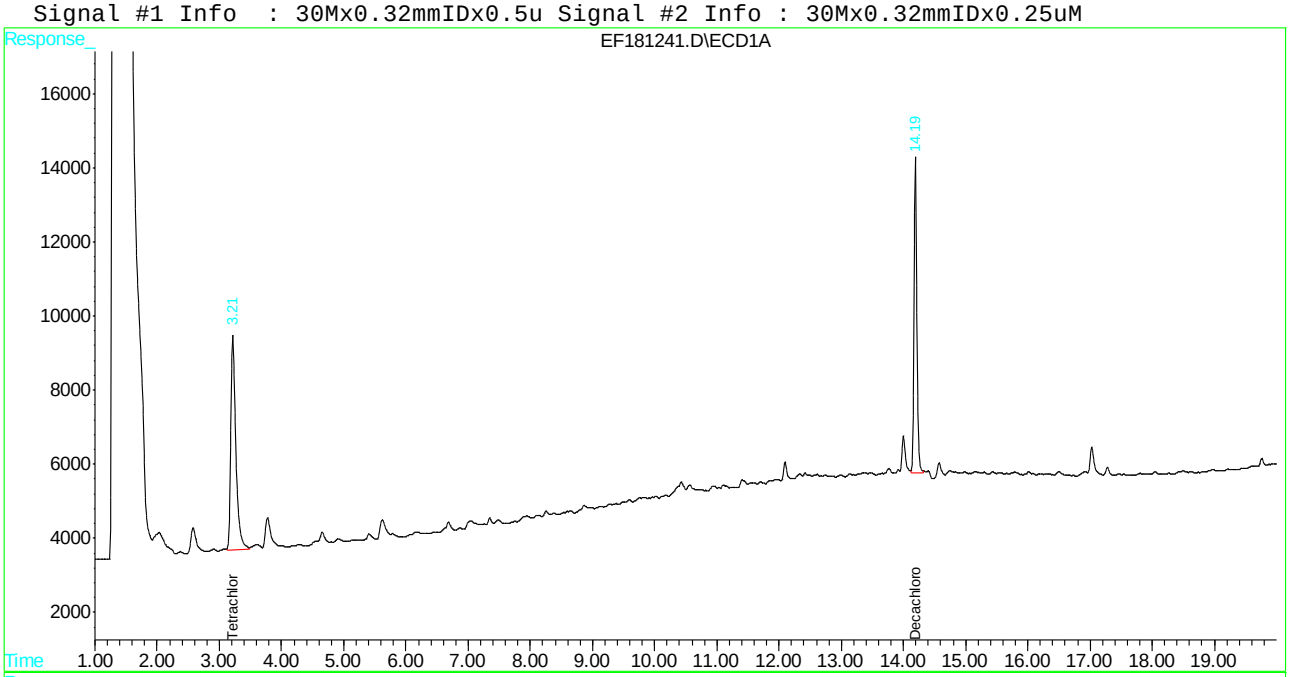
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181241.D PCB6195.M Thu Mar 29 10:03:58 2018 GCEF Page 1

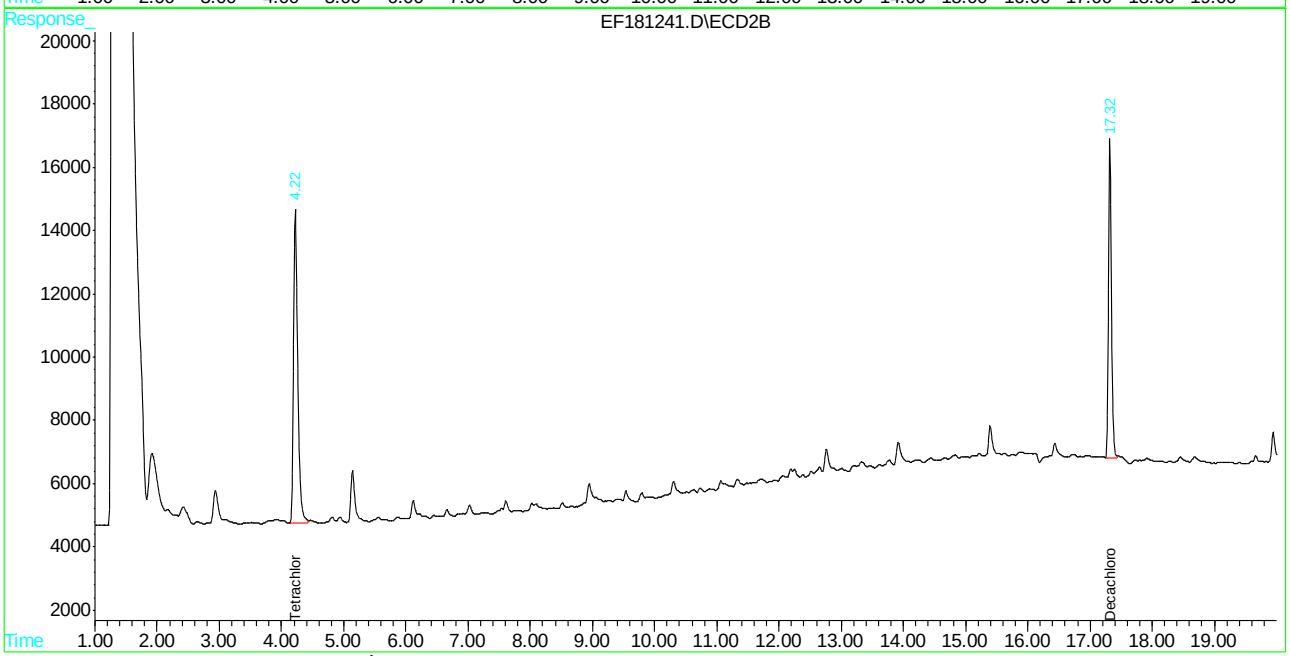
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD1A.CH Vial: 55
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD2B.CH
Acq On : 29 Mar 2018 3:24 am Operator: humarahb
Sample : jc62879-16 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:03 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

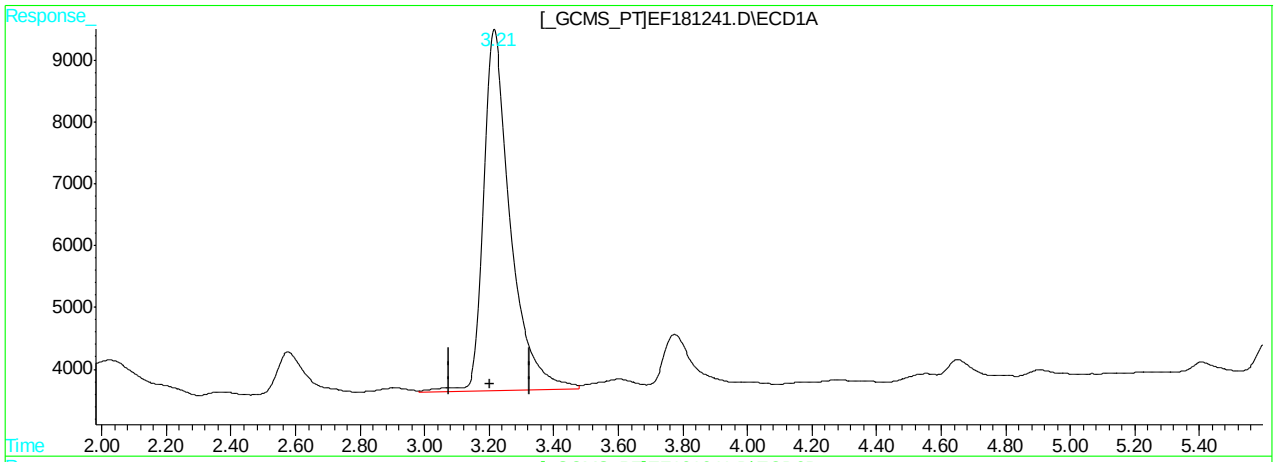
Sample Number: JC62879-16
Lab FileID: EF181241.D
Injection Time: 03/29/18 03:24
Method: SW846 8082A
Analyst approved: 03/29/18 11:01 Tianwei Ruan
Supervisor approved: 03/29/18 17:48 Gwendolyn Burns

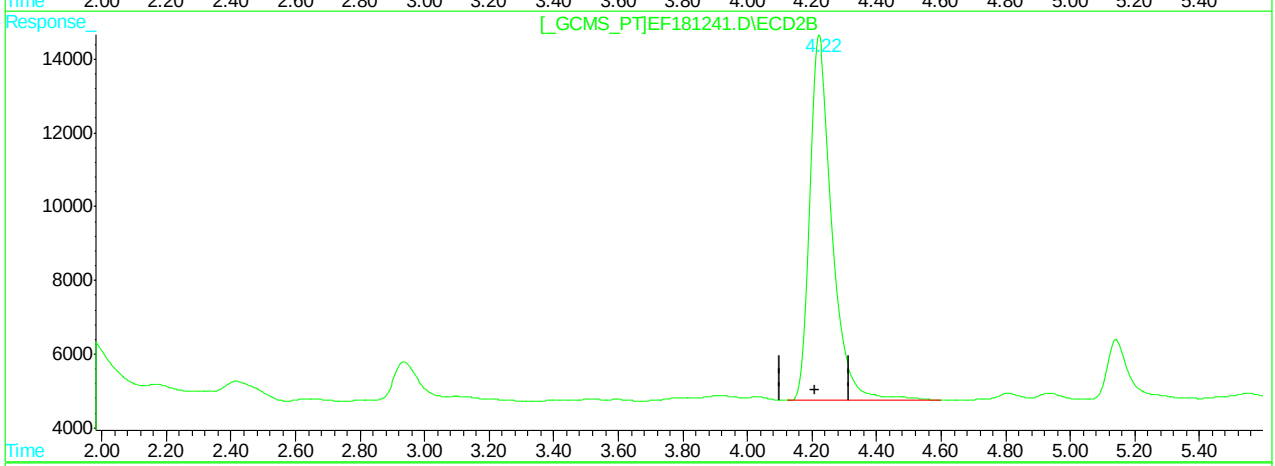
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.21	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	4.22	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD1A.CH Vial: 55
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD2B.CH
Acq On : 29 Mar 2018 3:24 am Operator: humarahb
Sample : jc62879-16 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:02 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.22min 29.000PPB

response 335269

(1) Tetrachloro-m-xylene #2 (S)

4.22min 30.299PPB

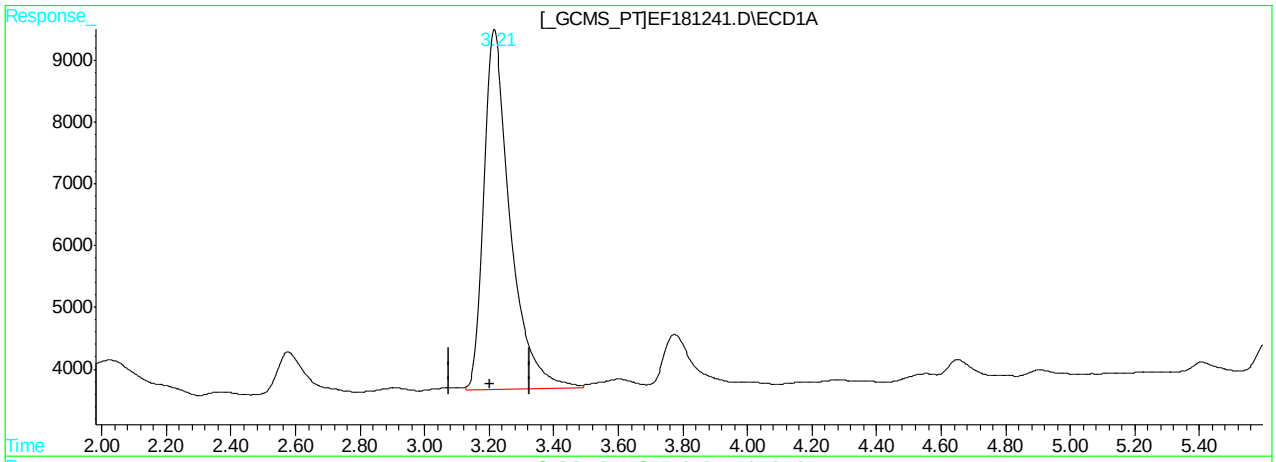
response 471719

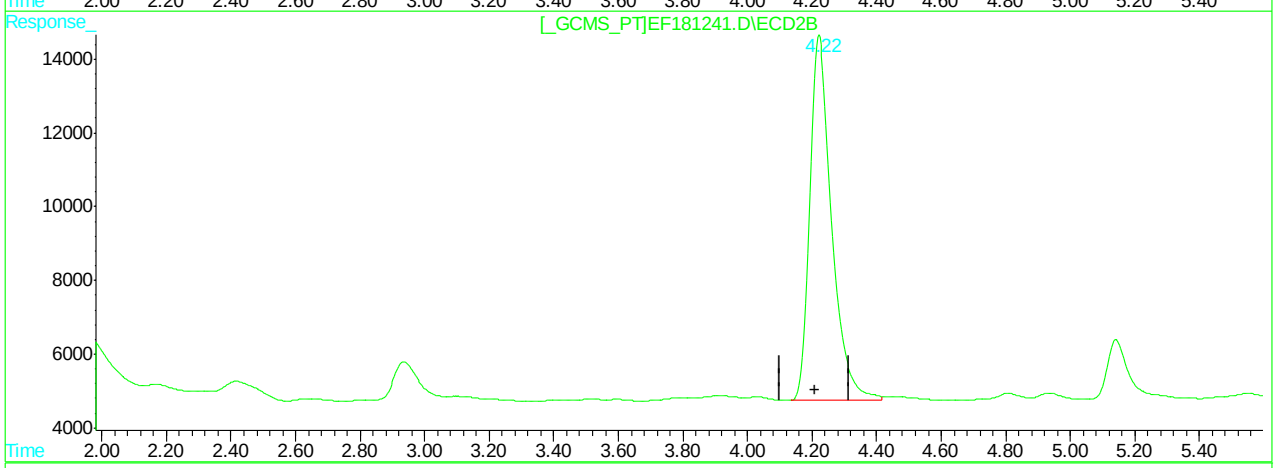
(+) = Expected Retention Time
EF181241.D PCB6195.M Thu Mar 29 10:03:26 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD1A.CH Vial: 55
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD2B.CH
Acq On : 29 Mar 2018 3:24 am Operator: humarahb
Sample : jc62879-16 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:02 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 28.525PPB m

response 329771

(1) Tetrachloro-m-xylene #2 (S)

4.22min 29.890PPB m

response 465354

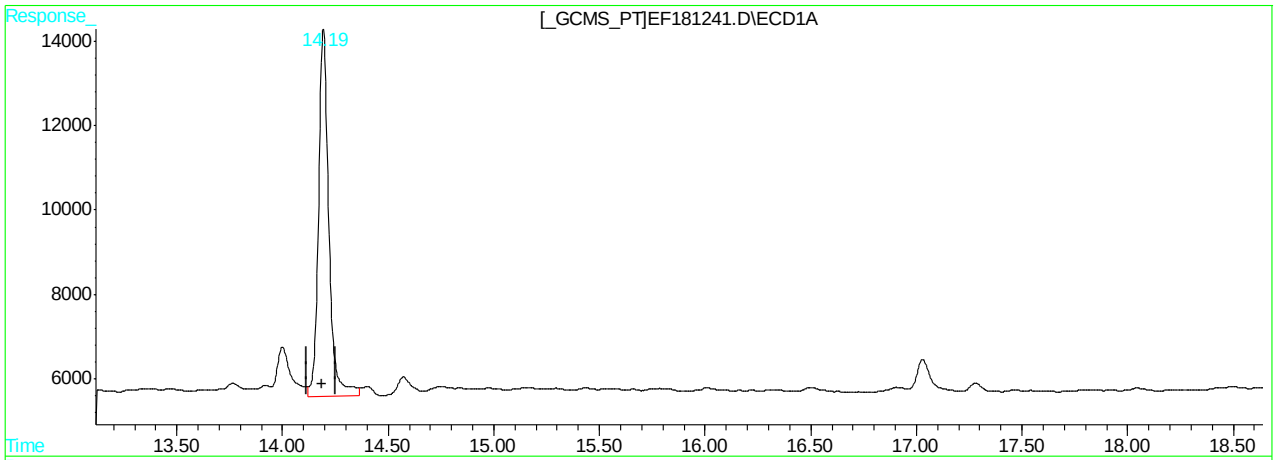
(+) = Expected Retention Time
EF181241.D PCB6195.M Thu Mar 29 10:03:36 2018 GCEF

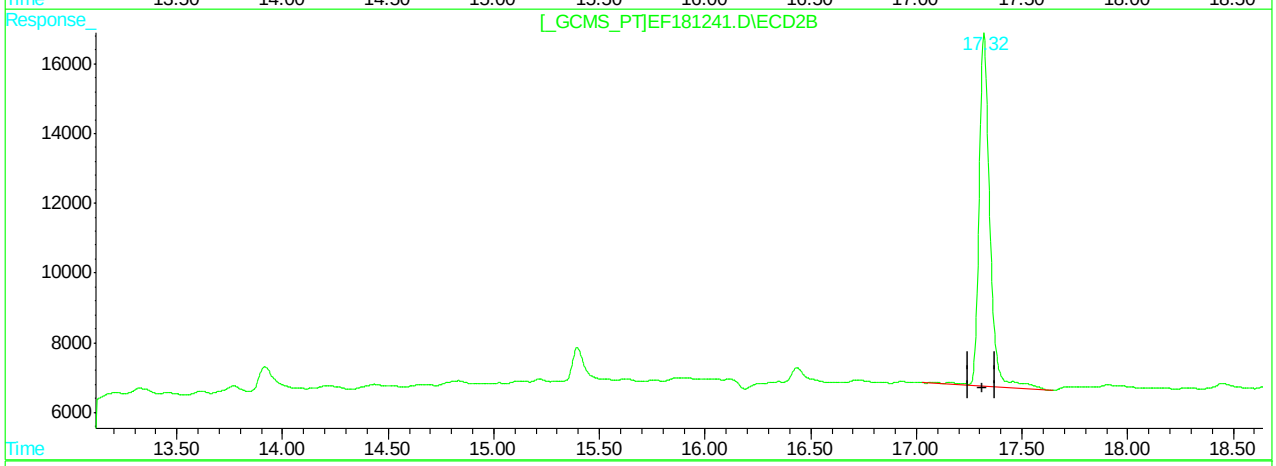
11.1.35.3 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD1A.CH Vial: 55
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD2B.CH
Acq On : 29 Mar 2018 3:24 am Operator: humarahb
Sample : jc62879-16 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:02 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 17.306PPB

response 296211

(51) Decachlorobiphenyl #2 (S)

17.32min 17.183PPB

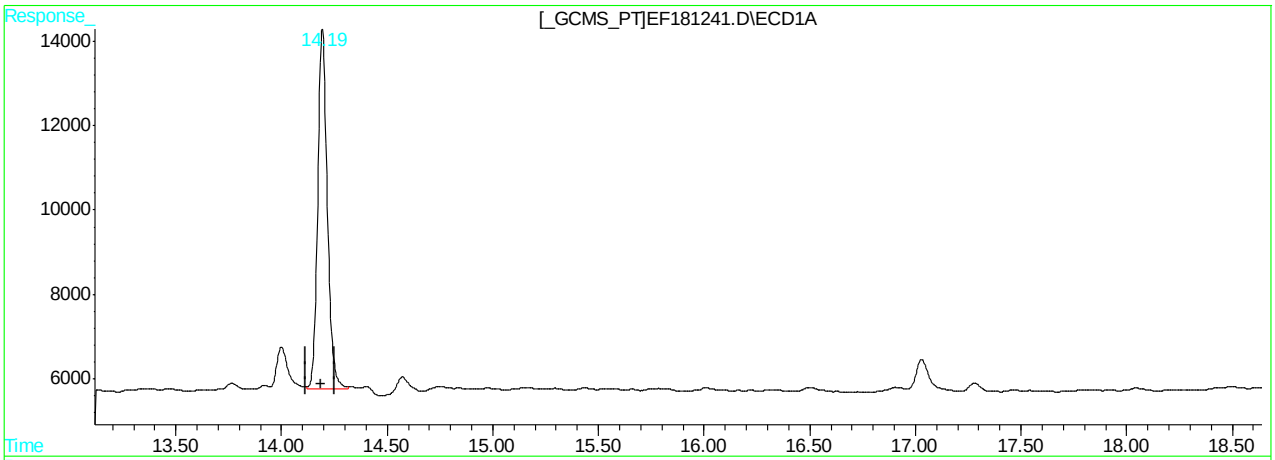
response 360732

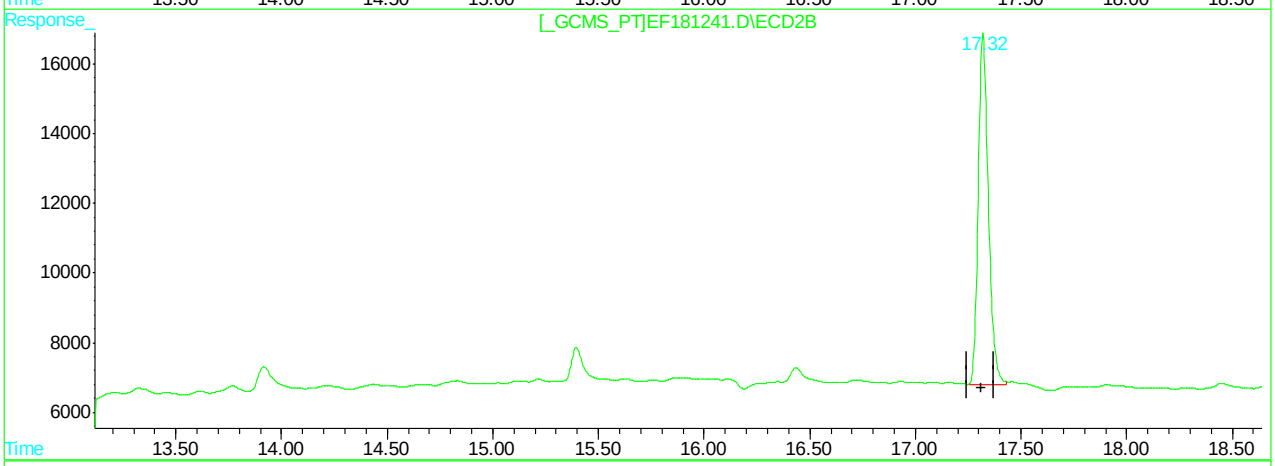
(+) = Expected Retention Time
EF181241.D PCB6195.M Thu Mar 29 10:03:40 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD1A.CH Vial: 55
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181241.D\ECD2B.CH
Acq On : 29 Mar 2018 3:24 am Operator: humarahb
Sample : jc62879-16 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:02 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 15.809PPB m

response 270593

(51) Decachlorobiphenyl #2 (S)

17.32min 15.971PPB m

response 335286

(+) = Expected Retention Time
EF181241.D PCB6195.M Thu Mar 29 10:03:53 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181242.D\ECD1A.CH Vial: 56
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181242.D\ECD2B.CH
Acq On : 29 Mar 2018 3:49 am Operator: humarahb
Sample : jc62879-17 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:04 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachloro-m-xy	3.22	4.22	414055	569933	35.815	36.607
Spiked Amount 40.000			Recovery	=	89.54%	91.52%
51) S Decachlorobiphen	14.19	17.32	563629	694579	32.930m	33.085m
Spiked Amount 40.000			Recovery	=	82.33%	82.71%
Target Compounds						

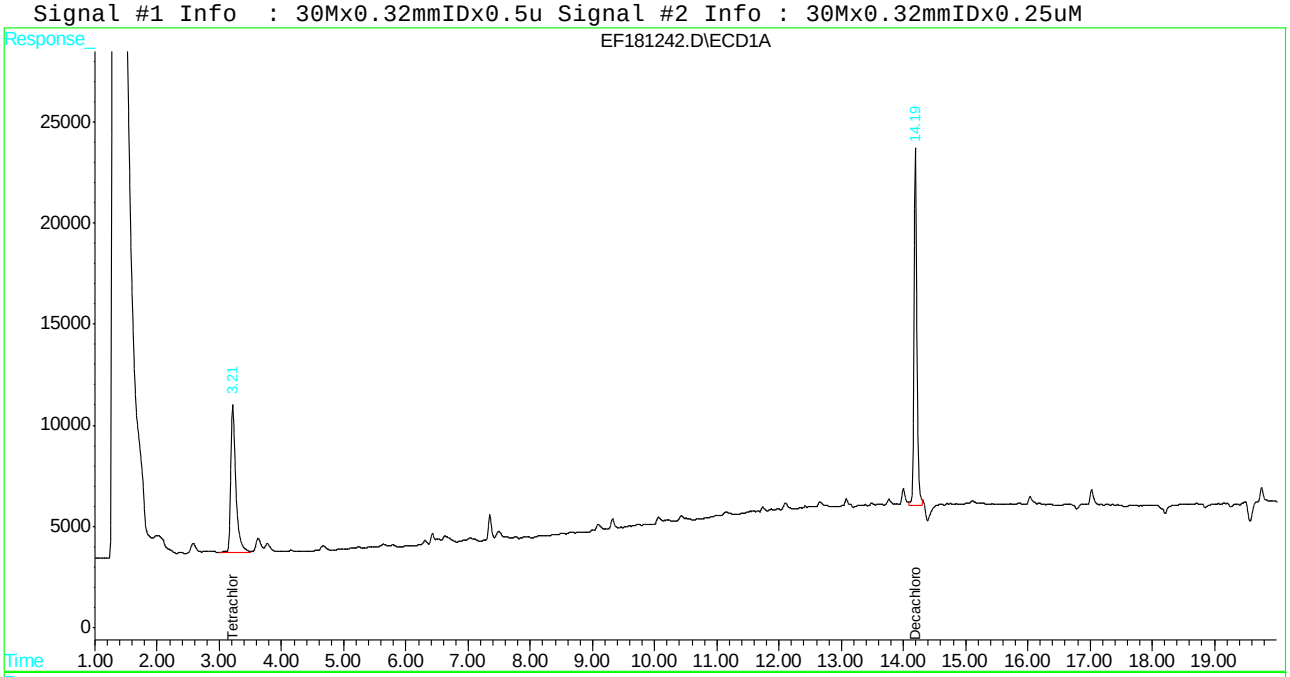
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181242.D PCB6195.M Thu Mar 29 10:05:05 2018 GCEF Page 1

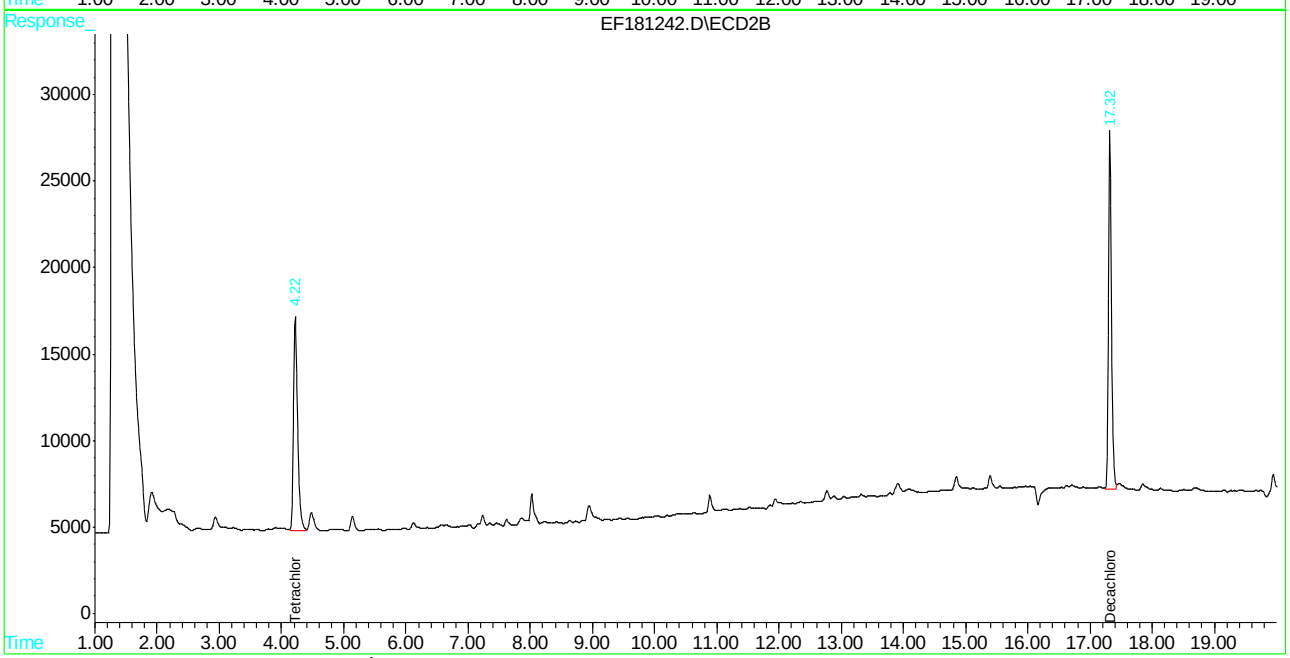
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181242.D\ECD1A.CH Vial: 56
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181242.D\ECD2B.CH
Acq On : 29 Mar 2018 3:49 am Operator: humarahb
Sample : jc62879-17 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:04 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

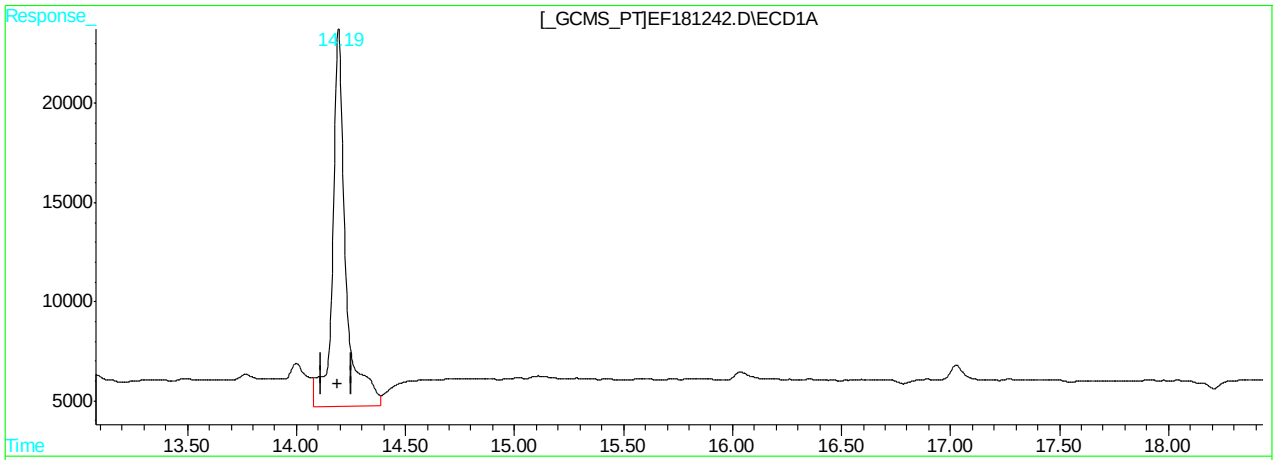
Sample Number: JC62879-17
Lab FileID: EF181242.D
Injection Time: 03/29/18 03:49
Method: SW846 8082A
Analyst approved: 03/29/18 11:01 Tianwei Ruan
Supervisor approved: 03/29/18 17:48 Gwendolyn Burns

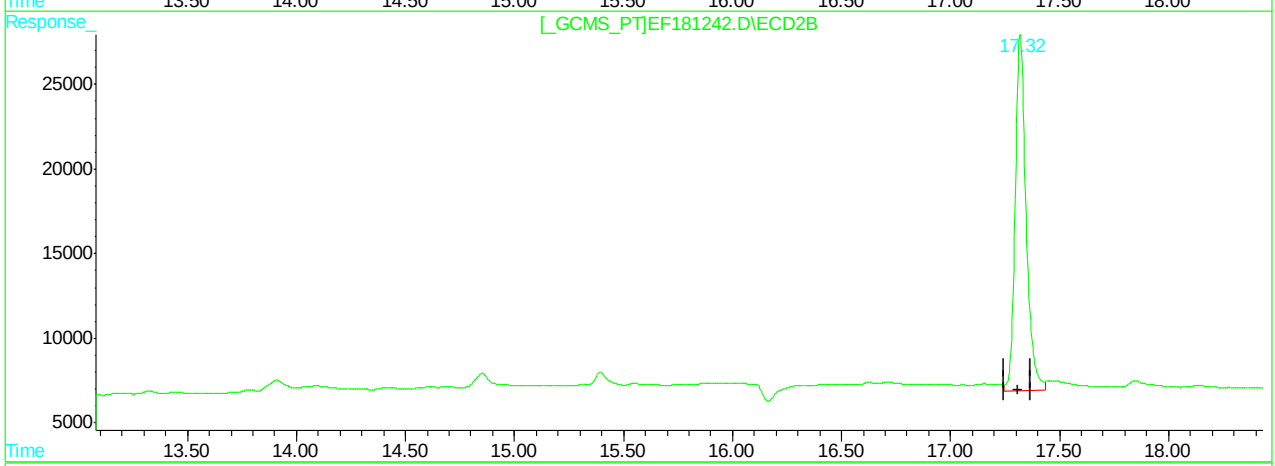
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181242.D\ECD1A.CH Vial: 56
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181242.D\ECD2B.CH
Acq On : 29 Mar 2018 3:49 am Operator: humarahb
Sample : jc62879-17 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:04 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 46.608PPB

response 797757

(51) Decachlorobiphenyl #2 (S)

17.32min 34.707PPB

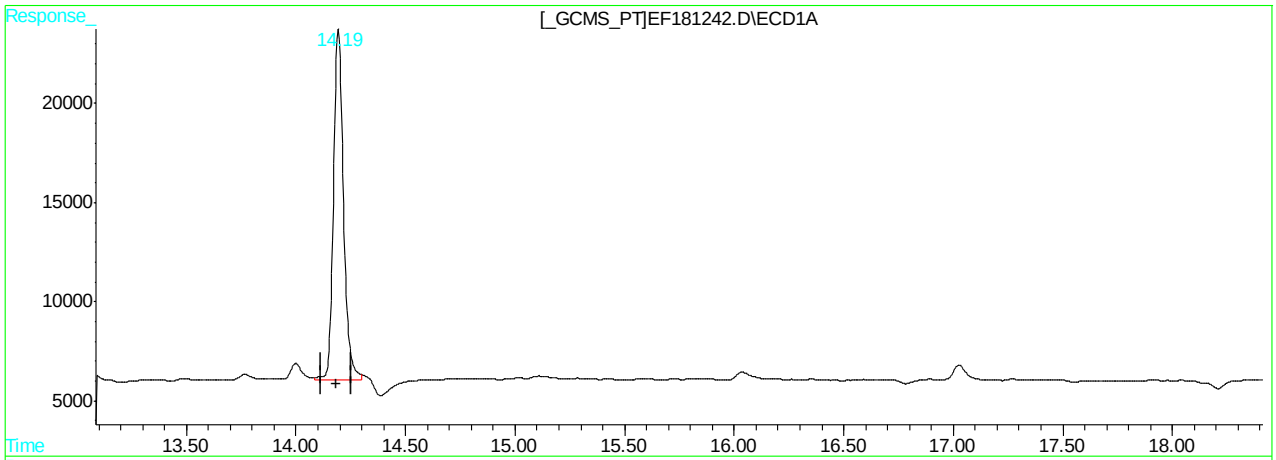
response 728621

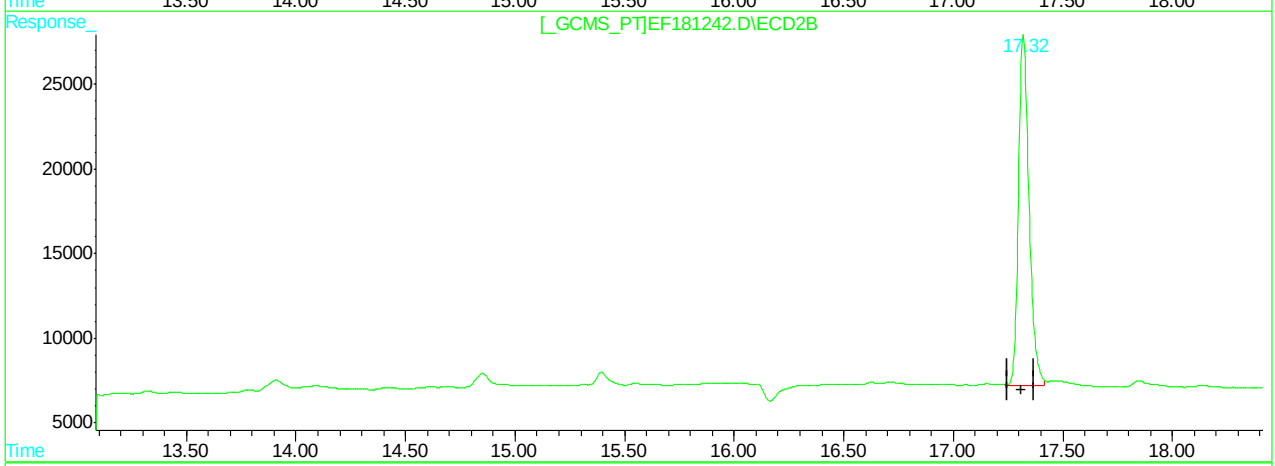
(+) = Expected Retention Time
EF181242.D PCB6195.M Thu Mar 29 10:04:44 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181242.D\ECD1A.CH Vial: 56
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181242.D\ECD2B.CH
Acq On : 29 Mar 2018 3:49 am Operator: humarahb
Sample : jc62879-17 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:04 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 32.930PPB m

response 563629

(51) Decachlorobiphenyl #2 (S)

17.32min 33.085PPB m

response 694579

(+) = Expected Retention Time
EF181242.D PCB6195.M Thu Mar 29 10:04:54 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD1A.CH Vial: 57
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD2B.CH
Acq On : 29 Mar 2018 4:14 am Operator: humarahb
Sample : jc62879-18 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:05 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.21	4.22	388250	508377	33.583m	32.653m
	Spiked Amount 40.000			Recovery =		83.96%	81.63%
51)	S Decachlorobiphen	14.19	17.32	223661	212976	13.067m	10.145
	Spiked Amount 40.000			Recovery =		32.67%	25.36%
	Target Compounds						

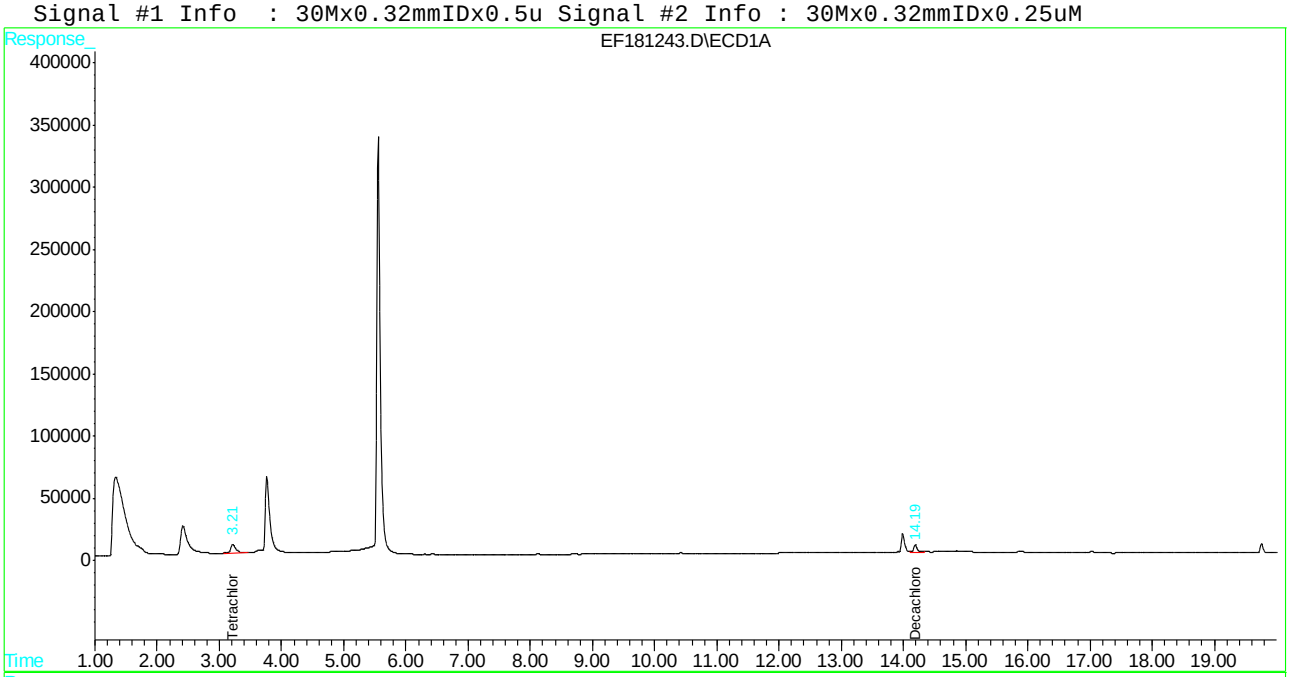
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181243.D PCB6195.M Thu Mar 29 10:31:01 2018 GCEF Page 1

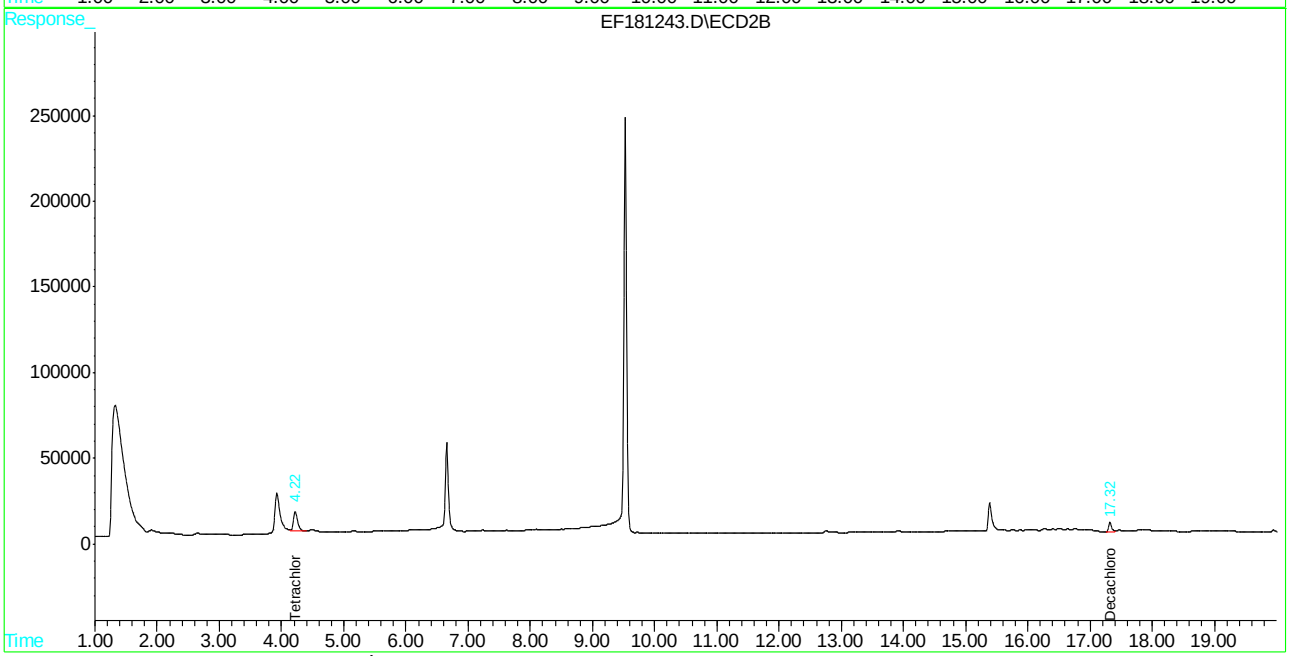
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD1A.CH Vial: 57
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD2B.CH
Acq On : 29 Mar 2018 4:14 am Operator: humarahb
Sample : jc62879-18 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:05 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

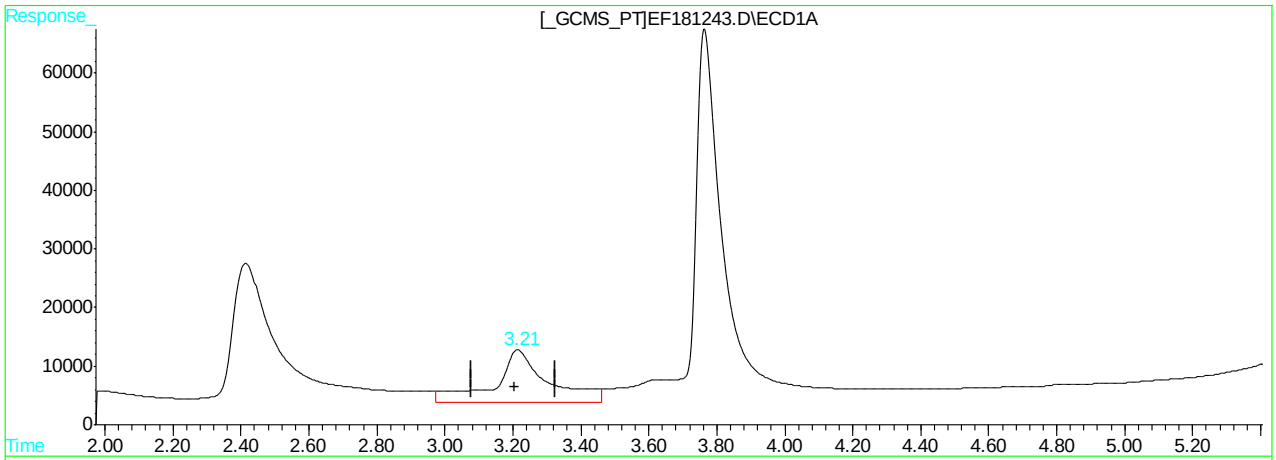
Sample Number: JC62879-18
Lab FileID: EF181243.D
Injection Time: 03/29/18 04:14
Method: SW846 8082A
Analyst approved: 03/29/18 11:01 Tianwei Ruan
Supervisor approved: 03/29/18 17:48 Gwendolyn Burns

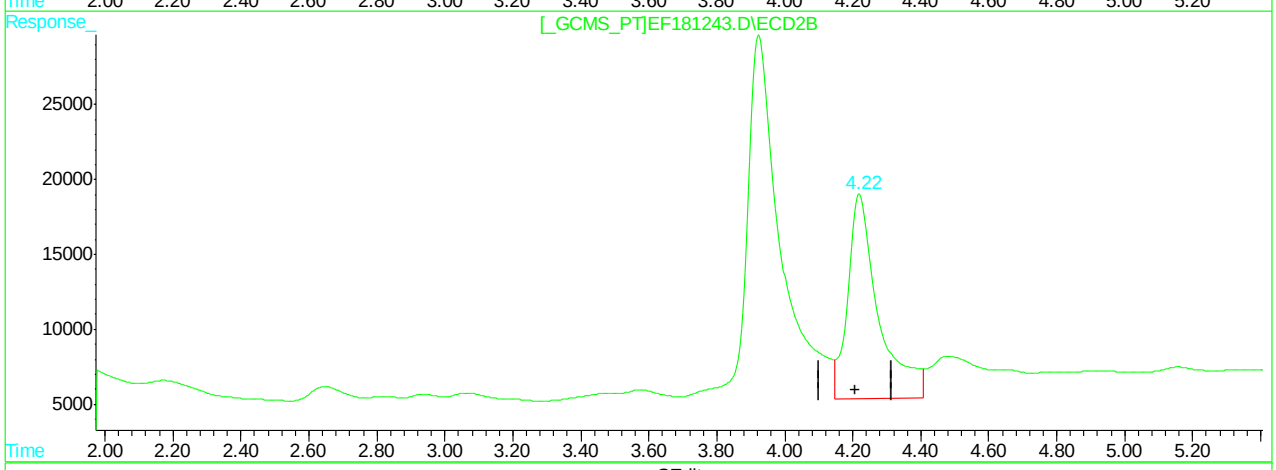
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.21	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	4.22	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD1A.CH Vial: 57
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD2B.CH
Acq On : 29 Mar 2018 4:14 am Operator: humarahb
Sample : jc62879-18 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:05 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 84.858PPB

response 981037

(1) Tetrachloro-m-xylene #2 (S)

4.22min 55.137PPB

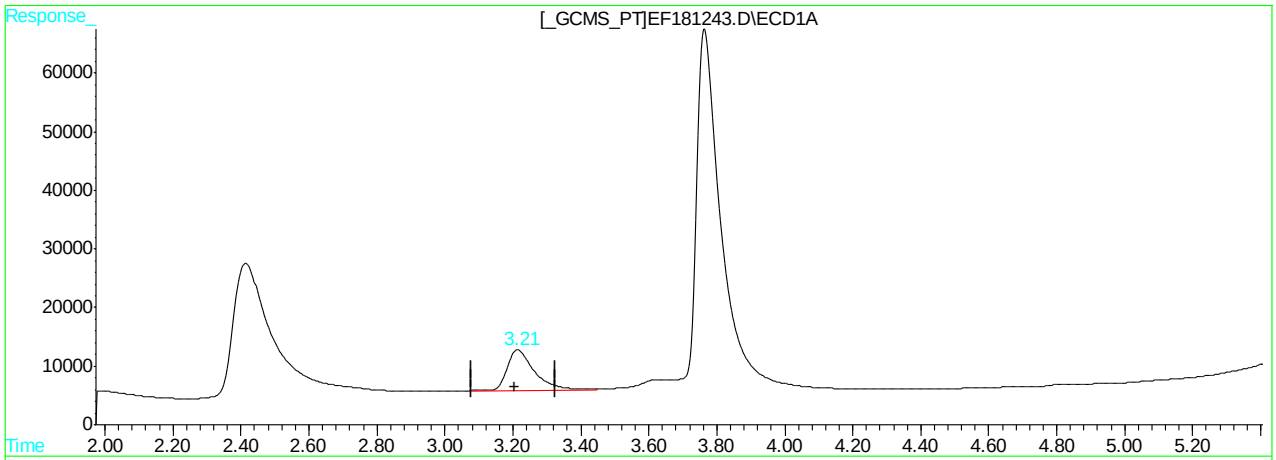
response 858423

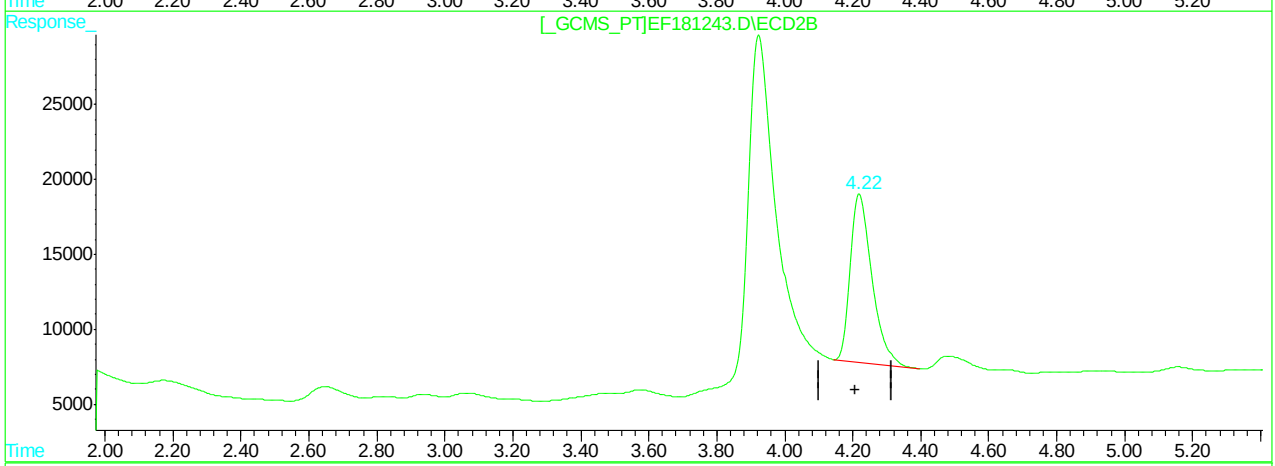
(+) = Expected Retention Time
EF181243.D PCB6195.M Thu Mar 29 10:05:43 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD1A.CH Vial: 57
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD2B.CH
Acq On : 29 Mar 2018 4:14 am Operator: humarahb
Sample : jc62879-18 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:05 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 33.583PPB m

response 388250

(1) Tetrachloro-m-xylene #2 (S)

4.22min 32.653PPB m

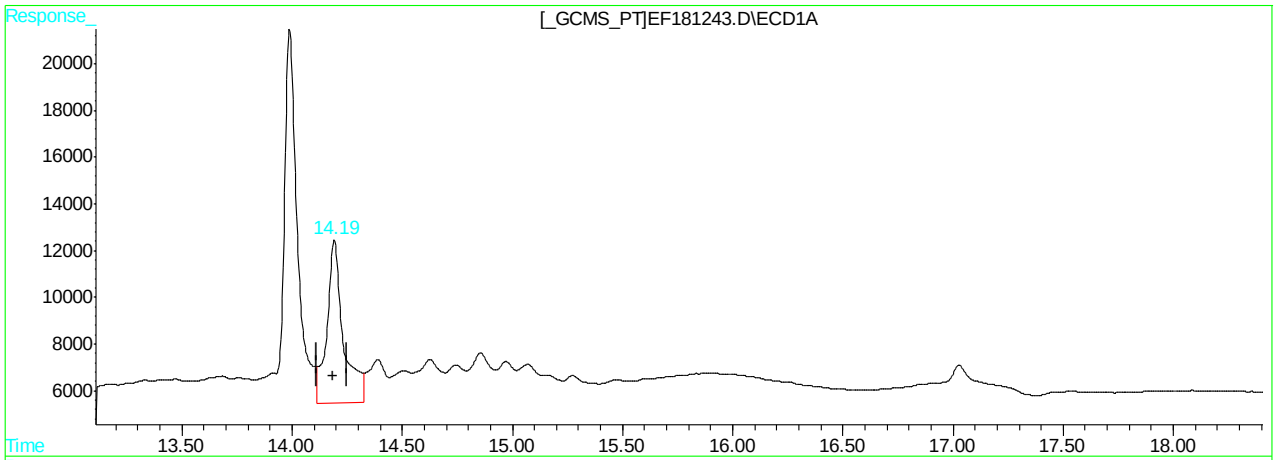
response 508377

(+) = Expected Retention Time
EF181243.D PCB6195.M Thu Mar 29 10:05:50 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD1A.CH Vial: 57
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD2B.CH
Acq On : 29 Mar 2018 4:14 am Operator: humarahb
Sample : jc62879-18 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:05 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.19min 21.447PPB

response 367086

(51) Decachlorobiphenyl #2 (S)

17.32min 10.145PPB

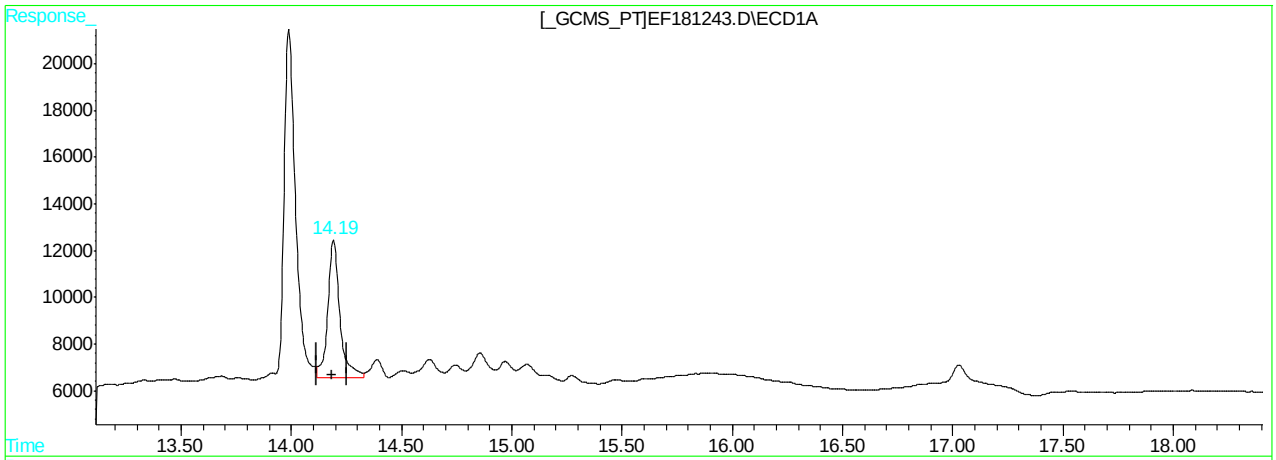
response 212976

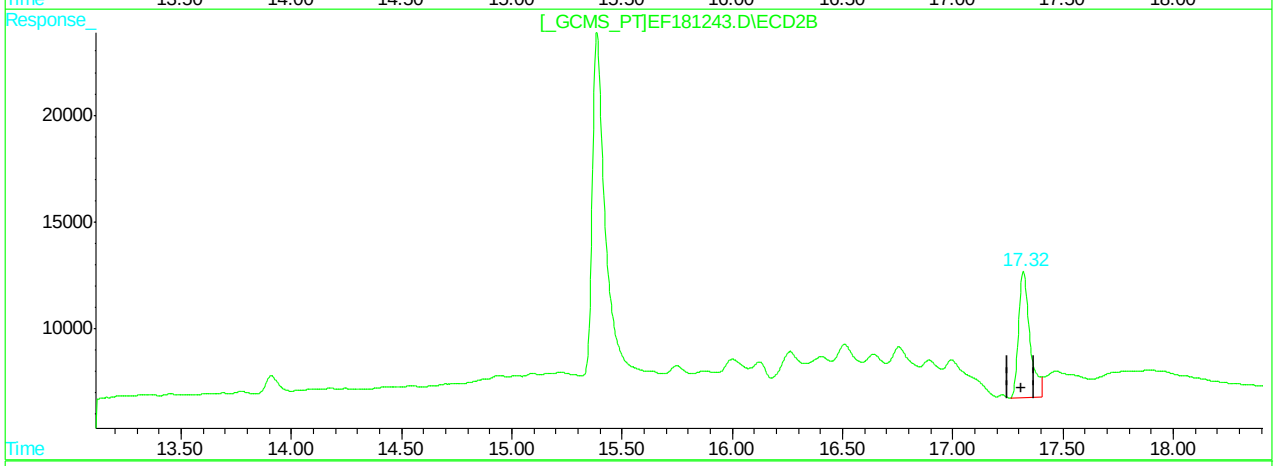
(+) = Expected Retention Time
EF181243.D PCB6195.M Thu Mar 29 10:05:53 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD1A.CH Vial: 57
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181243.D\ECD2B.CH
Acq On : 29 Mar 2018 4:14 am Operator: humarahb
Sample : jc62879-18 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 10:05 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 13.067PPB m

response 223661

(51) Decachlorobiphenyl #2 (S)

17.32min 10.145PPB

response 212976

(+) = Expected Retention Time
EF181243.D PCB6195.M Thu Mar 29 10:06:18 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181223.D\ECD1A.CH Vial: 43
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181223.D\ECD2B.CH
Acq On : 28 Mar 2018 7:54 pm Operator: humarahb
Sample : jc62879-20 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:48 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.22	4.22	366442	508961	31.697	32.691
	Spiked Amount 40.000			Recovery =		79.24%	81.73%
51)	S Decachlorobiphen	14.20	17.33	561171	655227	32.786m	31.211m
	Spiked Amount 40.000			Recovery =		81.97%	78.03%
	Target Compounds						

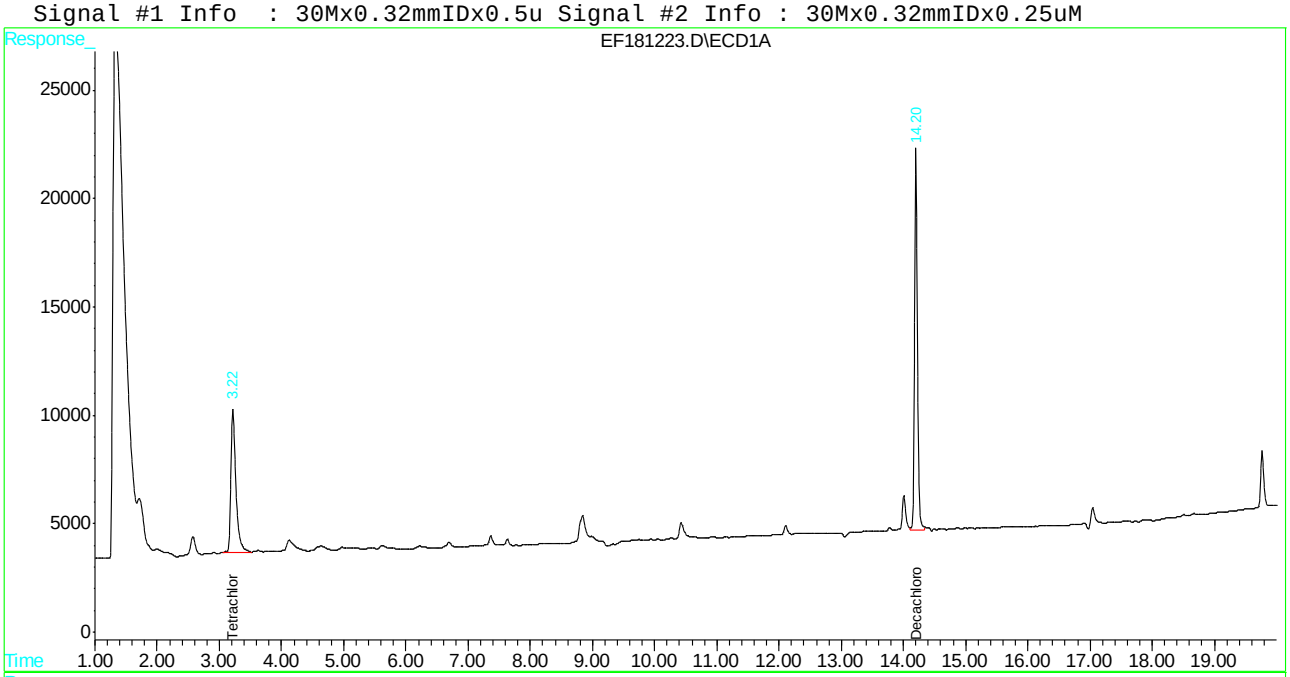
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181223.D PCB6195.M Thu Mar 29 09:48:45 2018 GCEF Page 1

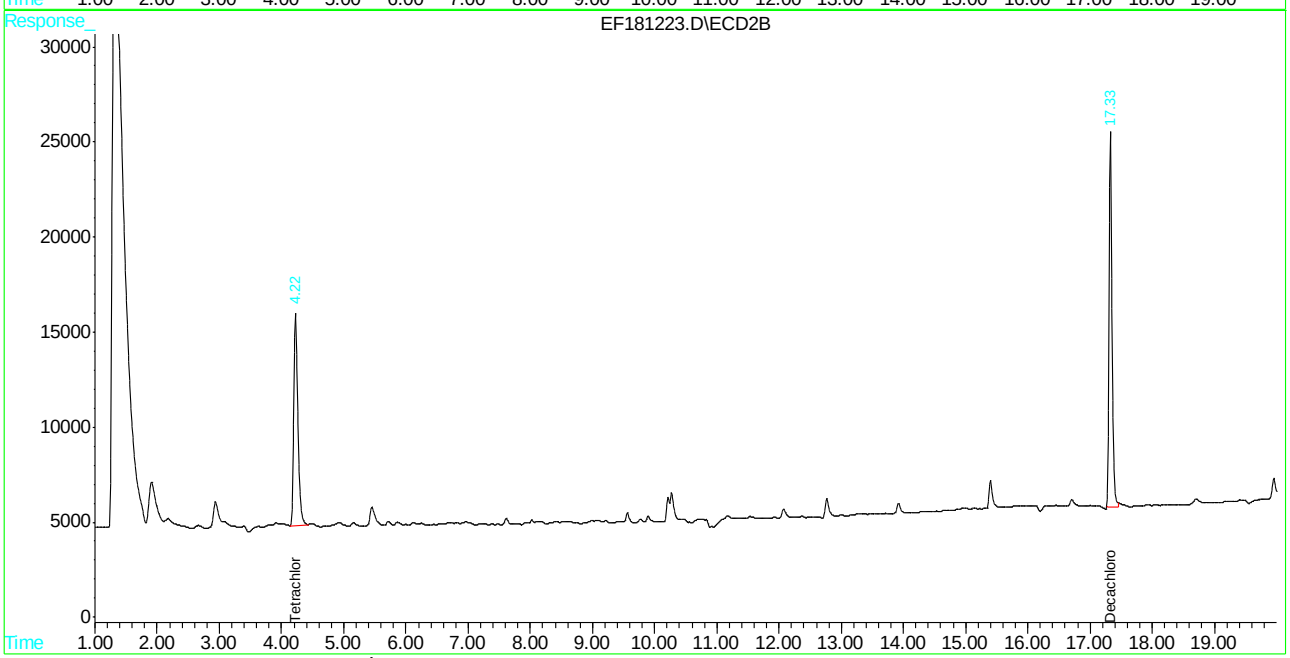
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181223.D\ECD1A.CH Vial: 43
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181223.D\ECD2B.CH
Acq On : 28 Mar 2018 7:54 pm Operator: humarahb
Sample : jc62879-20 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:48 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

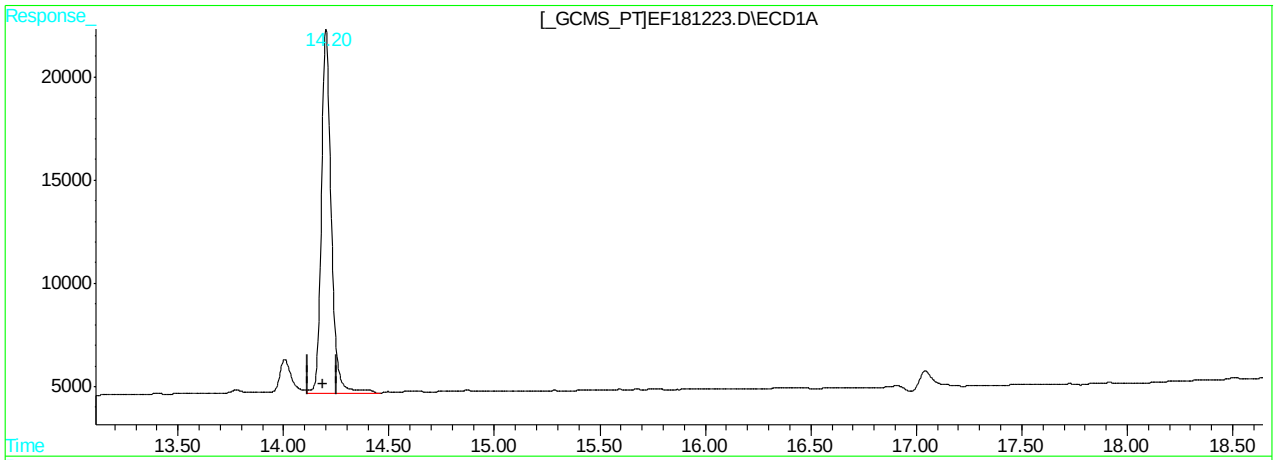
Sample Number:	JC62879-20	**Method:**	SW846 8082A
Lab FileID:	EF181223.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/28/18 19:54	**Supervisor approved:**	03/29/18 17:48 Gwendolyn Burns

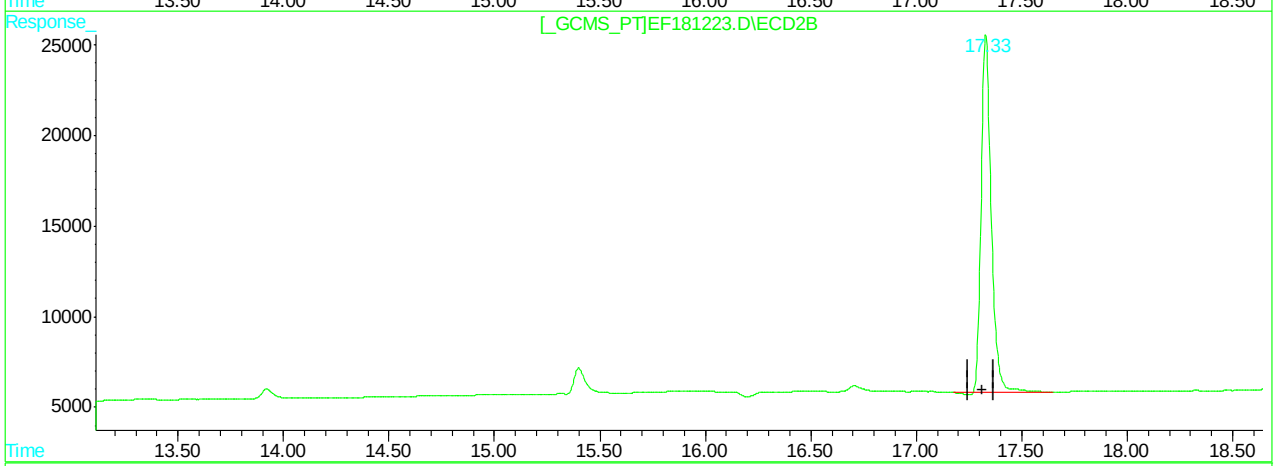
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	14.20	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181223.D\ECD1A.CH Vial: 43
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181223.D\ECD2B.CH
Acq On : 28 Mar 2018 7:54 pm Operator: humarahb
Sample : jc62879-20 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:48 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 33.439PPB

response 572352

(51) Decachlorobiphenyl #2 (S)

17.33min 31.615PPB

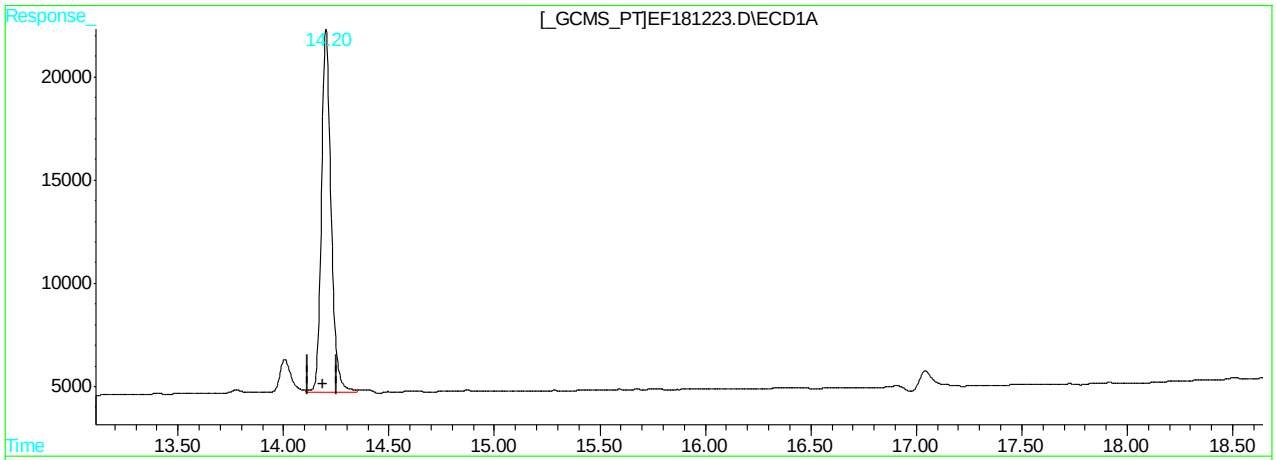
response 663700

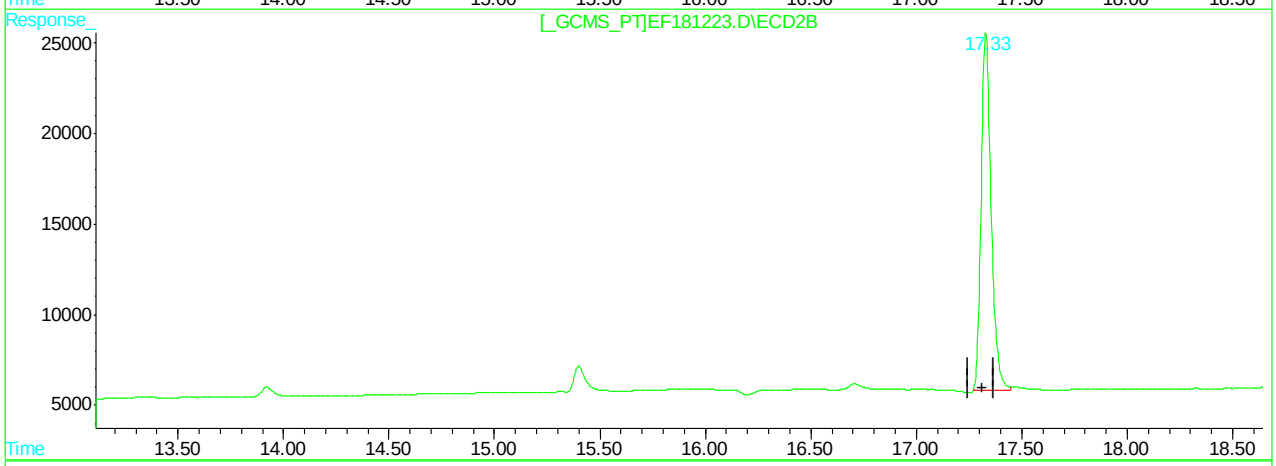
(+) = Expected Retention Time
EF181223.D PCB6195.M Thu Mar 29 09:48:30 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181223.D\ECD1A.CH Vial: 43
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181223.D\ECD2B.CH
Acq On : 28 Mar 2018 7:54 pm Operator: humarahb
Sample : jc62879-20 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:48 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 32.786PPB m

response 561171

(51) Decachlorobiphenyl #2 (S)

17.33min 31.211PPB m

response 655227

(+) = Expected Retention Time
EF181223.D PCB6195.M Thu Mar 29 09:48:41 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/27/18 16:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90985.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:54 am
Operator : kristend
Sample : op10876-mb1
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 11:19:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.465	1.884	1237.0E6	220.2E6	50.000	50.000
27) I	1-bromo-2...	1.465	1.884	1237.0E6	220.2E6	50.000	50.000
33) I	1-bromo-2...	1.465	1.884	1237.0E6	220.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.069	2.762	855.9E6	133.1E6	35.446m	32.829
	Spiked Amount 40.000	Range 30 - 150		Recovery =		88.61%	82.07%
26) SA	Decachlor...	9.304	11.810	347.7E6	49807582	15.834	14.826
	Spiked Amount 40.000			Recovery =		39.59%	37.07%
	Target Compounds						
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

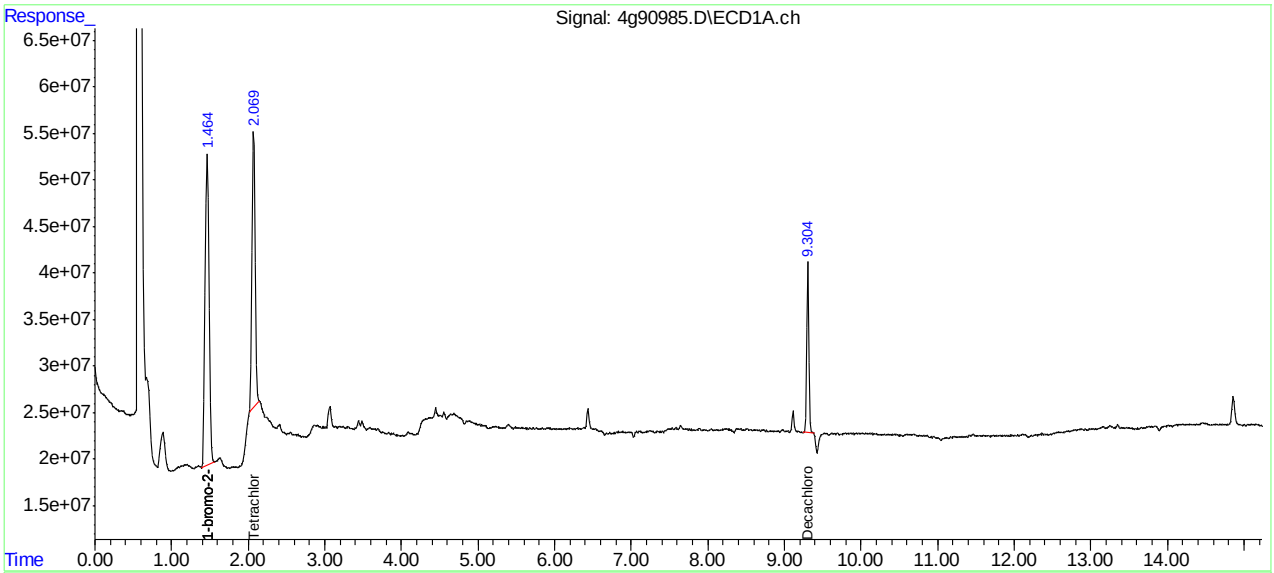
11.2.1 11

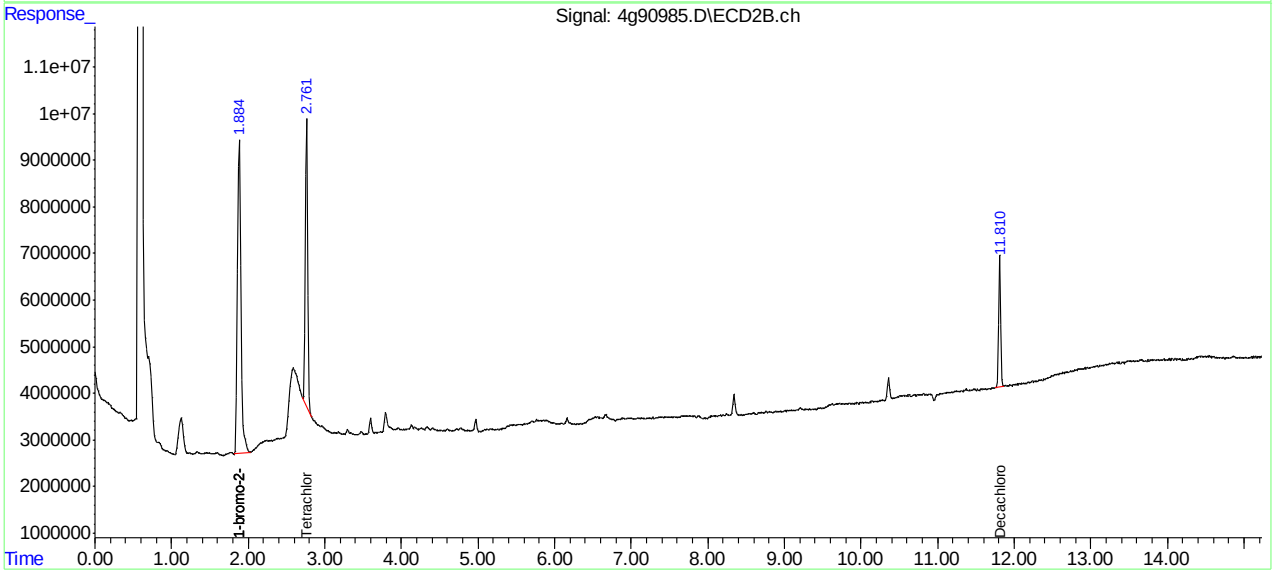
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90985.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:54 am
Operator : kristend
Sample : op10876-mb1
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 11:19:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	OP10876-MB1	**Method:**	SW846 8081B
Lab FileID:	4G90985.D	**Analyst approved:**	03/27/18 11:23 Kristen Drake
Injection Time:	03/27/18 09:54	**Supervisor approved:**	03/27/18 16:32 Gwendolyn Burns

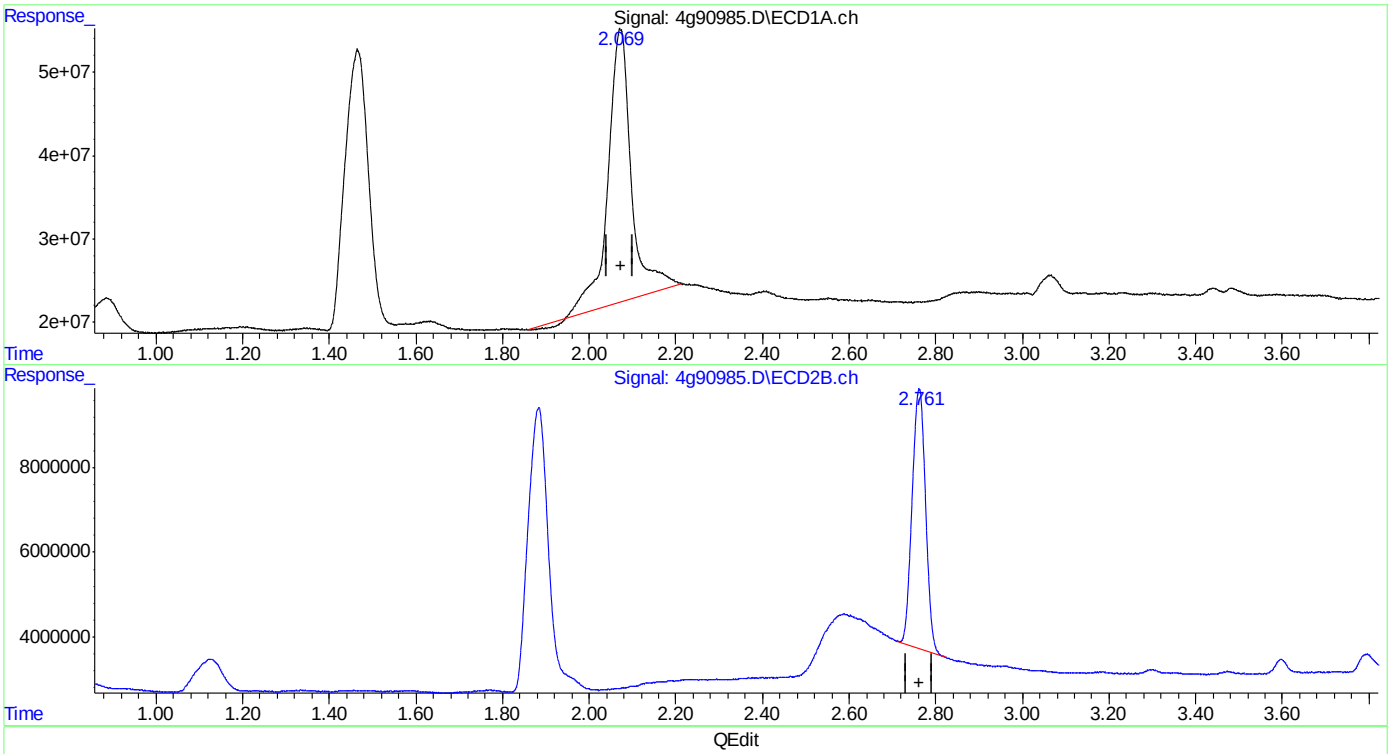
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.07	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90985.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:54 am
Operator : kristend
Sample : op10876-mb1
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 11:18:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)
2.070min 51.102 PPB
response 1219244545

(2) Tetrachloro-m-xylene #2 (SAB)
2.762min 32.829 PPB
response 133065227

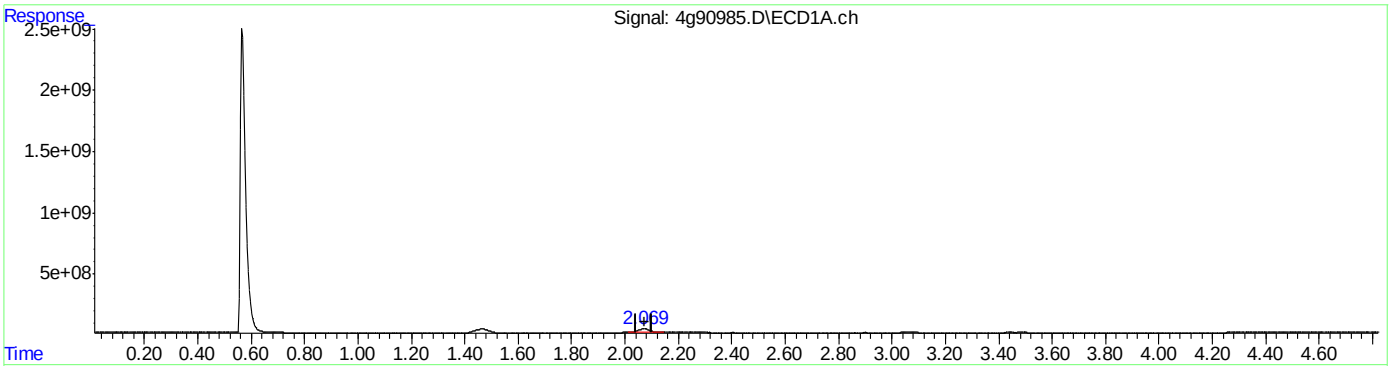
(+) = Expected Retention Time

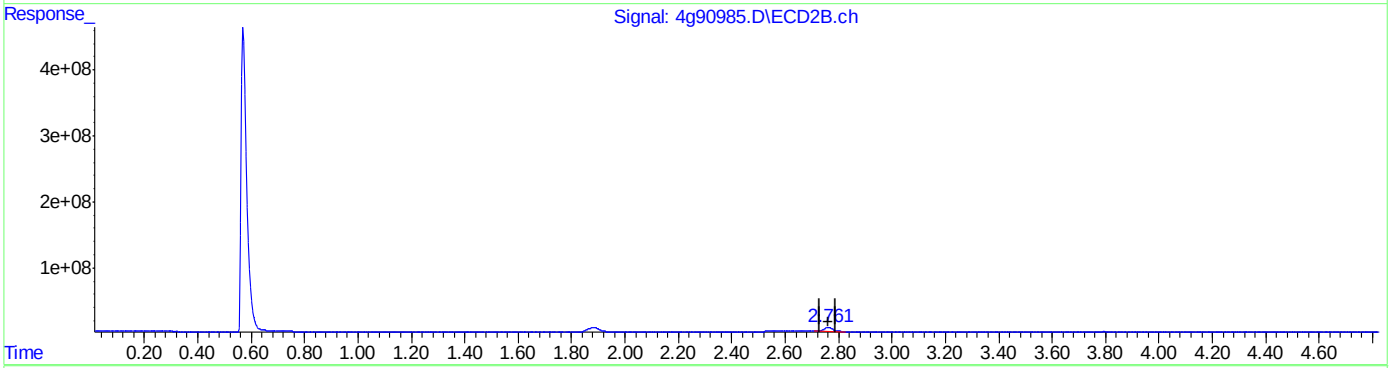
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90985.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:54 am
Operator : kristend
Sample : op10876-mb1
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 11:18:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(2) Tetrachloro-m-xylene (SAB)
2.069min 35.446 PPB m
response 855936422

(2) Tetrachloro-m-xylene #2 (SAB)
2.762min 32.829 PPB
response 133065227

(+) = Expected Retention Time
4PST2366.M Tue Mar 27 11:18:45 2018 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144704.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144704.D\ECD2B.CH
Acq On : 3-28-18 01:26:39 AM Operator: christp
Sample : op10885-mb1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:39 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.16	2.45	463.7E6	108.6E6	50.000	50.000
27) I	1-bromo-2-nitrob	2.16	2.45	463.7E6	108.6E6	50.000	50.000
33) I	1-bromo-2-nitrob	2.16	2.45	463.7E6	108.6E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.78	3.34	278.0E6	60731456	33.875	30.804
	Spiked Amount 40.000	Range 30 - 150		Recovery =		84.69%	77.01%
26) SA	Decachlorobiphen	10.13	12.03	107.9E6	17170368	16.102	12.062
	Spiked Amount 40.000			Recovery =		40.26%	30.15%
	Target Compounds						

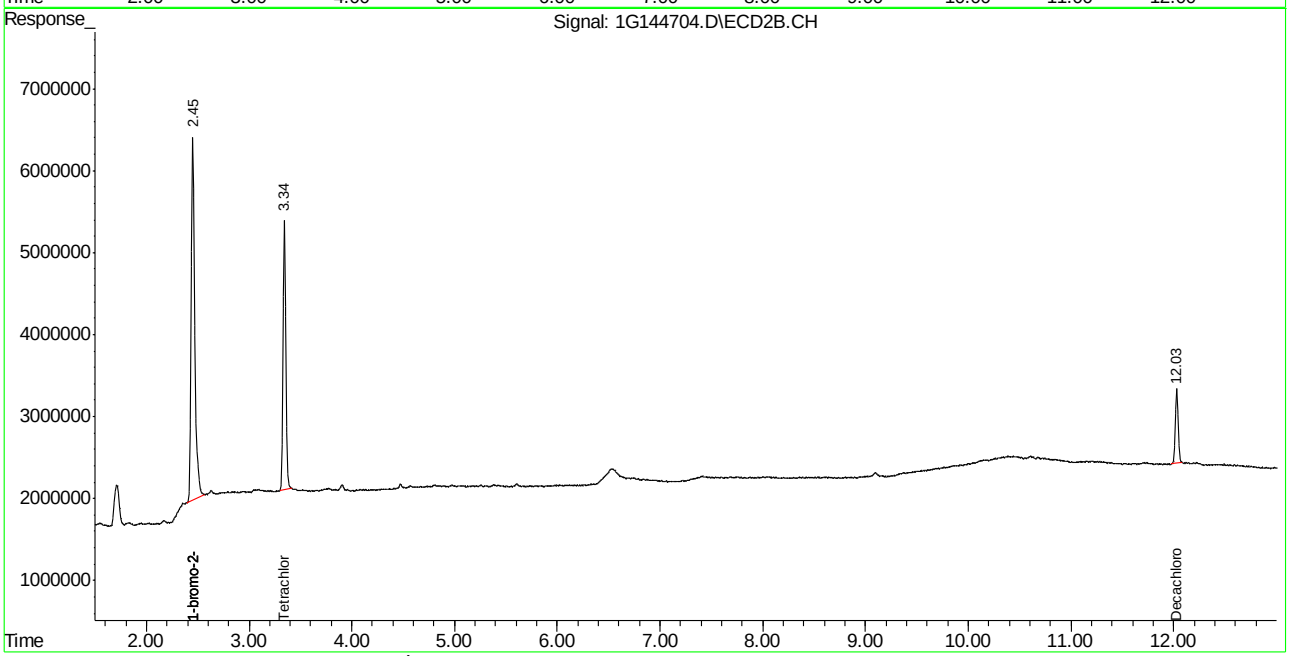
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144704.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144704.D\ECD2B.CH
Acq On : 3-28-18 01:26:39 AM Operator: christp
Sample : op10885-mb1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:39 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181179.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181179.D\ECD2B.CH
Acq On : 27 Mar 2018 1:00 pm Operator: humarahb
Sample : op10875-mb1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.21	4.21	366746	532652	31.723	34.213
	Spiked Amount 40.000			Recovery	=	79.31%	85.53%
51) S	Decachlorobiphen	14.18	17.31	407011	480098	23.779	22.869
	Spiked Amount 40.000			Recovery	=	59.45%	57.17%
	Target Compounds						

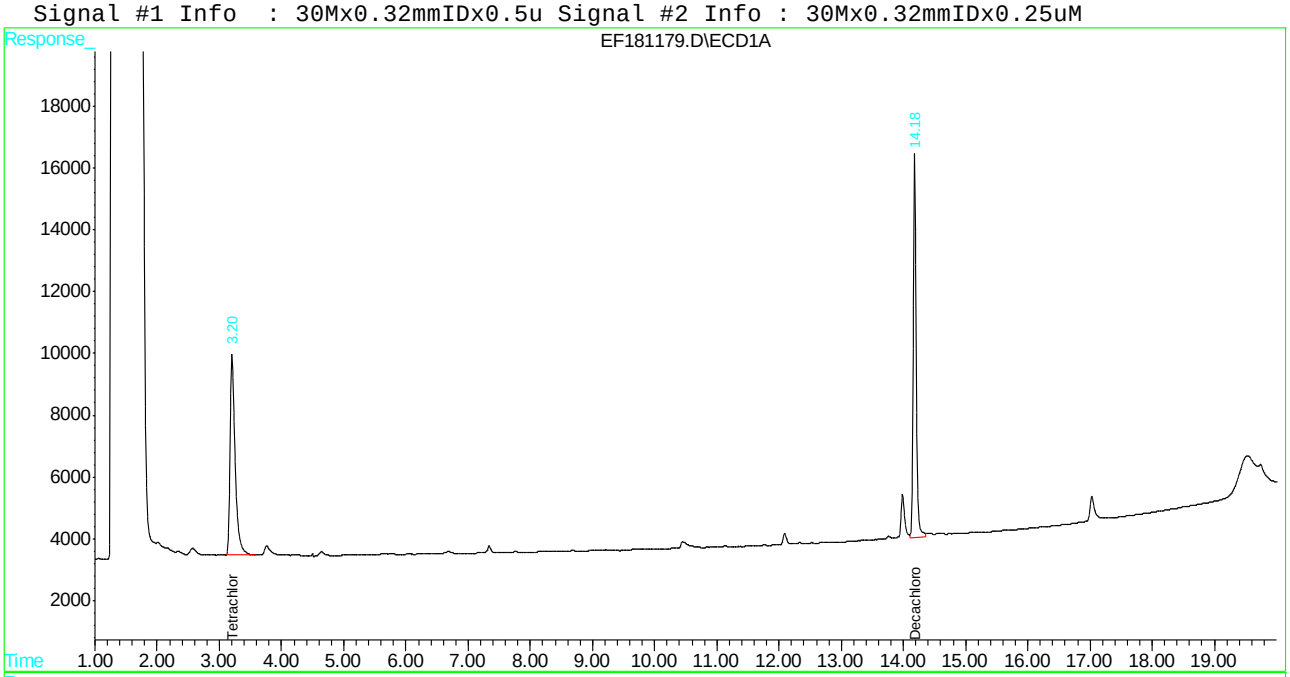
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181179.D PCB6195.M Tue Mar 27 14:33:48 2018 GCEF Page 1

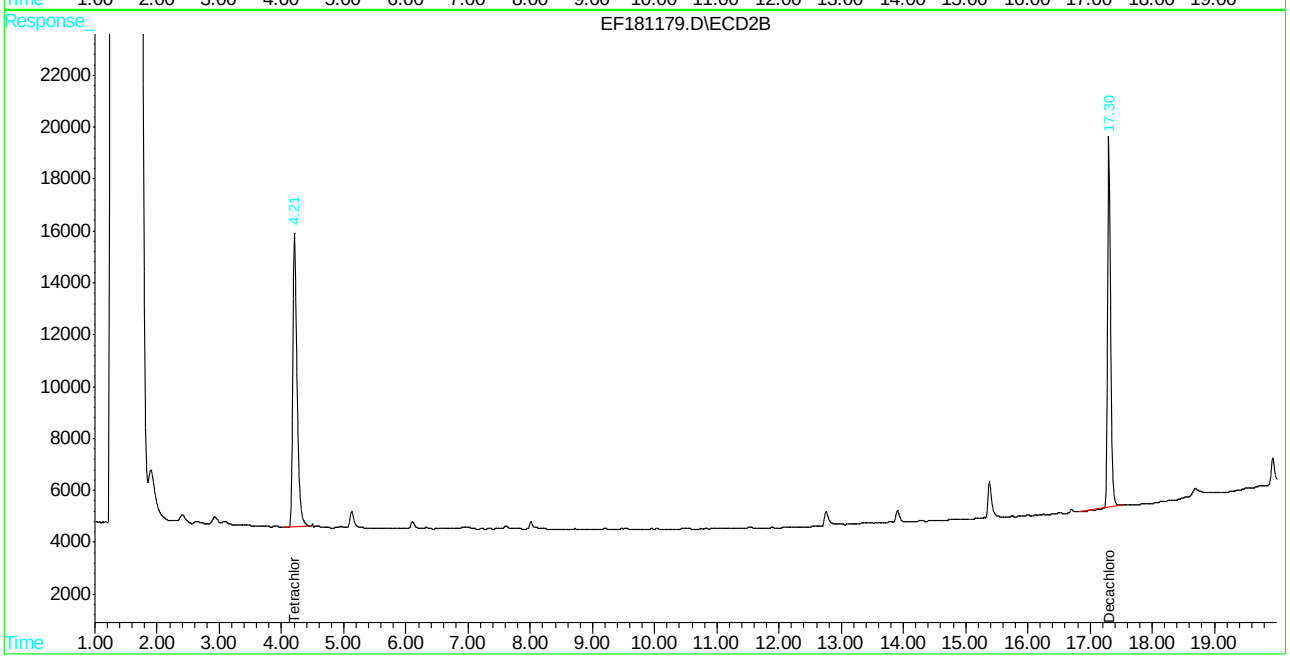
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181179.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181179.D\ECD2B.CH
Acq On : 27 Mar 2018 1:00 pm Operator: humarahb
Sample : op10875-mb1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62879

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181218.D\ECD1A.CH Vial: 38
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181218.D\ECD2B.CH
Acq On : 28 Mar 2018 5:49 pm Operator: humarahb
Sample : op10884-mb1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:34 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachloro-m-xy	3.21	4.22	325619	446671	28.165	28.690
Spiked Amount 40.000			Recovery =		70.41%	71.73%
51) S Decachlorobiphen	14.21	17.33	307121	359631	17.943	17.131
Spiked Amount 40.000			Recovery =		44.86%	42.83%
Target Compounds						

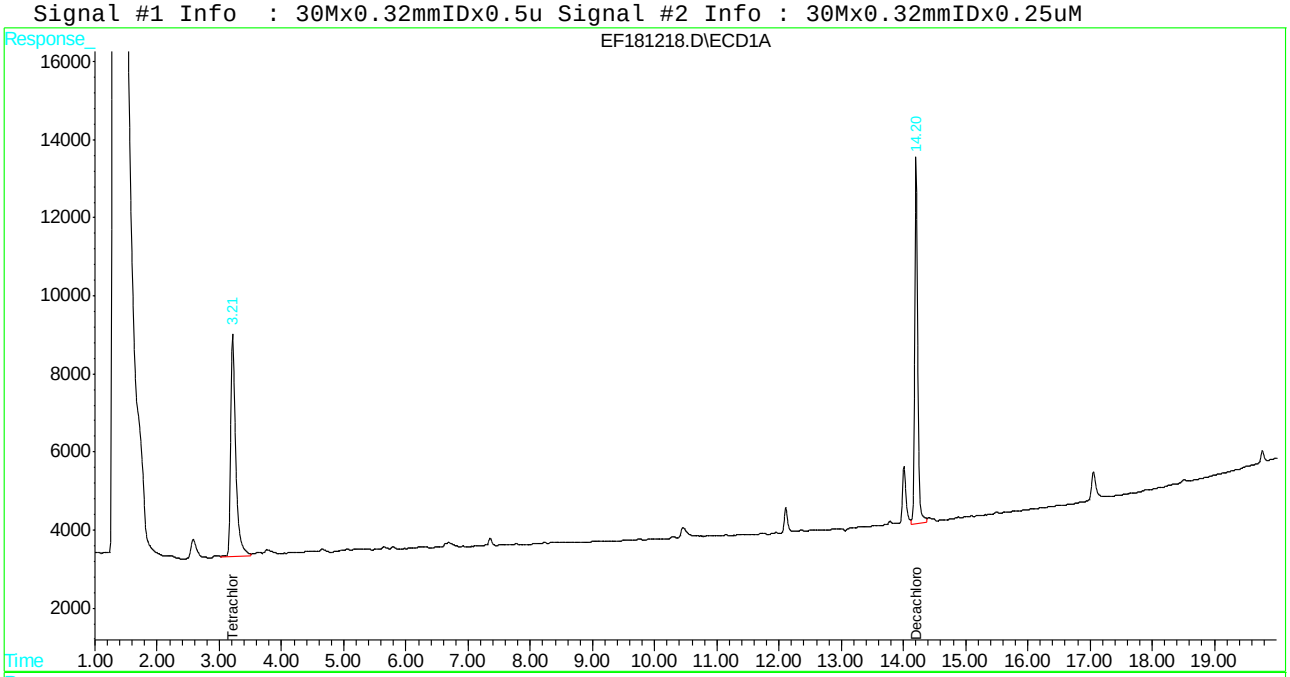
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181218.D PCB6195.M Thu Mar 29 09:35:03 2018 GCEF

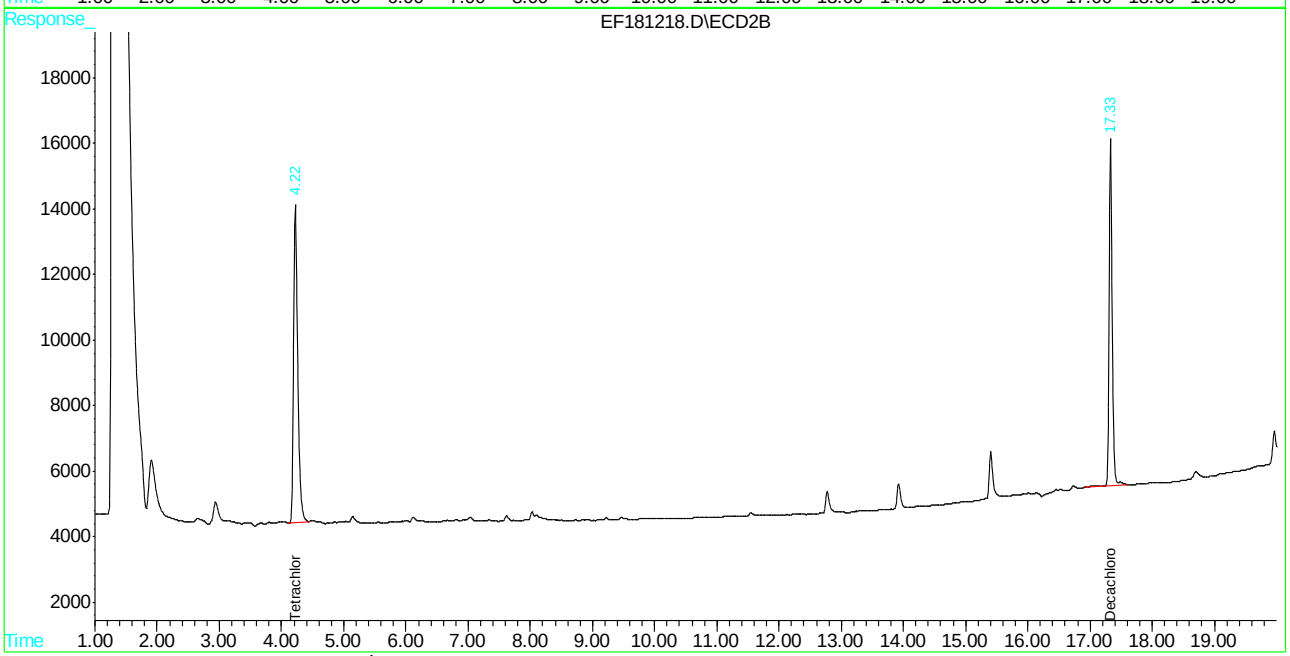
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181218.D\ECD1A.CH Vial: 38
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181218.D\ECD2B.CH
Acq On : 28 Mar 2018 5:49 pm Operator: humarahb
Sample : op10884-mb1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:34 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90986.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 10:11 am
Operator : kristend
Sample : op10876-bs1
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 11:19:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
		Internal Standards							
1)	I	1-bromo-2...	1.461	1.880	1215.7E6	224.2E6	50.000	50.000	
27)	I	1-bromo-2...	1.461	1.880	1215.7E6	224.2E6	50.000	50.000	
33)	I	1-bromo-2...	1.461	1.880	1215.7E6	224.2E6	50.000	50.000	
		System Monitoring Compounds							
2)	SAB	Tetrachlo...	2.071	2.761	771.6E6	128.6E6	32.438	31.163	
		Spiked Amount 40.000	Range 30 - 150		Recovery =		81.09%	77.91%	
26)	SA	Decachlor...	9.305	11.809	376.7E6	53147039	17.455	15.539	
		Spiked Amount 40.000			Recovery =		43.64%	38.85%	
		Target Compounds							
3)		hexachlor...	2.404	3.298	805.3E6	129.5E6	23.368	21.172	
4)	A	alpha-BHC	2.540	3.456	774.4E6	125.2E6	26.115	22.788	
5)	MA	gamma-BHC	2.831	3.902	698.4E6	110.6E6	25.983	22.409	
6)	MA	Heptachlor	3.316	4.492	640.2E6	107.0E6	24.307	21.313	
7)	B	beta-BHC	2.911	3.995	313.6E6	49030875	26.109	21.784	
8)	B	delta-BHC	3.094	4.403	509.9E6	85296384	22.516	20.388	
9)	MB	Aldrin	3.640	4.954	618.3E6	98927480	24.557	20.941	
10)		alachlor	3.785	4.760	94638779	18554538	33.591	30.460	
11)	B	Heptachlo...	4.330	5.791	588.5E6	96611453	25.049	21.600	
12)	B	gamma-Chl...	4.492	6.080	558.8E6	93612850	25.219	21.754	
13)	B	alpha-Chl...	4.659	6.308	532.1E6	92169629	24.403	21.756	
14)	A	Endosulfan I	4.827	6.406	531.0E6	88782983	25.728	22.426	
15)	B	4,4'-DDE	4.781	6.573	521.8E6	91541889	22.123	21.355	
16)	MA	Dieldrin	5.142	6.846	598.8E6	97074230	25.293	22.593	
17)	MA	Endrin	5.455	7.355	607.2E6	94277555	26.788	23.347	
18)	A	4,4'-DDD	5.600	7.533	481.9E6	77303952	25.397	22.610	
19)	B	Endosulfa...	5.775	7.710	529.6E6	87330289	25.655	23.151	
20)	MA	4,4'-DDT	6.006	8.066	463.9E6	76092463	26.472	23.583	
21)	B	Endrin Al...	6.384	8.284	432.6E6	61542246	28.465	20.151	#
22)	B	Endosulfa...	7.052	8.756	416.1E6	68421191	27.229	24.851	
23)	A	Methoxychlor	6.800	9.313	263.7E6	44574629	27.084	24.645	
25)	B	Endrin Ke...	7.487	9.724	535.1E6	85333862	27.893	24.024	

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90986.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 10:11 am
Operator : kristend
Sample : op10876-bs1
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
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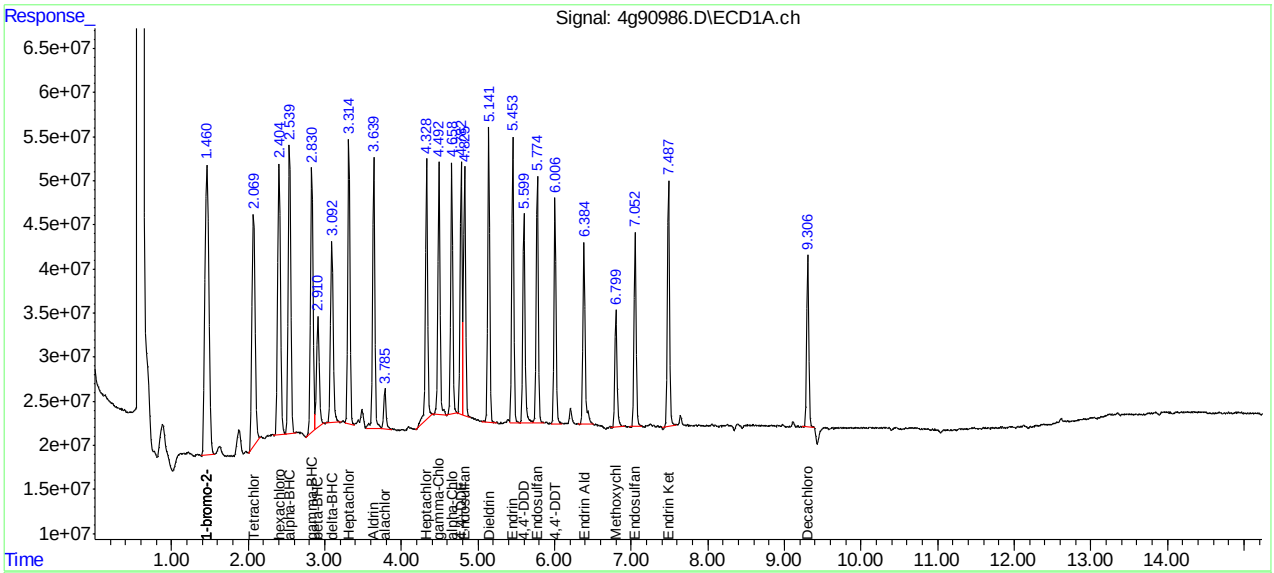
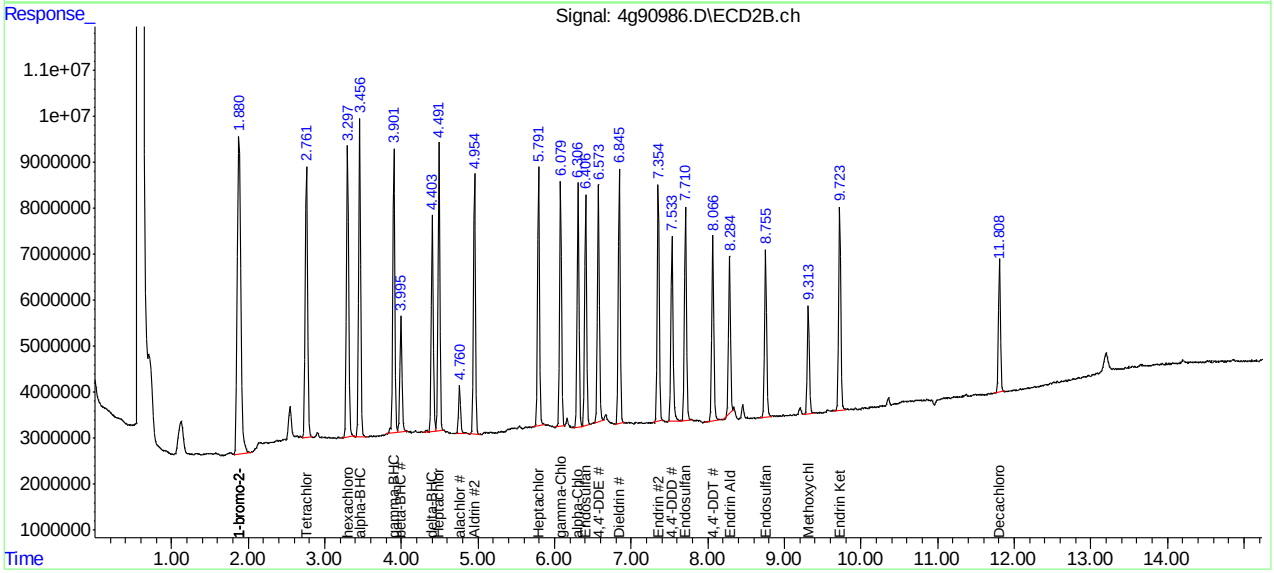
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/27/18 16:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90987.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 10:28 am
Operator : kristend
Sample : op10876-bsd
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 11:20:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	Internal Standards							
1) I	1-bromo-2...	1.464	1.883	1316.6E6	220.2E6	50.000	50.000	
27) I	1-bromo-2...	1.464	1.883	1316.6E6	220.2E6	50.000	50.000	
33) I	1-bromo-2...	1.464	1.883	1316.6E6	220.2E6	50.000	50.000	
	System Monitoring Compounds							
2) SA	Tetrachlo...	2.071	2.762	784.1E6	131.6E6	30.393	32.472	
	Spiked Amount 40.000	Range 30 - 150		Recovery =		75.98%	81.18%	
26) SA	Decachlor...	9.306	11.809	414.8E6	58420785	17.749m	17.391	
	Spiked Amount 40.000			Recovery =		44.37%	43.48%	
	Target Compounds							
3)	hexachlor...	2.411	3.298	1605.8E6	148.7E6	44.405	24.740	#
4) A	alpha-BHC	2.541	3.457	931.2E6	146.1E6	28.996	27.091	
5) MA	gamma-BHC	2.830	3.903	801.4E6	126.9E6	27.531	26.188	
6) MA	Heptachlor	3.315	4.493	747.0E6	124.9E6	26.187	25.337	
7) B	beta-BHC	2.911	3.995	341.4E6	56497641	26.244	25.557	
8) B	delta-BHC	3.093	4.404	597.9E6	100.6E6	24.380	24.472	
9) MB	Aldrin	3.640	4.955	695.1E6	113.0E6	25.490	24.344	
10)	alachlor	3.784	4.760	99739822	20655622	32.689	34.525	
11) B	Heptachlo...	4.330	5.792	655.7E6	110.6E6	25.769	25.176	
12) B	gamma-Chl...	4.491	6.080	631.8E6	108.8E6	26.331	25.735	
13) B	alpha-Chl...	4.658	6.308	611.7E6	106.0E6	25.906	25.467	
14) A	Endosulfan I	4.826	6.407	618.8E6	102.4E6	27.687	26.342	
15) B	4,4'-DDE	4.781	6.574	608.3E6	107.5E6	23.813	25.543	
16) MA	Dieldrin	5.141	6.846	695.3E6	111.5E6	27.119	26.431	
17) MA	Endrin	5.455	7.355	713.5E6	108.9E6	29.064	27.458	
18) A	4,4'-DDD	5.600	7.534	552.9E6	88790353	26.907	26.441	
19) B	Endosulfa...	5.774	7.711	610.9E6	100.2E6	27.325	27.033	
20) MA	4,4'-DDT	6.006	8.067	538.1E6	87562174	28.355	27.630	
21) B	Endrin Al...	6.385	8.285	490.9E6	71188375	29.829	23.733	
22) B	Endosulfa...	7.052	8.756	463.9E6	76300897	28.035	28.216	
23) A	Methoxychlor	6.801	9.314	299.6E6	49858960	28.415	28.067	
25) B	Endrin Ke...	7.487	9.723	614.1E6	97494602	29.558	27.946	

SemiQuant Compounds - Not Calibrated on this Instrument

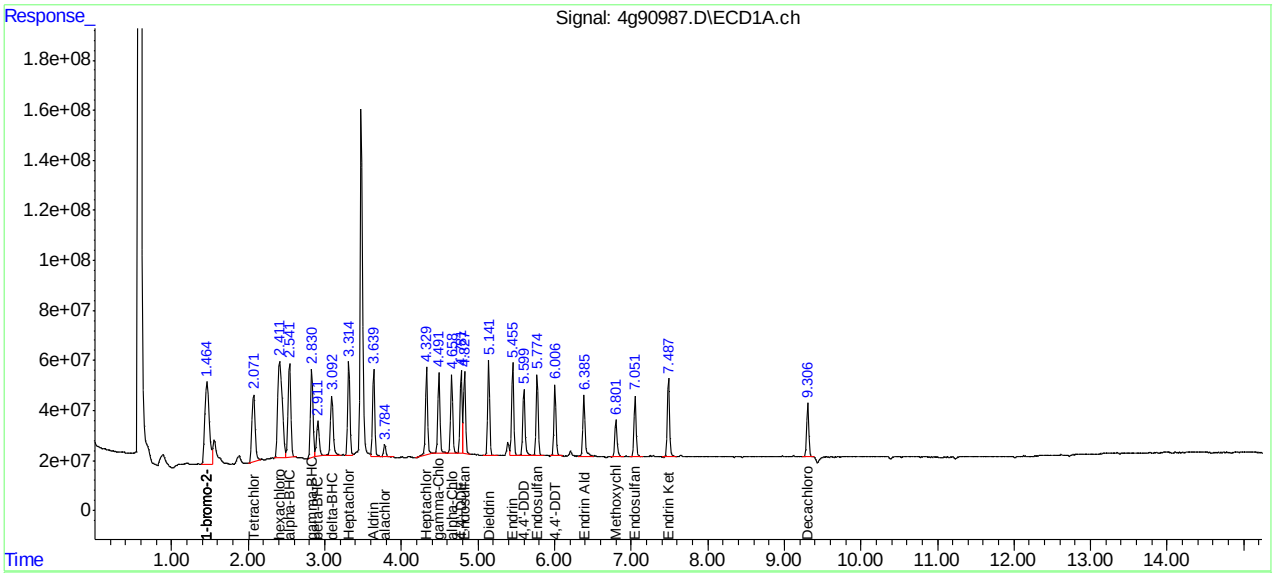
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

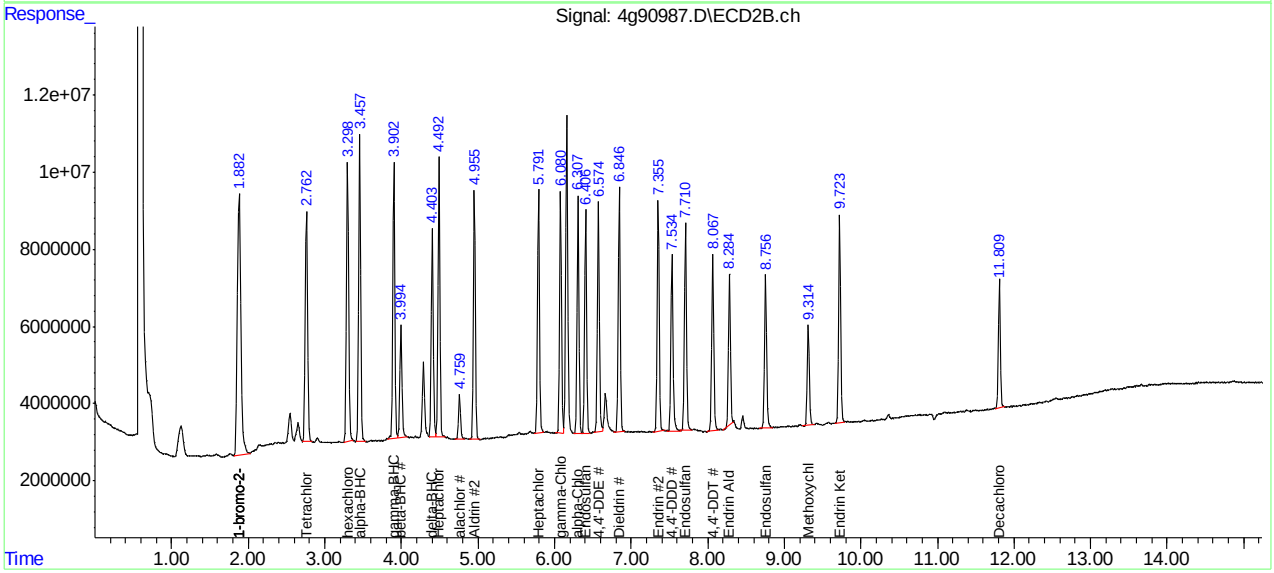
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90987.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 10:28 am
Operator : kristend
Sample : op10876-bsd
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 11:20:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

Sample Number:	OP10876-BSD	**Method:**	SW846 8081B
Lab FileID:	4G90987.D	**Analyst approved:**	03/27/18 11:23 Kristen Drake
Injection Time:	03/27/18 10:28	**Supervisor approved:**	03/27/18 16:32 Gwendolyn Burns

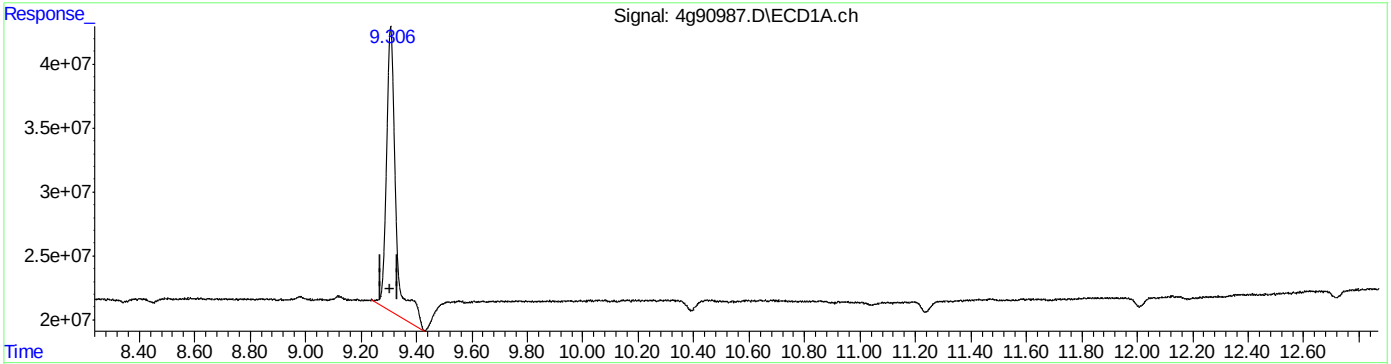
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.31	Poorly defined baseline

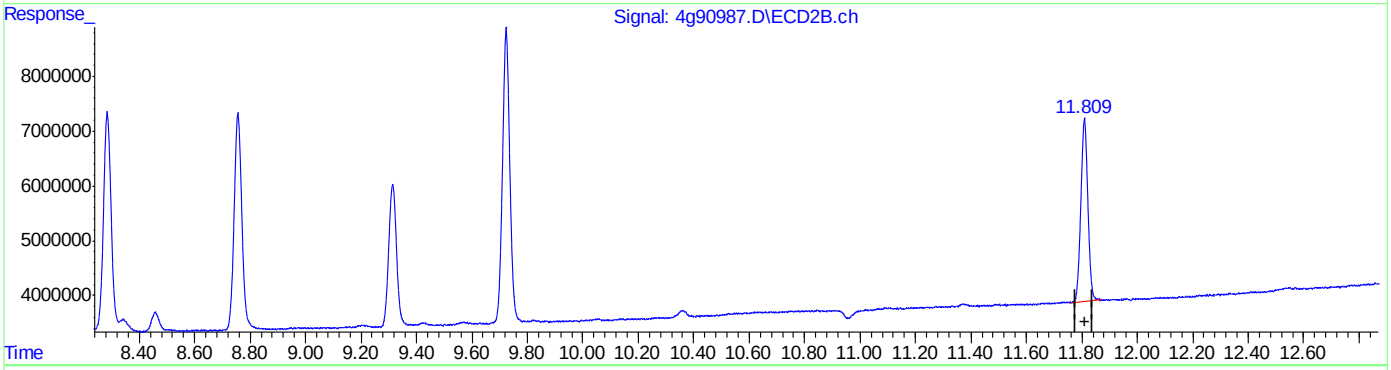
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90987.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 10:28 am
Operator : kristend
Sample : op10876-bsd
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 11:19:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)
9.307min 22.407 PPB
response 523726548

(26) Decachlorobiphenyl #2 (SA)
11.809min 17.391 PPB
response 58420785

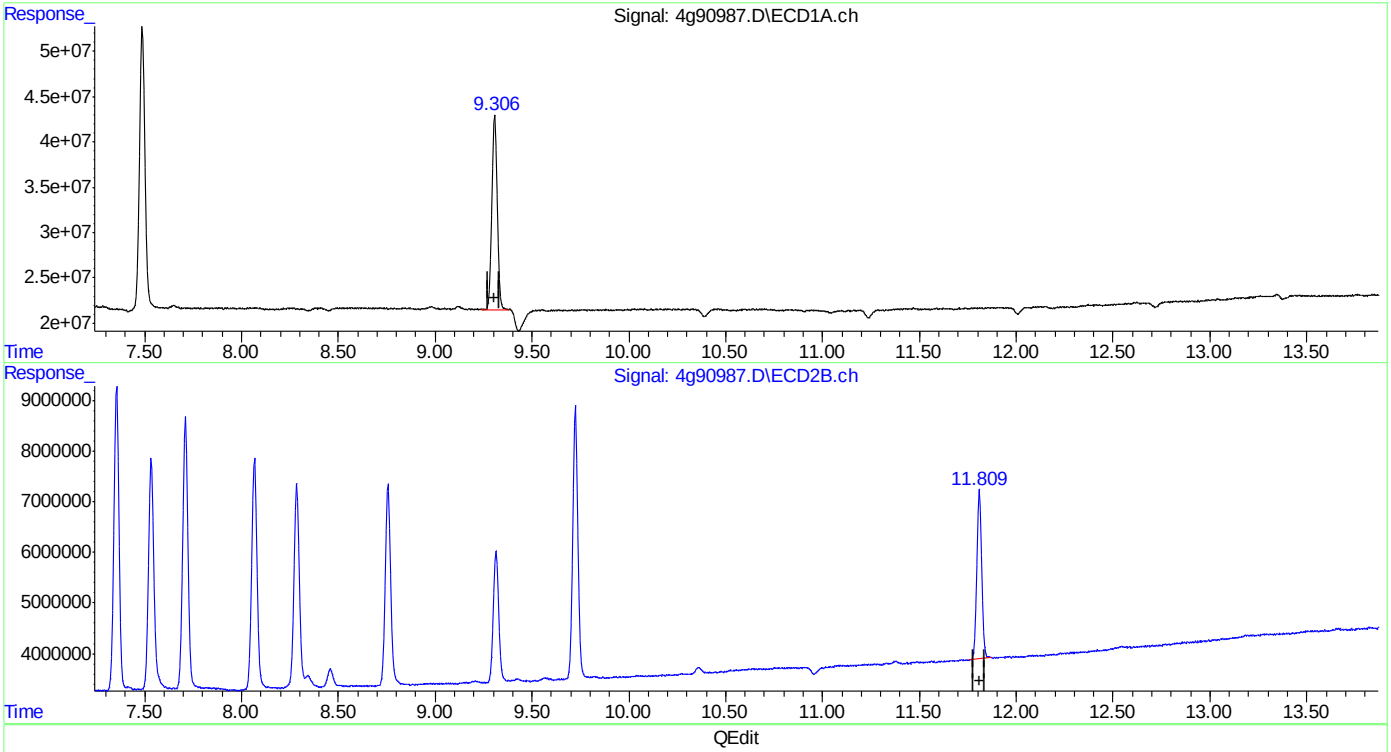
(+) = Expected Retention Time
4PST2366.M Tue Mar 27 11:20:12 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90987.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 10:28 am
Operator : kristend
Sample : op10876-bsd
Misc : op10876,g4g2399,300,,,2,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 11:19:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(26) Decachlorobiphenyl (SA)
9.306min 17.749 PPB m
response 414839699

(26) Decachlorobiphenyl #2 (SA)
11.809min 17.391 PPB
response 58420785

(+) = Expected Retention Time
4PST2366.M Tue Mar 27 11:20:16 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
03/29/18 09:44

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:41 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.16	2.45	495.4E6	110.5E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.45	495.4E6	110.5E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.45	495.4E6	110.5E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.35	290.0E6	63177693	33.070	31.492
		Spiked Amount 40.000	Range 30 - 150		Recovery =		82.67%	78.73%
26)	SA	Decachlorobiphen	10.13	12.03	146.7E6	24721425	20.493	17.067
		Spiked Amount 40.000			Recovery =		51.23%	42.67%
		Target Compounds						
3)		Hexachlorobenzen	3.13	3.91	255.3E6	46343053	23.098	16.355
4)	A	alpha-BHC	3.27	4.06	299.1E6	70962048	27.283	26.243
5)	MA	gamma-BHC	3.58	4.53	274.2E6	62221048	26.437	25.387
6)	MA	Heptachlor	4.09	5.15	221.9E6	47255741	20.556	20.553
7)	B	beta-BHC	3.66	4.62	118.3E6	23524673	22.865	21.917
8)	B	delta-BHC	3.87	5.05	209.2E6	52482854	24.362	23.709
9)	MB	Aldrin	4.45	5.64	170.2E6	41394457	17.240	17.702
10)		Alachlor	4.57	5.40	38688259	9033543	27.464m	29.678m
11)	B	Heptachlor Epoxi	5.18	6.50	265.5E6	55954964	26.343	25.476
12)	B	gamma-Chlordane	5.35	6.80	230.5E6	49987182	29.929	23.499
13)	B	alpha-Chlordane	5.53	7.03	231.8E6	51505625	24.536	24.580
14)	A	Endosulfan I	5.72	7.15	286.1E6	53050016	30.888	26.188
15)	B	4,4'-DDE	5.65	7.29	175.8E6	43437032	19.814	19.642
16)	MA	Dieldrin	6.04	7.60	269.6E6	59795290	28.732	26.593
17)	MA	Endrin	6.38	8.13	254.8E6	54837125	29.586	27.727
18)	A	4,4'-DDD	6.52	8.29	141.8E6	35587630	21.509	20.863
19)	B	Endosulfan II	6.72	8.49	243.9E6	51011737	28.361	25.922
20)	MA	4,4'-DDT	6.93	8.83	156.3E6	33165180	25.757	28.812
21)	B	Endrin Aldehyde	7.35	9.07	189.5E6	39305256	26.308	25.373
22)	B	Endosulfan Sulfa	8.04	9.53	188.4E6	39743359	28.003	29.016
23)	A	Methoxychlor	7.73	9.96	82703496	14557378	24.276	24.106m
25)	B	Endrin Ketone	8.50	10.32	237.8E6	45385229	33.097	29.142

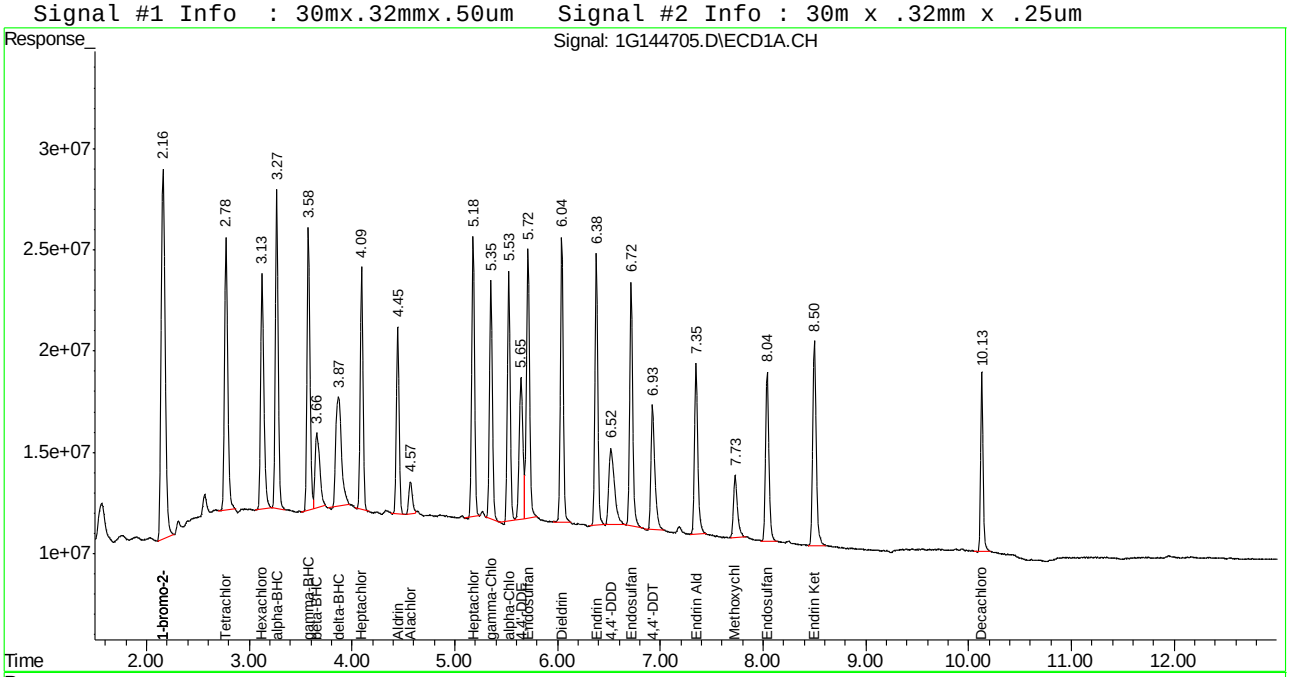
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144705.D 1PST4557.M Wed Mar 28 08:43:29 2018 RPT1 Page 1

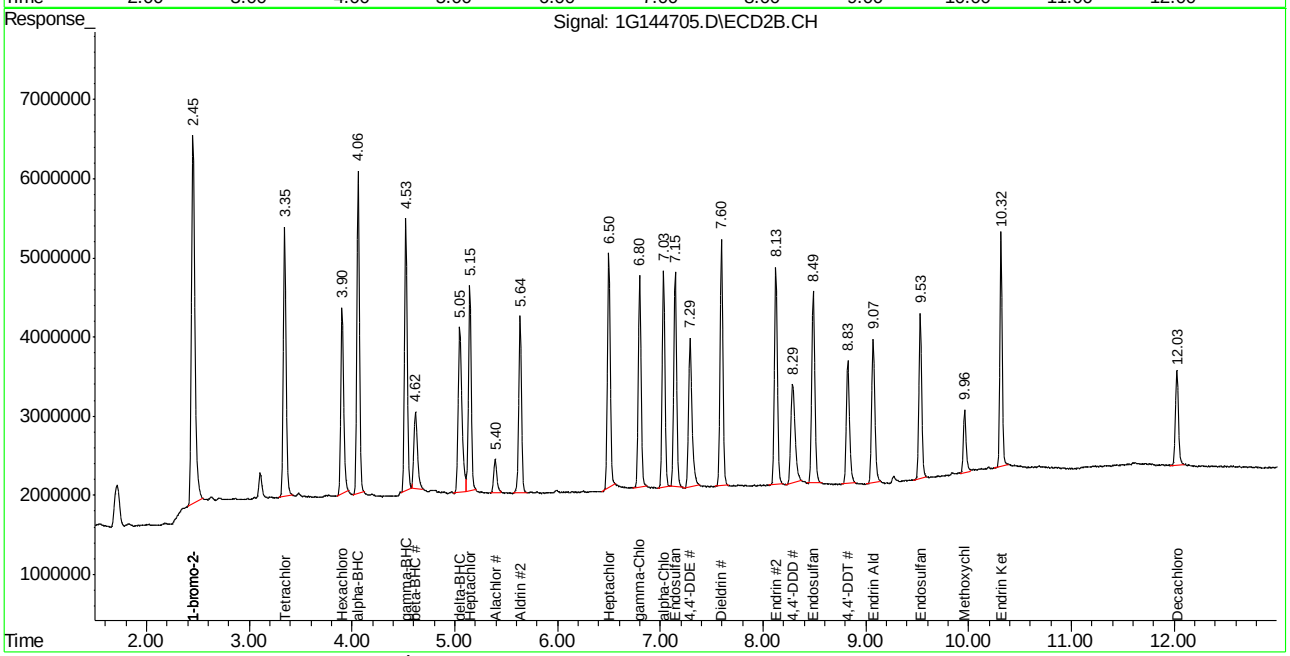
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:41 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

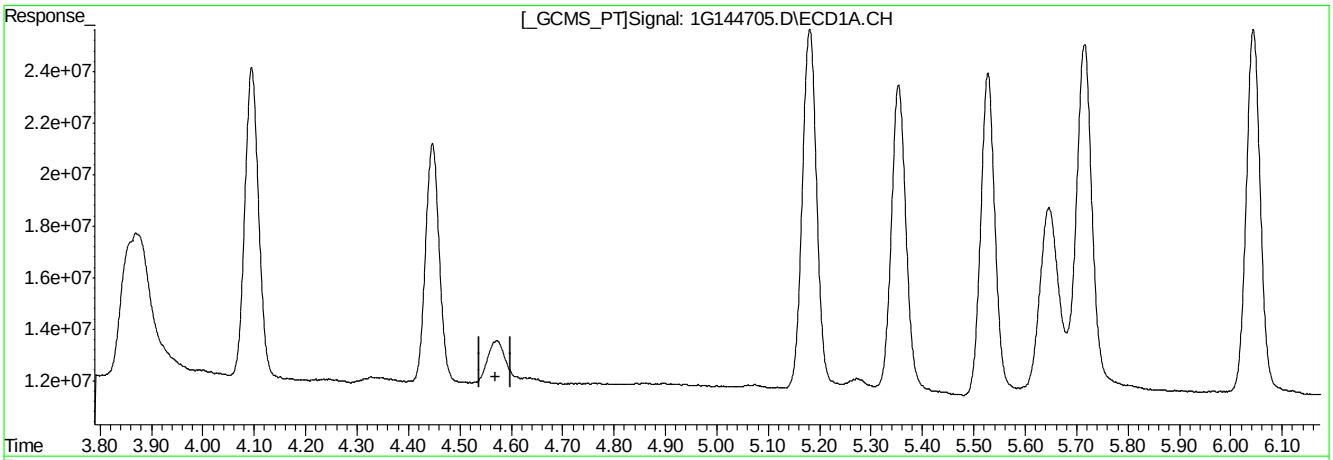
Sample Number: OP10885-BS1
Lab FileID: 1G144705.D
Injection Time: 03/28/18 01:43
Method: SW846 8081B
Analyst approved: 03/28/18 09:29 Dharmistha Mehta
Supervisor approved: 03/29/18 09:44 Gwendolyn Burns

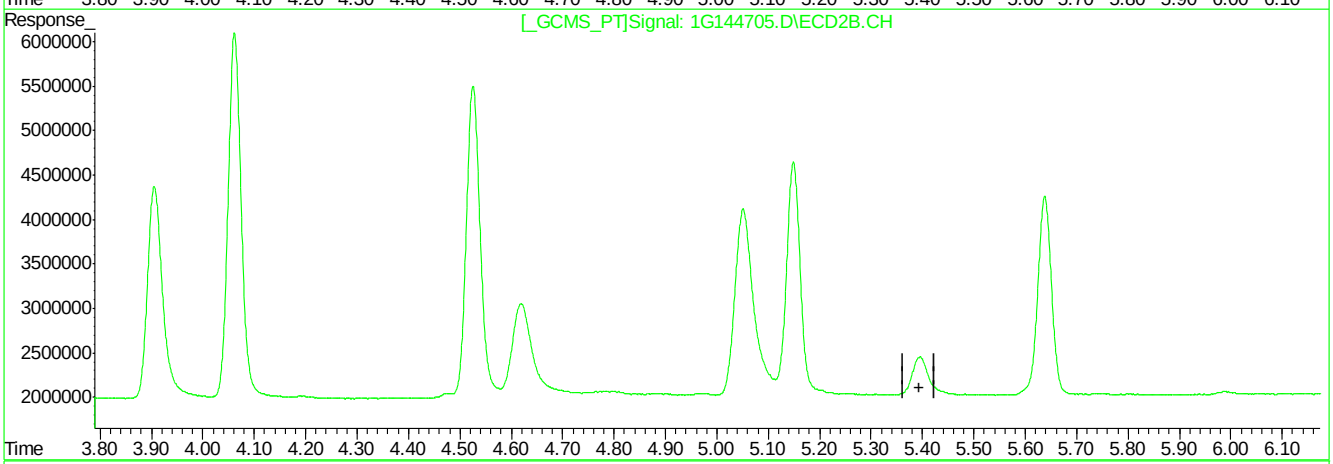
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	4.57	Poorly defined baseline
Alachlor	15972-60-8	2	5.40	Poorly defined baseline
Methoxychlor	72-43-5	2	9.96	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:40 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

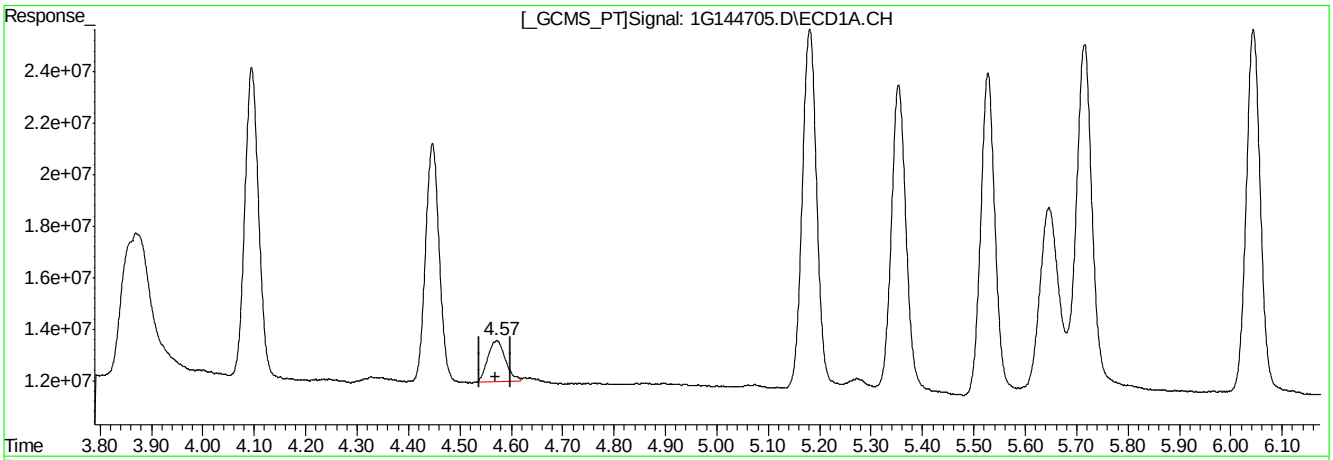
response 0

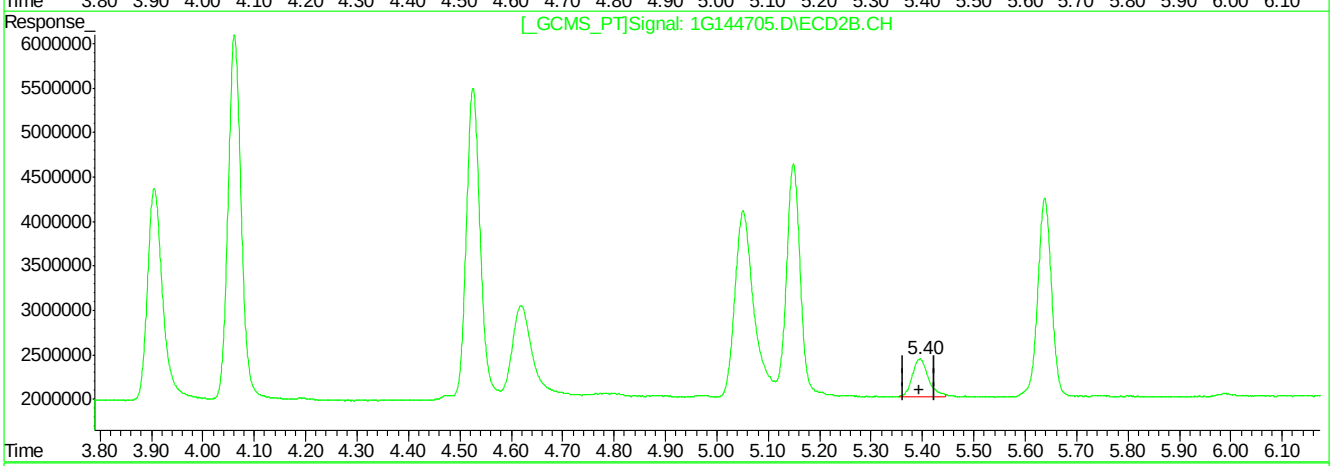
(+) = Expected Retention Time
1G144705.D 1PST4557.M Wed Mar 28 08:40:45 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:40 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.57min 27.464PPB m

response 38688259

(10) Alachlor #2

5.40min 29.678PPB m

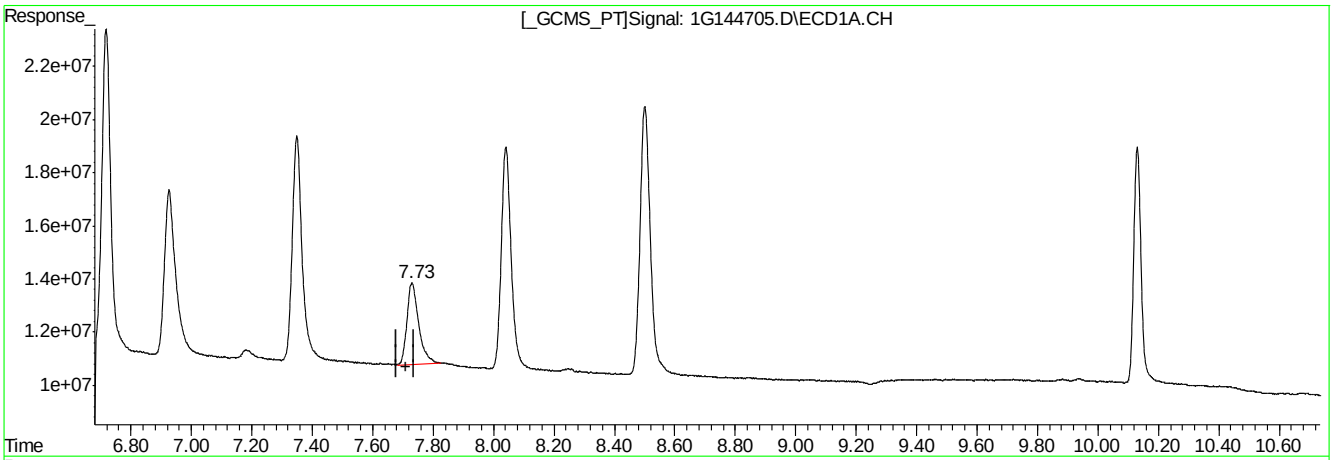
response 9033543

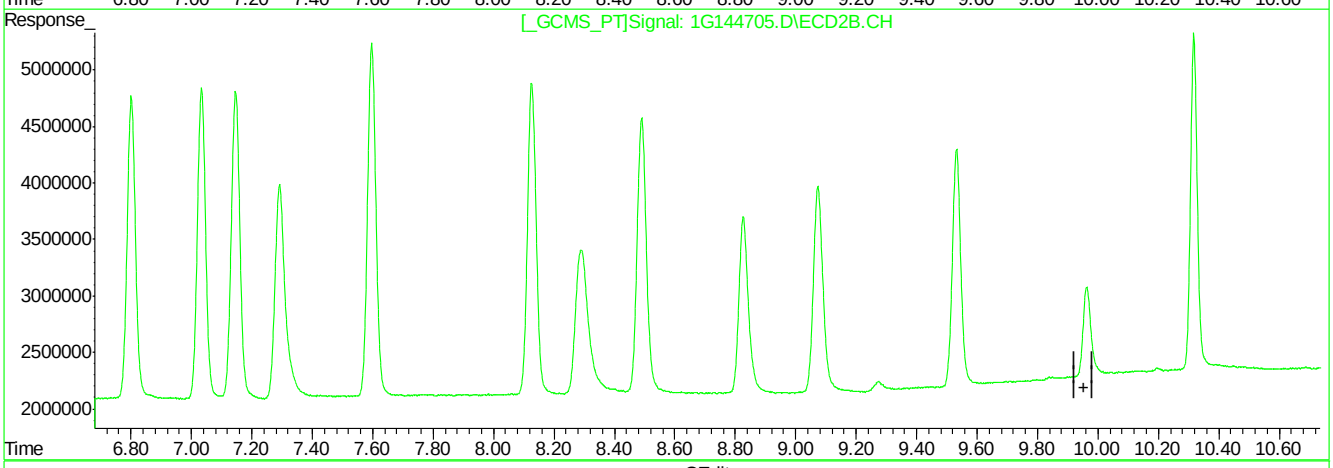
(+) = Expected Retention Time
1G144705.D 1PST4557.M Wed Mar 28 08:41:11 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:40 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 24.276PPB

response 82703496

(23) Methoxychlor #2 (A)

0.00min 0.000PPB

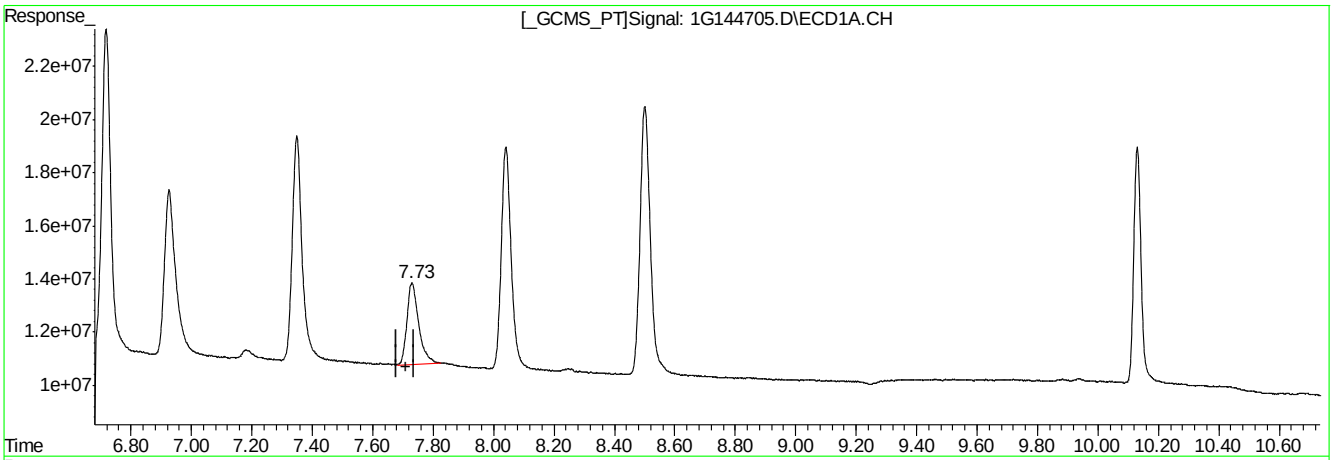
response 0

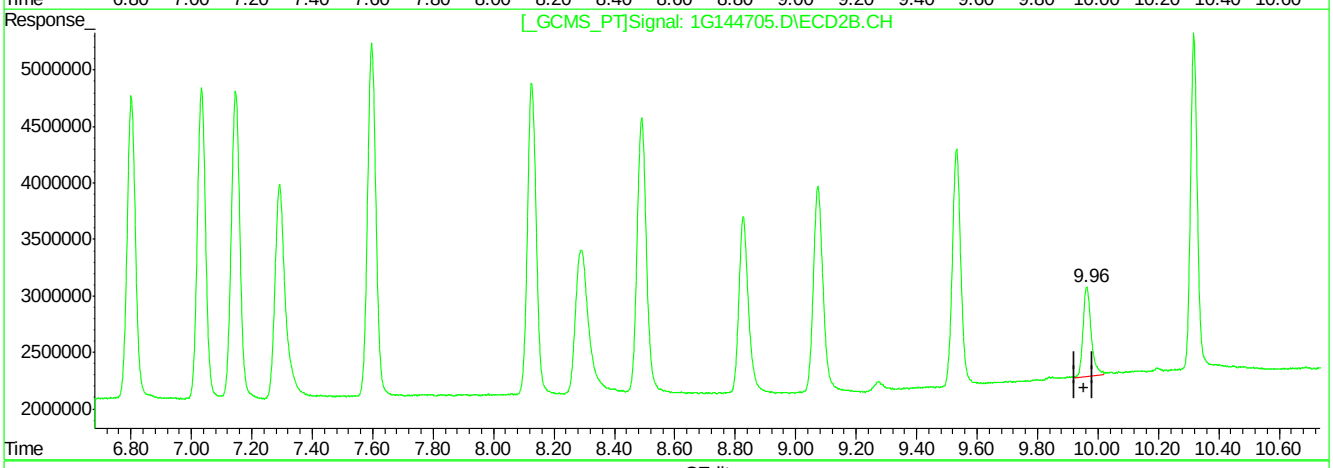
(+) = Expected Retention Time
1G144705.D 1PST4557.M Wed Mar 28 08:41:38 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144705.D\ECD2B.CH
Acq On : 3-28-18 01:43:50 AM Operator: christp
Sample : op10885-bs1 Inst : GC1G
Misc : op10885,g1g4598,1000,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:40 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 24.276PPB

response 82703496

(23) Methoxychlor #2 (A)

9.96min 24.106PPB m

response 14557378

(+) = Expected Retention Time
1G144705.D 1PST4557.M Wed Mar 28 08:41:48 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/28/18 16:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.20	4.21	484003	681232	41.865m	43.756
	Spiked Amount 40.000			Recovery	=	104.66%	109.39%
51) S	Decachlorobiphen	14.19	17.31	390606	472049	22.821	22.486m
	Spiked Amount 40.000			Recovery	=	57.05%	56.22%
	Target Compounds						
41)	AR1016-A	3.75	5.16	107610	149745	339.664m	365.426
42)	AR1016-B	4.27	5.98	165995	215873	301.033	268.041
43)	AR1016-C	5.09	6.94	324795	461707	264.562m	287.425
44)	AR1016-D	5.32	7.23	146104	195625	306.866	284.833
45)	AR1016-E	6.04	8.24	143792	134497	290.932	280.140
46)	AR1260-A	9.68	12.34	320648	423950	235.486	237.901
47)	AR1260-B	9.91	12.54	215418	263942	327.699	327.541
48)	AR1260-C	10.44	13.22	199699	257658	324.799	299.359
49)	AR1260-D	11.13	13.78	487637	543275	311.147	302.992
50)	AR1260-E	11.75	14.64	430784	537187	279.119m	287.941m

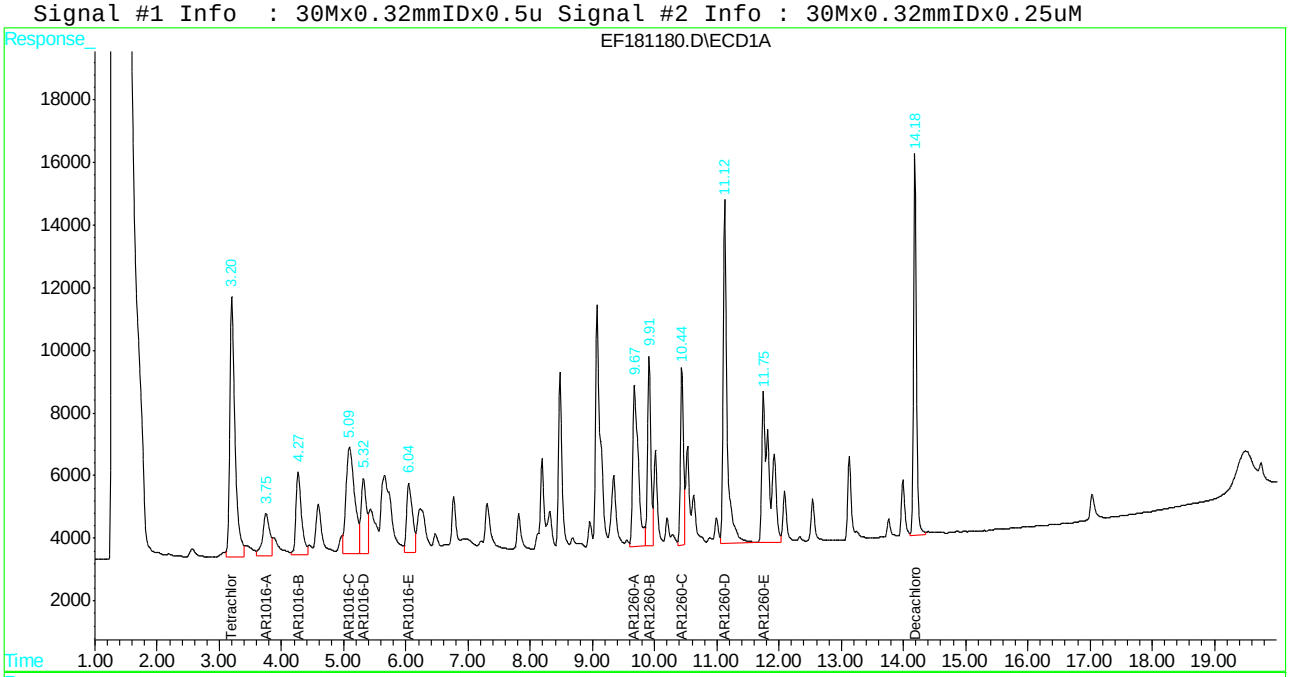
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181180.D PCB6195.M Tue Mar 27 14:35:28 2018 GCEF Page 1

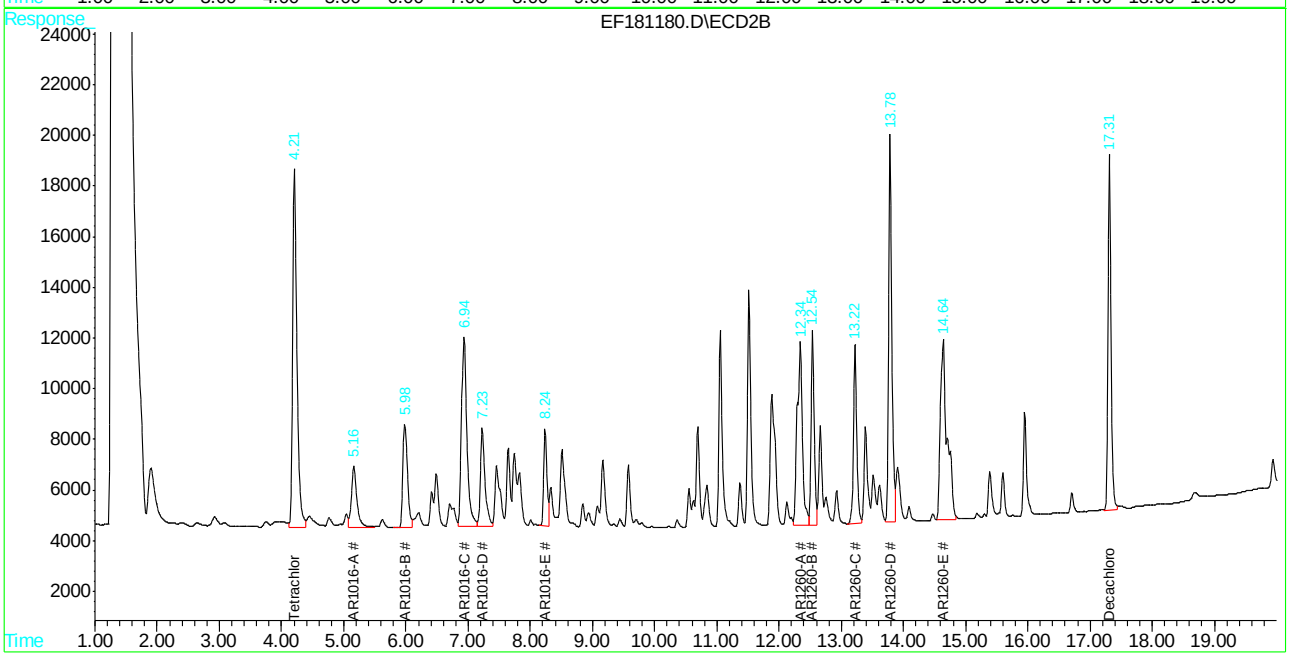
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62879

Manual Integration Approval Summary

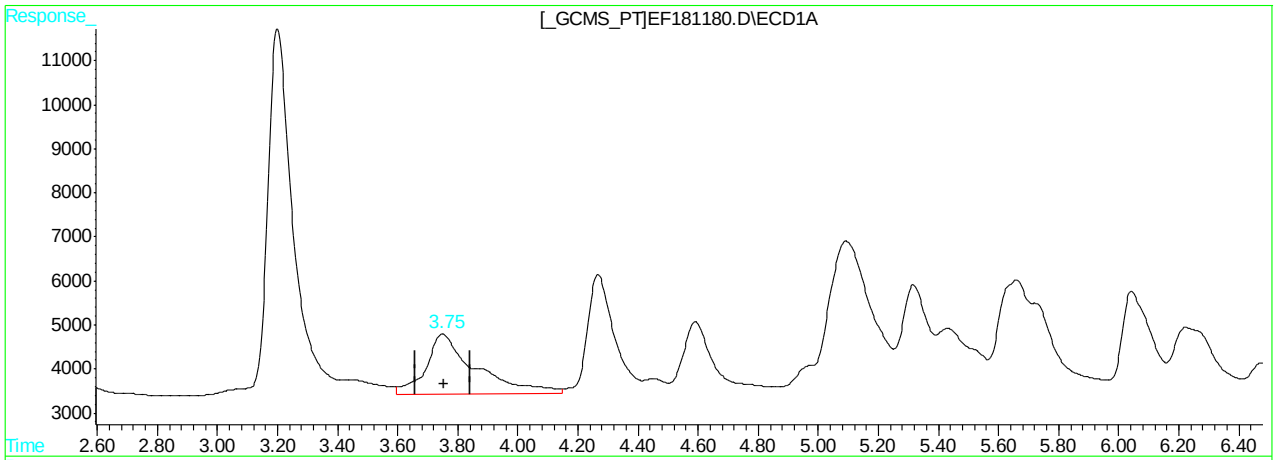
Sample Number: OP10875-BS1
Lab FileID: EF181180.D
Injection Time: 03/27/18 13:25
Method: SW846 8082A
Analyst approved: 03/27/18 16:52 Tianwei Ruan
Supervisor approved: 03/28/18 16:47 Gwendolyn Burns

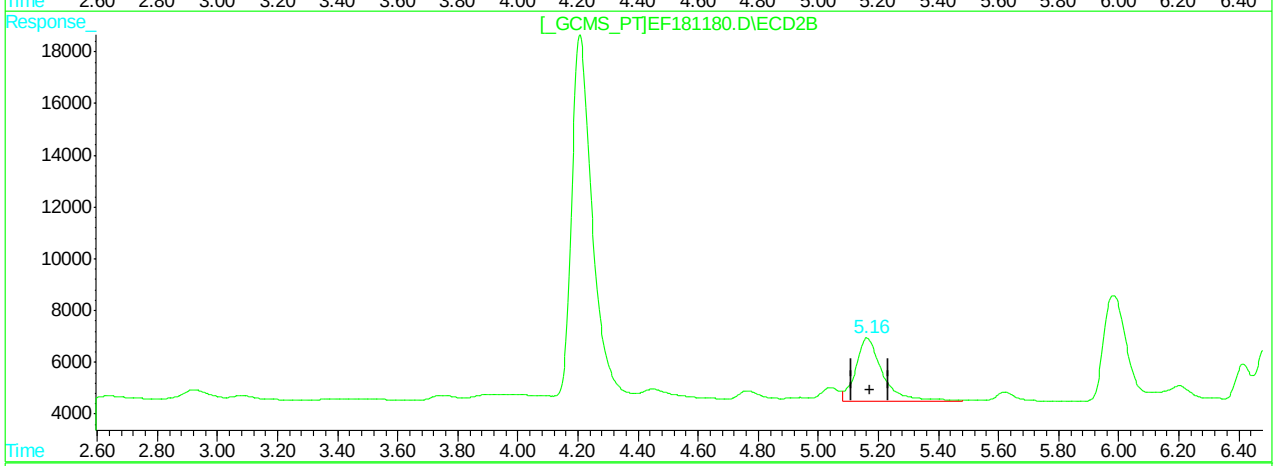
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.20	Poorly defined baseline
AR1016-A		1	3.75	Split peak
AR1016-C		1	5.09	Split peak
AR1260-E		1	11.75	Split peak
AR1260-E		2	14.64	Split peak
Decachlorobiphenyl	2051-24-3	2	17.31	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

3.75min 486.061PPB

response 153991

(41) AR1016-A #2

5.16min 365.426PPB

response 149745

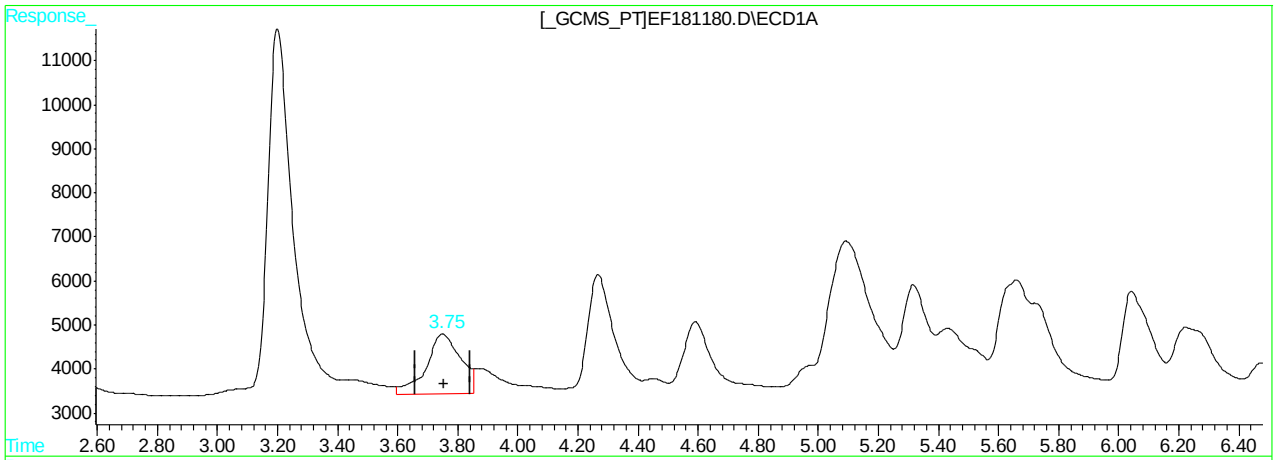
(+) = Expected Retention Time
EF181180.D PCB6195.M Tue Mar 27 14:34:23 2018 GCEF

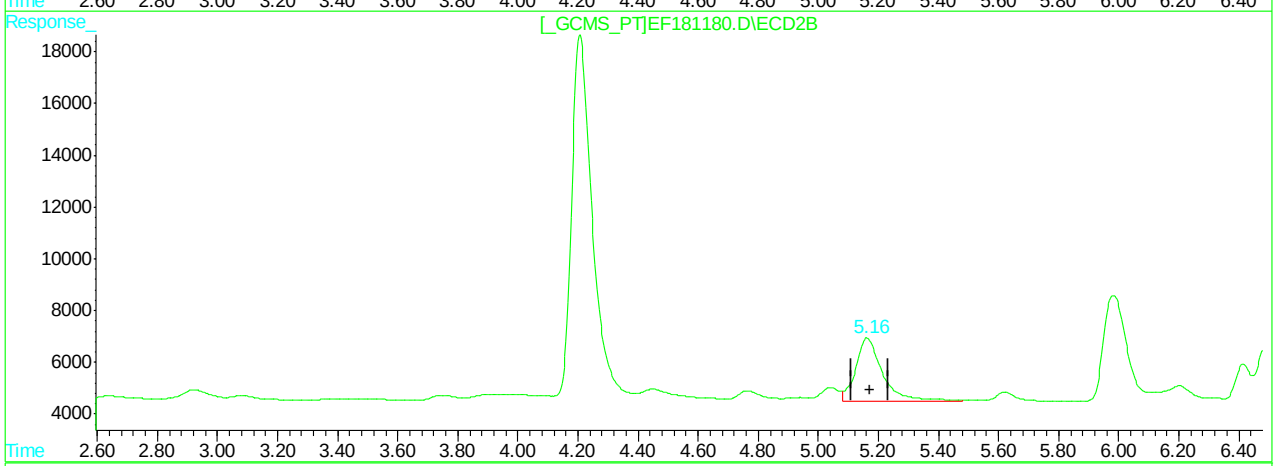
11.3.4.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

3.75min 339.664PPB m

response 107610

(41) AR1016-A #2

5.16min 365.426PPB

response 149745

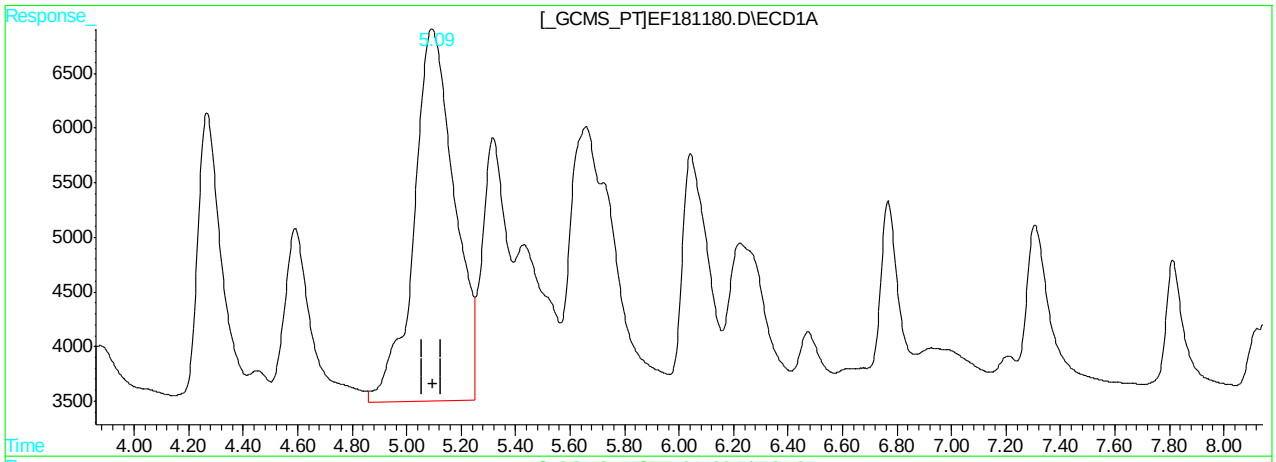
(+) = Expected Retention Time
EF181180.D PCB6195.M Tue Mar 27 14:34:31 2018 GCEF

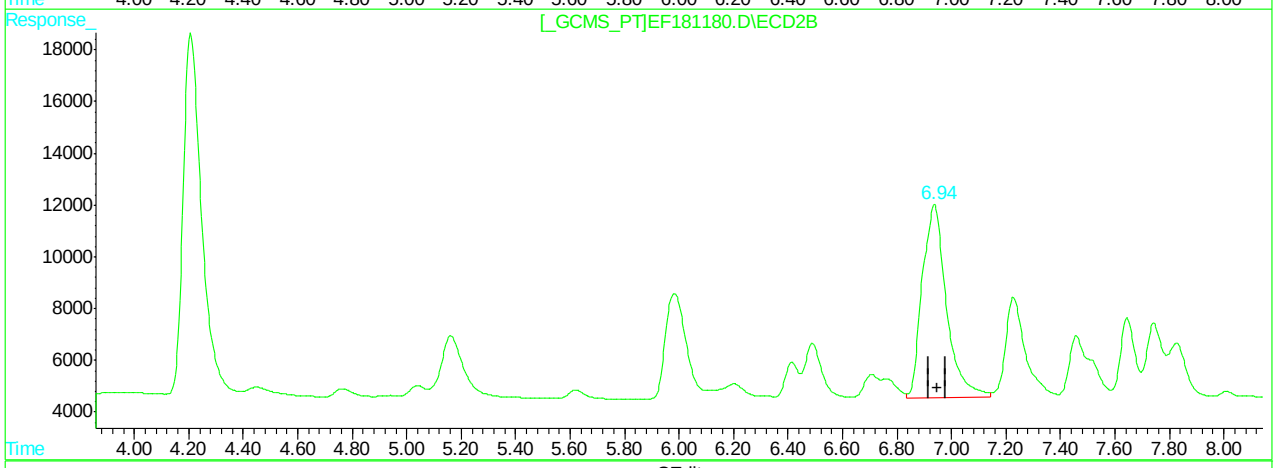
11.3.4.3 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.09min 286.803PPB

response 352101

(43) AR1016-C #2

6.94min 287.425PPB

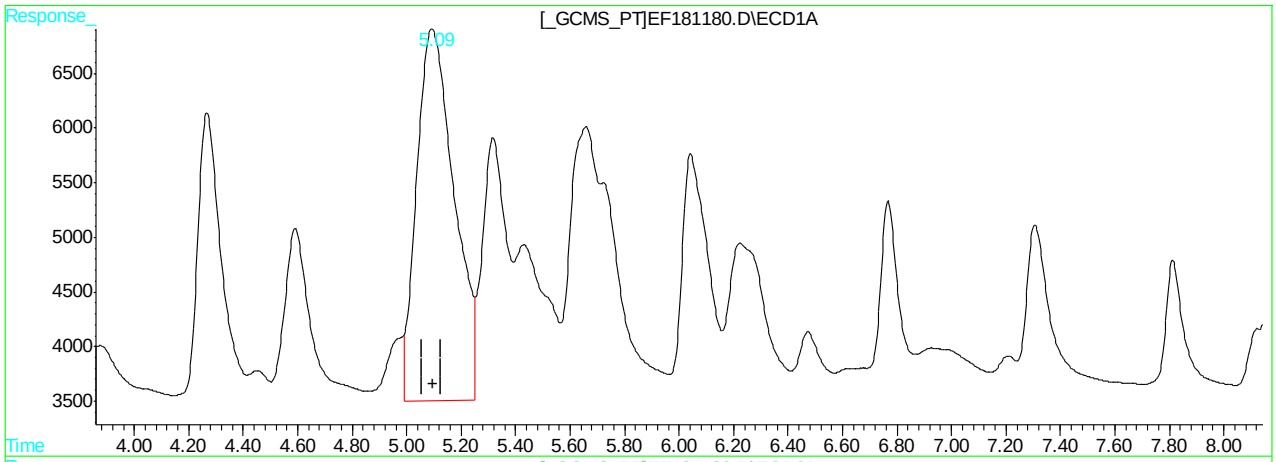
response 461707

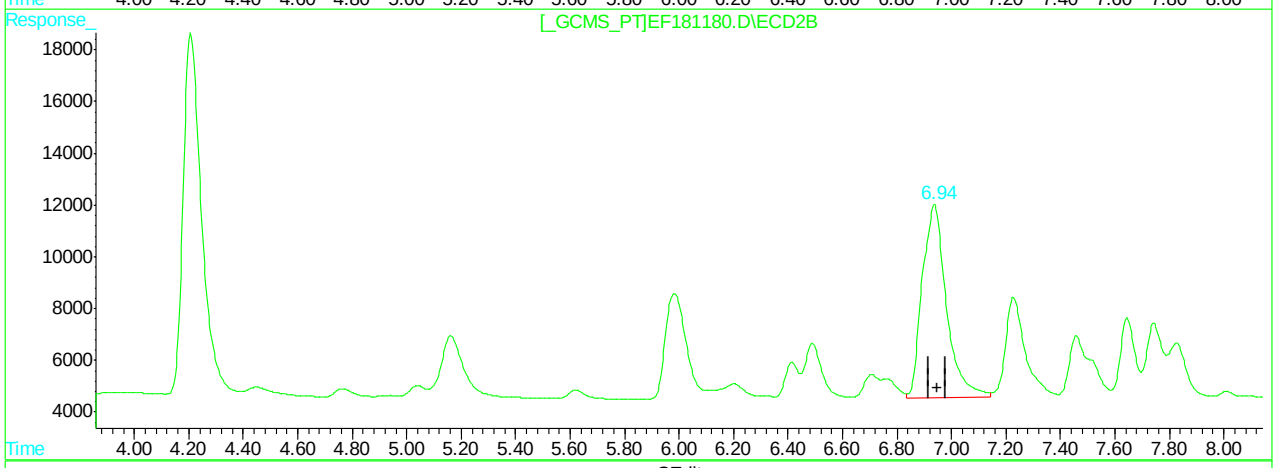
(+) = Expected Retention Time
EF181180.D PCB6195.M Tue Mar 27 14:34:36 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.09min 264.562PPB m

response 324795

(43) AR1016-C #2

6.94min 287.425PPB

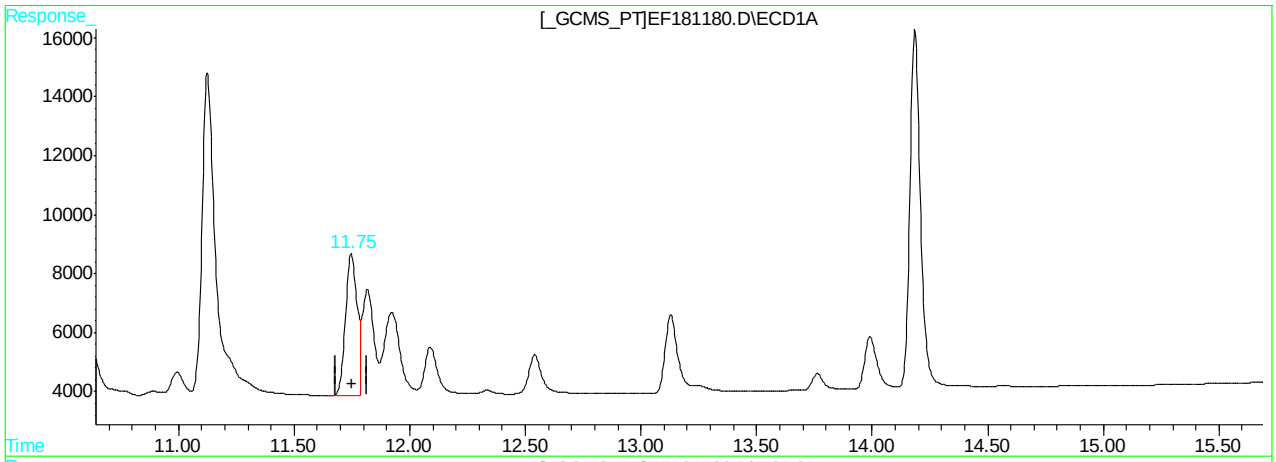
response 461707

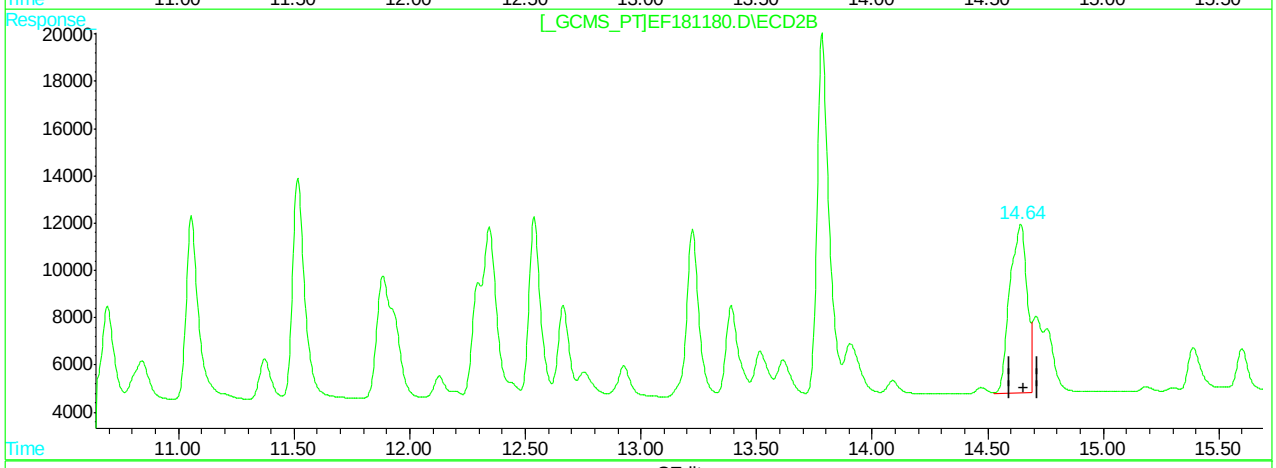
(+) = Expected Retention Time
EF181180.D PCB6195.M Tue Mar 27 14:34:42 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 110.836PPB

response 171060

(50) AR1260-E #2

14.64min 196.665PPB

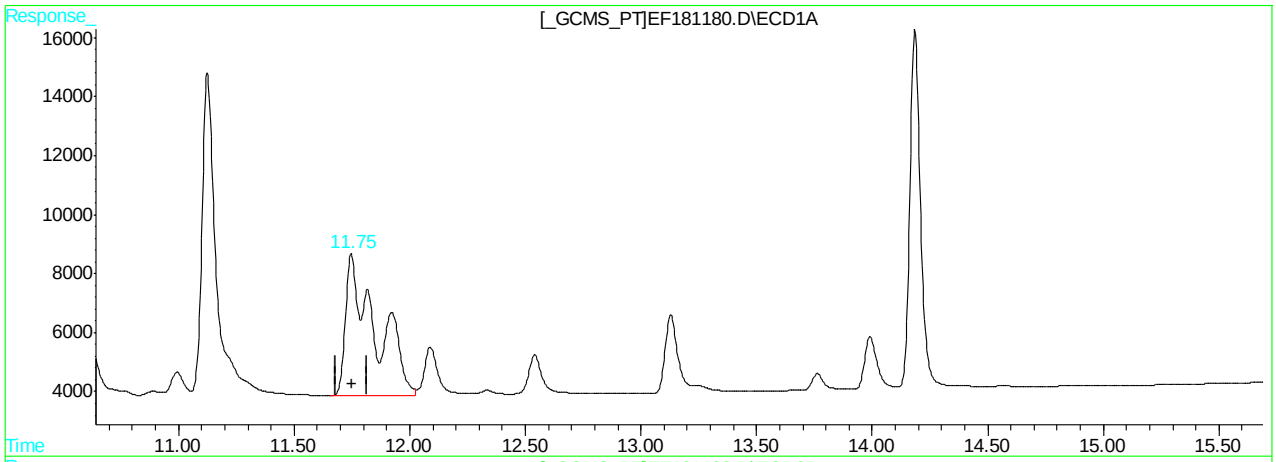
response 366902

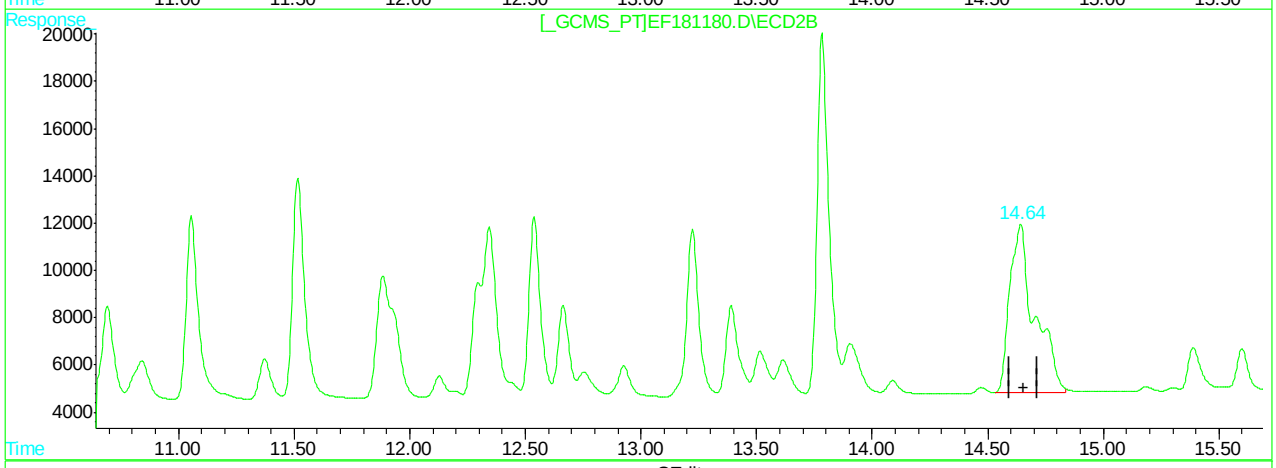
(+) = Expected Retention Time
EF181180.D PCB6195.M Tue Mar 27 14:34:53 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 279.119PPB m

response 430784

(50) AR1260-E #2

14.64min 287.941PPB m

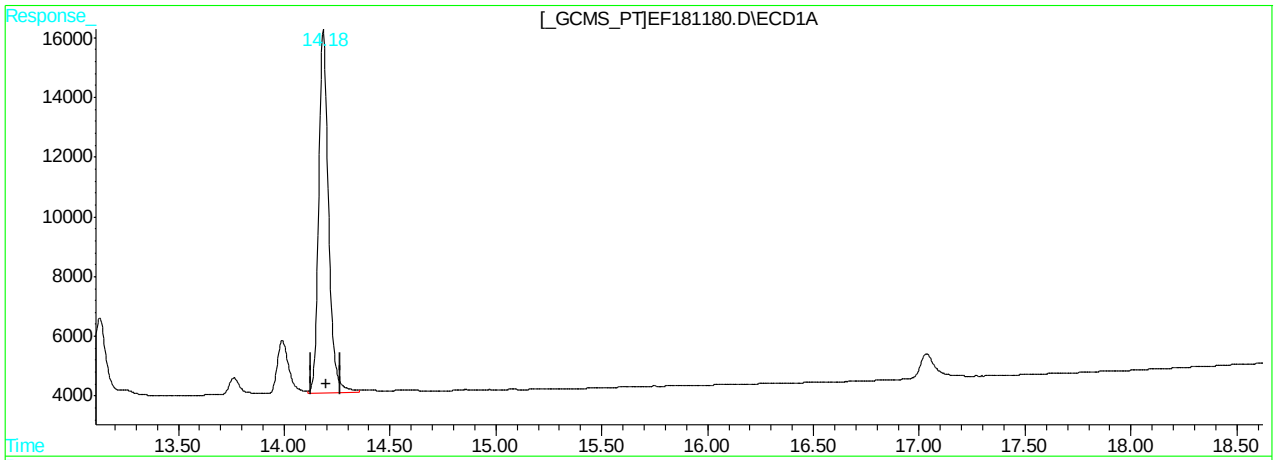
response 537187

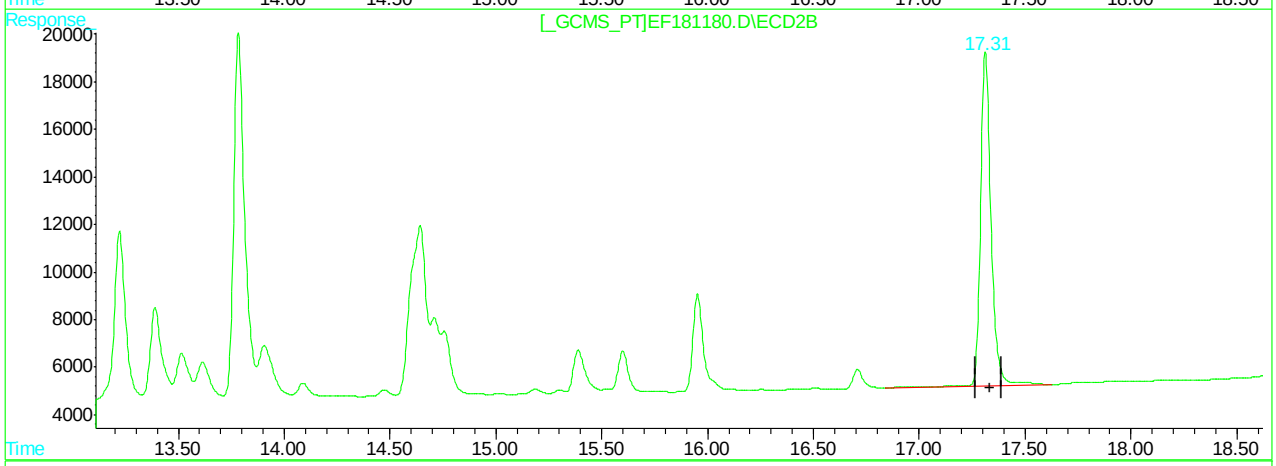
(+) = Expected Retention Time
EF181180.D PCB6195.M Tue Mar 27 14:35:01 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 22.821PPB

response 390606

(51) Decachlorobiphenyl #2 (S)

17.31min 23.161PPB

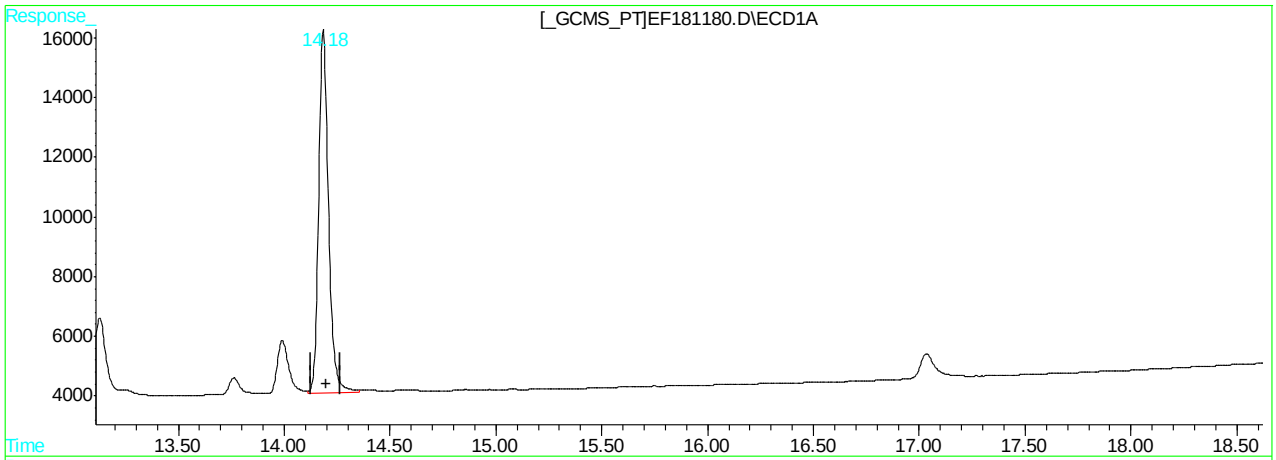
response 486230

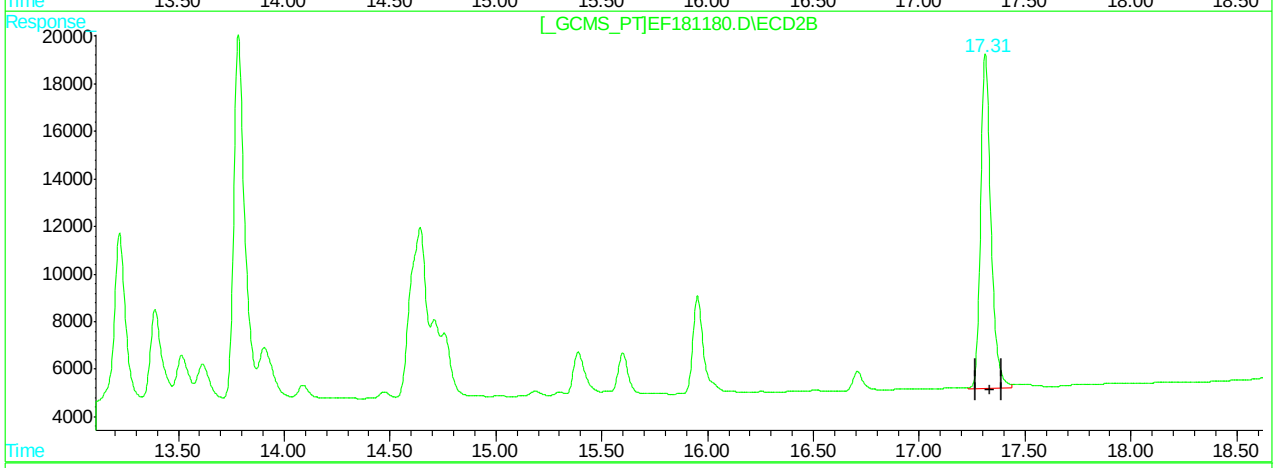
(+) = Expected Retention Time
EF181180.D PCB6195.M Tue Mar 27 14:35:04 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 22.821PPB

response 390606

(51) Decachlorobiphenyl #2 (S)

17.31min 22.486PPB m

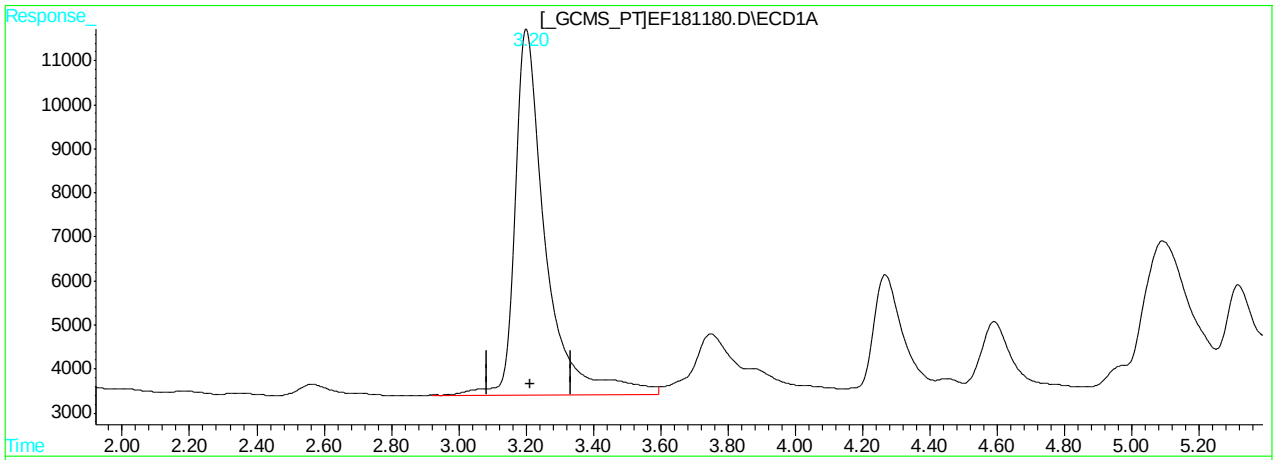
response 472049

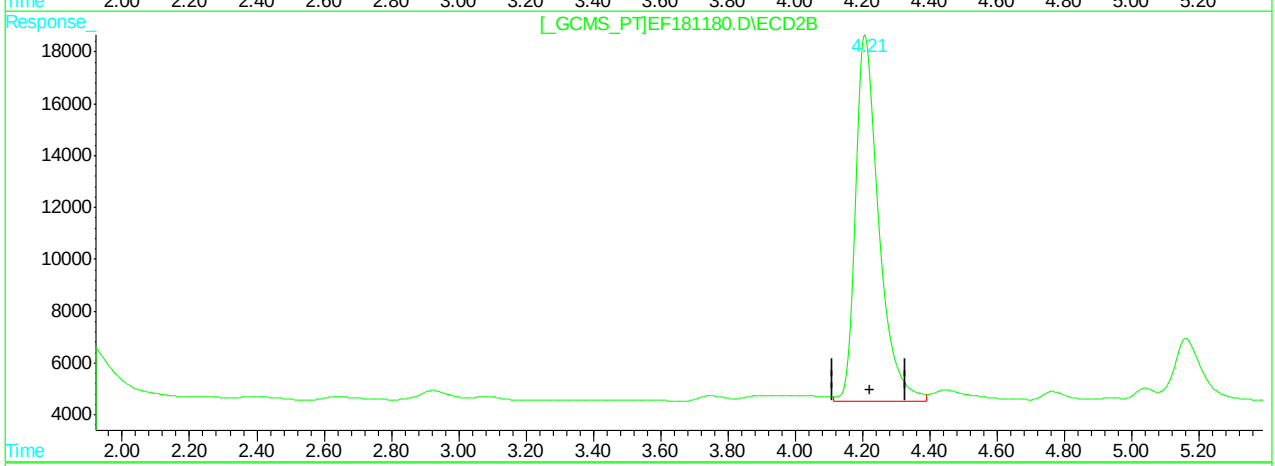
(+) = Expected Retention Time
EF181180.D PCB6195.M Tue Mar 27 14:35:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.20min 45.155PPB

response 522032

(1) Tetrachloro-m-xylene #2 (S)

4.21min 43.756PPB

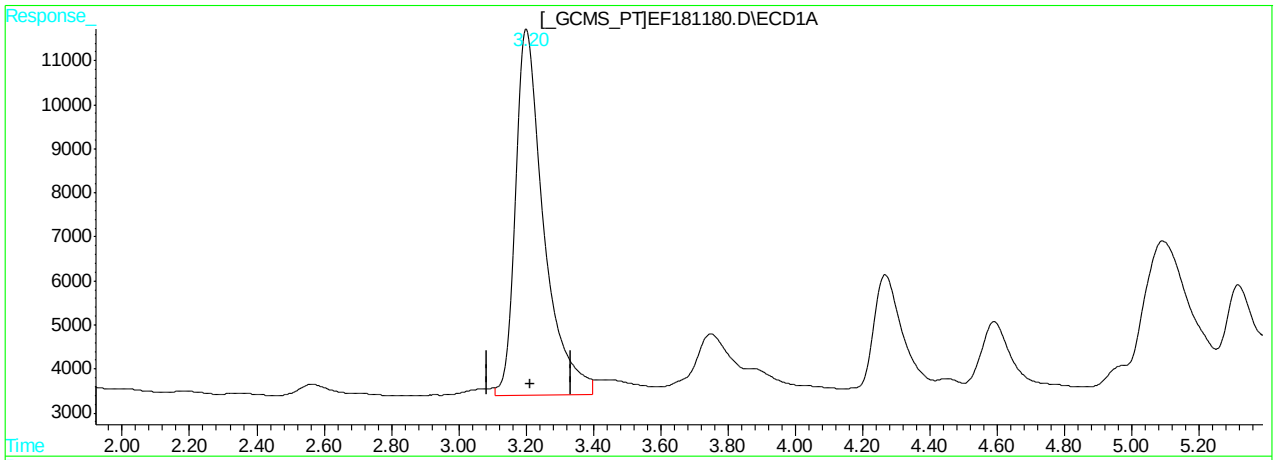
response 681232

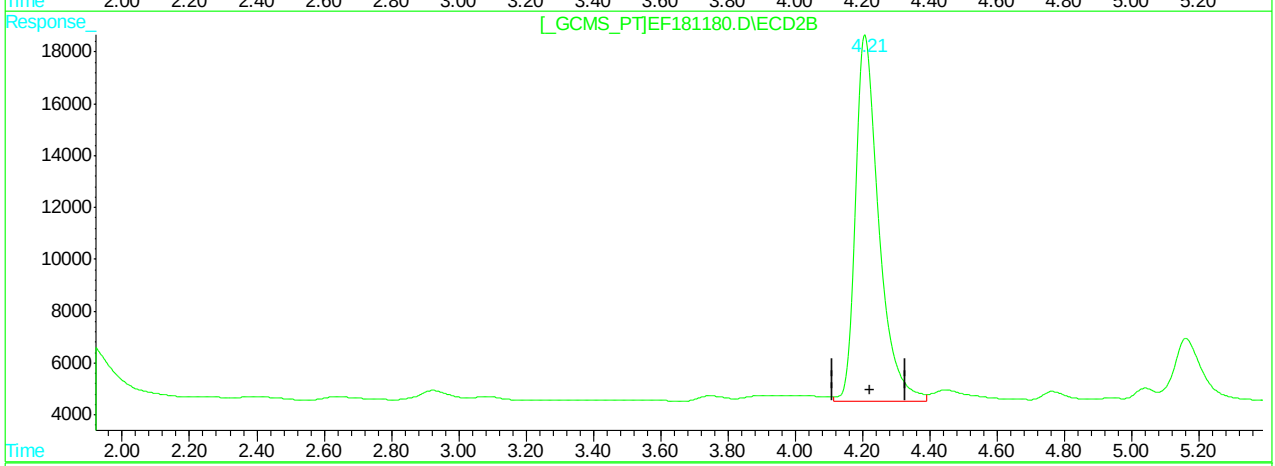
(+) = Expected Retention Time
EF181180.D PCB6195.M Tue Mar 27 14:35:18 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181180.D\ECD2B.CH
Acq On : 27 Mar 2018 1:25 pm Operator: humarahb
Sample : op10875-bs1 Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:33 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.20min 41.865PPB m

response 484003

(1) Tetrachloro-m-xylene #2 (S)

4.21min 43.756PPB

response 681232

(+) = Expected Retention Time
EF181180.D PCB6195.M Tue Mar 27 14:35:24 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/28/18 16:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:37 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.20	4.21	371010	537420	32.092m	34.519
	Spiked Amount 40.000			Recovery =		80.23%	86.30%
51) S	Decachlorobiphen	14.18	17.30	290077	355474	16.947	16.933m
	Spiked Amount 40.000			Recovery =		42.37%	42.33%
	Target Compounds						
41)	AR1016-A	3.75	5.16	87631	153993	276.603m	375.794 #
42)	AR1016-B	4.27	5.98f	139234	197029	252.502	244.643
43)	AR1016-C	5.10	6.93	244317	377112	199.008m	234.762
44)	AR1016-D	5.32	7.22f	117110	171524	245.969	249.742
45)	AR1016-E	6.04	8.23f	115159	114318	232.999	238.110
46)	AR1260-A	9.67	12.34	264437	363925	194.204	204.217
47)	AR1260-B	9.90	12.53	191177	230654	290.824	286.233
48)	AR1260-C	10.43	13.21	169420	223307	275.553	259.449
49)	AR1260-D	11.12	13.77	430608	480534	274.759	268.001
50)	AR1260-E	11.74	14.63	385126	475876	249.536m	255.077m

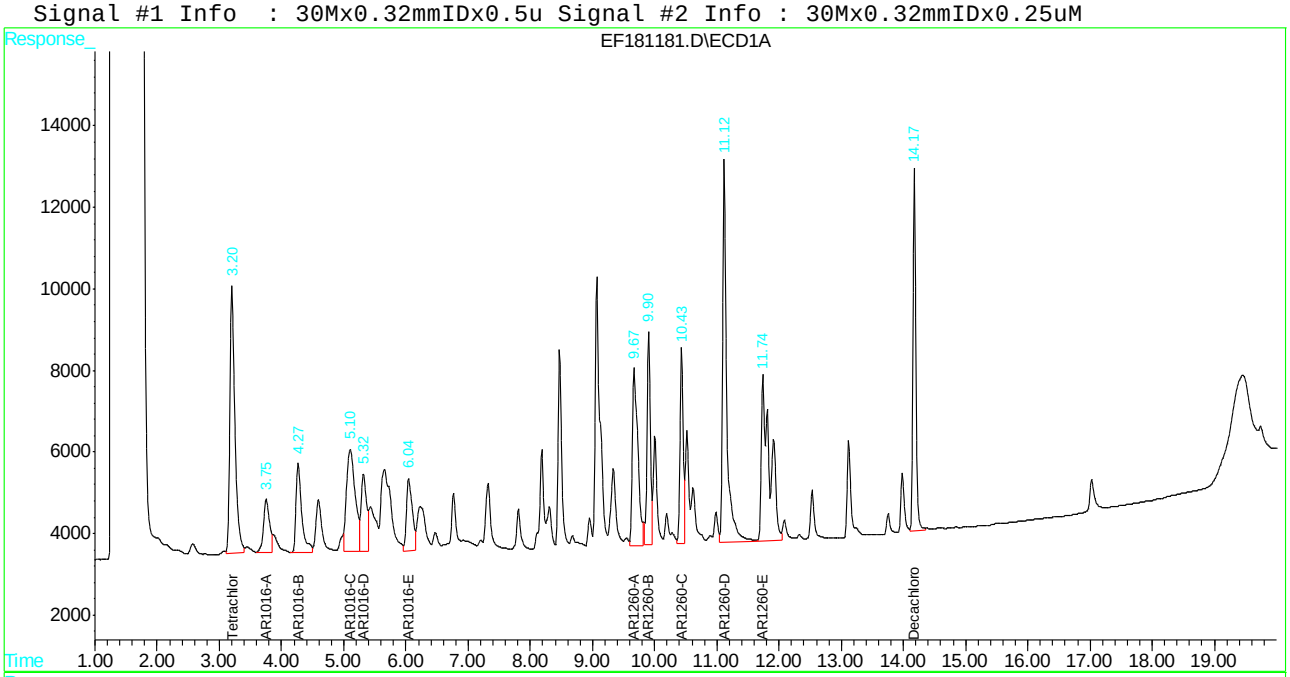
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181181.D PCB6195.M Tue Mar 27 14:38:23 2018 GCEF Page 1

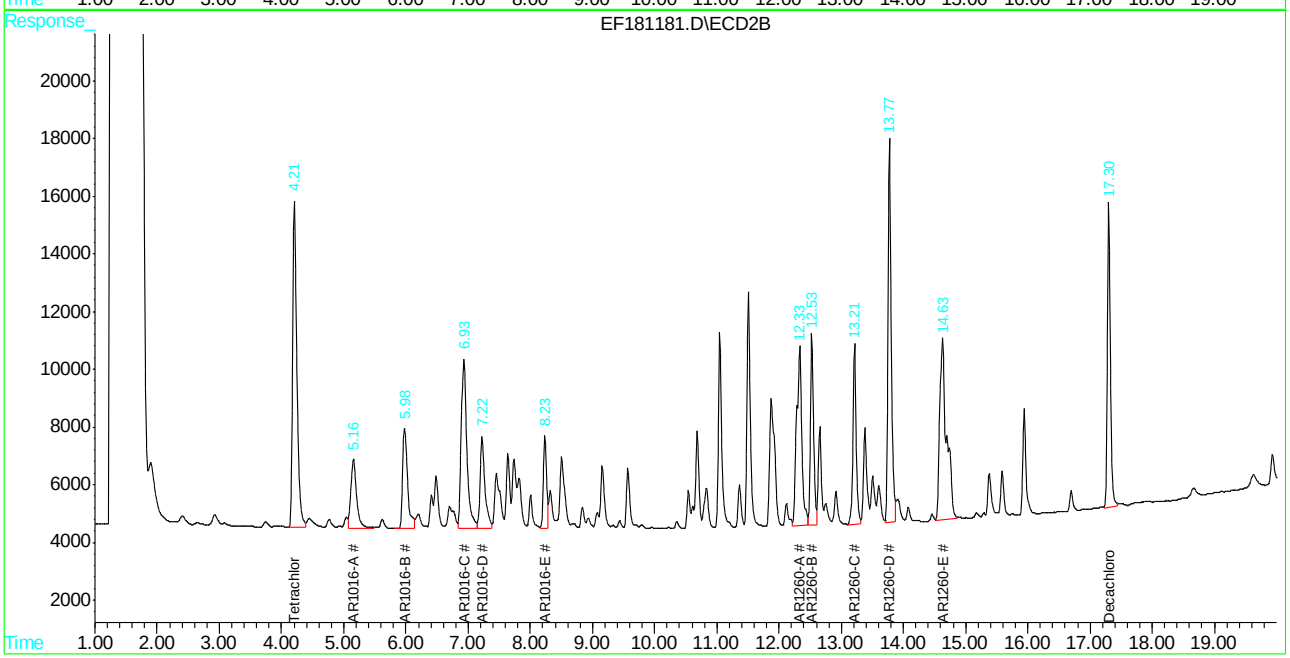
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:37 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

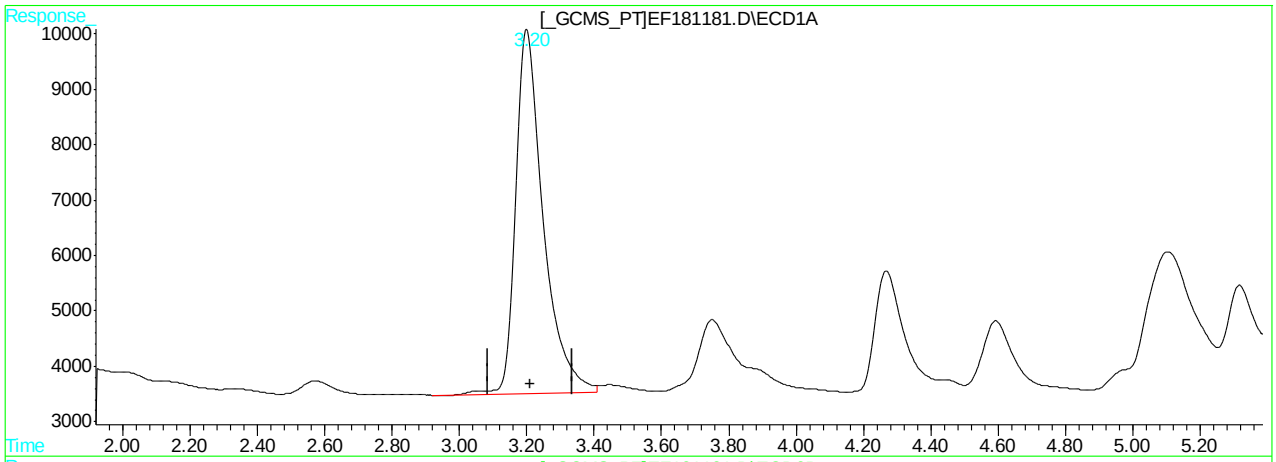
Sample Number: OP10875-BSD
Lab FileID: EF181181.D
Injection Time: 03/27/18 13:50
Method: SW846 8082A
Analyst approved: 03/27/18 16:52 Tianwei Ruan
Supervisor approved: 03/28/18 16:47 Gwendolyn Burns

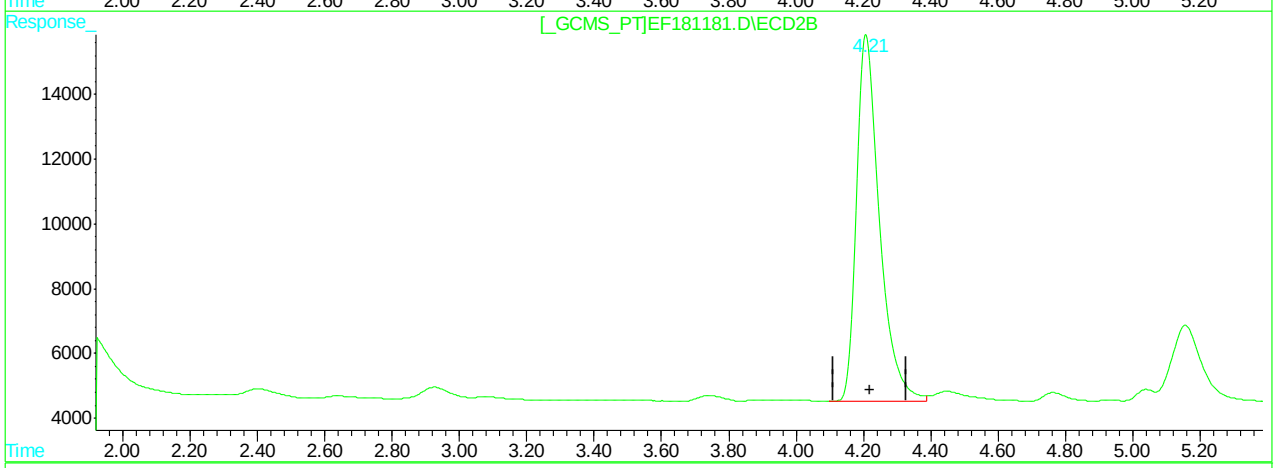
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.20	Poorly defined baseline
AR1016-A		1	3.75	Split peak
AR1016-C		1	5.10	Split peak
AR1260-E		1	11.74	Split peak
AR1260-E		2	14.63	Split peak
Decachlorobiphenyl	2051-24-3	2	17.30	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.20min 32.412PPB

response 374718

(1) Tetrachloro-m-xylene #2 (S)

4.21min 34.519PPB

response 537420

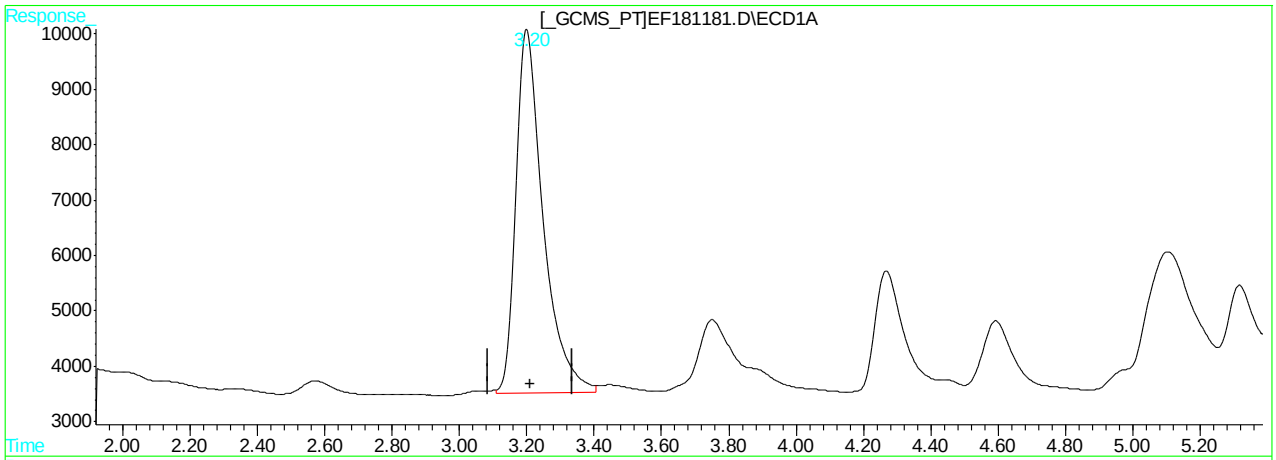
(+) = Expected Retention Time
EF181181.D PCB6195.M Tue Mar 27 14:36:16 2018 GCEF

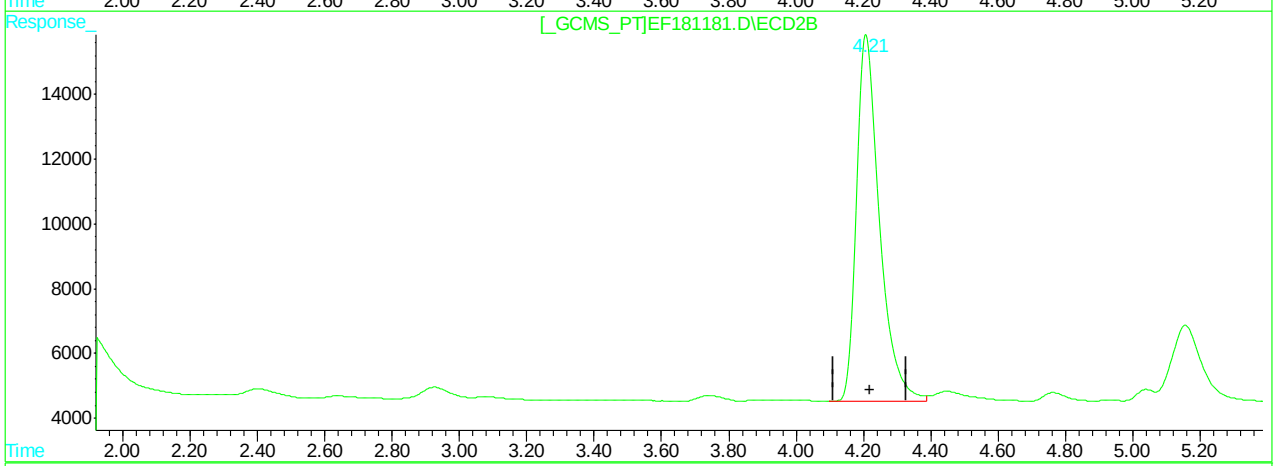
11.3.5.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.20min 32.092PPB m

response 371010

(1) Tetrachloro-m-xylene #2 (S)

4.21min 34.519PPB

response 537420

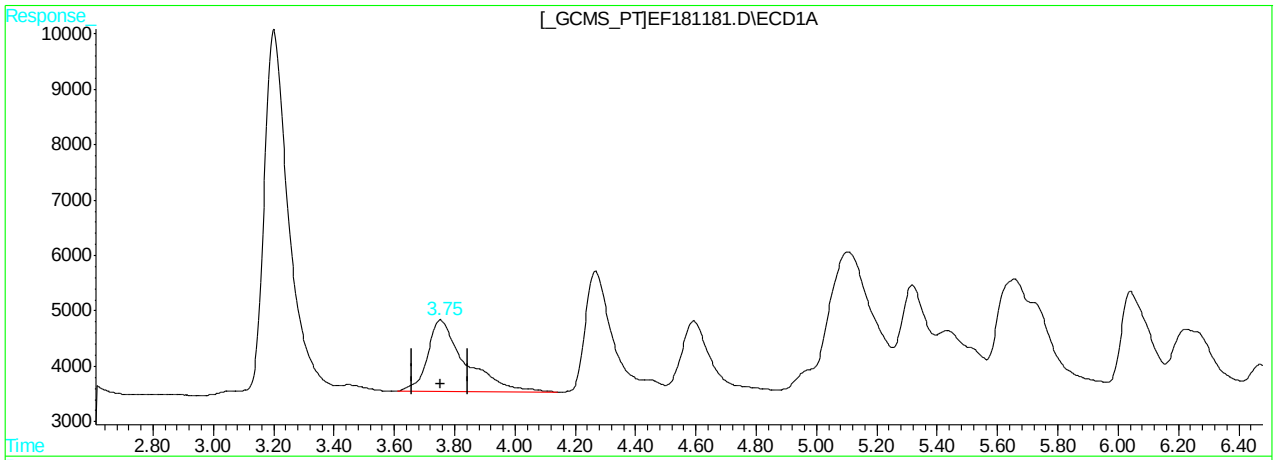
(+) = Expected Retention Time
EF181181.D PCB6195.M Tue Mar 27 14:36:26 2018 GCEF

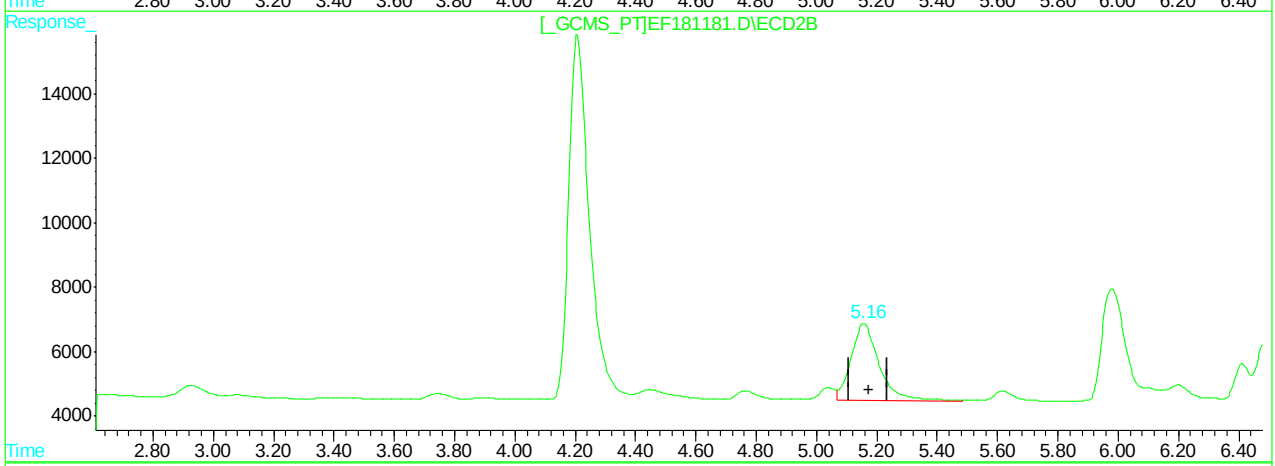
11.3.5.3 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

3.75min 356.275PPB

response 112873

(41) AR1016-A #2

5.16min 375.794PPB

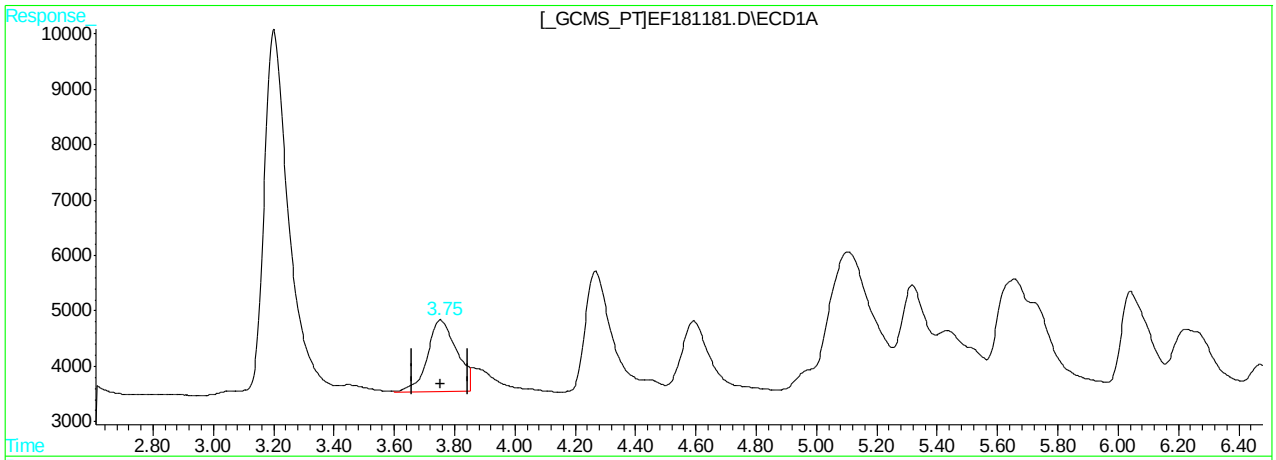
response 153993

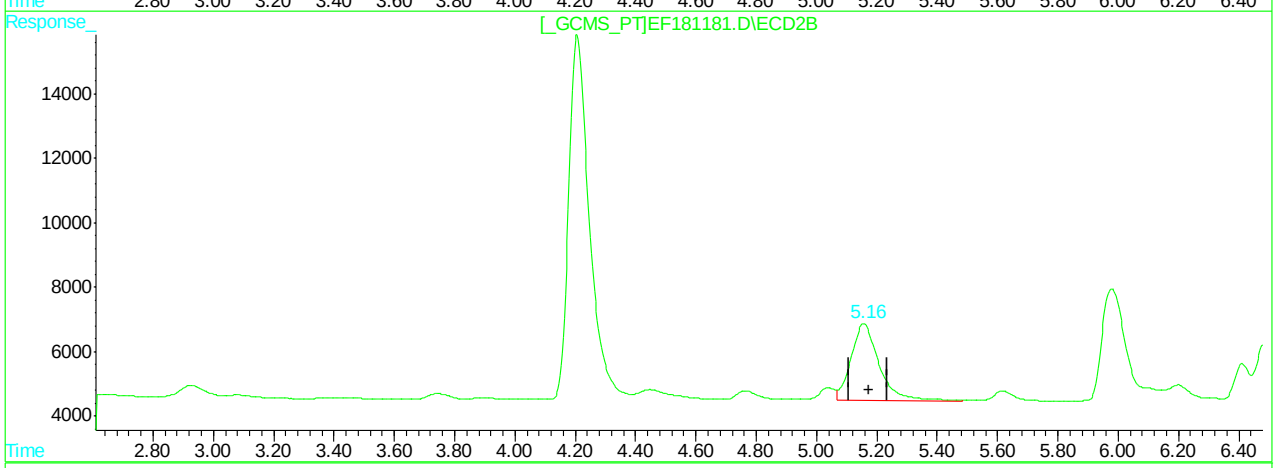
(+) = Expected Retention Time
EF181181.D PCB6195.M Tue Mar 27 14:36:37 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

3.75min 276.603PPB m

response 87631

(41) AR1016-A #2

5.16min 375.794PPB

response 153993

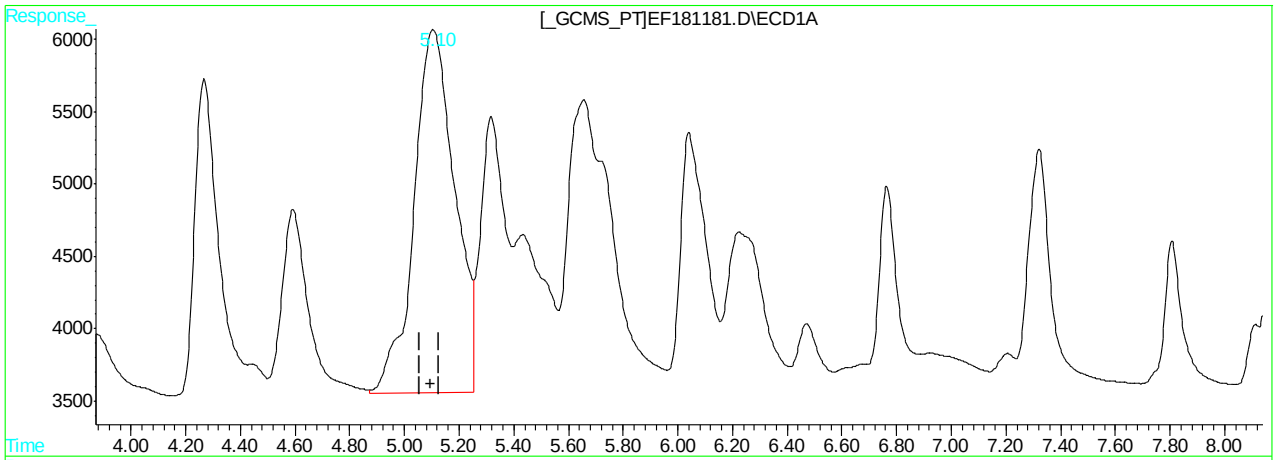
(+) = Expected Retention Time
EF181181.D PCB6195.M Tue Mar 27 14:36:42 2018 GCEF

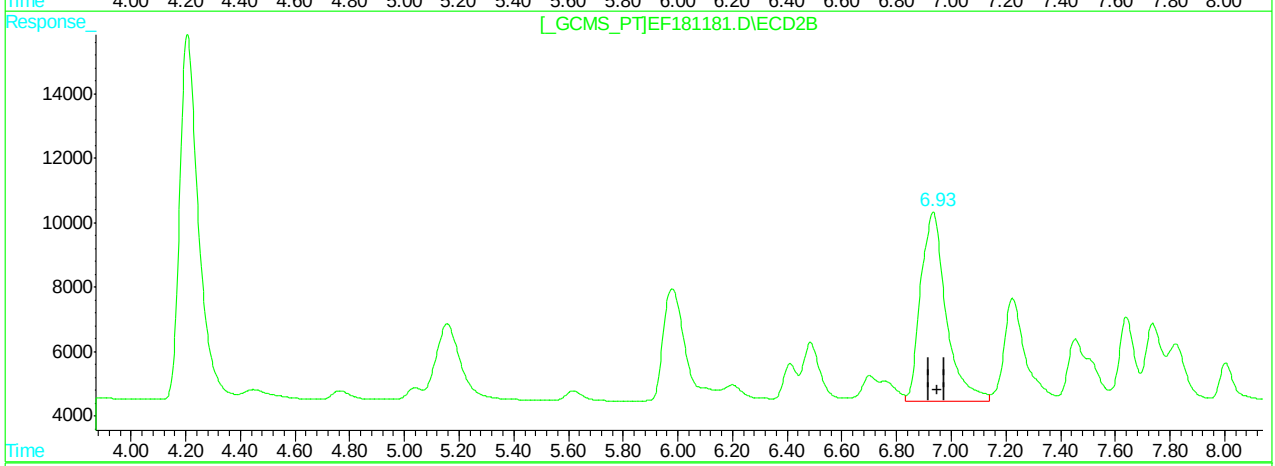
11.3.5.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.11min 212.091PPB

response 260378

(43) AR1016-C #2

6.93min 234.762PPB

response 377112

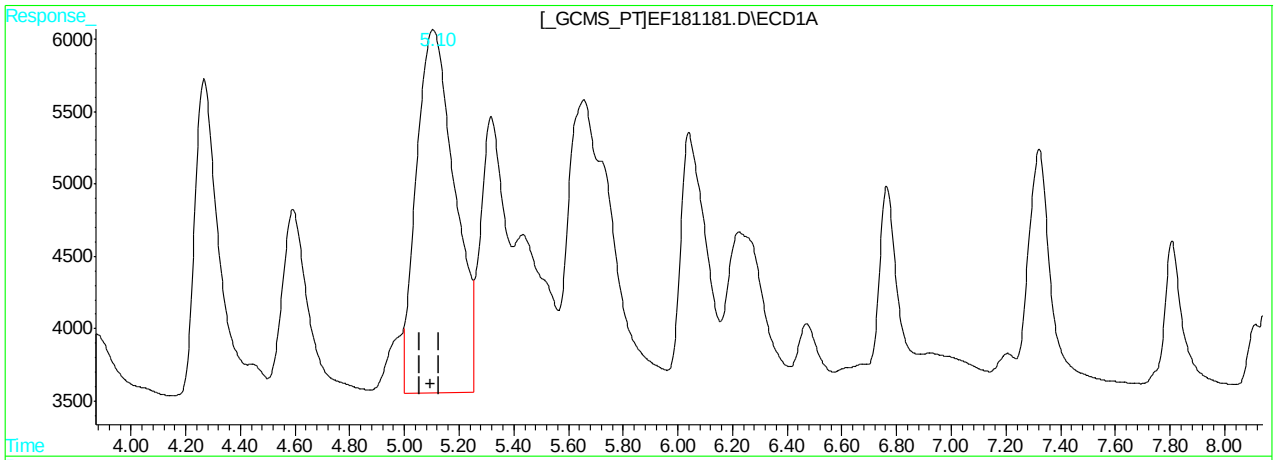
(+) = Expected Retention Time
EF181181.D PCB6195.M Tue Mar 27 14:36:50 2018 GCEF

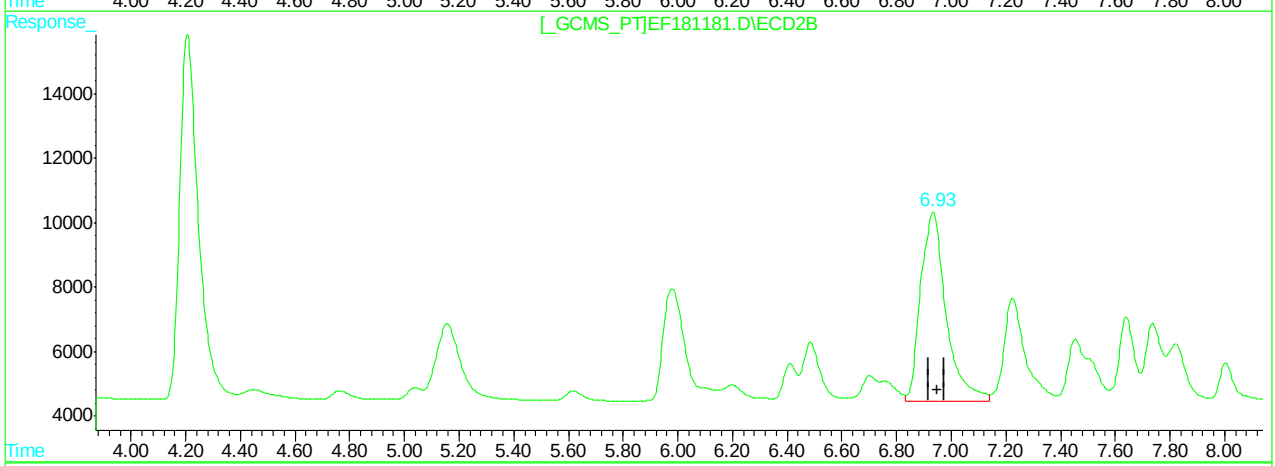
11.3.5.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 199.008PPB m

response 244317

(43) AR1016-C #2

6.93min 234.762PPB

response 377112

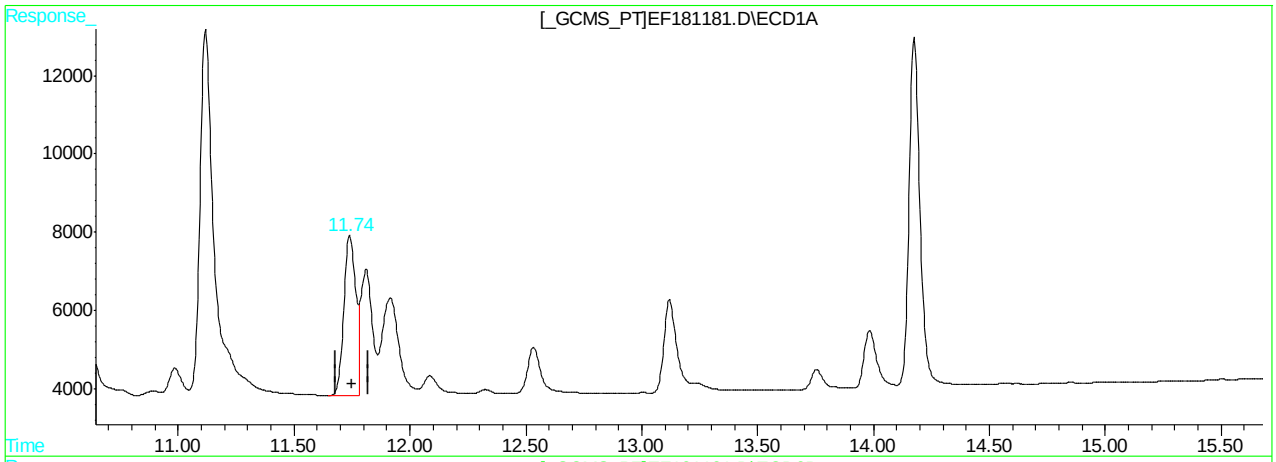
(+) = Expected Retention Time
EF181181.D PCB6195.M Tue Mar 27 14:36:55 2018 GCEF

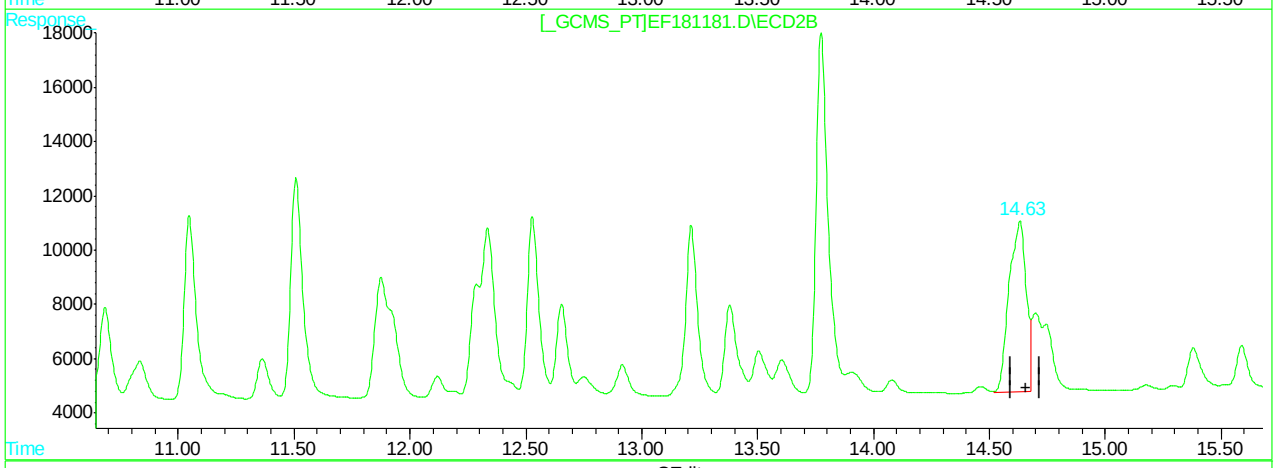
11.3.5.7 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 94.165PPB

response 145331

(50) AR1260-E #2

14.63min 172.196PPB

response 321251

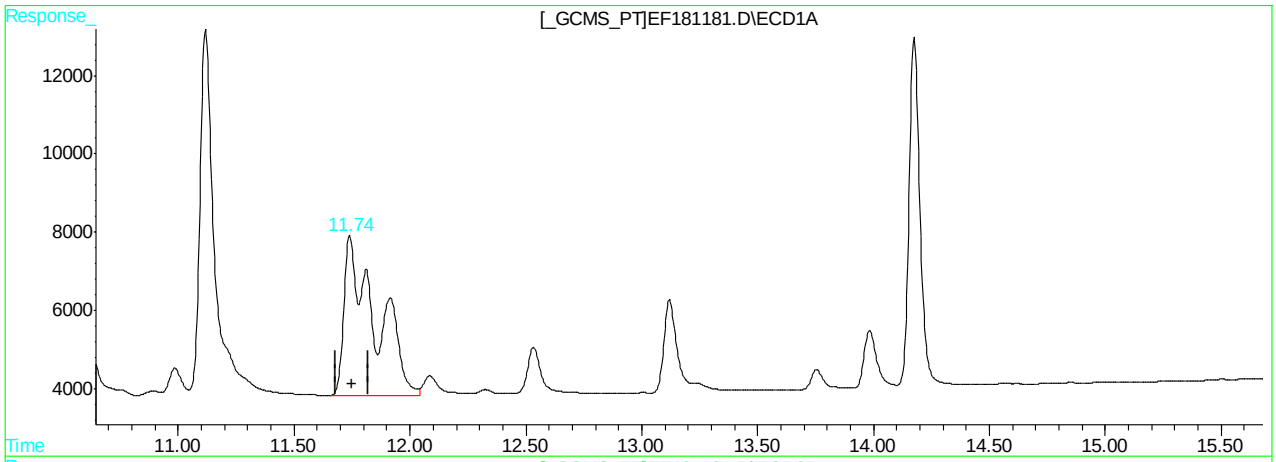
(+) = Expected Retention Time
EF181181.D PCB6195.M Tue Mar 27 14:37:08 2018 GCEF

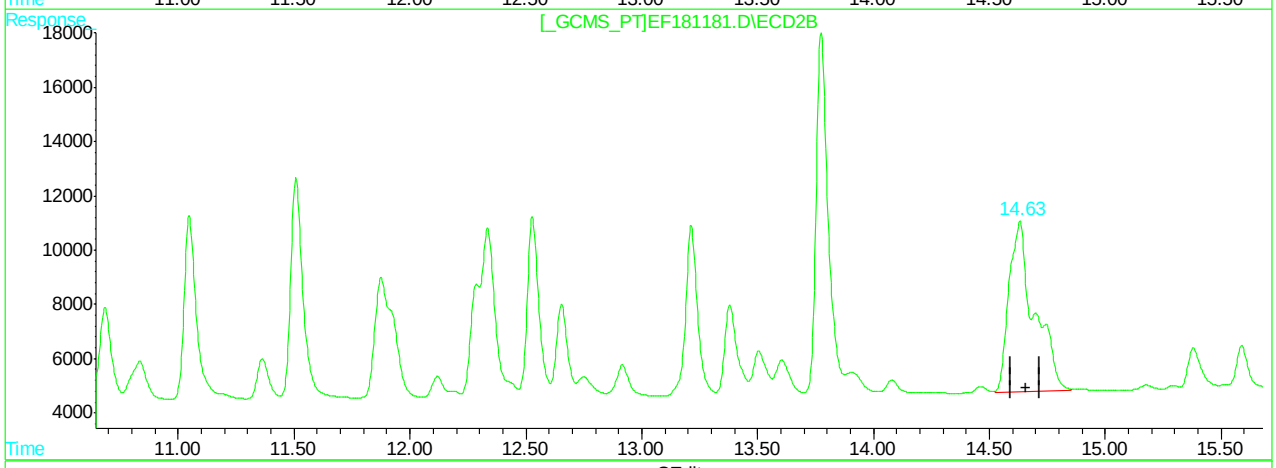
11.3.5.8 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 249.536PPB m

response 385126

(50) AR1260-E #2

14.63min 255.077PPB m

response 475876

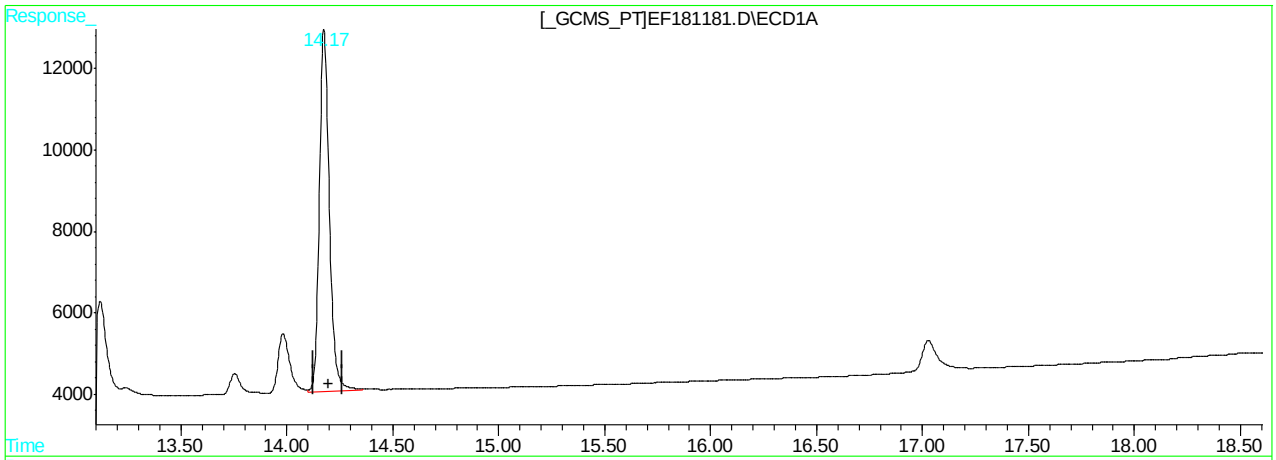
(+) = Expected Retention Time
EF181181.D PCB6195.M Tue Mar 27 14:37:17 2018 GCEF

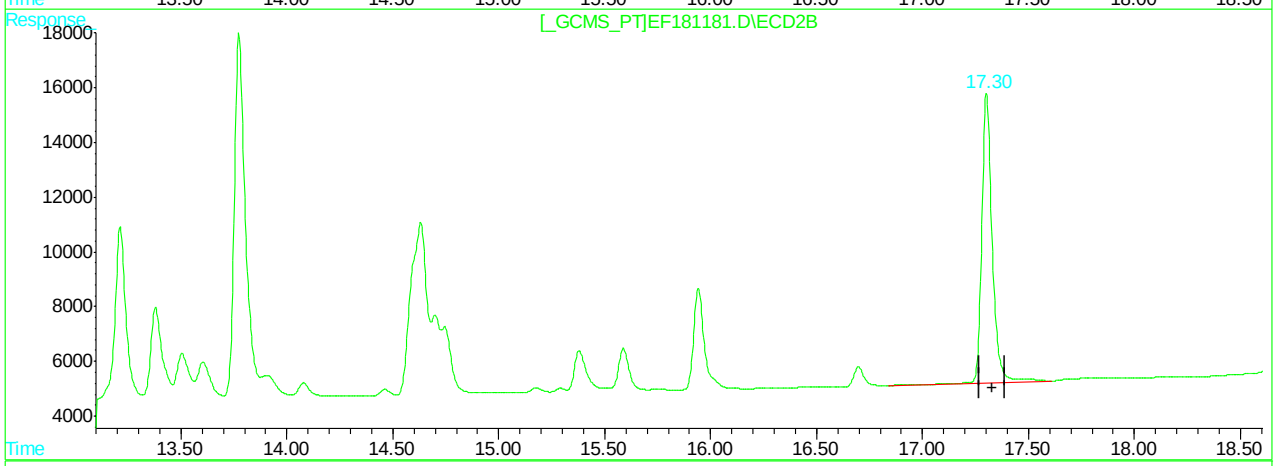
11.3.5.9 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 16.947PPB

response 290077

(51) Decachlorobiphenyl #2 (S)

17.30min 17.416PPB

response 365616

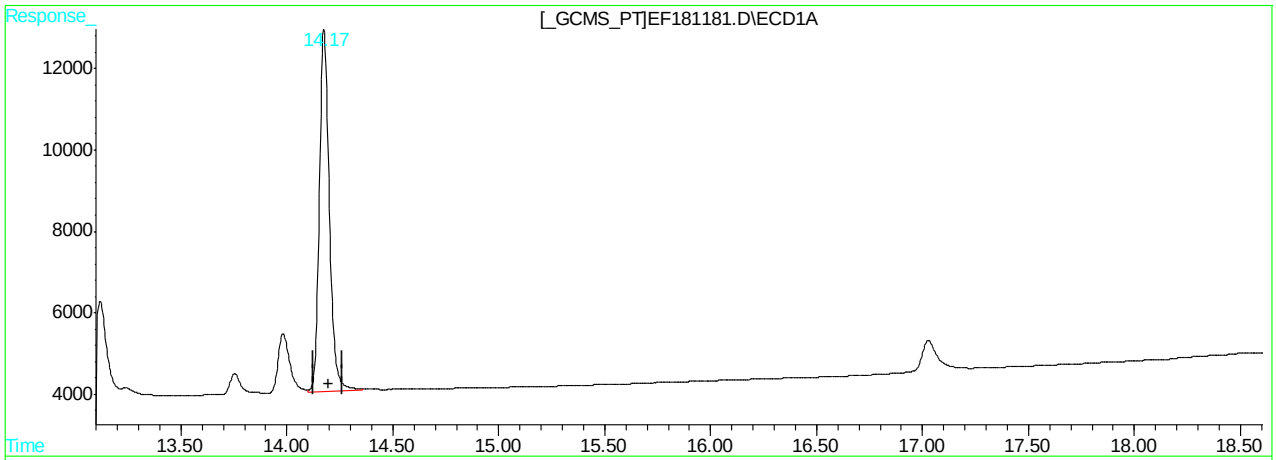
(+) = Expected Retention Time
EF181181.D PCB6195.M Tue Mar 27 14:37:21 2018 GCEF

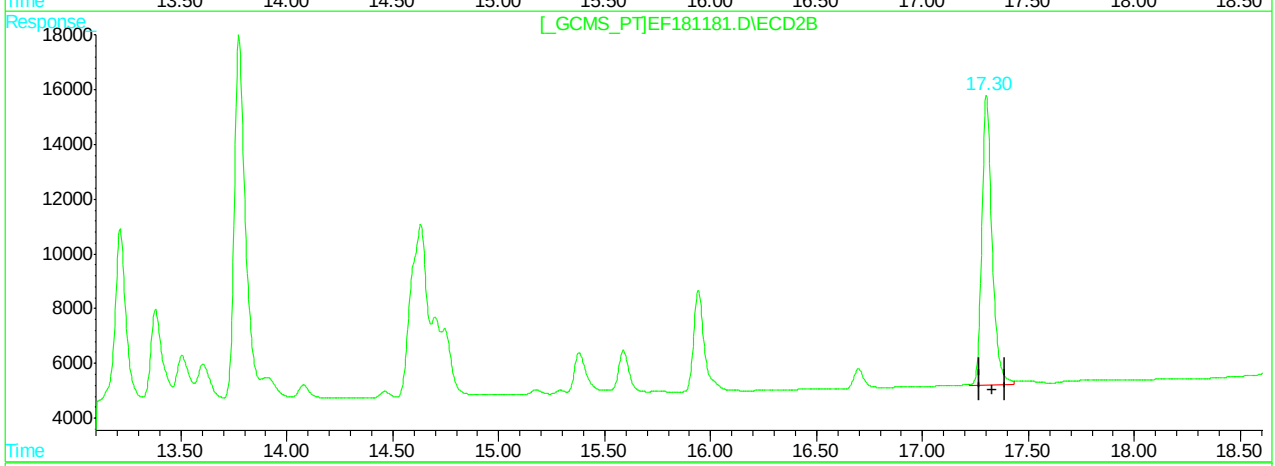
11.3.5.10 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181181.D\ECD2B.CH
Acq On : 27 Mar 2018 1:50 pm Operator: humarahb
Sample : op10875-bsd Inst : gcef
Misc : op10875,GEF6202,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 14:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 16.947PPB

response 290077

(51) Decachlorobiphenyl #2 (S)

17.30min 16.933PPB m

response 355474

(+) = Expected Retention Time
EF181181.D PCB6195.M Tue Mar 27 14:37:29 2018 GCEF

11.3.5.11

11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:37 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.22	4.22	376027	541597	32.526m	34.787m
	Spiked Amount 40.000			Recovery =		81.31%	86.97%
51)	S Decachlorobiphen	14.20	17.33	258236	310867	15.087m	14.808m
	Spiked Amount 40.000			Recovery =		37.72%	37.02%
	Target Compounds						
41)	AR1016-A	3.77	5.18	72187	104027	227.854m	253.859m
42)	AR1016-B	4.29f	6.00f	108923	166681	197.532	206.961m
43)	AR1016-C	5.13f	6.96f	212593	320886	173.168m	199.761
44)	AR1016-D	5.34f	7.25f	97454	141506	204.686m	206.035
45)	AR1016-E	6.07f	8.26f	90447	96706	182.999	201.427
46)	AR1260-A	9.70f	12.36	221659	293955	162.787	164.954
47)	AR1260-B	9.93	12.56	143549	173337	218.370	215.104
48)	AR1260-C	10.46	13.24	127524	170180	207.411	197.723
49)	AR1260-D	11.15	13.80	297739	338781	189.979	188.943m
50)	AR1260-E	11.77	14.66	247938	313682	160.647m	168.139

11.3.6 11

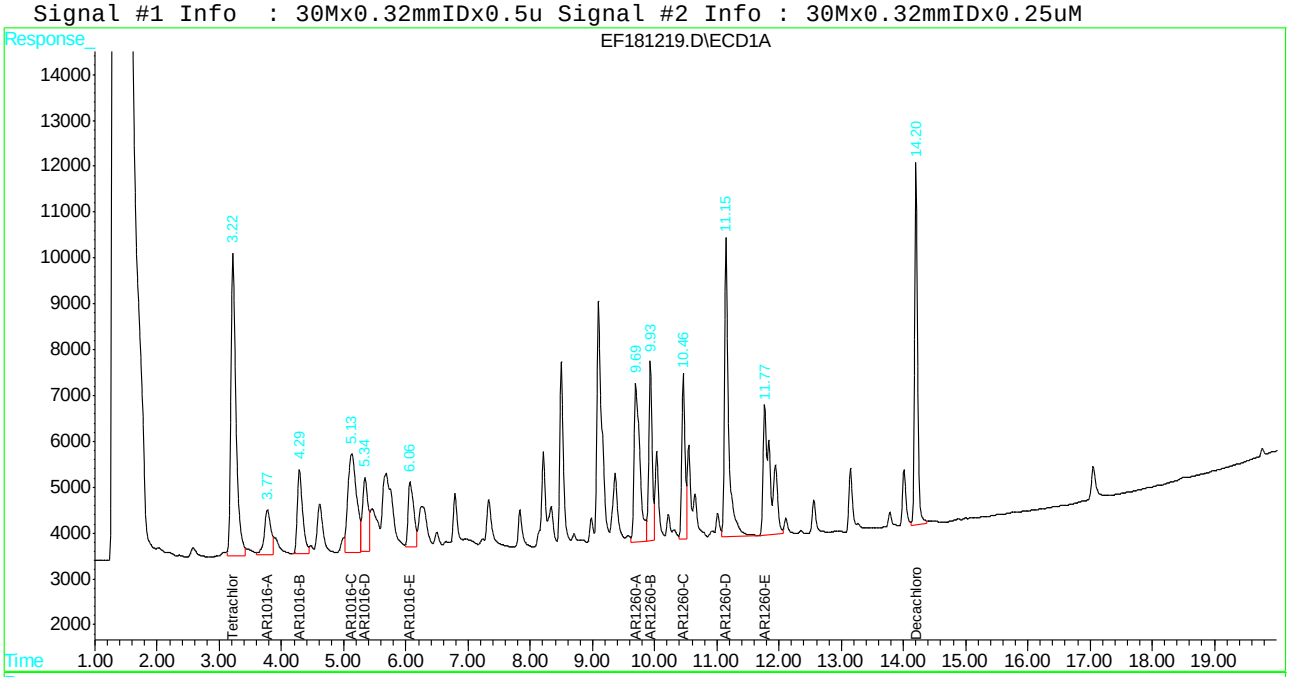
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181219.D PCB6195.M Thu Mar 29 09:38:09 2018 GCEF Page 1

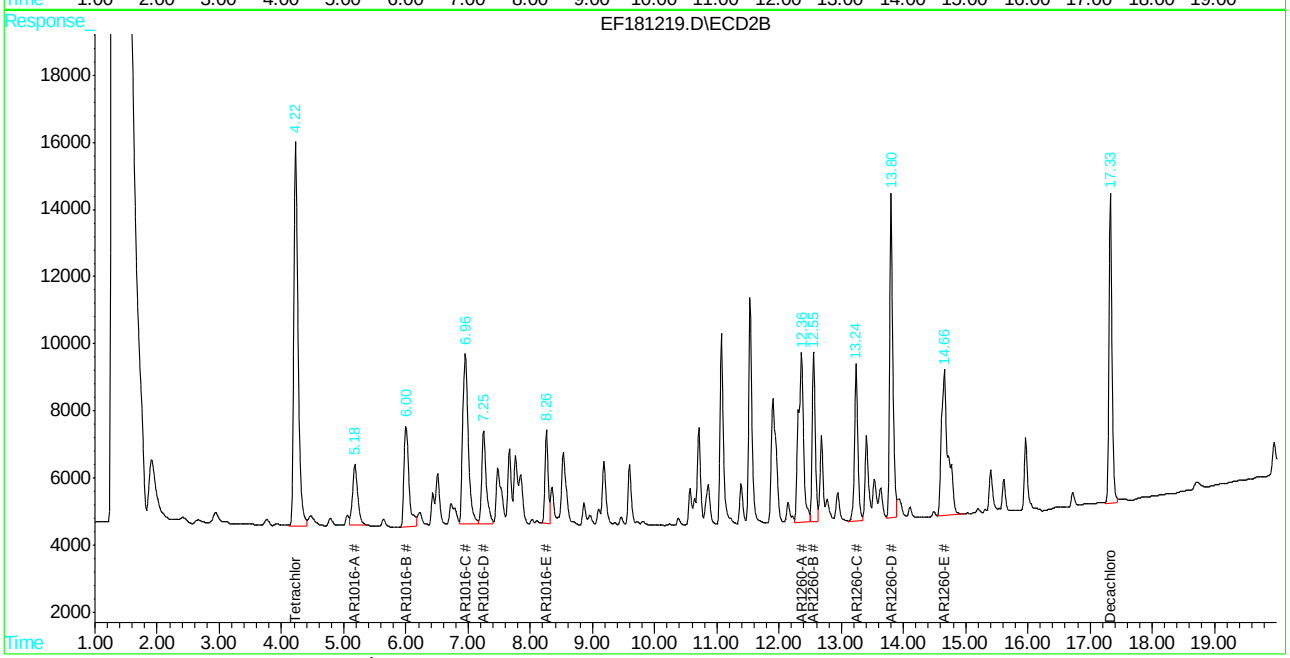
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:37 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

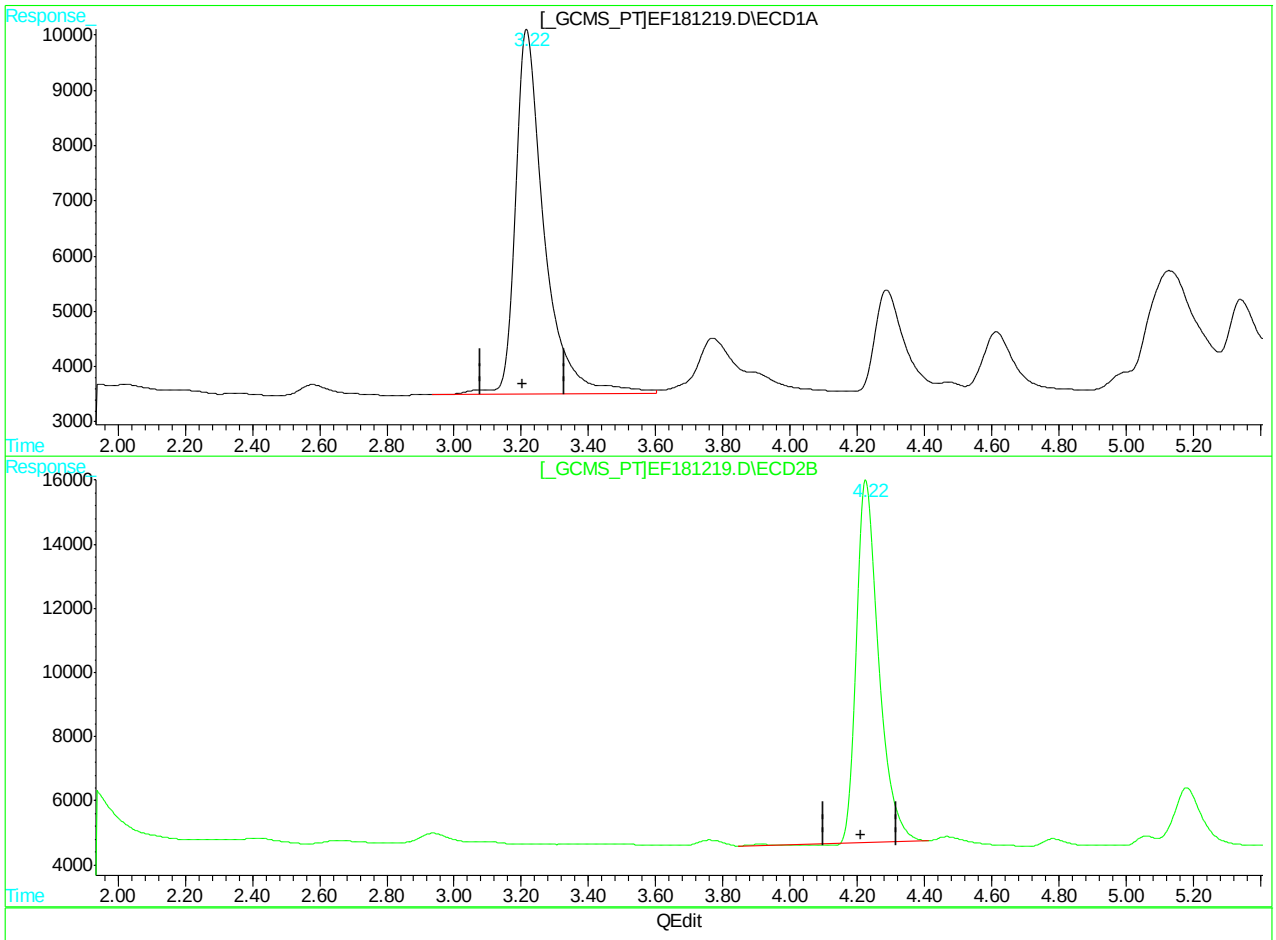
Sample Number: OP10884-BS1
Lab FileID: EF181219.D
Injection Time: 03/28/18 18:14
Method: SW846 8082A
Analyst approved: 03/29/18 11:01 Tianwei Ruan
Supervisor approved: 03/29/18 17:48 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.22	Poorly defined baseline
AR1016-A		1	3.77	Split peak
Tetrachloro-m-xylene	877-09-8	2	4.22	Poorly defined baseline
AR1016-C		1	5.13	Split peak
AR1016-A		2	5.18	Split peak
AR1016-D		1	5.34	Split peak
AR1016-B		2	6.00	Split peak
AR1260-E		1	11.77	Split peak
AR1260-D		2	13.80	Split peak
Decachlorobiphenyl	2051-24-3	1	14.20	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.22min 33.892PPB

response 391823

(1) Tetrachloro-m-xylene #2 (S)

4.23min 33.272PPB

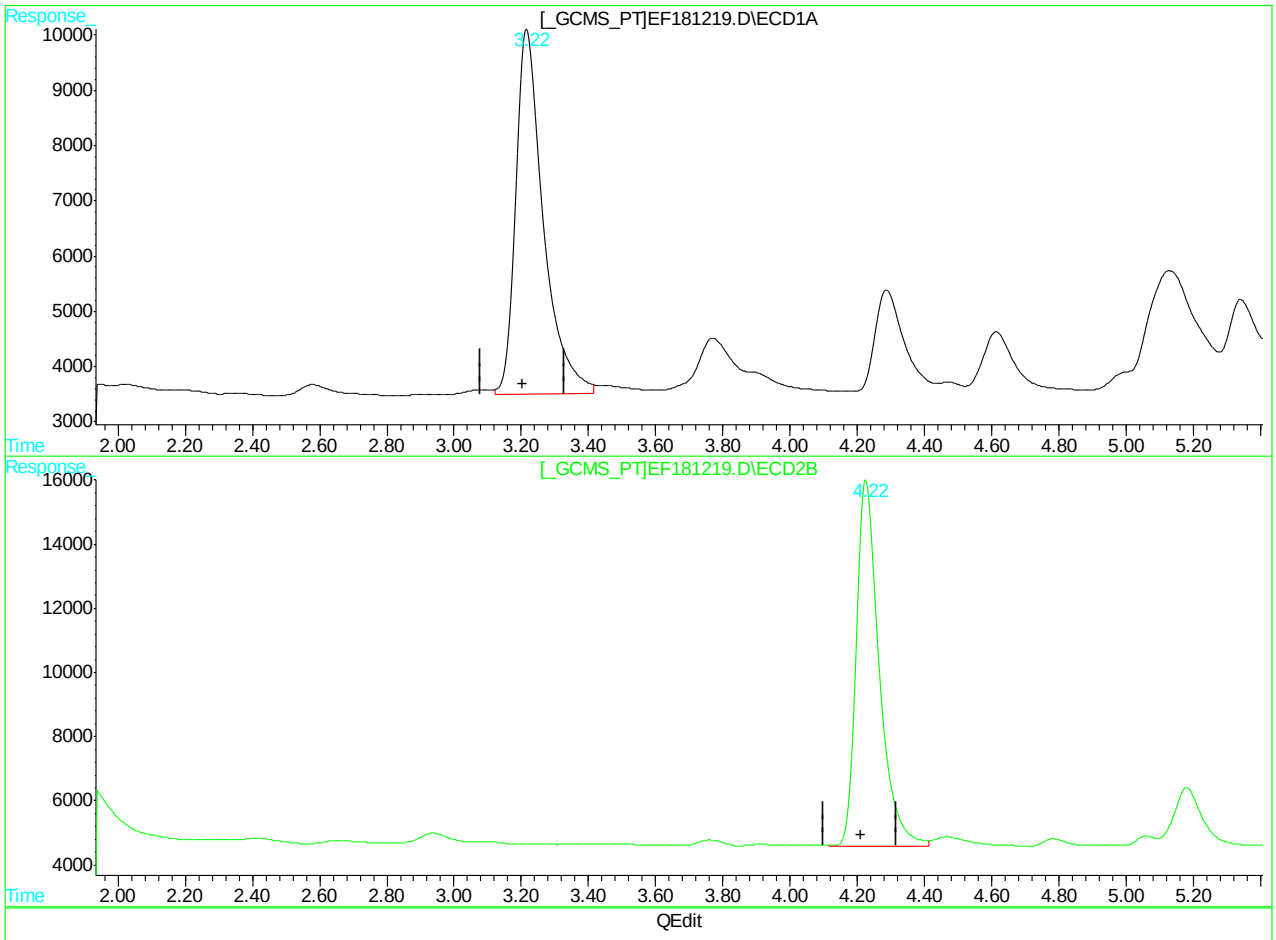
response 518009

(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:35:30 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.22min 32.526PPB m

response 376027

(1) Tetrachloro-m-xylene #2 (S)

4.22min 34.787PPB m

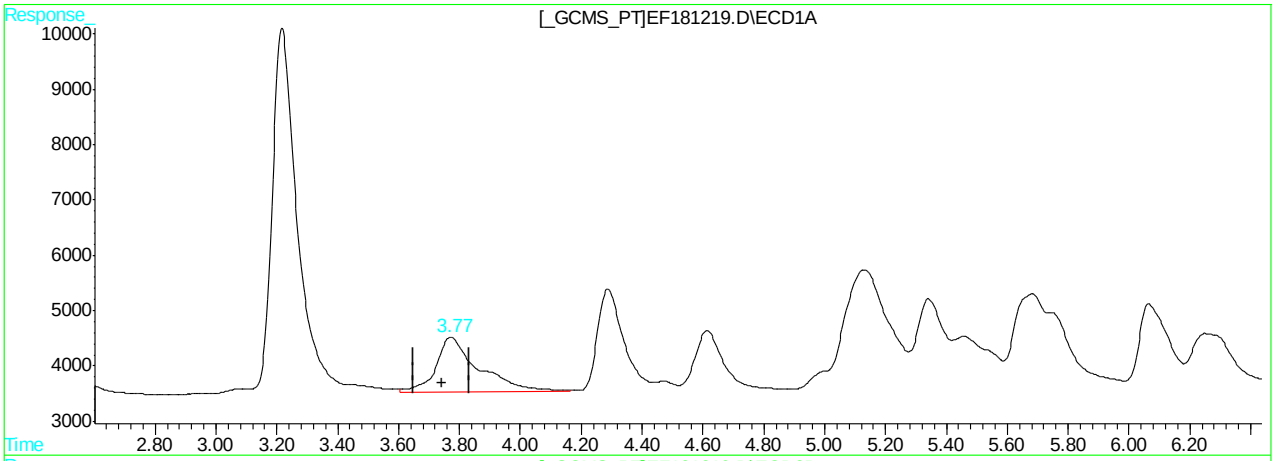
response 541597

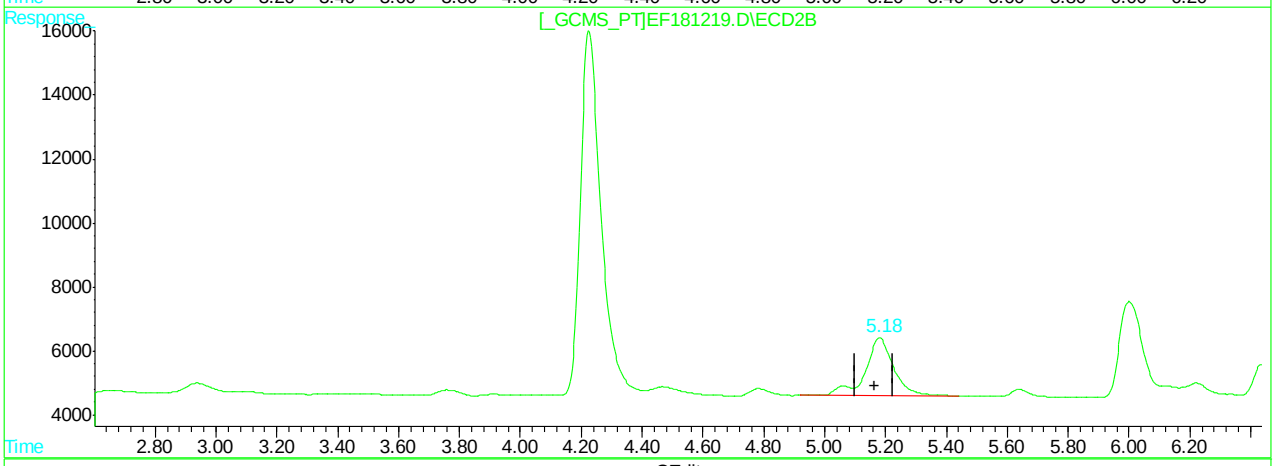
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:35:45 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

3.77min 303.613PPB

response 96189

(41) AR1016-A #2

5.18min 286.398PPB

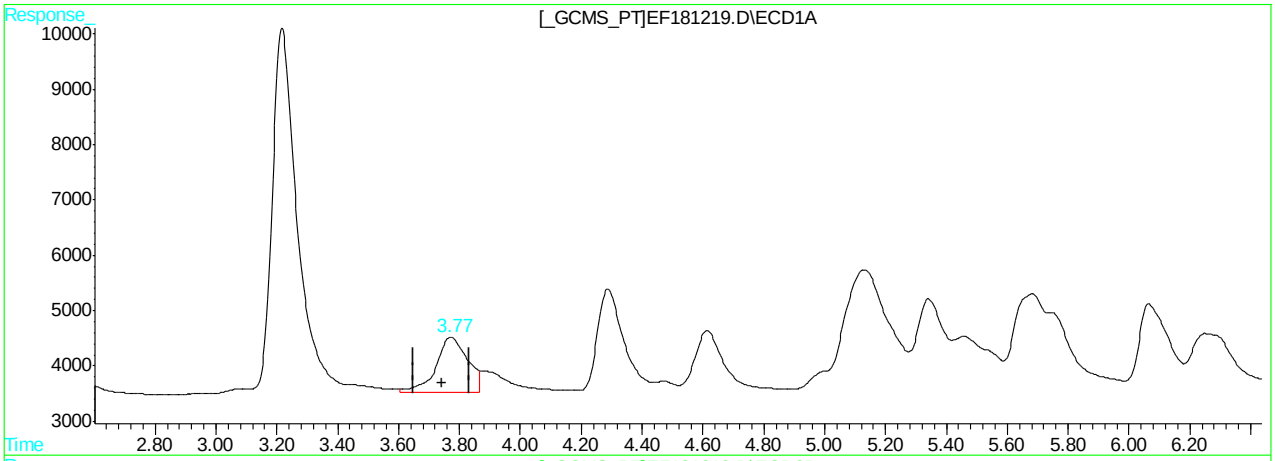
response 117361

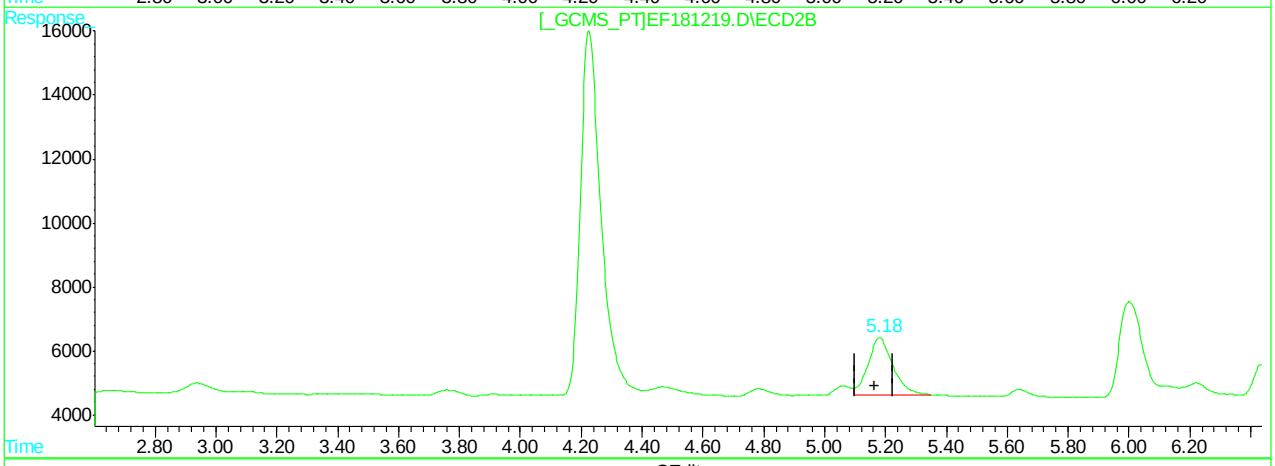
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:35:55 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

3.77min 227.854PPB m

response 72187

(41) AR1016-A #2

5.18min 253.859PPB m

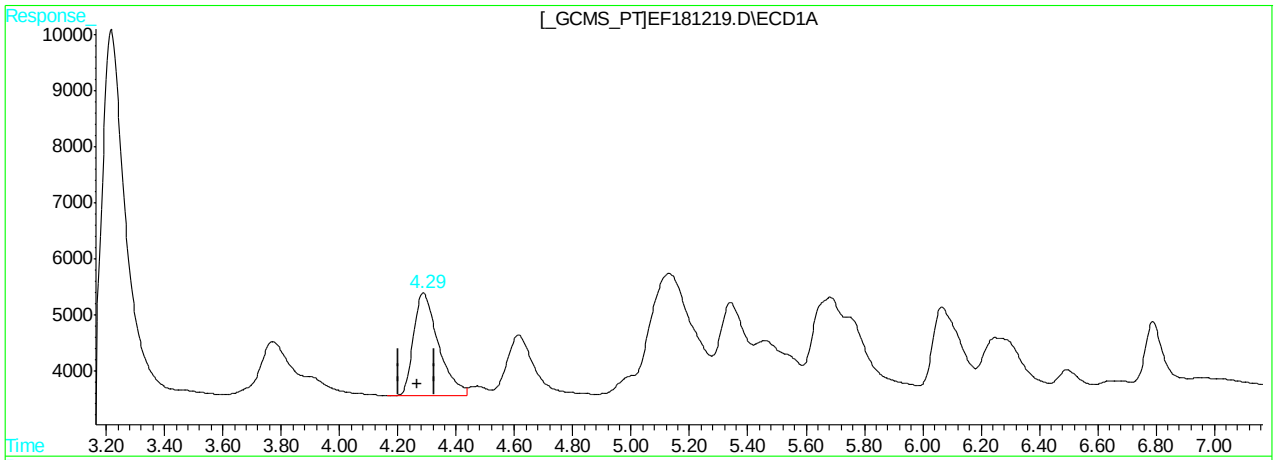
response 104027

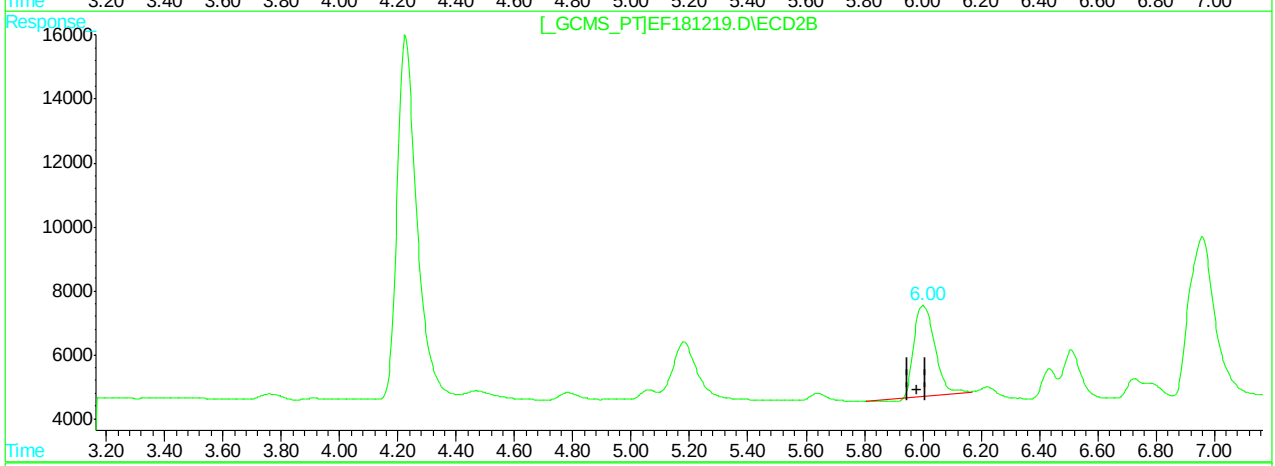
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:36:13 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(42) AR1016-B

4.29min 197.532PPB

response 108923

(42) AR1016-B #2

6.00min 170.364PPB

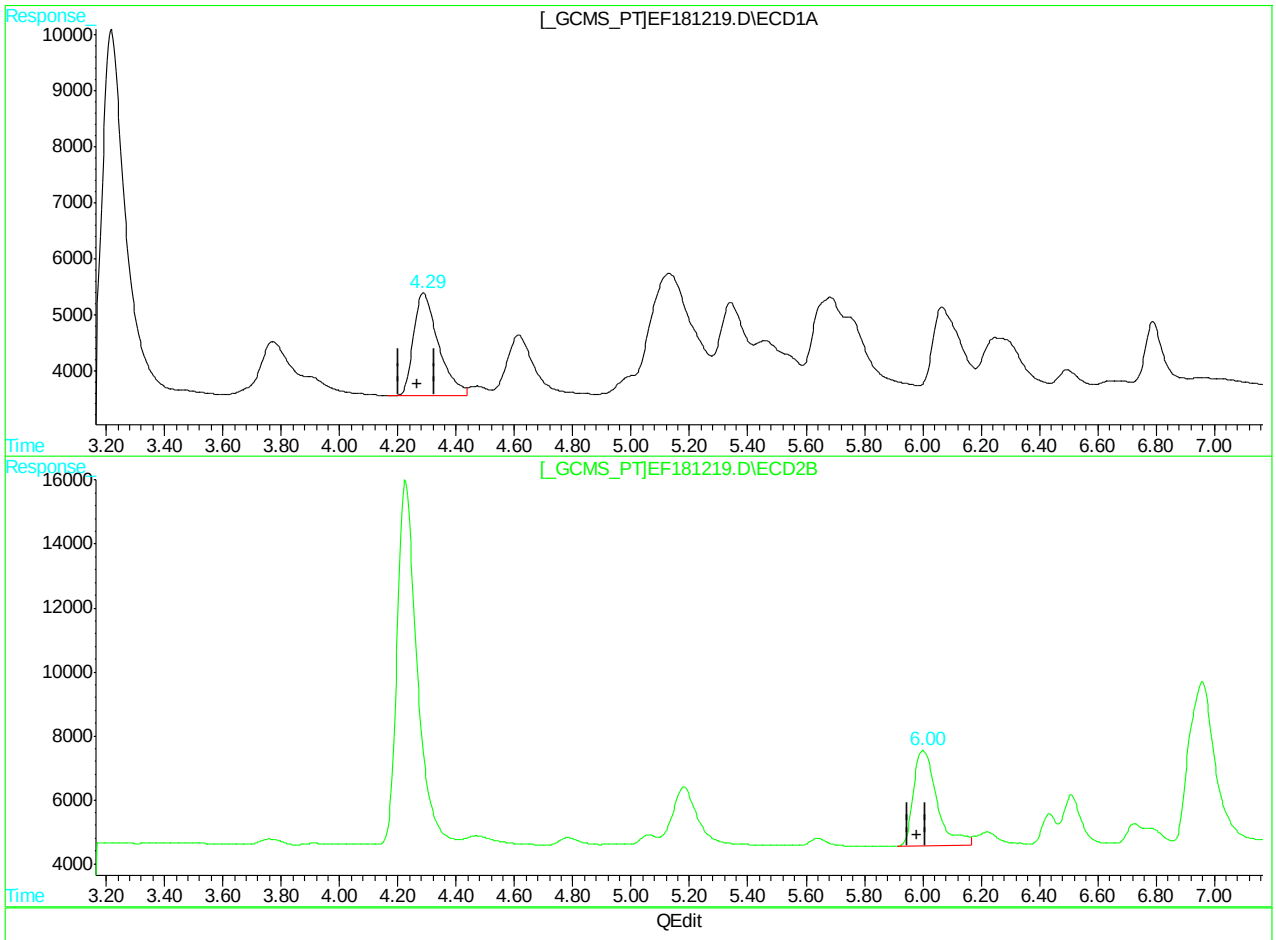
response 137206

(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:36:17 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(42) AR1016-B

4.29min 197.532PPB

response 108923

(42) AR1016-B #2

6.00min 206.961PPB m

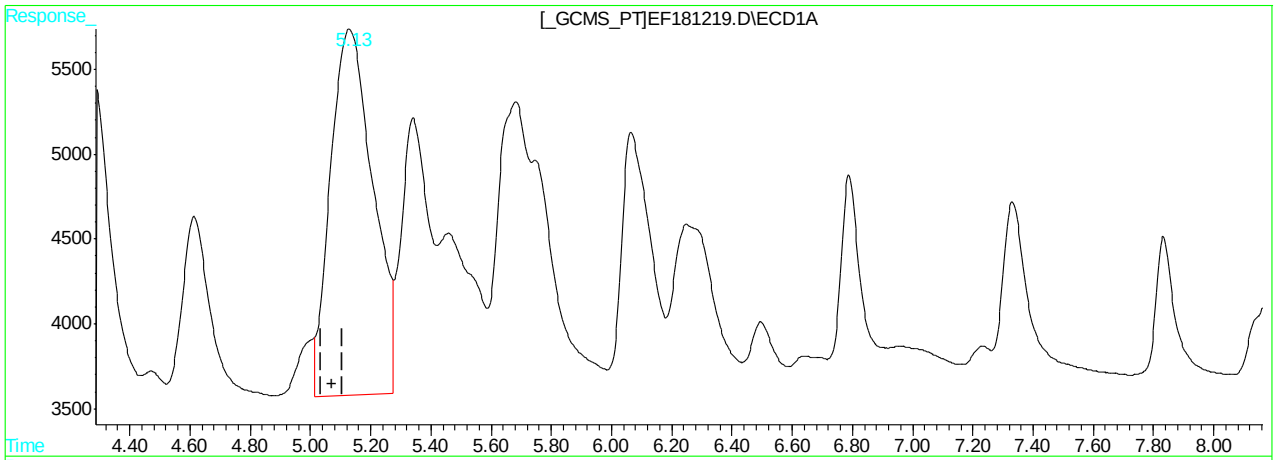
response 166681

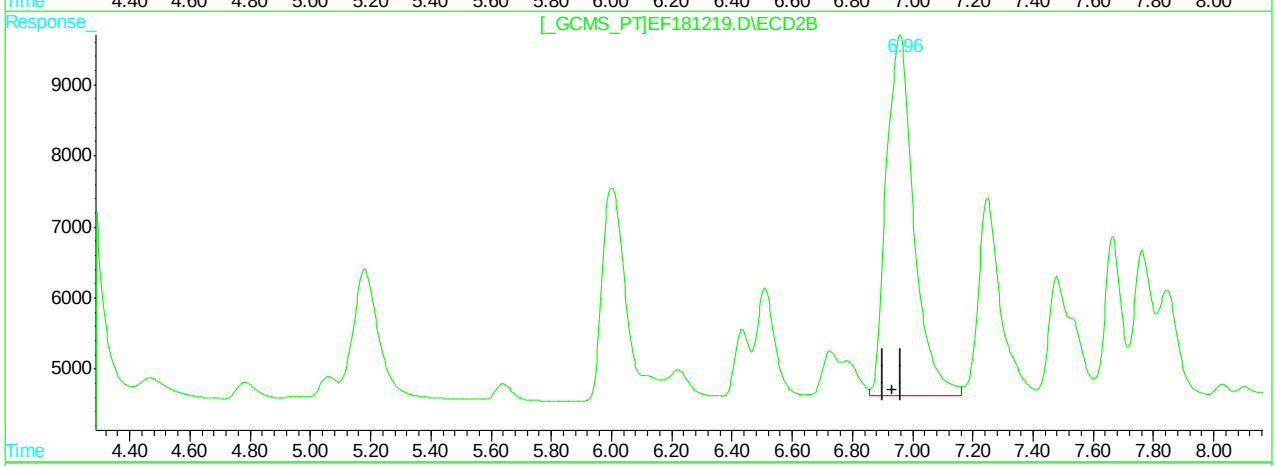
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:36:24 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.13min 173.168PPB m

response 212593

(43) AR1016-C #2

6.96min 199.761PPB

response 320886

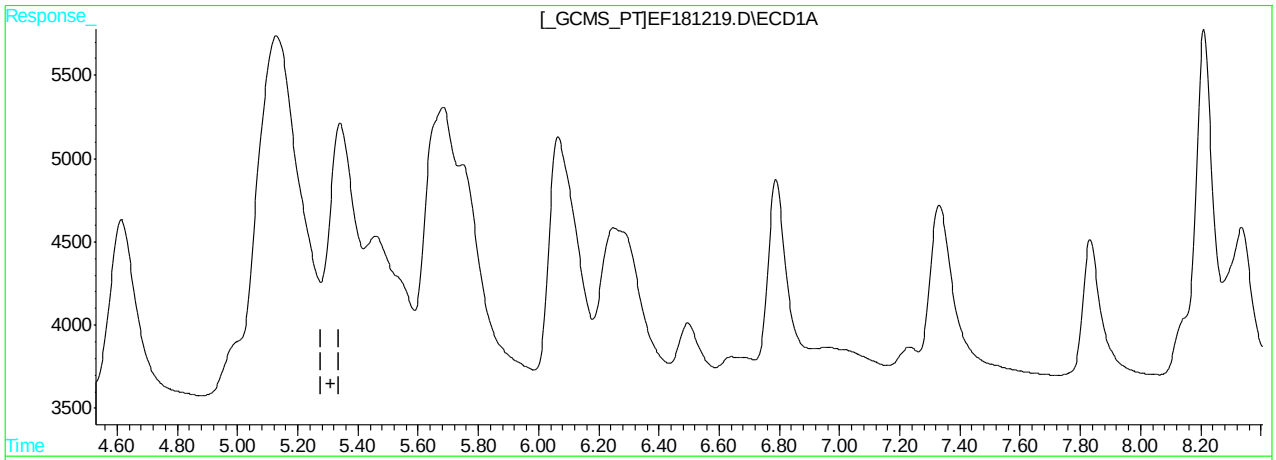
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:36:50 2018 GCEF

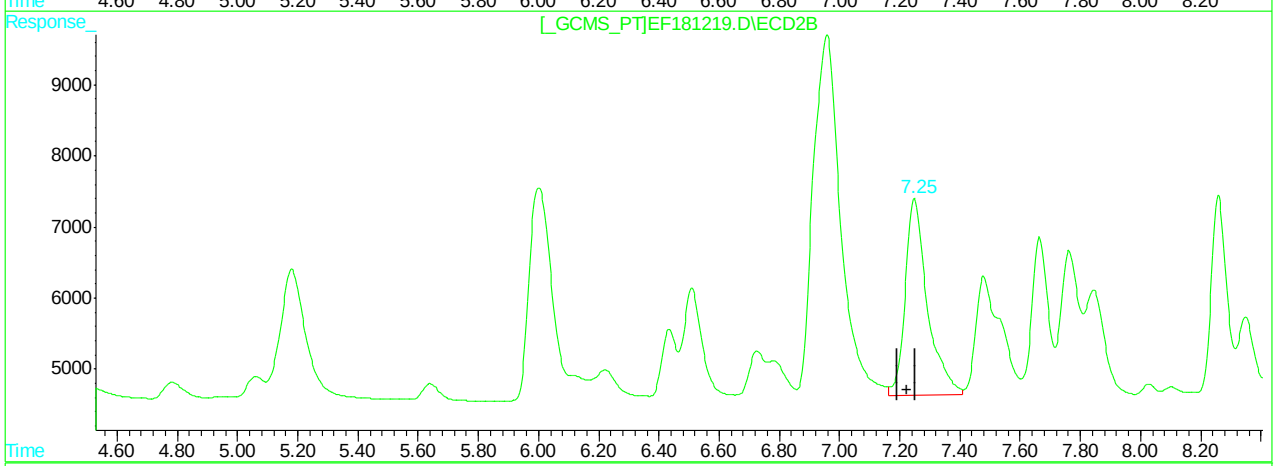
11.3.6.8 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(44) AR1016-D

0.00min 0.000PPB

response 0

(44) AR1016-D #2

7.25min 206.035PPB

response 141506

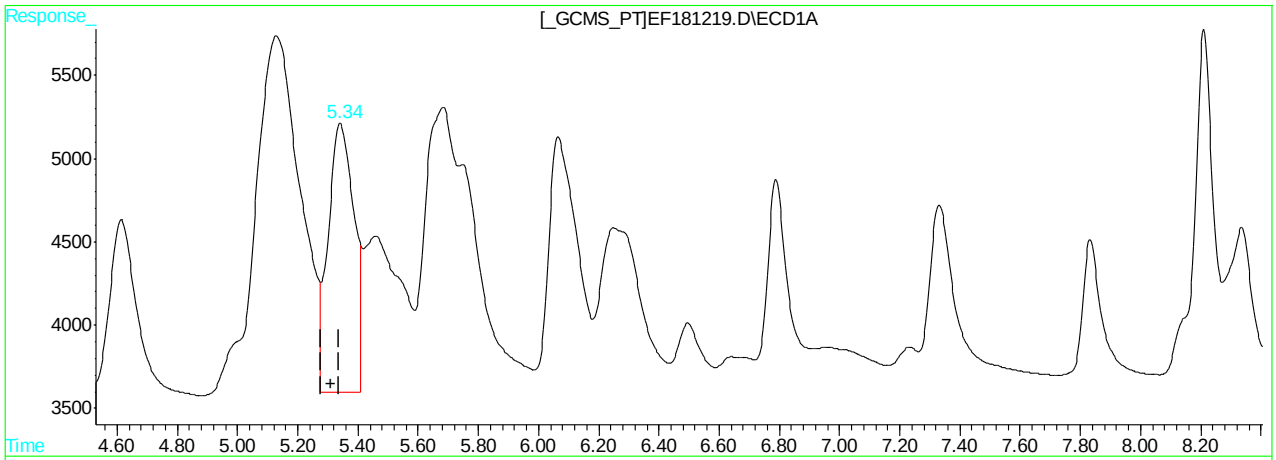
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:36:53 2018 GCEF

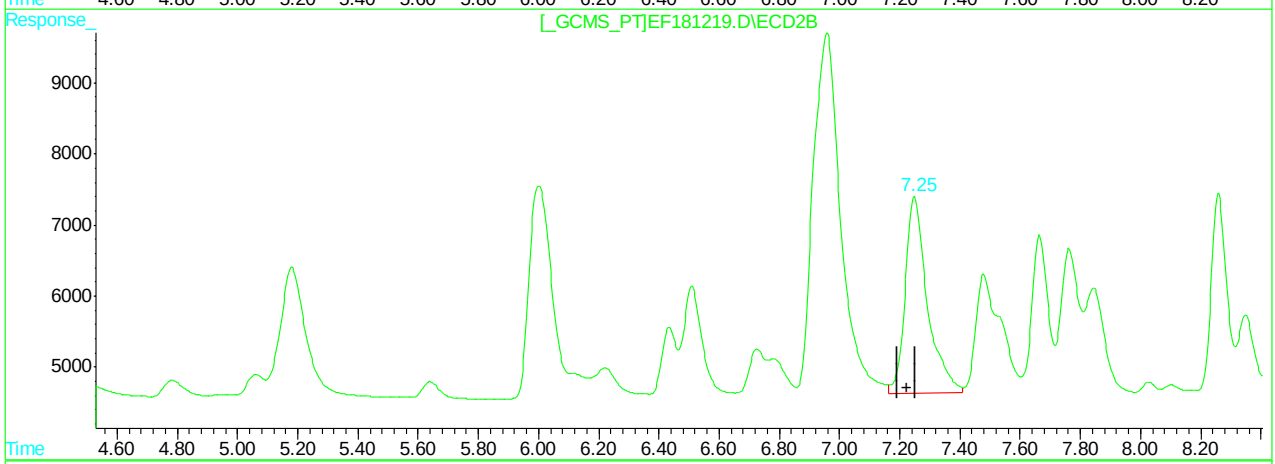
11.3.6.9 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(44) AR1016-D

5.34min 204.686PPB m

response 97454

(44) AR1016-D #2

7.25min 206.035PPB

response 141506

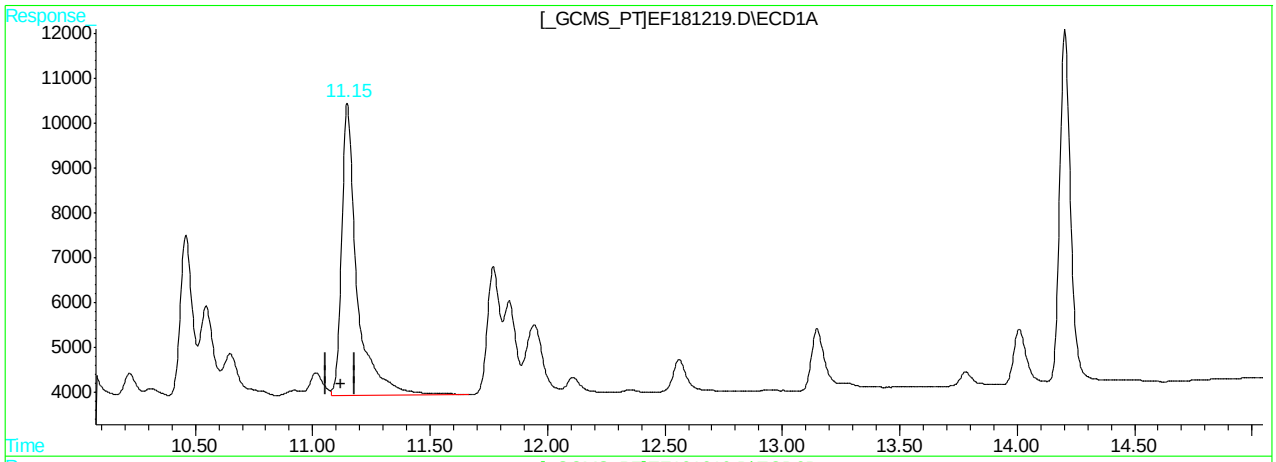
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:07 2018 GCEF

11.3.6.10 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(49) AR1260-D

11.15min 189.979PPB

response 297739

(49) AR1260-D #2

13.80min 204.022PPB

response 365818

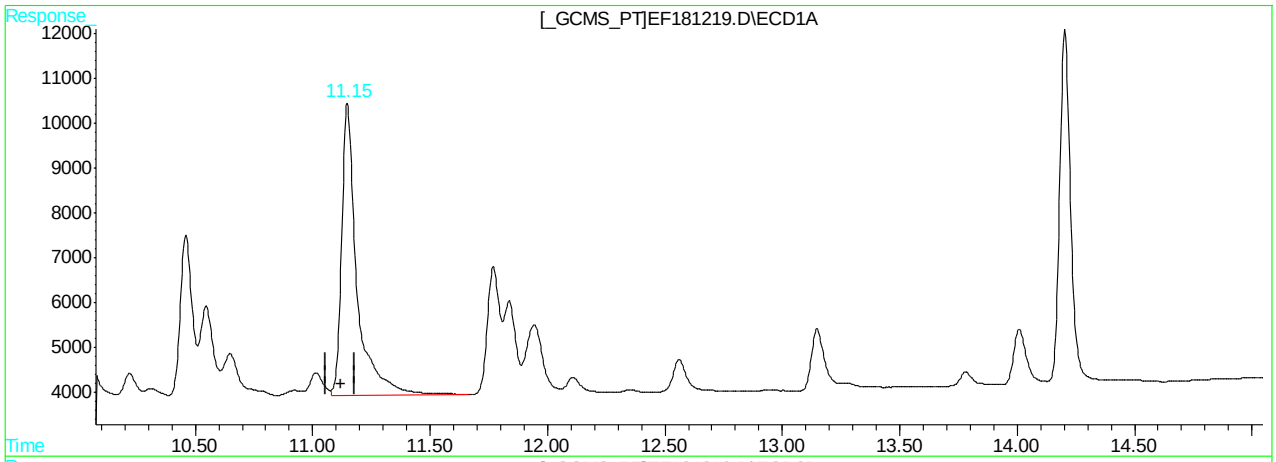
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:17 2018 GCEF

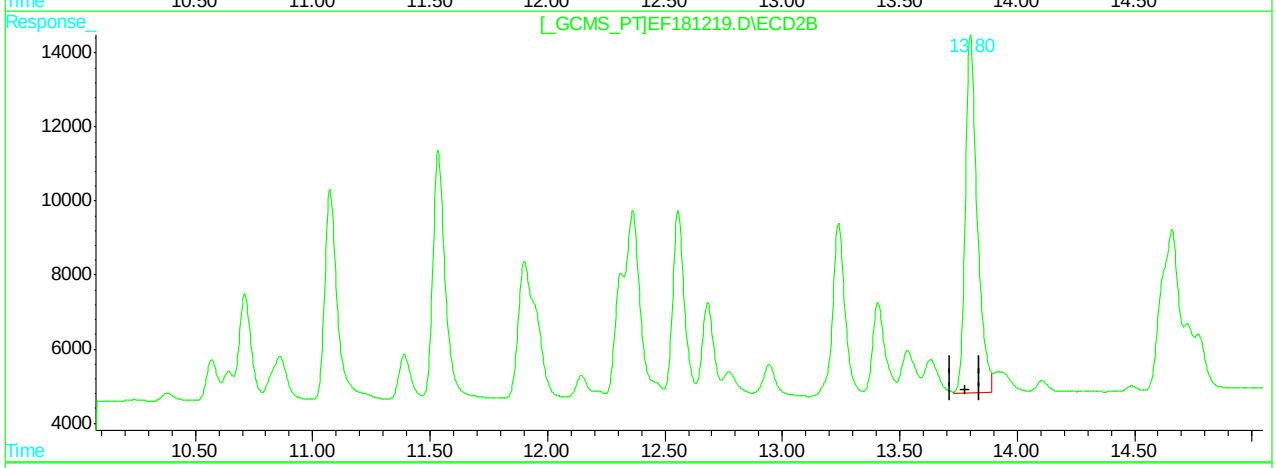
11.3.6.11
11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.15min 189.979PPB

response 297739

(49) AR1260-D #2

13.80min 188.943PPB m

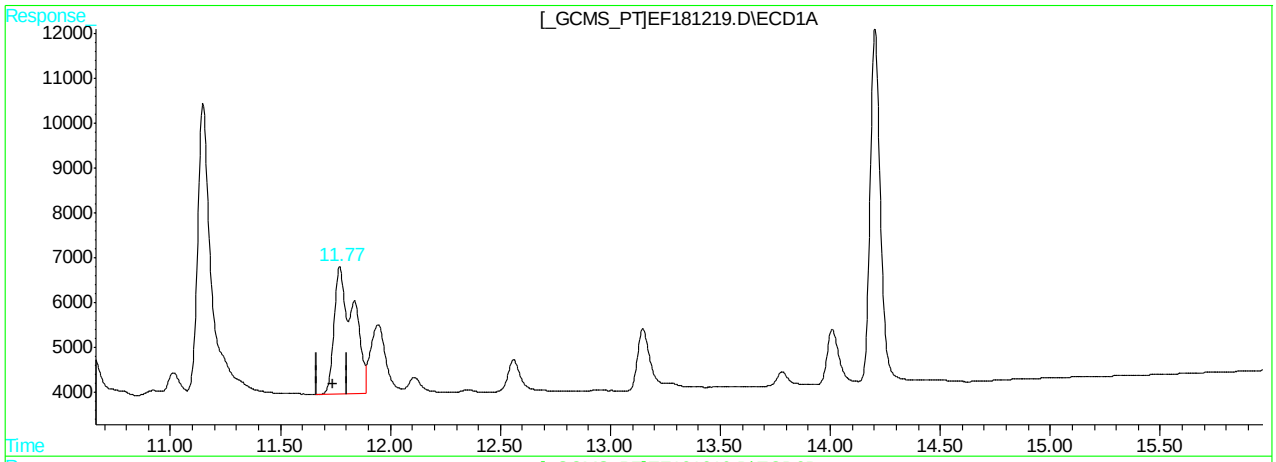
response 338781

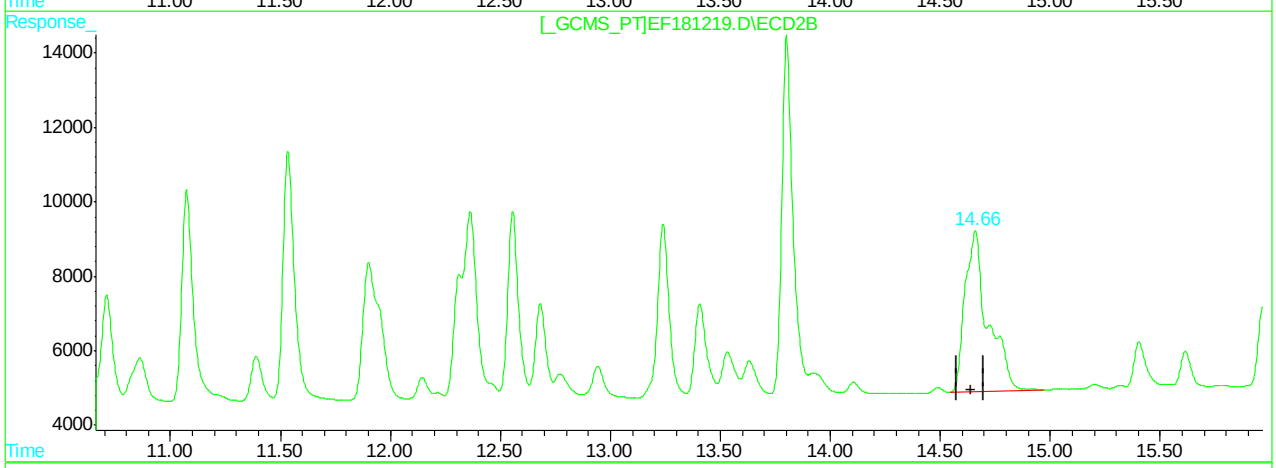
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:23 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.77min 111.671PPB

response 172350

(50) AR1260-E #2

14.66min 168.139PPB

response 313682

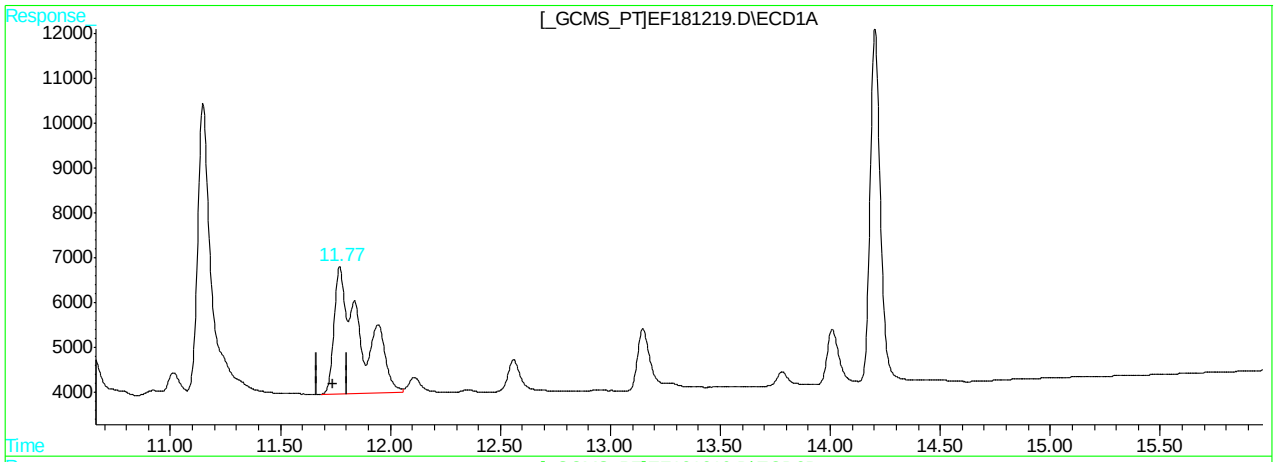
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:29 2018 GCEF

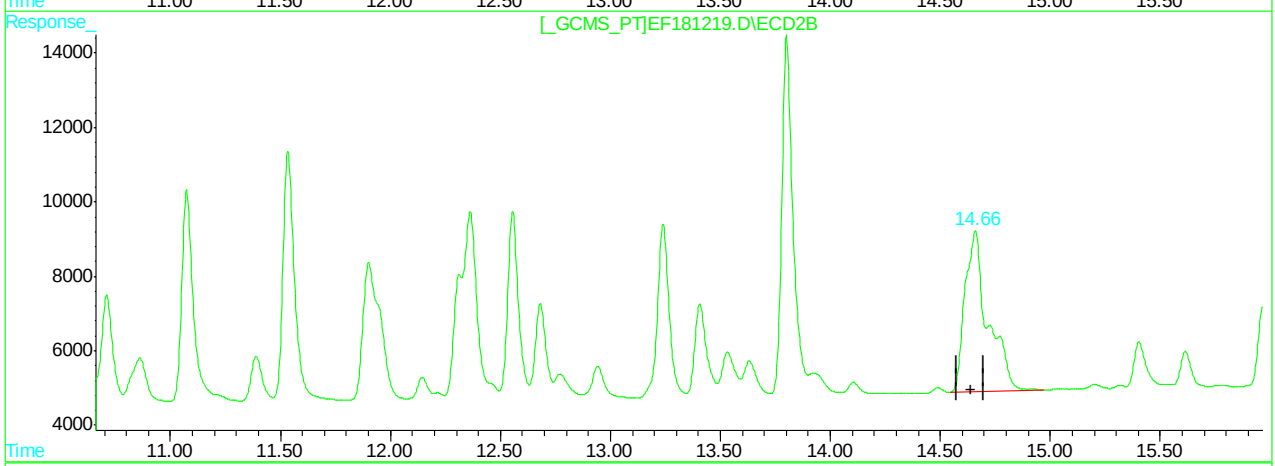
11.3.6.13 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.77min 160.647PPB m

response 247938

(50) AR1260-E #2

14.66min 168.139PPB

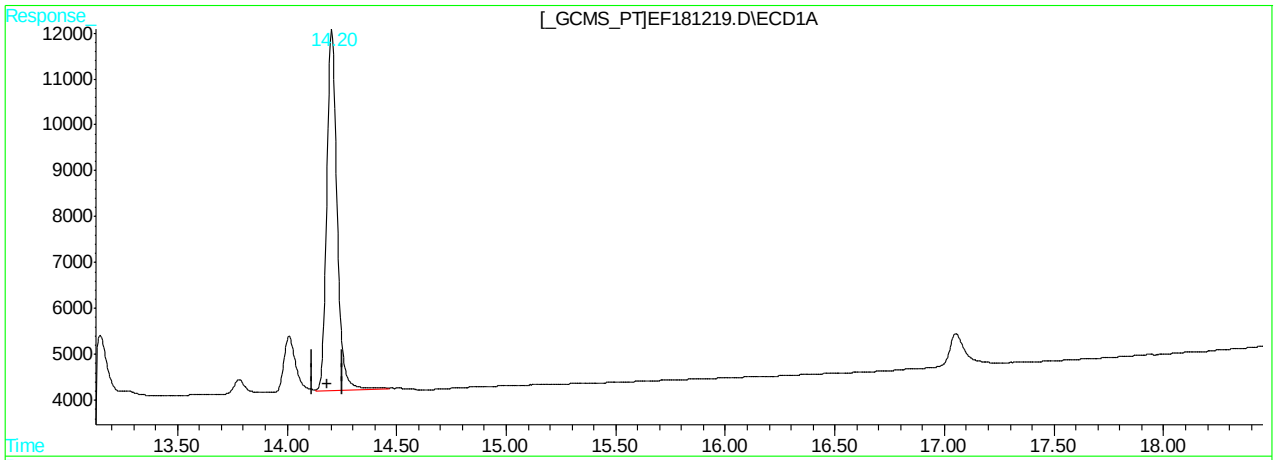
response 313682

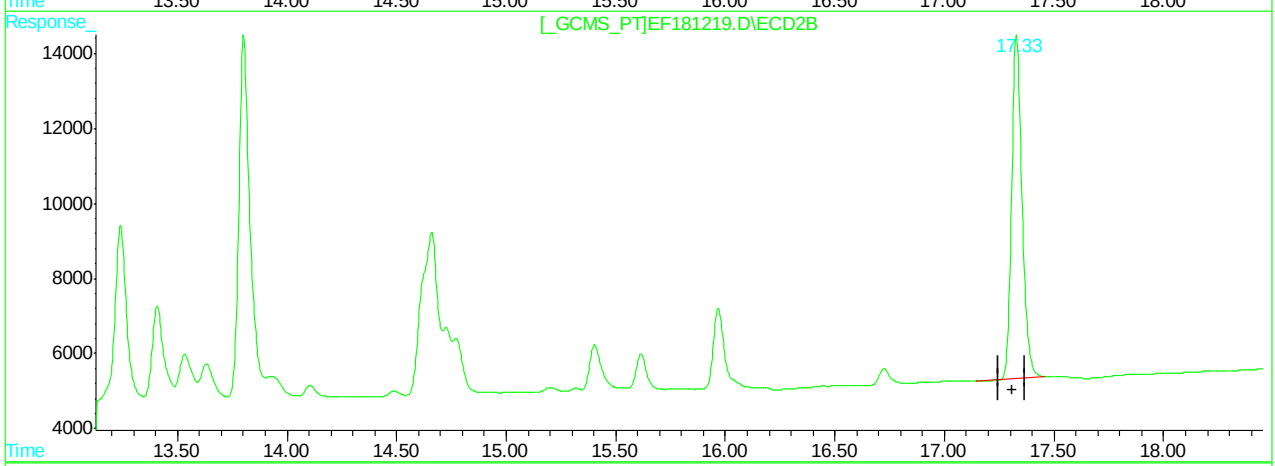
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:34 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 14.819PPB

response 253645

(51) Decachlorobiphenyl #2 (S)

17.33min 14.332PPB

response 300880

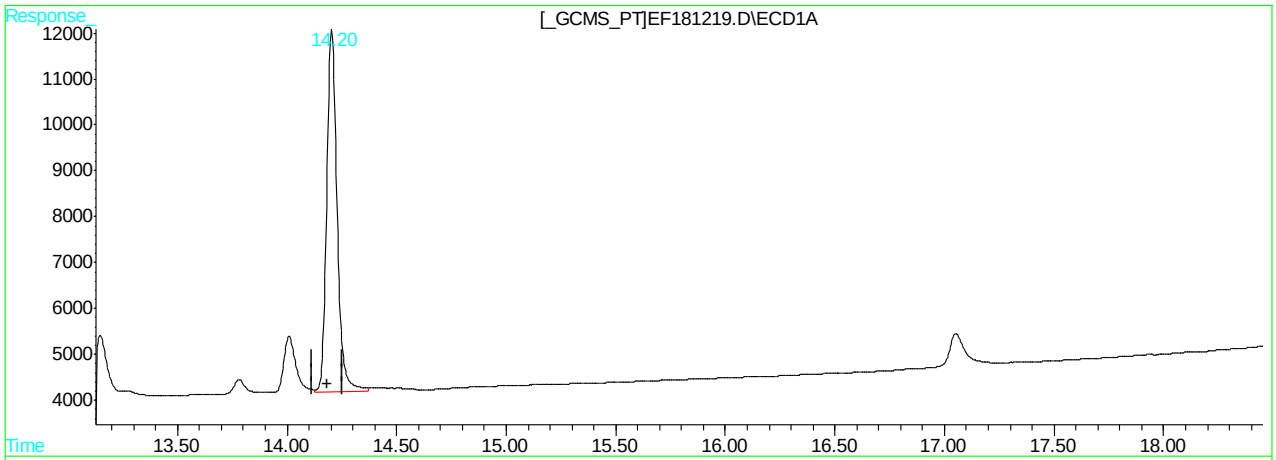
(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:37:43 2018 GCEF

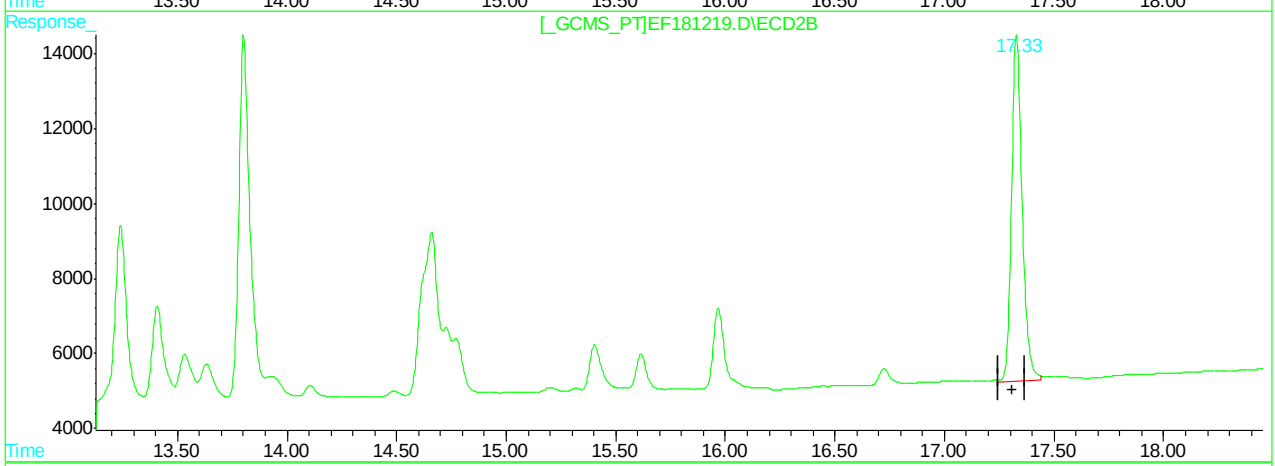
11.3.6.15 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181219.D\ECD2B.CH
Acq On : 28 Mar 2018 6:14 pm Operator: humarahb
Sample : op10884-bs1 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:35 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 15.087PPB m

response 258236

(51) Decachlorobiphenyl #2 (S)

17.33min 14.808PPB m

response 310867

(+) = Expected Retention Time
EF181219.D PCB6195.M Thu Mar 29 09:38:02 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 09:44

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:53 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.16	2.46	577.1E6	120.7E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.46	577.1E6	120.7E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.46	577.1E6	120.7E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.35	232.4E6	55078975	22.743	25.132
		Spiked Amount 40.000	Range 30 - 150		Recovery =		56.86%	62.83%
26)	SA	Decachlorobiphen	10.13	12.03	136.4E6	22528887	16.350	14.238
		Spiked Amount 40.000			Recovery =		40.88%	35.59%
		Target Compounds						
3)		Hexachlorobenzen	3.13	3.91	276.5E6	50558800	21.466	16.333
4)	A	alpha-BHC	3.27	4.06	420.3E6	71367056	32.906	24.159
5)	MA	gamma-BHC	3.58	4.53	287.2E6	63969015	23.770	23.892
6)	MA	Heptachlor	4.10	5.15	373.6E6	40361073	29.701	16.069
7)	B	beta-BHC	3.66	4.61	113.7E6	25134300	18.864	21.435
8)	B	delta-BHC	3.86	5.05	241.2E6	63625820	24.110	26.311
9)	MB	Aldrin	4.42f	5.64	528.2E6	30747130	45.929m	12.036
11)	B	Heptachlor Epoxi	5.18	6.50	262.7E6	57880205	22.376	24.122
12)	B	gamma-Chlordane	5.35	6.80	183.7E6	45278936	20.475	19.485
13)	B	alpha-Chlordane	5.53	7.03	183.8E6	40962509	16.694	17.894
14)	A	Endosulfan I	5.71	7.15	263.6E6	54068120	24.427	24.433
15)	B	4,4'-DDE	5.63	7.29	102.0E6	20529513	9.862	8.498
16)	MA	Dieldrin	6.04	7.60	268.7E6	58317621	24.577	23.741
17)	MA	Endrin	6.38	8.13	261.6E6	54631851	26.067	25.286
18)	A	4,4'-DDD	6.50	8.28	116.6E6	27468607	15.178	14.741
19)	B	Endosulfan II	6.71	8.49	254.0E6	54029203	25.355	25.132
20)	MA	4,4'-DDT	6.91	8.82	80857470	14269631	11.436	11.348m
21)	B	Endrin Aldehyde	7.34	9.07	219.8E6	41776010	26.183	24.686
22)	B	Endosulfan Sulfa	8.03	9.53	219.7E6	43538077	28.025	29.097
23)	A	Methoxychlor	7.71	9.96	81302872	12973255	20.483	19.665
25)	B	Endrin Ketone	8.49	10.31	254.7E6	54465795	30.427	32.014

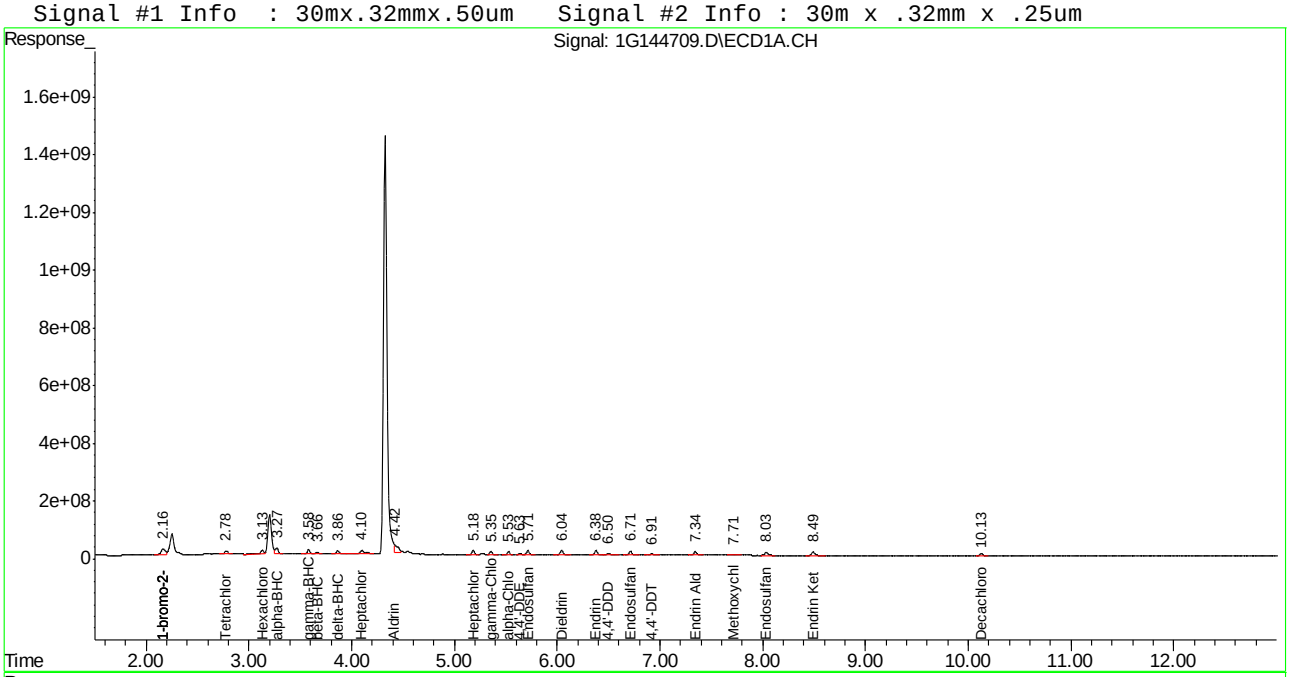
(f)=RT Delta > 1/2 Window (m)=manual int.

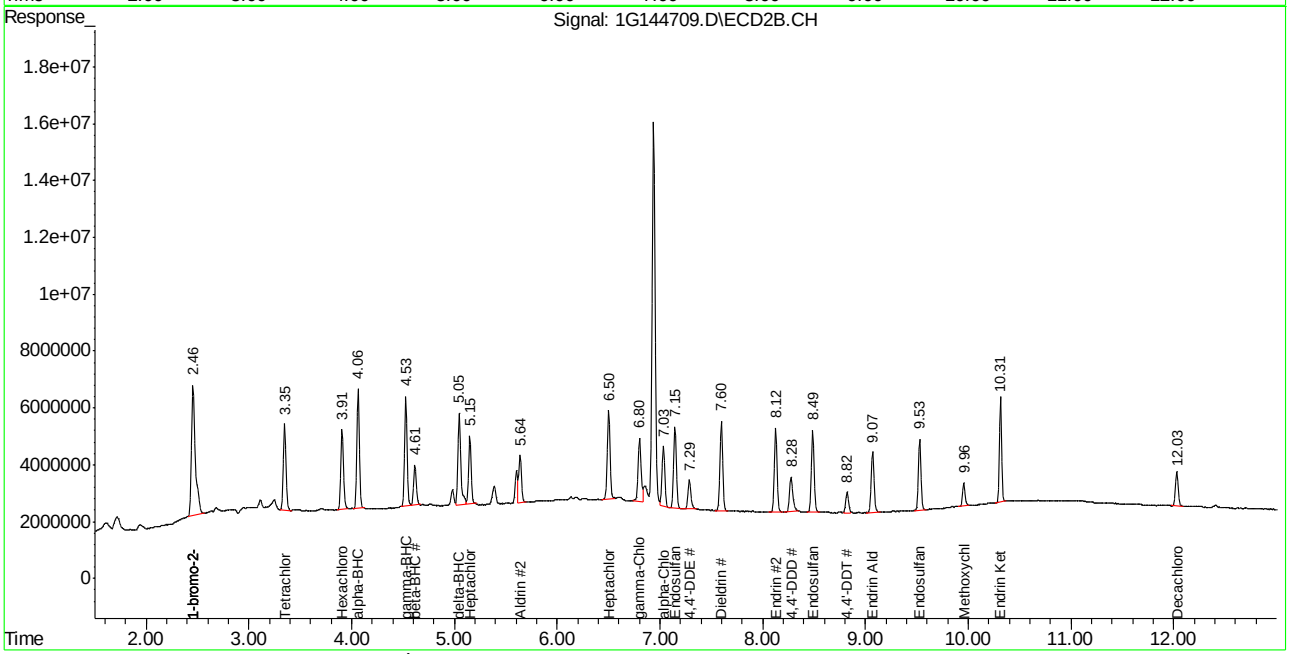
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:53 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

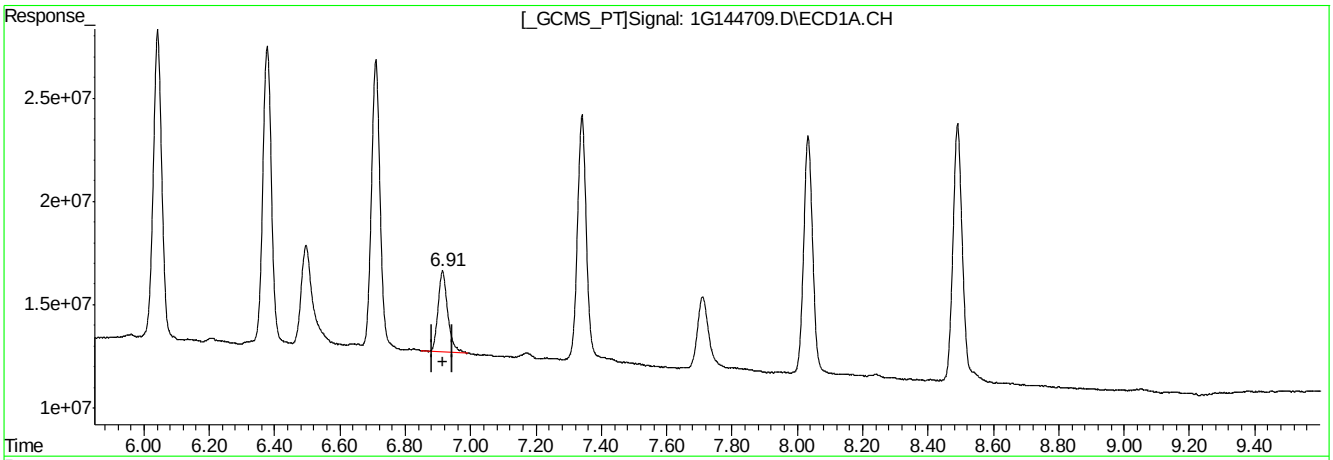
Sample Number:	OP10885-MS	**Method:**	SW846 8081B
Lab FileID:	1G144709.D	**Analyst approved:**	03/28/18 09:29 Dharmistha Mehta
Injection Time:	03/28/18 02:52	**Supervisor approved:**	03/29/18 09:44 Gwendolyn Burns

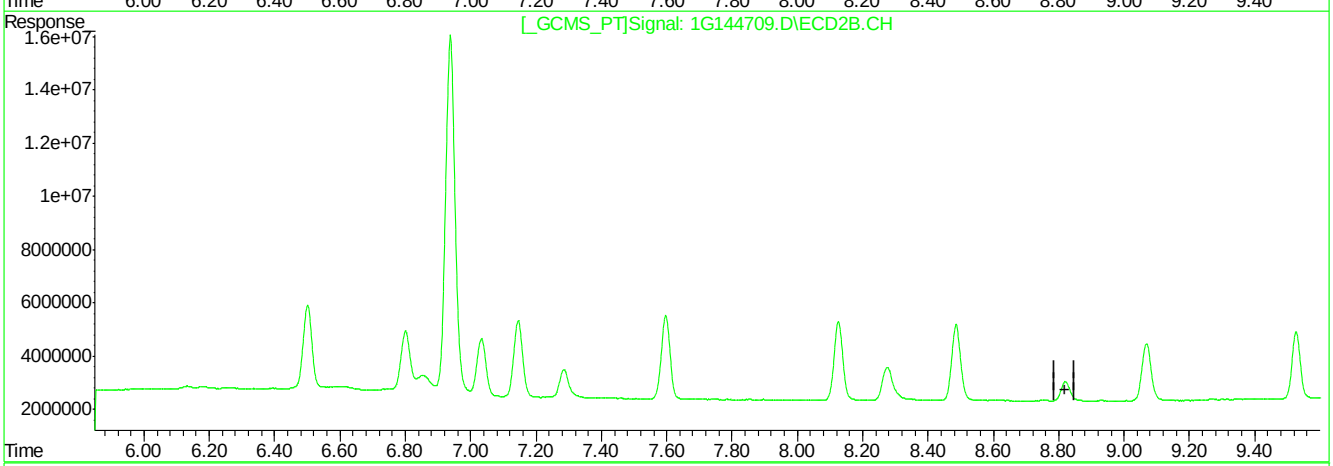
Parameter	CAS	Sig#	R.T. (min.)	Reason
Aldrin	309-00-2	1	4.42	Poorly defined baseline
4,4'-DDT	50-29-3	2	8.82	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:50 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.91min 11.436PPB

response 80857470

(20) 4,4'-DDT #2 (MA)

0.00min 0.000PPB

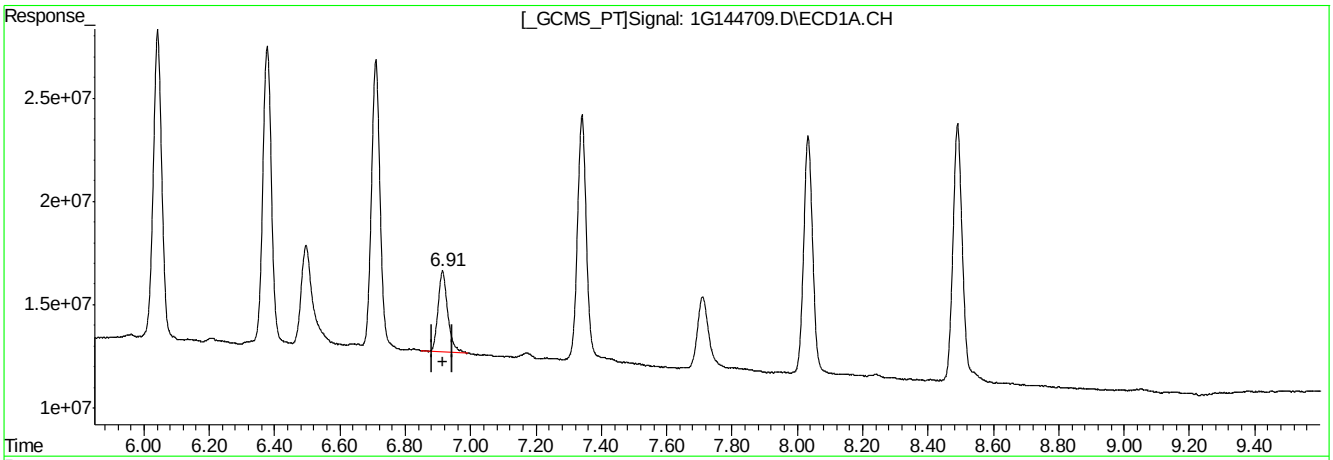
response 0

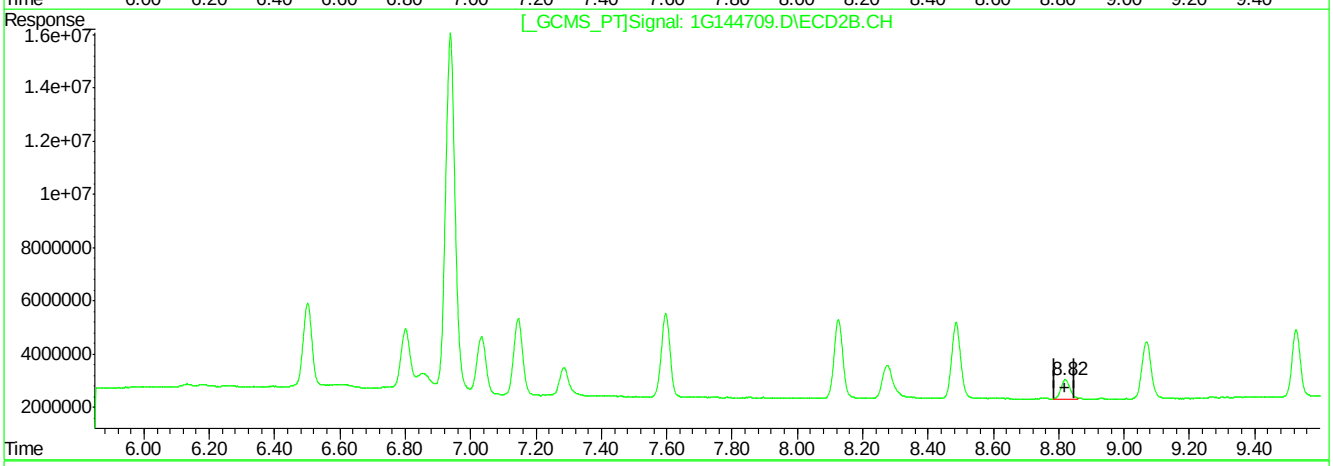
(+) = Expected Retention Time
1G144709.D 1PST4557.M Wed Mar 28 08:51:21 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:50 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.91min 11.436PPB

response 80857470

(20) 4,4'-DDT #2 (MA)

8.82min 11.348PPB m

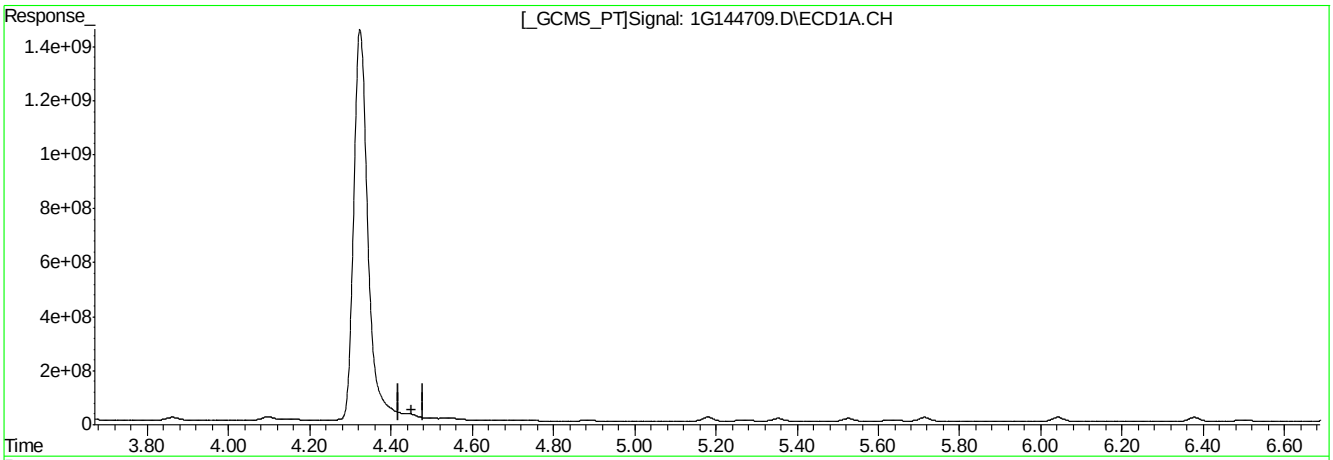
response 14269631

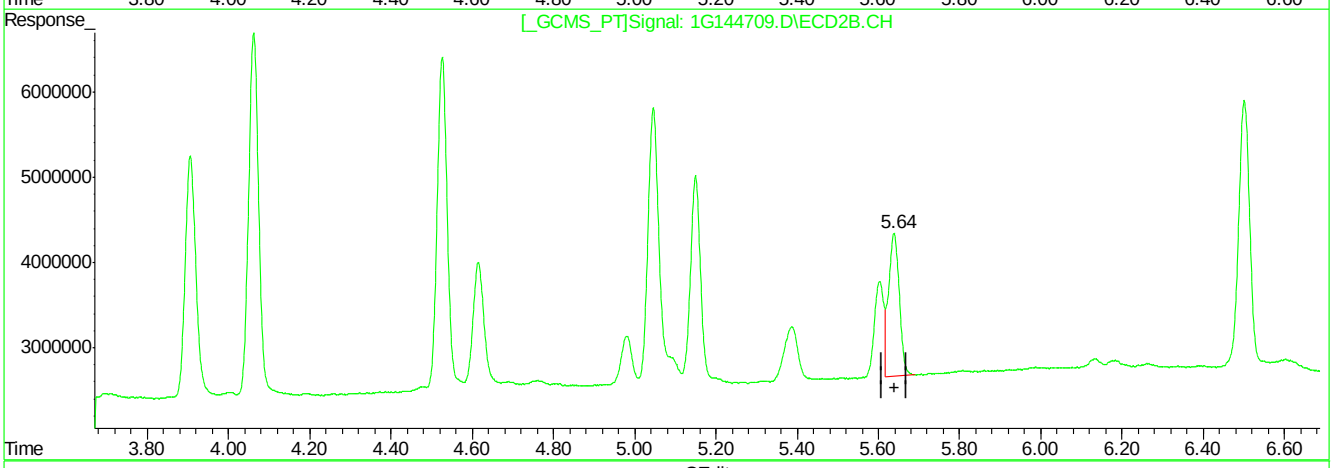
(+) = Expected Retention Time
1G144709.D 1PST4557.M Wed Mar 28 08:51:33 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:50 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(9) Aldrin (MB)

0.00min 0.000PPB

response 0

(9) Aldrin #2 (MB)

5.64min 12.036PPB

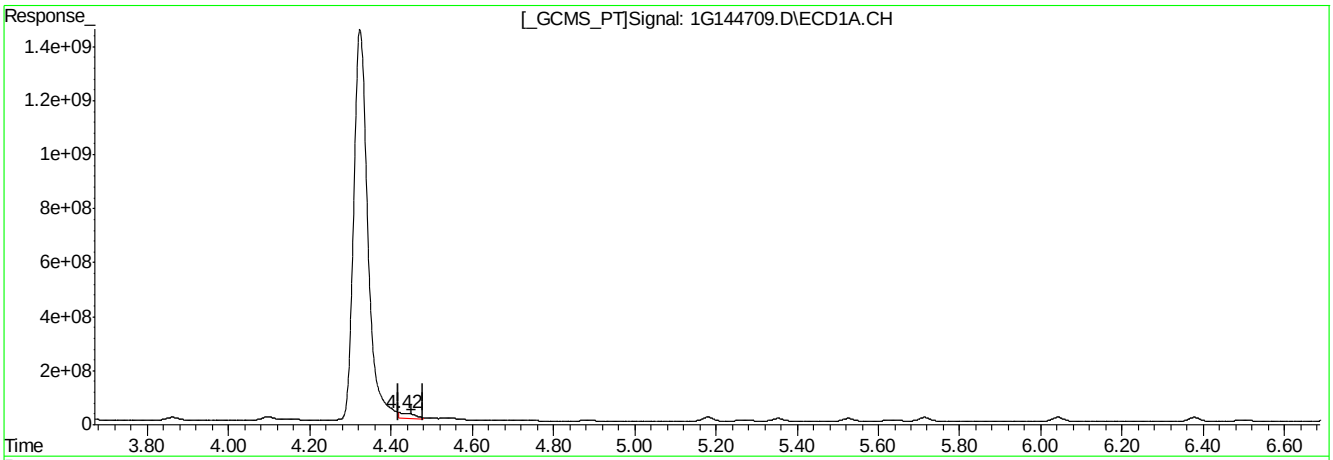
response 30747130

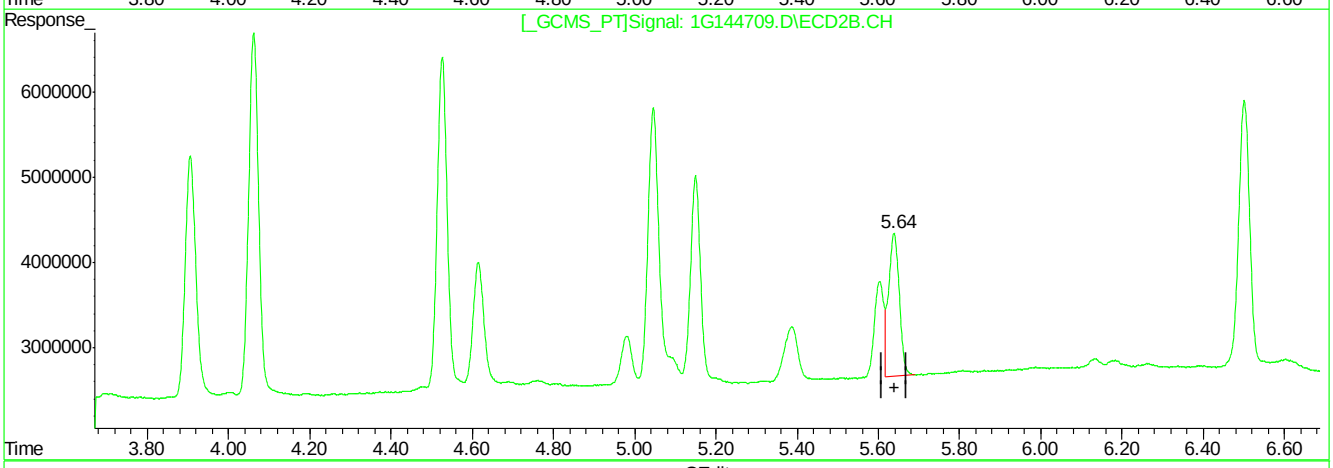
(+) = Expected Retention Time
1G144709.D 1PST4557.M Wed Mar 28 08:53:00 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD1A.CH Vial: 31
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144709.D\ECD2B.CH
Acq On : 3-28-18 02:52:33 AM Operator: christp
Sample : op10885-ms Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:50 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(9) Aldrin (MB)

4.42min 45.929PPB m

response 528194576

(9) Aldrin #2 (MB)

5.64min 12.036PPB

response 30747130

(+) = Expected Retention Time
1G144709.D 1PST4557.M Wed Mar 28 08:53:12 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 09:44

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:55 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.16	2.46	598.7E6	115.6E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.46	598.7E6	115.6E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.46	598.7E6	115.6E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.35	260.9E6	61152587	24.615	29.137
		Spiked Amount 40.000	Range 30 - 150		Recovery =		61.54%	72.84%
26)	SA	Decachlorobiphen	10.13	12.03	147.8E6	24984390	17.073	16.487
		Spiked Amount 40.000			Recovery =		42.68%	41.22%
		Target Compounds						
3)		Hexachlorobenzen	3.13	3.90	268.5E6	52118209	20.100	17.581
4)	A	alpha-BHC	3.27	4.06	447.6E6	76266805	33.787	26.959
5)	MA	gamma-BHC	3.58	4.52	308.6E6	68444912	24.623	26.693
6)	MA	Heptachlor	4.10	5.15	270.0E6	38433754	20.692	15.978
7)	B	beta-BHC	3.66	4.61	117.6E6	26650460	18.812	23.733
8)	B	delta-BHC	3.86	5.04	263.9E6	65019722	25.434	28.076
9)	MB	Aldrin	4.42f	5.64	576.7E6	28945904	48.341m	11.832
11)	B	Heptachlor Epoxi	5.18	6.50	273.0E6	60431598	22.417	26.299
12)	B	gamma-Chlordane	5.35	6.80	191.6E6	45869252	20.585	20.611
13)	B	alpha-Chlordane	5.52	7.03	187.3E6	42873483	16.406	19.557
14)	A	Endosulfan I	5.71	7.14	269.2E6	56001672	24.041	26.425
15)	B	4,4'-DDE	5.63	7.28	93084850	21066202	8.680	9.105
16)	MA	Dieldrin	6.04	7.60	286.4E6	61148852	25.252	25.994
17)	MA	Endrin	6.37	8.12	270.2E6	57536837	25.953	27.807
18)	A	4,4'-DDD	6.49	8.27	127.4E6	30149382	15.989	16.894
19)	B	Endosulfan II	6.71	8.48	271.2E6	56491032	26.093	27.439
20)	MA	4,4'-DDT	6.91	8.82	84675600	15743841	11.545	13.073m
21)	B	Endrin Aldehyde	7.34	9.07	258.2E6	48448942	29.656	29.894
22)	B	Endosulfan Sulfa	8.03	9.53	233.2E6	46221632	28.673	32.256
23)	A	Methoxychlor	7.71	9.95	91332480	14825869	22.181	23.467
25)	B	Endrin Ketone	8.49	10.31	259.8E6	58221538	29.914	35.733

(f)=RT Delta > 1/2 Window (m)=manual int.
1G144710.D 1PST4557.M Wed Mar 28 08:56:37 2018 RPT1 Page 1

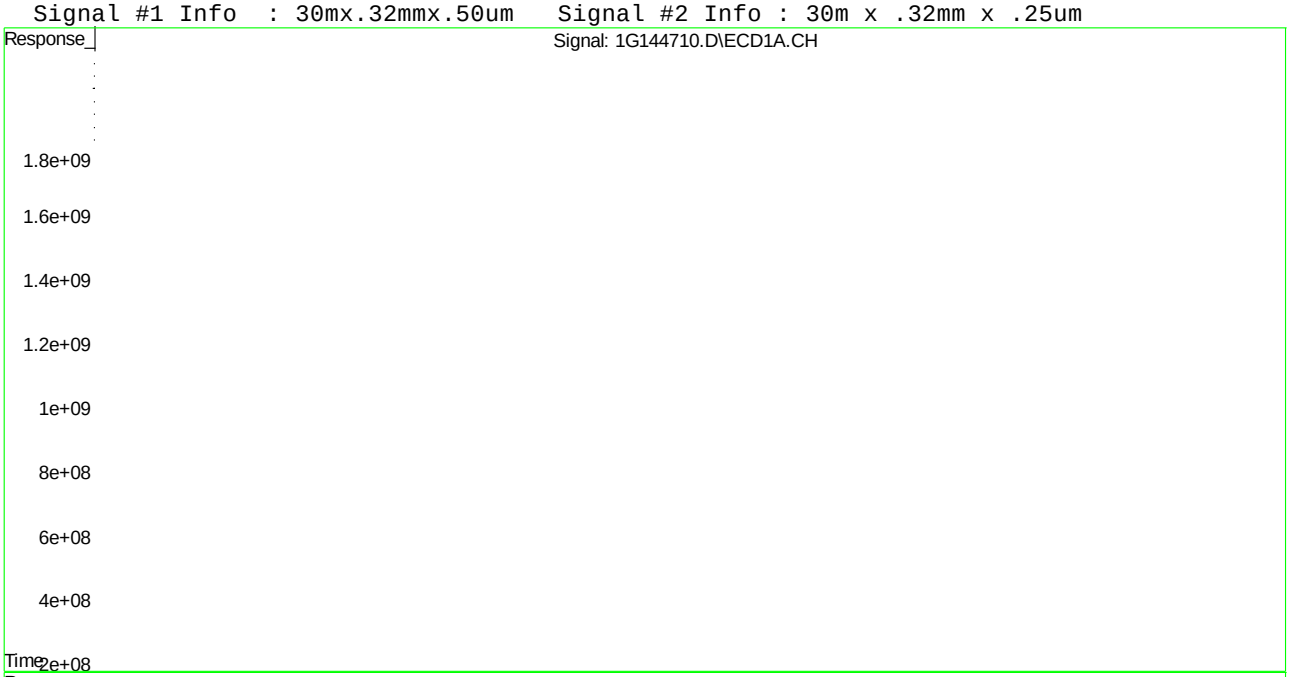
11.4.2 11

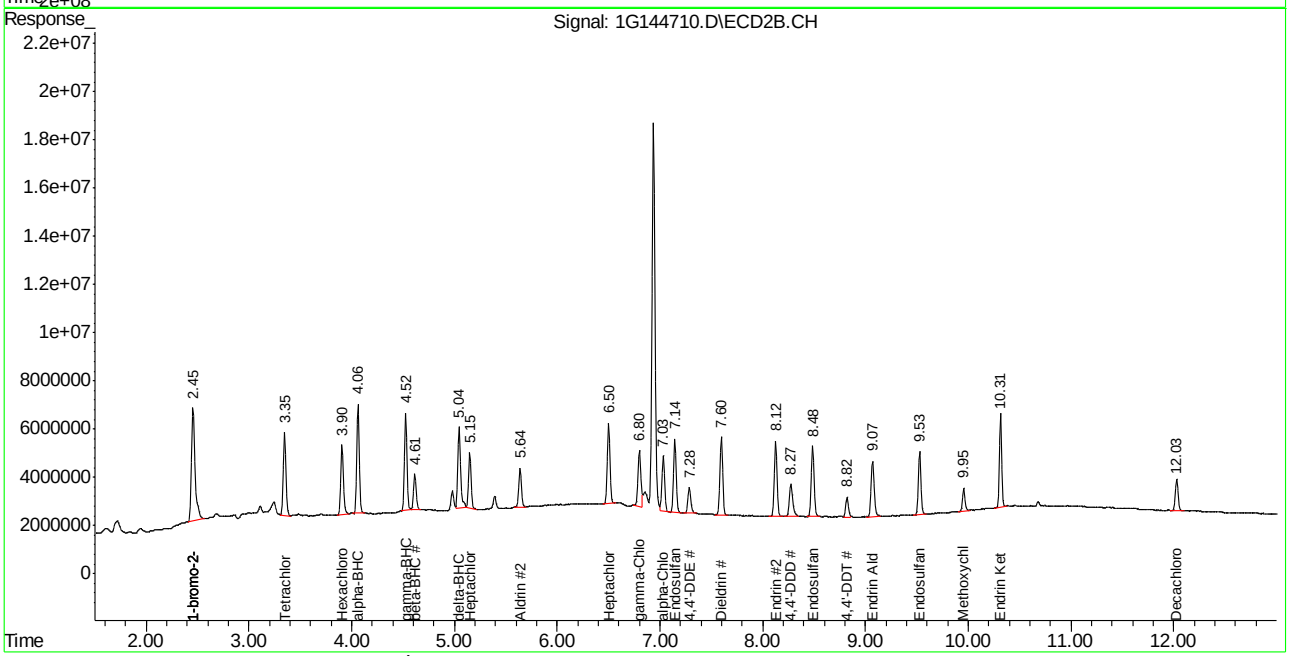
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:55 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

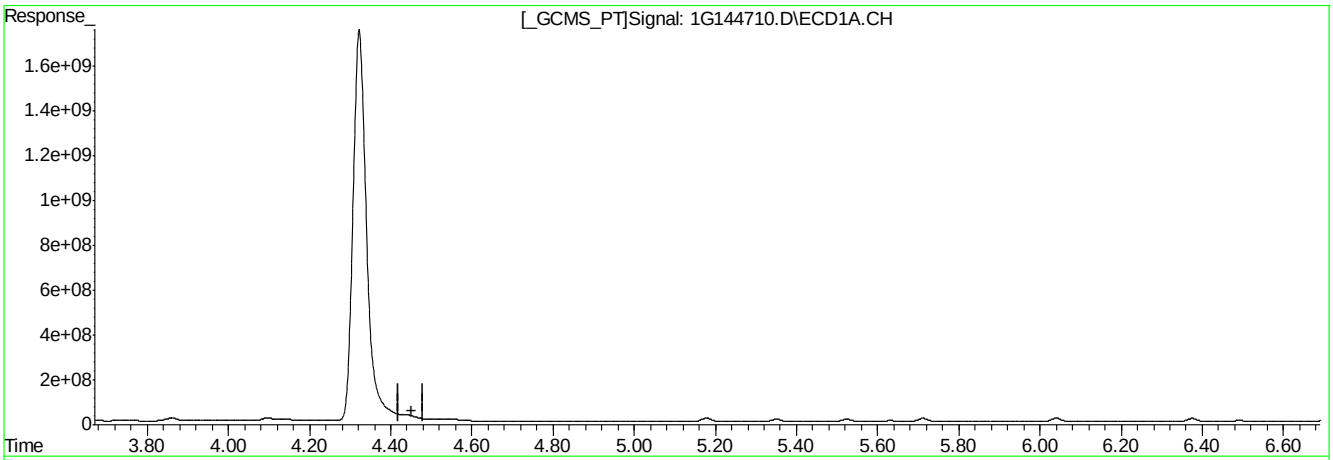
Sample Number:	OP10885-MSD	**Method:**	SW846 8081B
Lab FileID:	1G144710.D	**Analyst approved:**	03/28/18 09:29 Dharmistha Mehta
Injection Time:	03/28/18 03:09	**Supervisor approved:**	03/29/18 09:44 Gwendolyn Burns

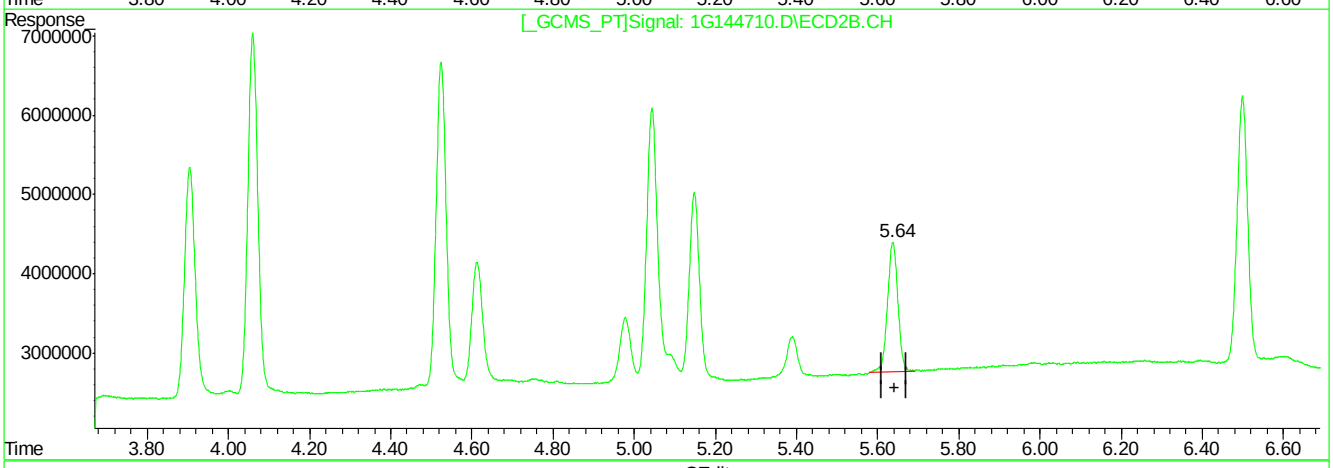
Parameter	CAS	Sig#	R.T. (min.)	Reason
Aldrin	309-00-2	1	4.42	Poorly defined baseline
4,4'-DDT	50-29-3	2	8.82	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:54 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(9) Aldrin (MB)

0.00min 0.000PPB

response 0

(9) Aldrin #2 (MB)

5.64min 11.832PPB

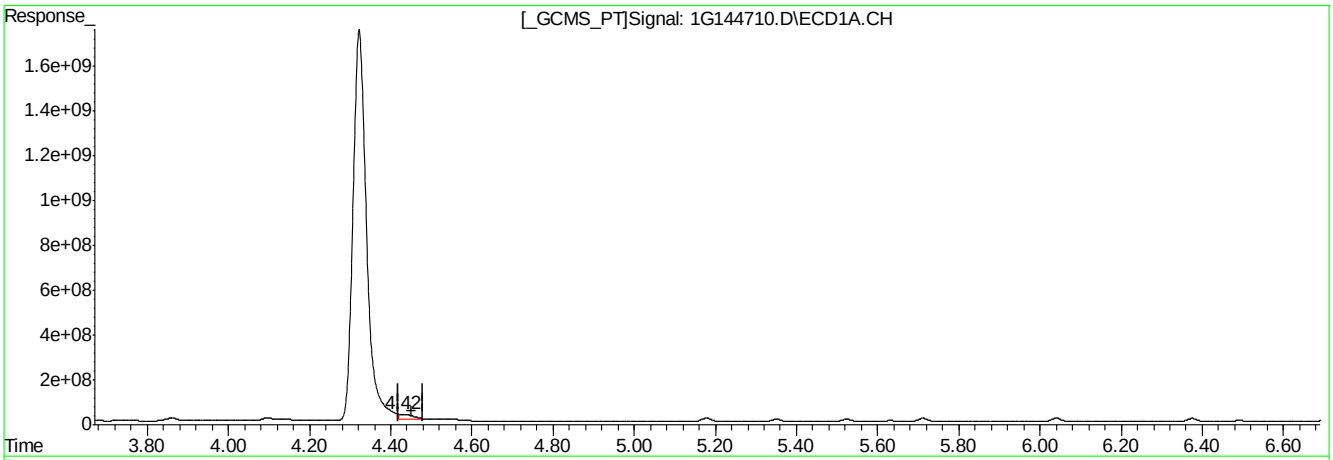
response 28945904

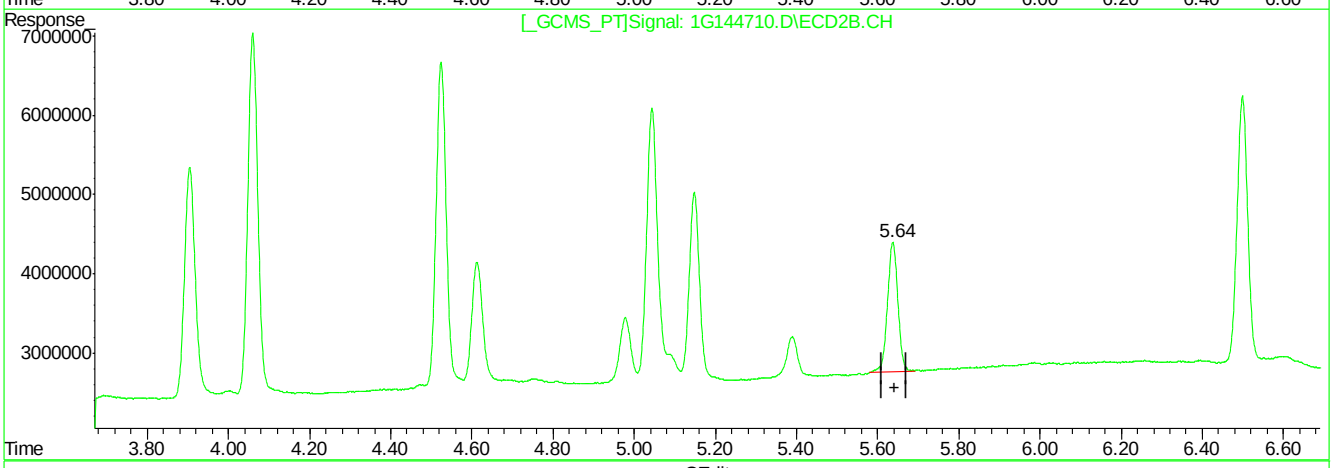
(+) = Expected Retention Time
1G144710.D 1PST4557.M Wed Mar 28 08:54:35 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:54 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(9) Aldrin (MB)

4.42min 48.341PPB m

response 576697667

(9) Aldrin #2 (MB)

5.64min 11.832PPB

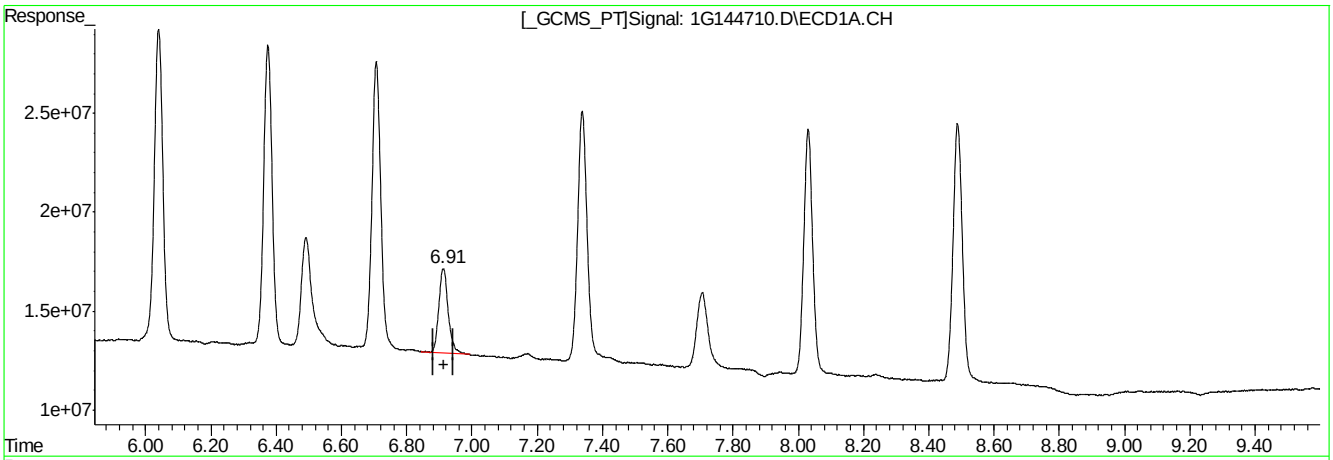
response 28945904

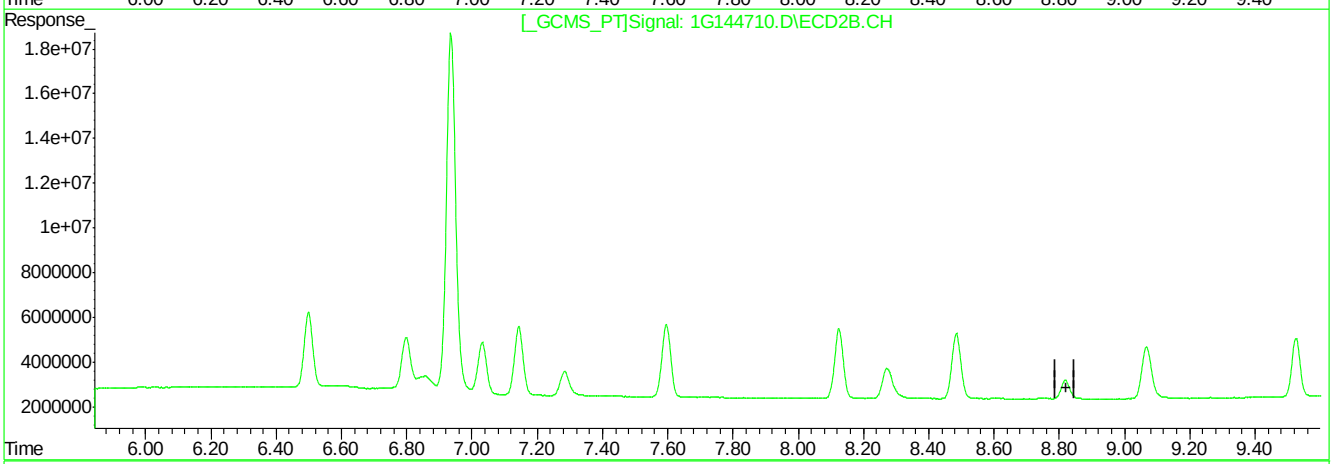
(+) = Expected Retention Time
1G144710.D 1PST4557.M Wed Mar 28 08:54:45 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:54 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.91min 11.545PPB

response 84675600

(20) 4,4'-DDT #2 (MA)

0.00min 0.000PPB

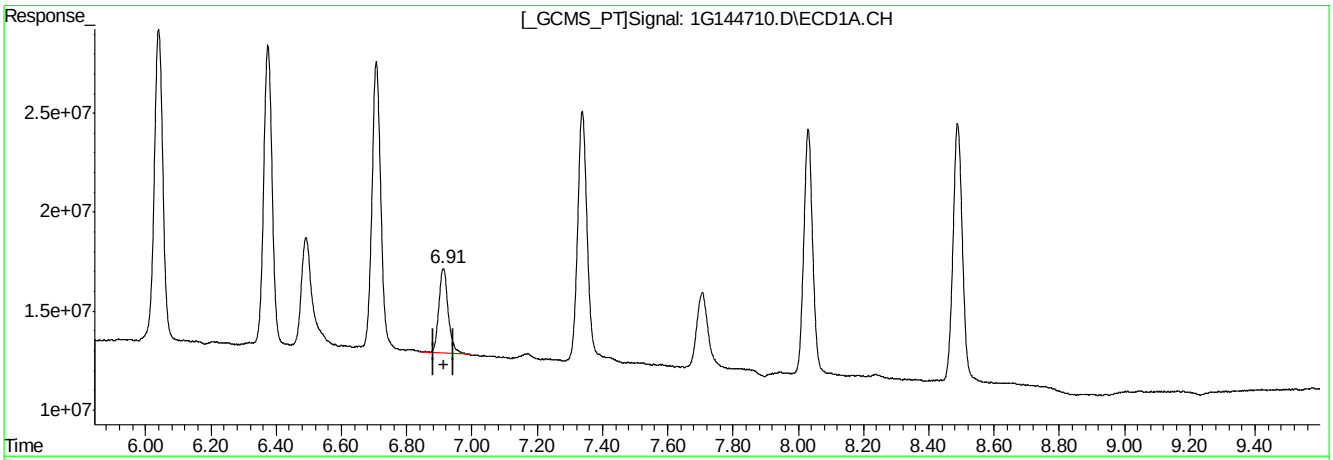
response 0

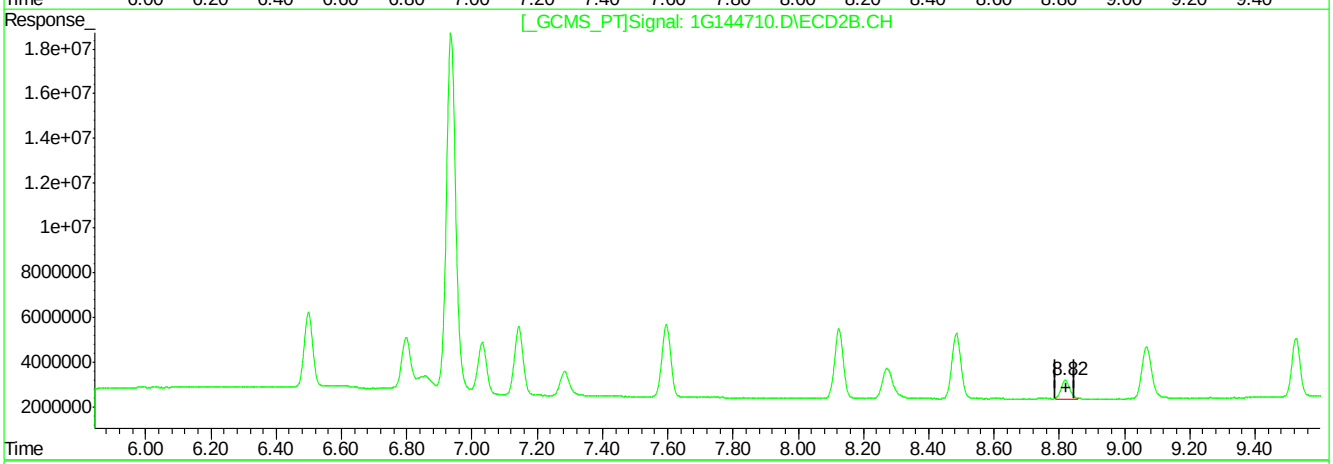
(+) = Expected Retention Time
1G144710.D 1PST4557.M Wed Mar 28 08:55:21 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144710.D\ECD2B.CH
Acq On : 3-28-18 03:09:50 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:54 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.91min 11.545PPB

response 84675600

(20) 4,4'-DDT #2 (MA)

8.82min 13.073PPB m

response 15743841

(+) = Expected Retention Time
1G144710.D 1PST4557.M Wed Mar 28 08:55:32 2018 RPT1

11.4.2.5 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 09:44

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144713.D\ECD1A.CH Vial: 35
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144713.D\ECD2B.CH
Acq On : 3-28-18 04:01:18 AM Operator: christp
Sample : op10885-ms2 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:00 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.16	2.45	474.8E6	107.7E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.45	474.8E6	107.7E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.45	474.8E6	107.7E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.77	3.35	269.8E6	59965017	32.103	30.665
		Spiked Amount 40.000	Range 30 - 150		Recovery =		80.26%	76.66%
26)	SA	Decachlorobiphen	10.13	12.03	126.7E6	26638041	18.459	18.867
		Spiked Amount 40.000			Recovery =		46.15%	47.17%
		Target Compounds						
3)		Hexachlorobenzen	3.13	3.90	282.6E6	52460689	26.673	18.993
4)	A	alpha-BHC	3.27	4.06	300.8E6	73069032	28.626	27.722
5)	MA	gamma-BHC	3.58	4.52	283.6E6	66878389	28.528	27.994
6)	MA	Heptachlor	4.09	5.15	221.1E6	47761981	21.374	21.312
7)	B	beta-BHC	3.67	4.62	127.3E6	26818871	25.668	25.633
8)	B	delta-BHC	3.87	5.05	226.4E6	60183280	27.506	27.892
9)	MB	Aldrin	4.45	5.64	166.2E6	38016536	17.572	16.679
11)	B	Heptachlor Epoxi	5.18	6.50	274.9E6	59784534	28.460	27.924
12)	B	gamma-Chlordane	5.35	6.80	212.1E6	46506629	28.734	22.429
13)	B	alpha-Chlordane	5.53	7.03	216.5E6	46013201	23.909	22.527
14)	A	Endosulfan I	5.71	7.14	281.8E6	55152648	31.736	27.932
15)	B	4,4'-DDE	5.64	7.29	109.4E6	26006966	12.858	12.065
16)	MA	Dieldrin	6.04	7.60	348.9E6	76304630	38.794	34.814
17)	MA	Endrin	6.38	8.13	260.0E6	55494437	31.496	28.786
18)	A	4,4'-DDD	6.51	8.28	115.0E6	30230596	18.209	18.181
19)	B	Endosulfan II	6.71	8.49	259.1E6	54289263	31.438	28.302
20)	MA	4,4'-DDT	6.92	8.82	90178559	19273704	15.504	17.178
21)	B	Endrin Aldehyde	7.34	9.07	220.9E6	42471271	31.984	28.127
22)	B	Endosulfan Sulfa	8.03	9.53	217.7E6	46808911	33.764	35.060
23)	A	Methoxychlor	7.72	9.96	72998938	13202918	22.356	22.430m
25)	B	Endrin Ketone	8.49	10.32	263.8E6	55378175	38.304	36.480

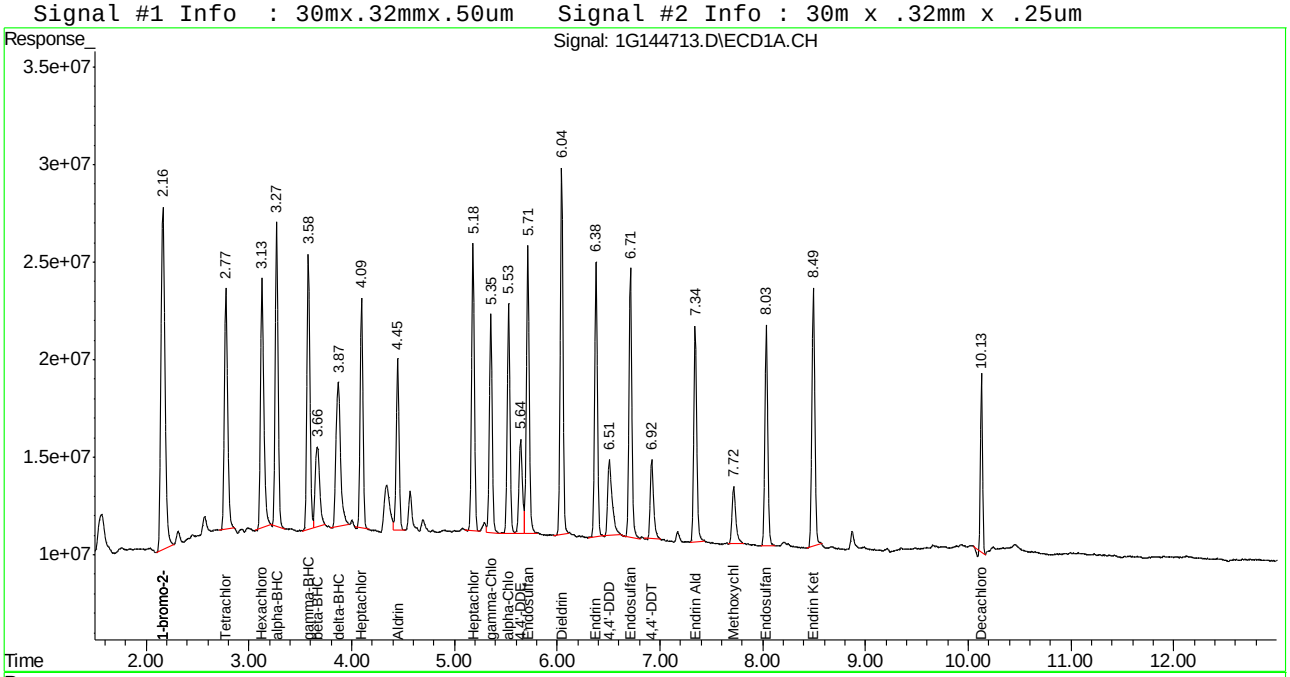
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144713.D 1PST4557.M Wed Mar 28 09:01:07 2018 RPT1 Page 1

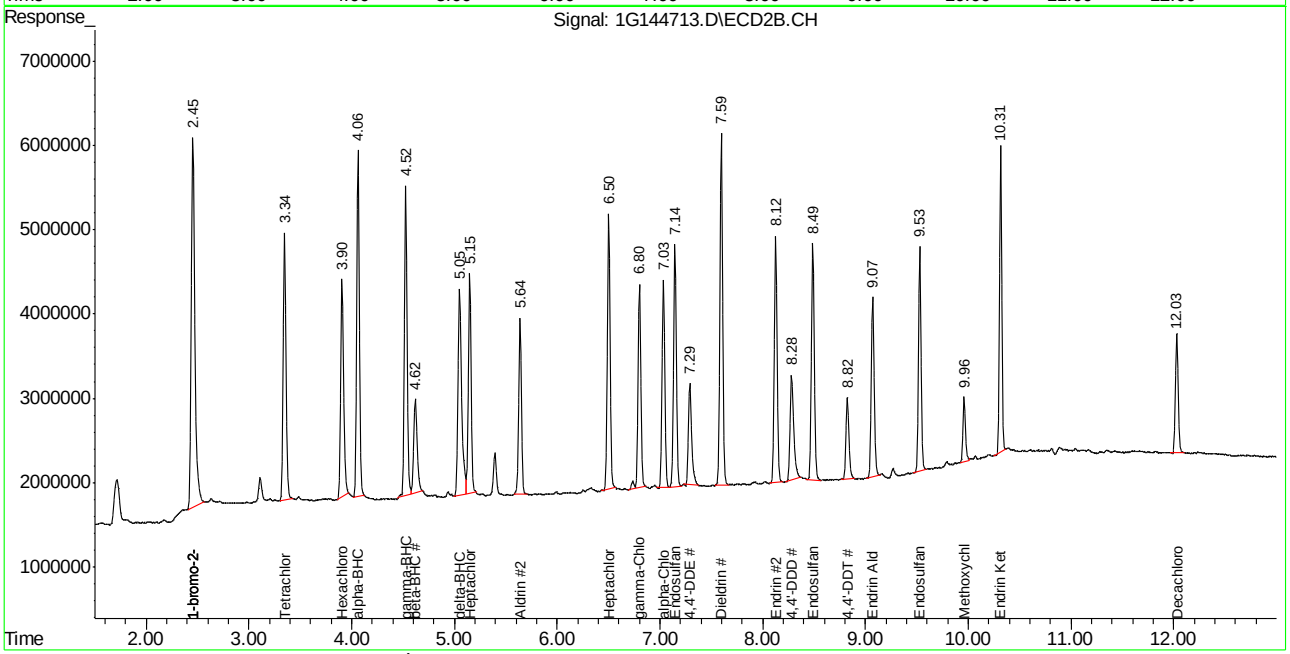
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144713.D\ECD1A.CH Vial: 35
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144713.D\ECD2B.CH
Acq On : 3-28-18 04:01:18 AM Operator: christp
Sample : op10885-ms2 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:00 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

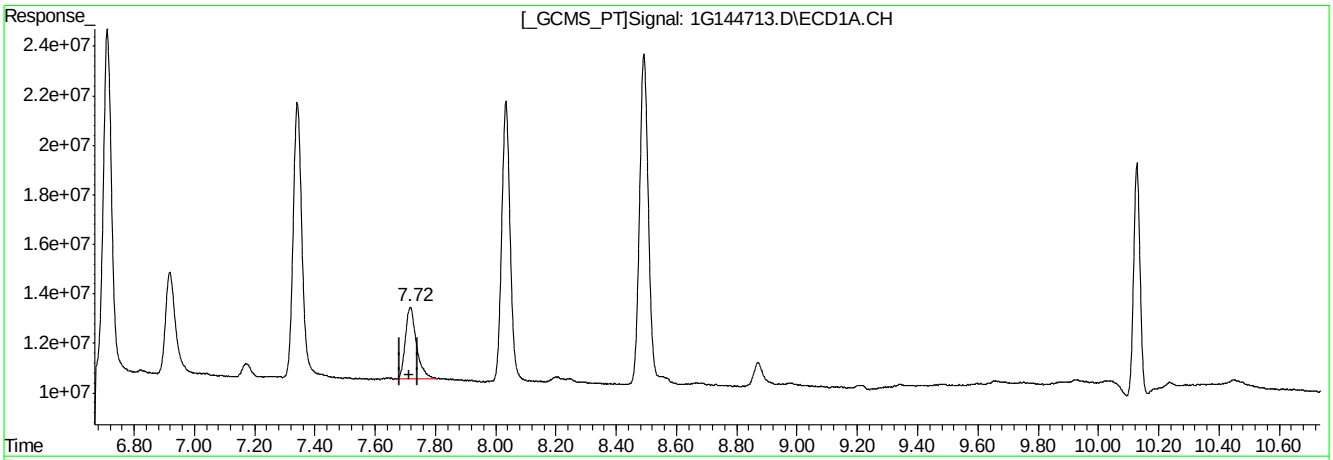
Sample Number:	OP10885-MS2	**Method:**	SW846 8081B
Lab FileID:	1G144713.D	**Analyst approved:**	03/28/18 09:29 Dharmistha Mehta
Injection Time:	03/28/18 04:01	**Supervisor approved:**	03/29/18 09:44 Gwendolyn Burns

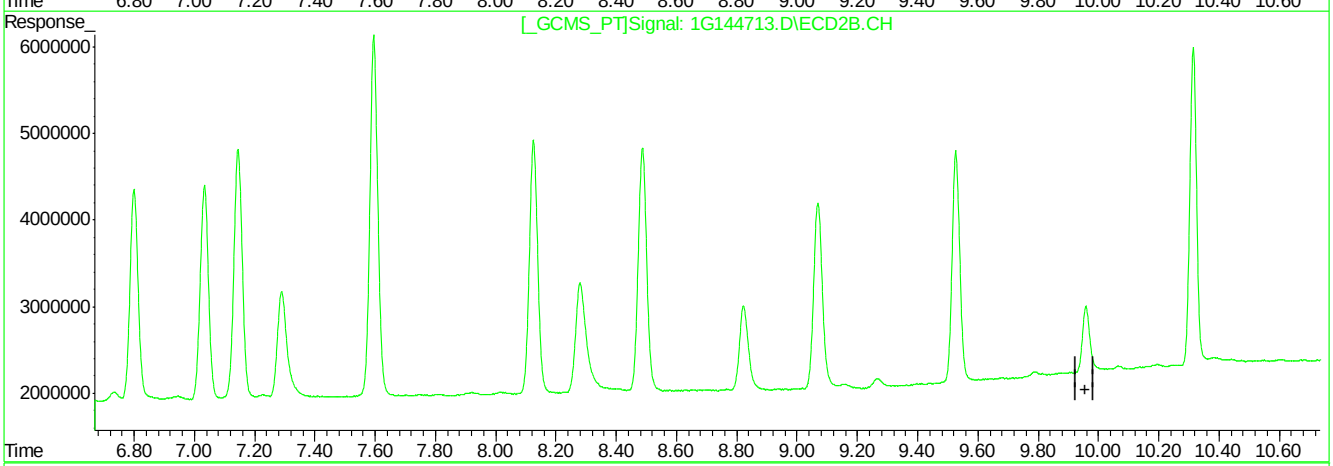
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	2	9.96	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144713.D\ECD1A.CH Vial: 35
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144713.D\ECD2B.CH
Acq On : 3-28-18 04:01:18 AM Operator: christp
Sample : op10885-ms2 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:58 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.72min 22.356PPB

response 72998938

(23) Methoxychlor #2 (A)

0.00min 0.000PPB

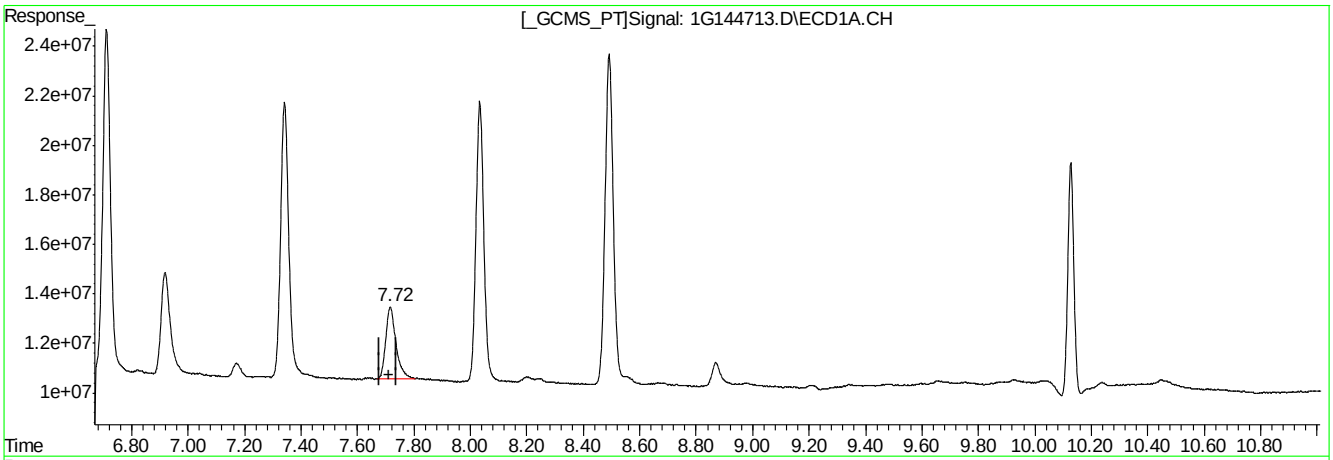
response 0

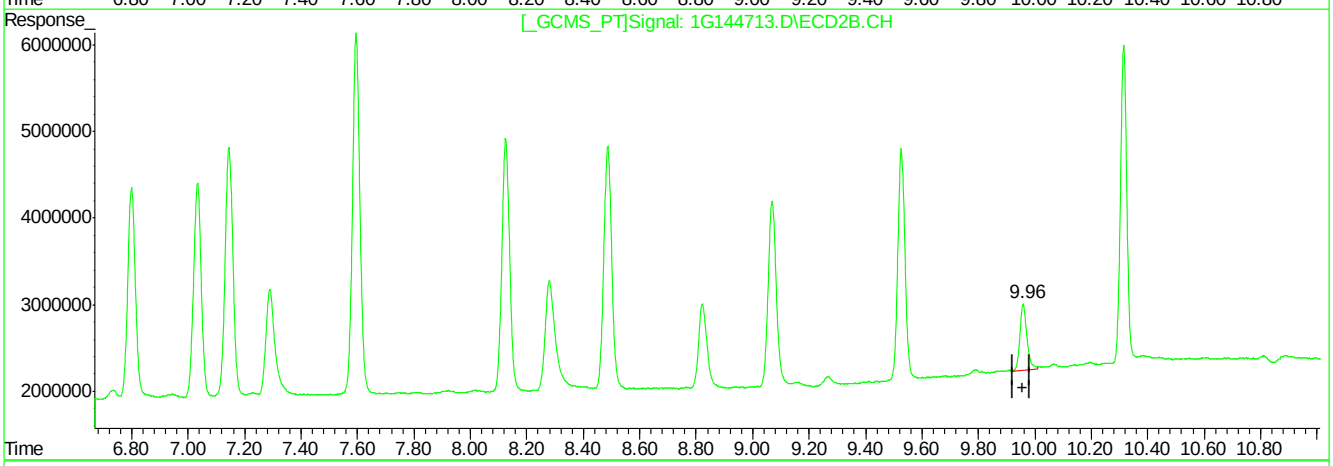
(+) = Expected Retention Time
1G144713.D 1PST4557.M Wed Mar 28 09:00:12 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144713.D\ECD1A.CH Vial: 35
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144713.D\ECD2B.CH
Acq On : 3-28-18 04:01:18 AM Operator: christp
Sample : op10885-ms2 Inst : GC1G
Misc : op10885,g1g4598,290,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:58 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.72min 22.356PPB

response 72998938

(23) Methoxychlor #2 (A)

9.96min 22.430PPB m

response 13202918

(+) = Expected Retention Time
1G144713.D 1PST4557.M Wed Mar 28 09:00:28 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 09:44

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144714.D\ECD1A.CH Vial: 36
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144714.D\ECD2B.CH
Acq On : 3-28-18 04:18:22 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:02 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.16	2.45	472.4E6	110.4E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.45	472.4E6	110.4E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.45	472.4E6	110.4E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.35	274.3E6	60963480	32.796	30.419
		Spiked Amount 40.000	Range 30 - 150		Recovery =		81.99%	76.05%
26)	SA	Decachlorobiphen	10.13	12.03	165.3E6	28291687	24.202	19.552
		Spiked Amount 40.000			Recovery =		60.51%	48.88%
		Target Compounds						
3)		Hexachlorobenzen	3.13	3.91	274.6E6	52416672	26.041	18.516
4)	A	alpha-BHC	3.27	4.06	309.0E6	75926047	29.559	28.106
5)	MA	gamma-BHC	3.58	4.52	296.0E6	70196089	29.925	28.669
6)	MA	Heptachlor	4.09	5.15	218.0E6	47125161	21.169	20.517
7)	B	beta-BHC	3.67	4.62	137.7E6	27634663	27.908	25.772
8)	B	delta-BHC	3.87	5.05	236.6E6	62792055	28.893	28.395
9)	MB	Aldrin	4.45	5.64	174.3E6	37557704	18.510	16.077
11)	B	Heptachlor Epoxi	5.18	6.50	297.4E6	62636718	30.938	28.546
12)	B	gamma-Chlordane	5.35	6.80	219.7E6	48169141	29.921	22.667
13)	B	alpha-Chlordane	5.53	7.03	226.5E6	47310225	25.133	22.600
14)	A	Endosulfan I	5.71	7.14	294.7E6	57976524	33.360	28.649
15)	B	4,4'-DDE	5.64	7.29	111.7E6	26660138	13.204	12.067
16)	MA	Dieldrin	6.04	7.60	367.3E6	79833591	41.044	35.539
17)	MA	Endrin	6.38	8.13	274.4E6	58281948	33.401	29.498
18)	A	4,4'-DDD	6.50	8.28	124.0E6	32059385	19.721	18.813
19)	B	Endosulfan II	6.71	8.49	271.5E6	57074199	33.099	29.031
20)	MA	4,4'-DDT	6.92	8.82	93758548	20779784	16.199	18.070
21)	B	Endrin Aldehyde	7.34	9.07	235.8E6	44495301	34.318	28.752
22)	B	Endosulfan Sulfa	8.03	9.53	228.8E6	49145997	35.663	35.917
23)	A	Methoxychlor	7.72	9.96	77296216	13602293	23.789	22.547m
25)	B	Endrin Ketone	8.49	10.31	287.4E6	58035411	41.937	37.302

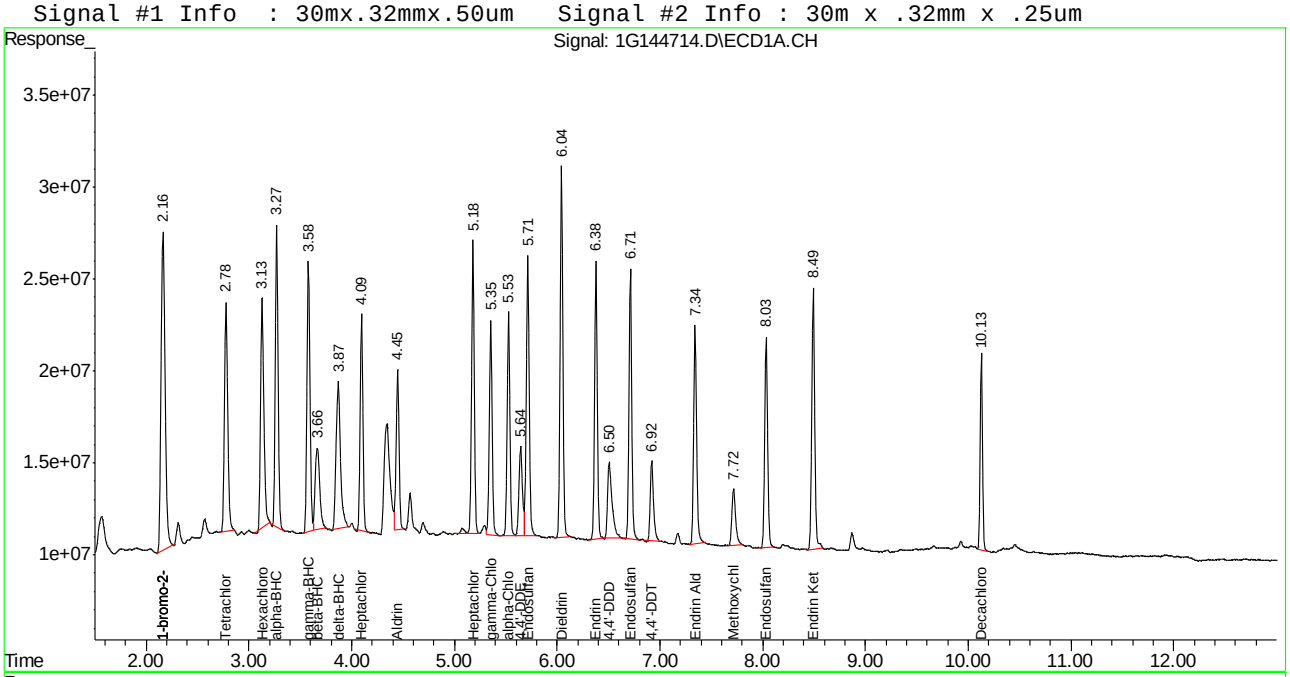
(f)=RT Delta > 1/2 Window (m)=manual int.
1G144714.D 1PST4557.M Wed Mar 28 09:02:58 2018 RPT1 Page 1

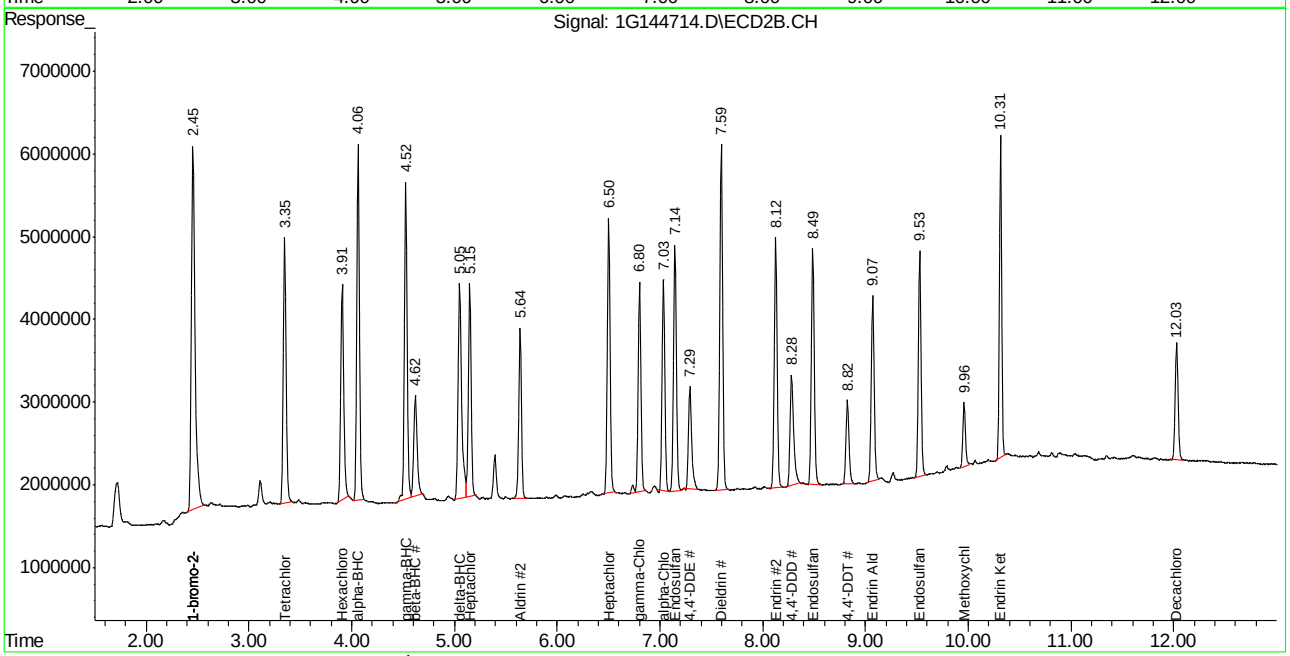
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144714.D\ECD1A.CH Vial: 36
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144714.D\ECD2B.CH
Acq On : 3-28-18 04:18:22 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:02 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

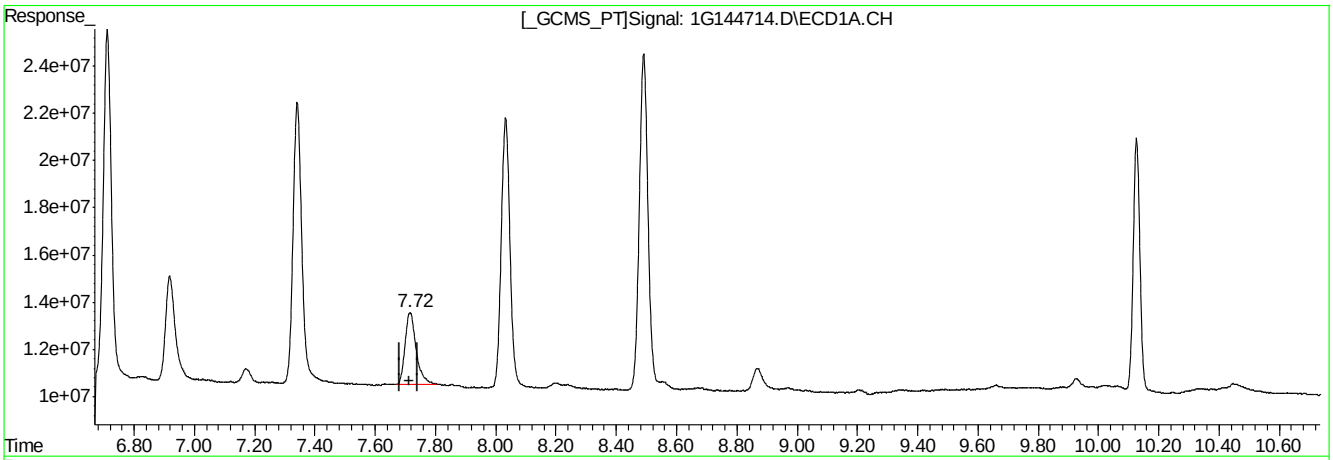
Sample Number:	OP10885-MSD2	**Method:**	SW846 8081B
Lab FileID:	1G144714.D	**Analyst approved:**	03/29/18 09:23 Gwendolyn Burns
Injection Time:	03/28/18 04:18	**Supervisor approved:**	03/29/18 09:44 Gwendolyn Burns

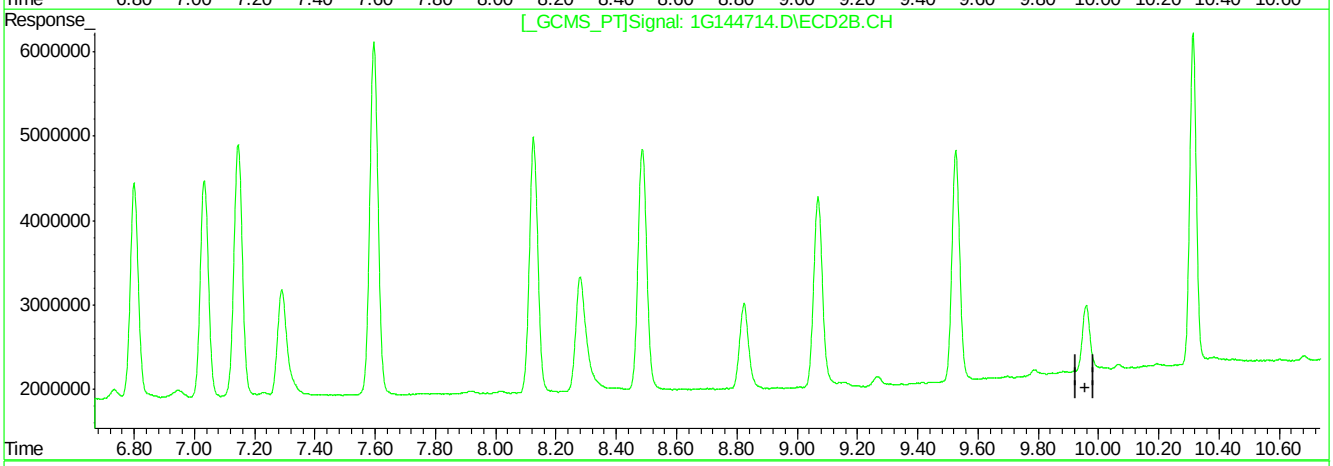
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	2	9.96	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144714.D\ECD1A.CH Vial: 36
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144714.D\ECD2B.CH
Acq On : 3-28-18 04:18:22 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:01 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.72min 23.789PPB

response 77296216

(23) Methoxychlor #2 (A)

0.00min 0.000PPB

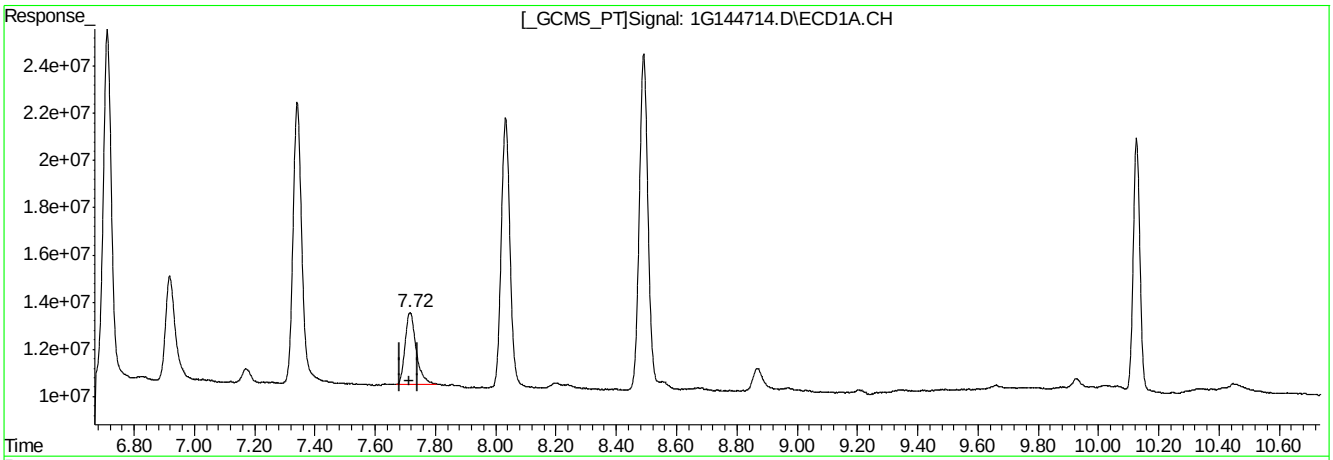
response 0

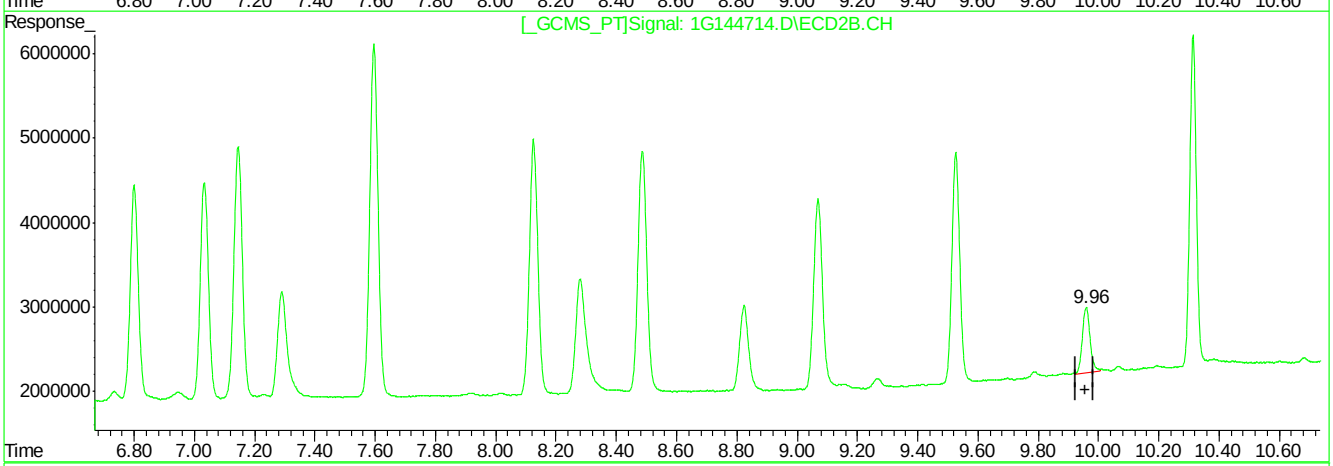
(+) = Expected Retention Time
1G144714.D 1PST4557.M Wed Mar 28 09:02:11 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144714.D\ECD1A.CH Vial: 36
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144714.D\ECD2B.CH
Acq On : 3-28-18 04:18:22 AM Operator: christp
Sample : op10885-msd Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:01 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.72min 23.789PPB

response 77296216

(23) Methoxychlor #2 (A)

9.96min 22.547PPB m

response 13602293

(+) = Expected Retention Time
1G144714.D 1PST4557.M Wed Mar 28 09:02:19 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/03/18 09:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Apr 3 9:08 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.21	4.22	295708	389641	25.578m	25.027m
	Spiked Amount 40.000			Recovery =		63.94%	62.57%
51)	S Decachlorobiphen	14.20	17.33	237467	286405	13.874	13.643
	Spiked Amount 40.000			Recovery =		34.69%	34.11%
	Target Compounds						
42)	AR1016-B	4.28	6.00	90835	178774	164.730m	221.976m#
43)	AR1016-C	5.10f	6.95f	246358	300388	200.671m	187.000
45)	AR1016-E	6.05	8.25	100821	73475	203.990	153.039m
46)	AR1260-A	9.68	12.36	66128	83587	48.564	46.905
47)	AR1260-B	9.93	12.55	39731	46163	60.440	57.287
48)	AR1260-C	10.45	13.24	56527	48192	91.938	55.991 #
49)	AR1260-D	11.14	13.79	83471	102316	53.261	57.063m
50)	AR1260-E	11.76	14.65	85770	112177	55.573m	60.129m

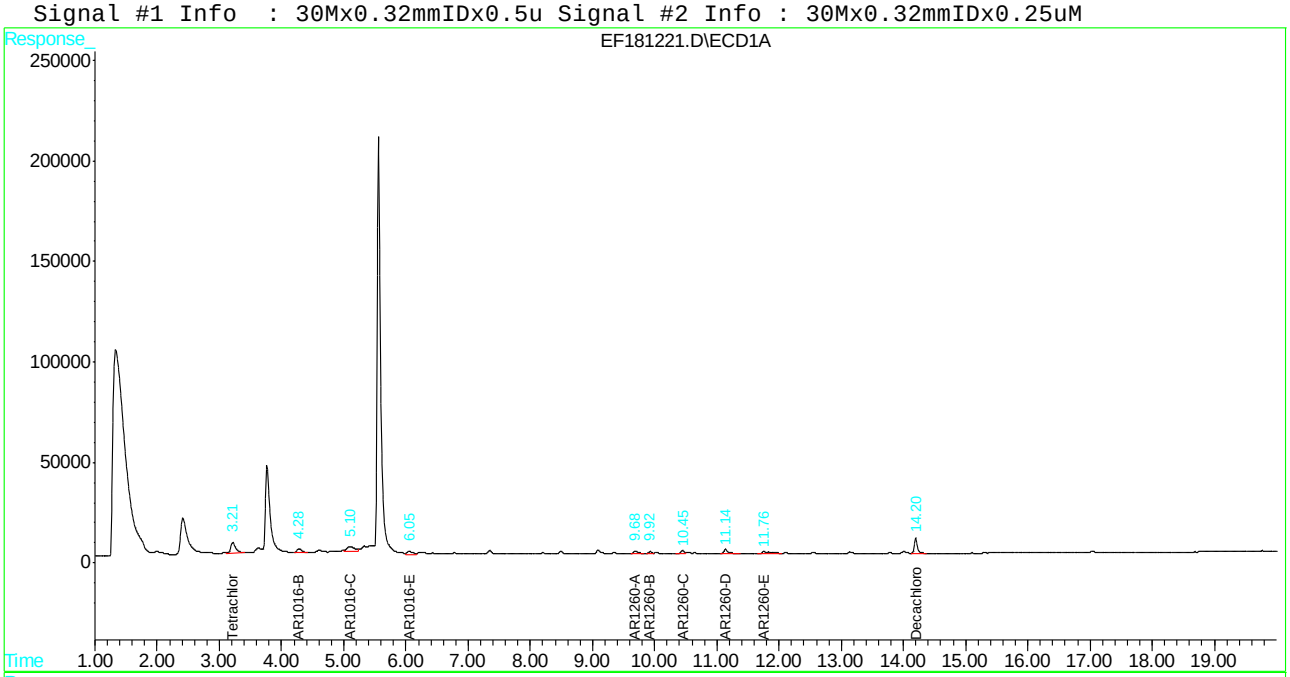
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181221.D PCB6195.M Tue Apr 03 09:09:02 2018 GCEF Page 1

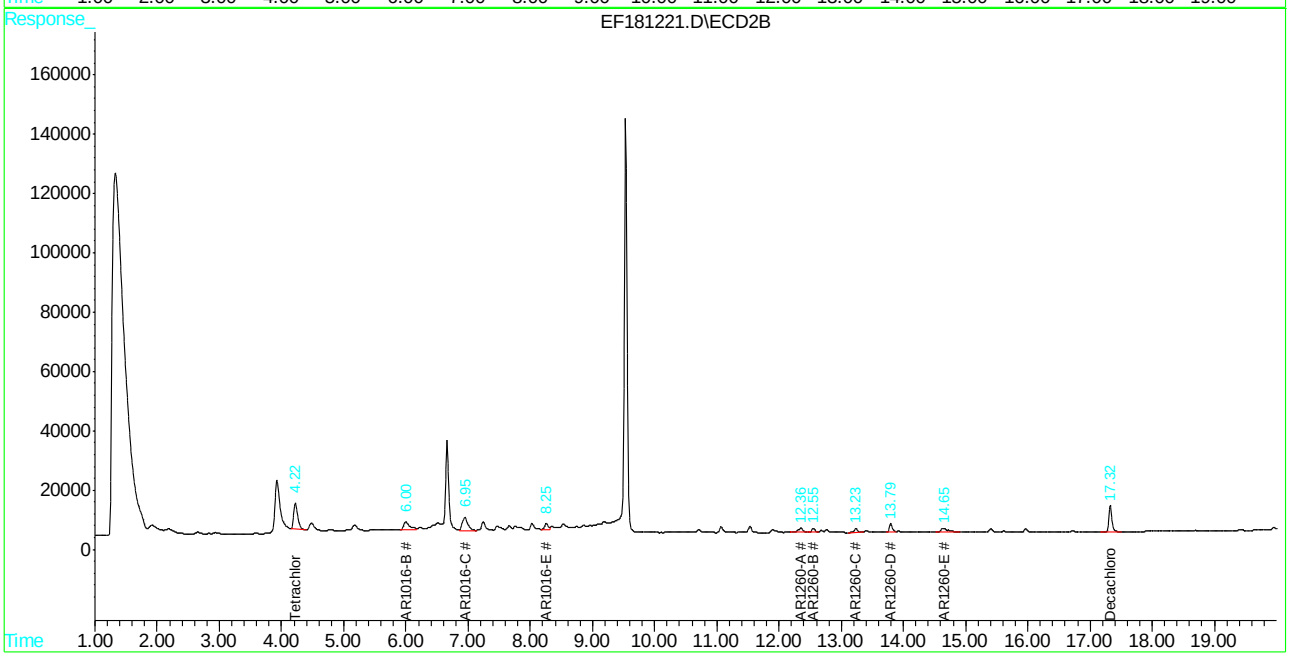
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Apr 3 9:08 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

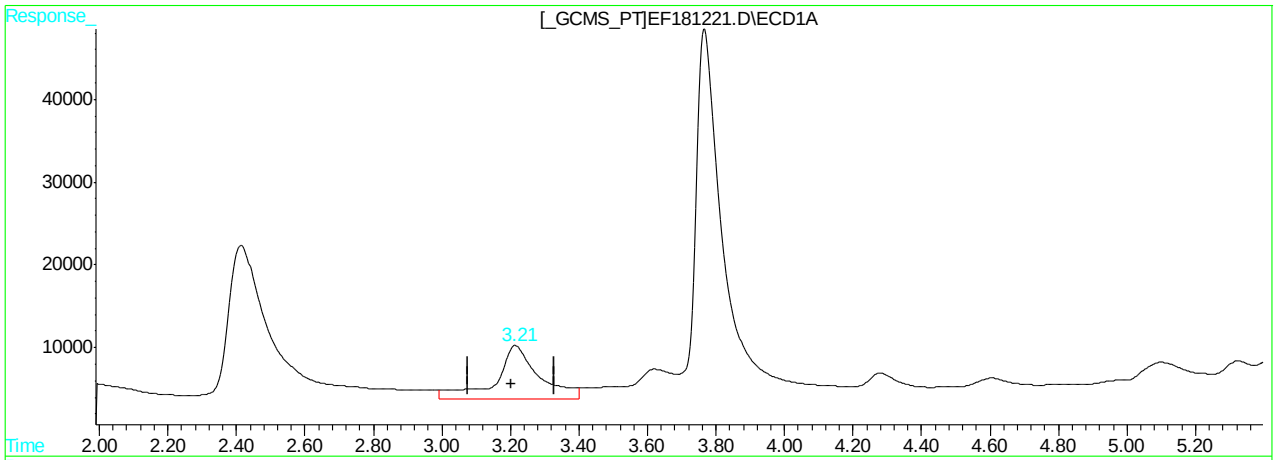
Sample Number: OP10884-MS
Lab FileID: EF181221.D
Injection Time: 03/28/18 19:04
Method: SW846 8082A
Analyst approved: 04/03/18 09:16 Tianwei Ruan
Supervisor approved: 04/03/18 09:47 Gwendolyn Burns

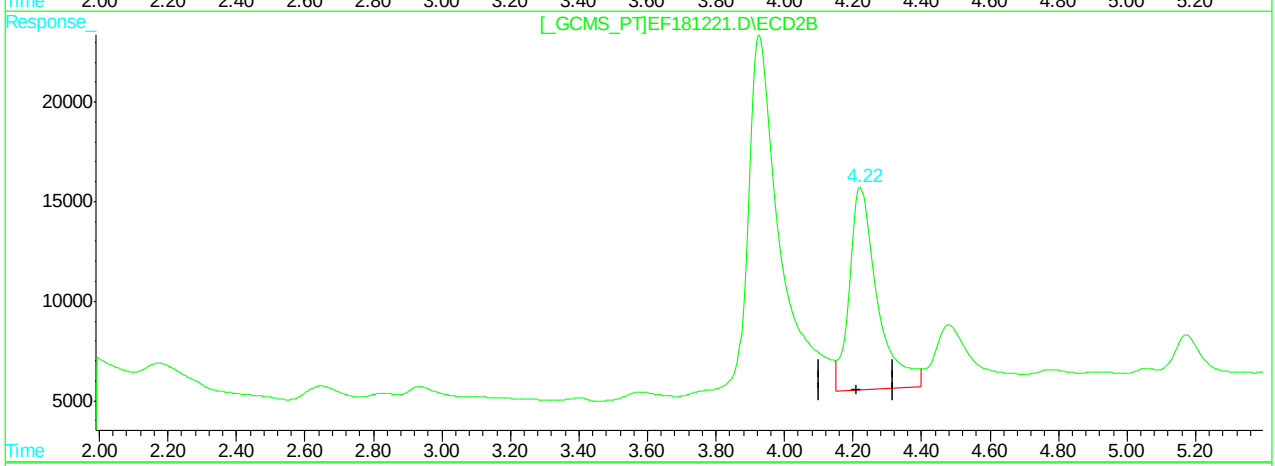
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.21	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	4.22	Poorly defined baseline
AR1016-B		1	4.28	Split peak
AR1016-C		1	5.10	Split peak
AR1016-B		2	6.00	Split peak
AR1016-E		2	8.25	Split peak
AR1260-E		1	11.76	Split peak
AR1260-D		2	13.79	Split peak
AR1260-E		2	14.65	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 50.114PPB

response 579363

(1) Tetrachloro-m-xylene #2 (S)

4.22min 36.620PPB

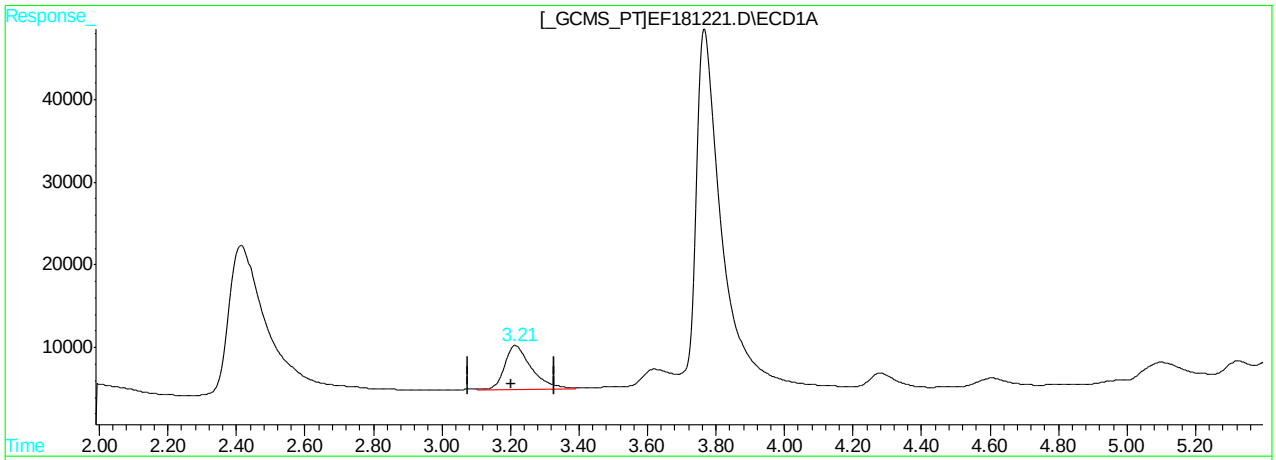
response 570127

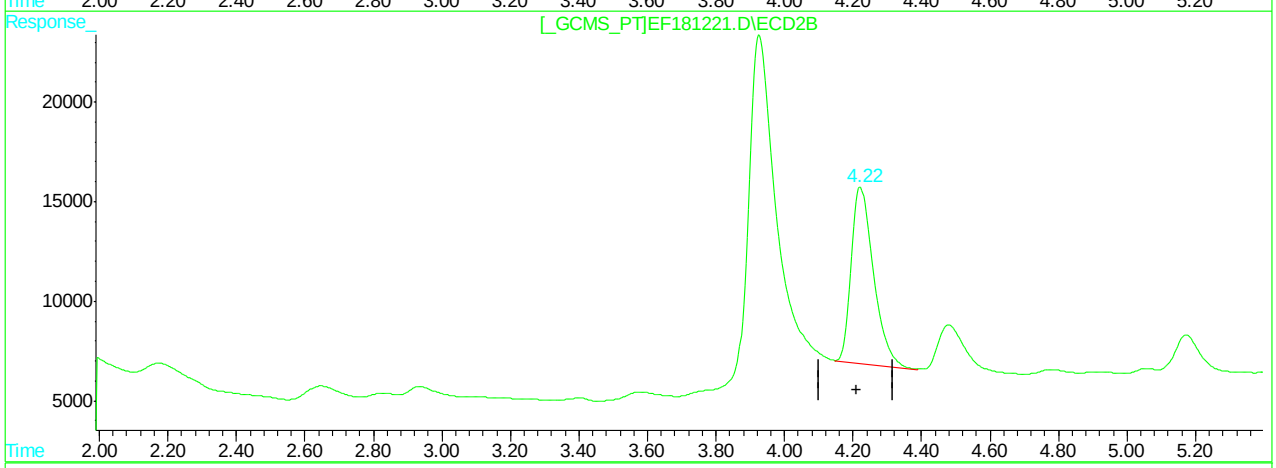
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:39:20 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.21min 25.578PPB m

response 295708

(1) Tetrachloro-m-xylene #2 (S)

4.22min 25.027PPB m

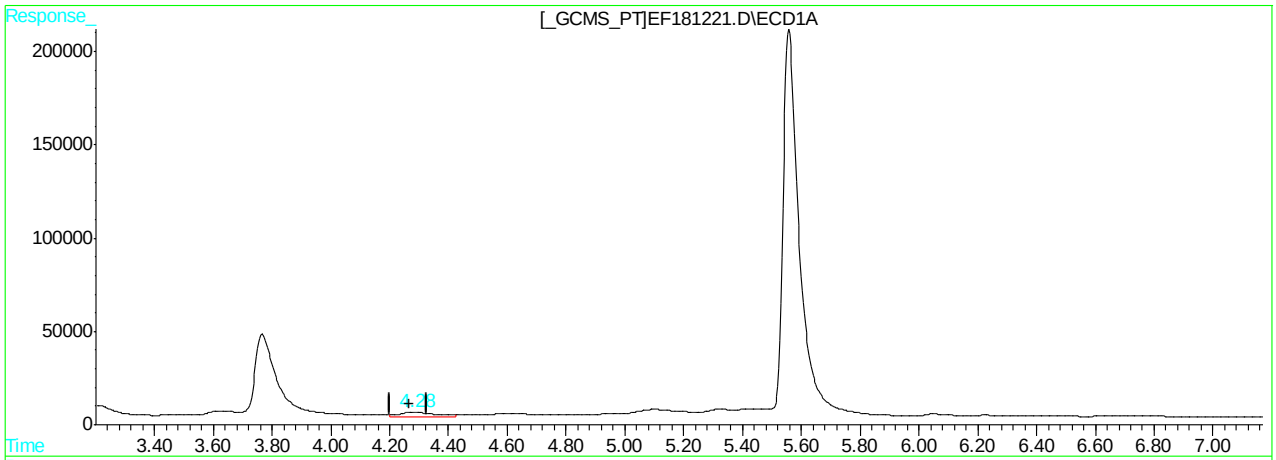
response 389641

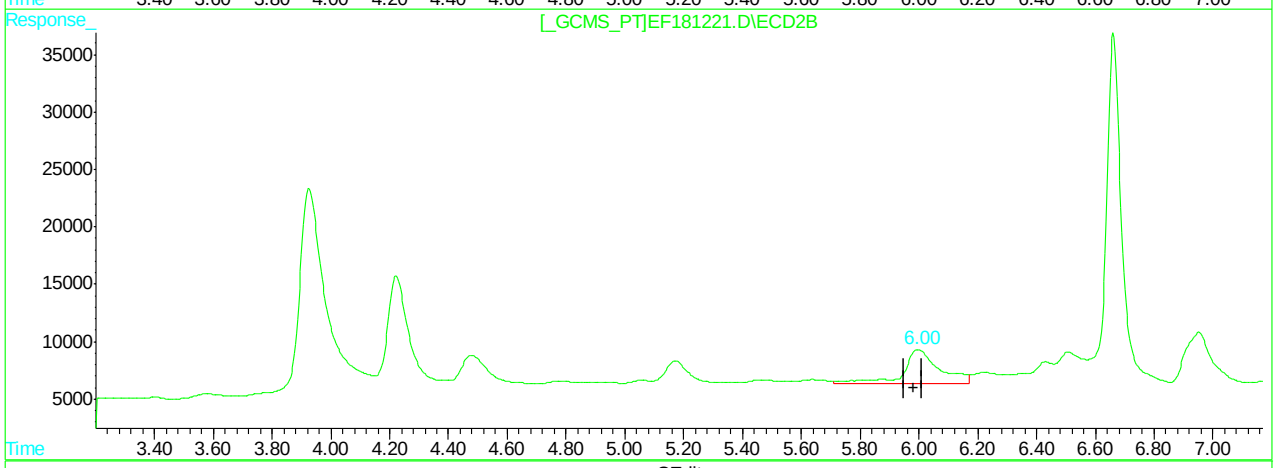
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:39:29 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(42) AR1016-B

4.28min 457.410PPB

response 252224

(42) AR1016-B #2

6.00min 318.404PPB

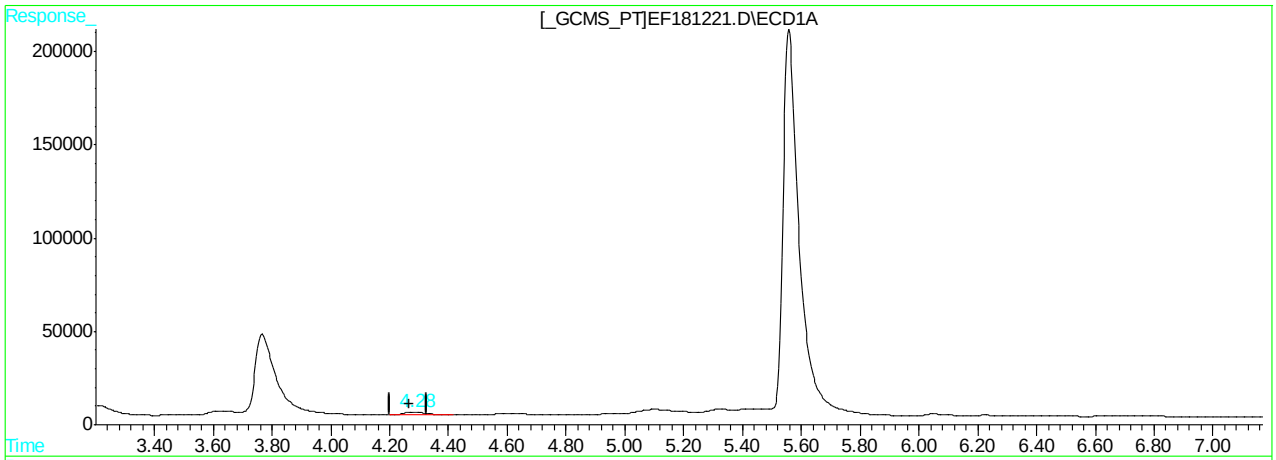
response 256434

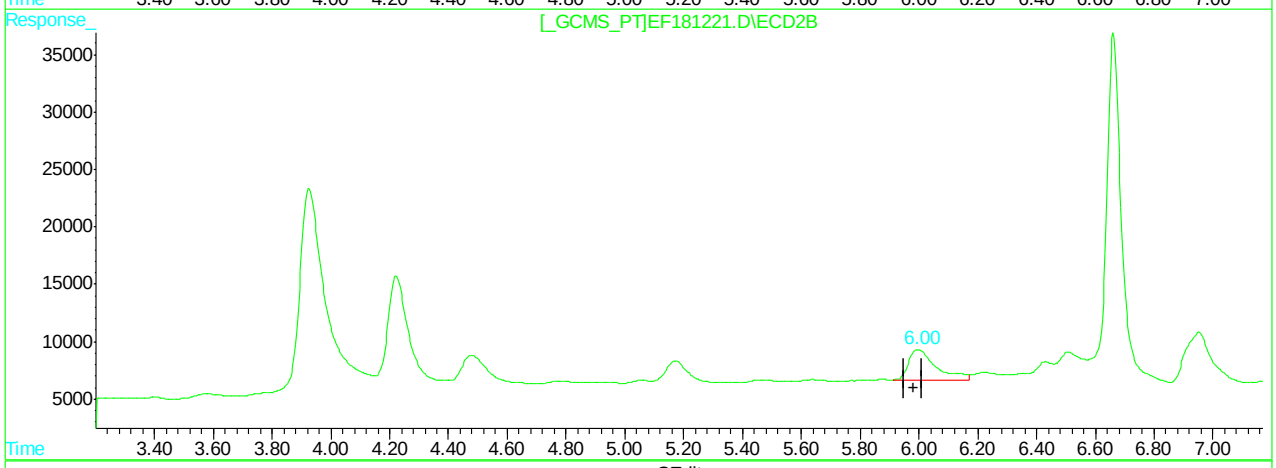
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:39:59 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(42) AR1016-B

4.28min 164.730PPB m

response 90835

(42) AR1016-B #2

6.00min 221.976PPB m

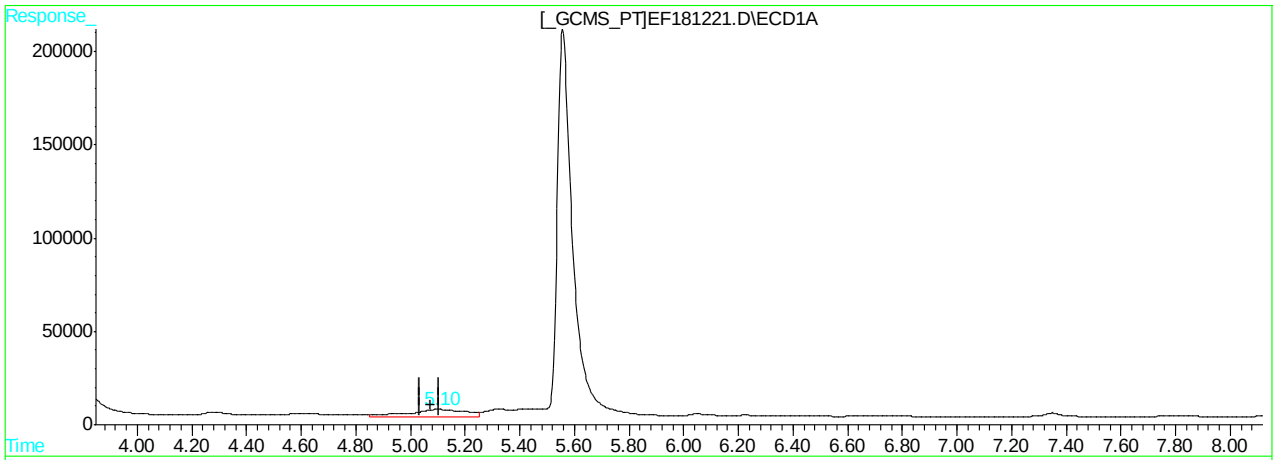
response 178774

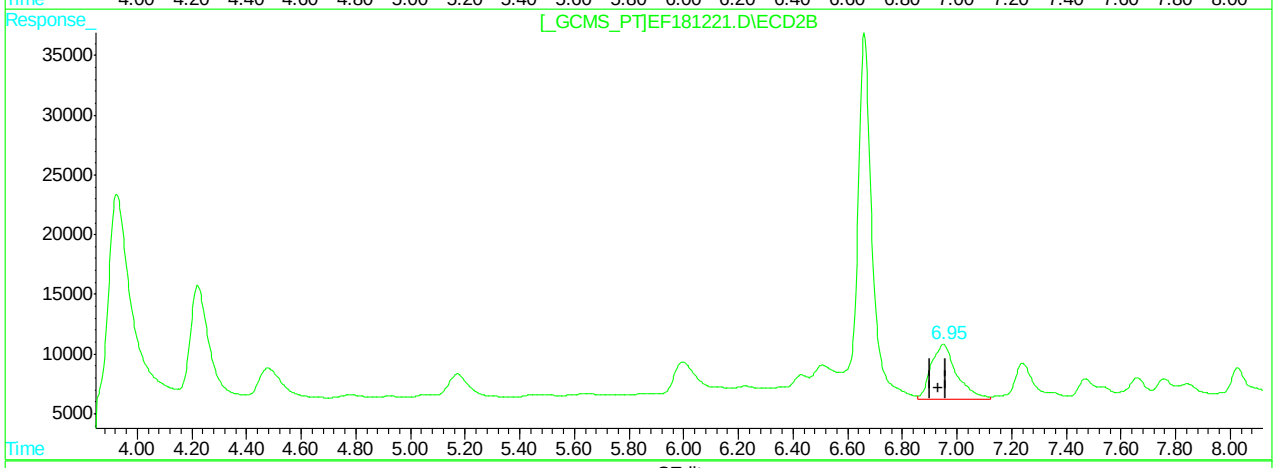
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:40:11 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 510.744PPB

response 627026

(43) AR1016-C #2

6.95min 187.000PPB

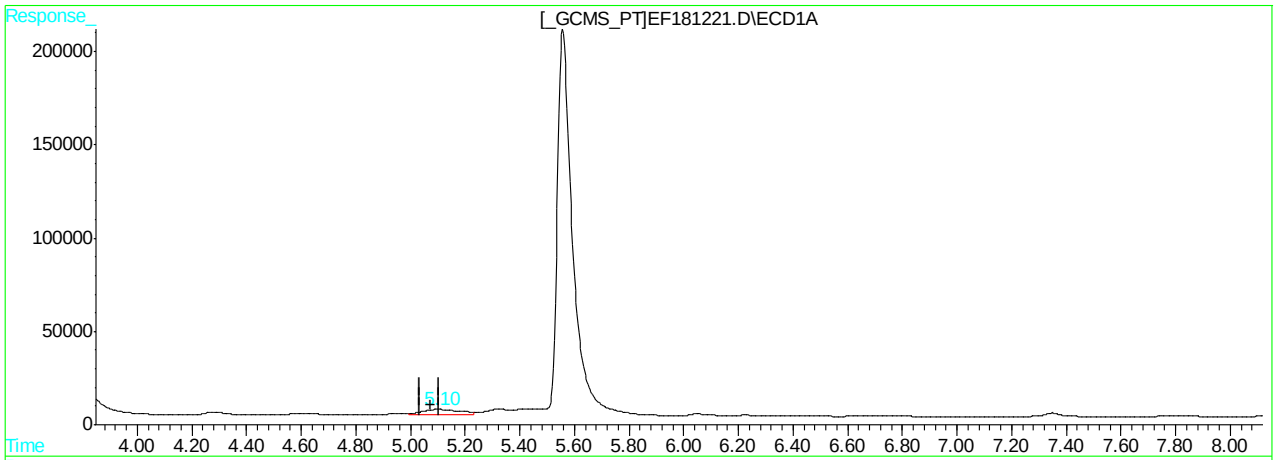
response 300388

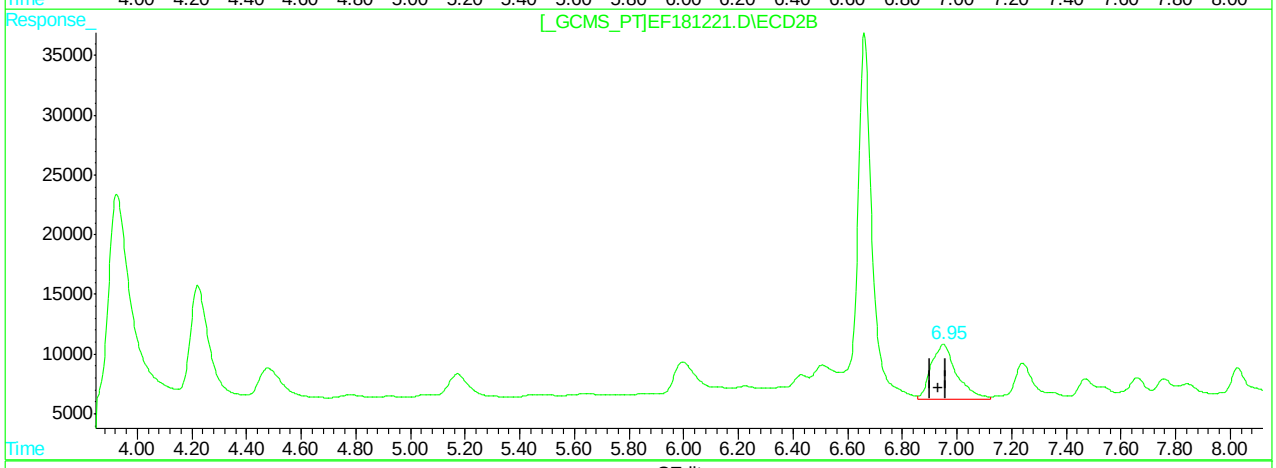
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:40:14 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 200.671PPB m

response 246358

(43) AR1016-C #2

6.95min 187.000PPB

response 300388

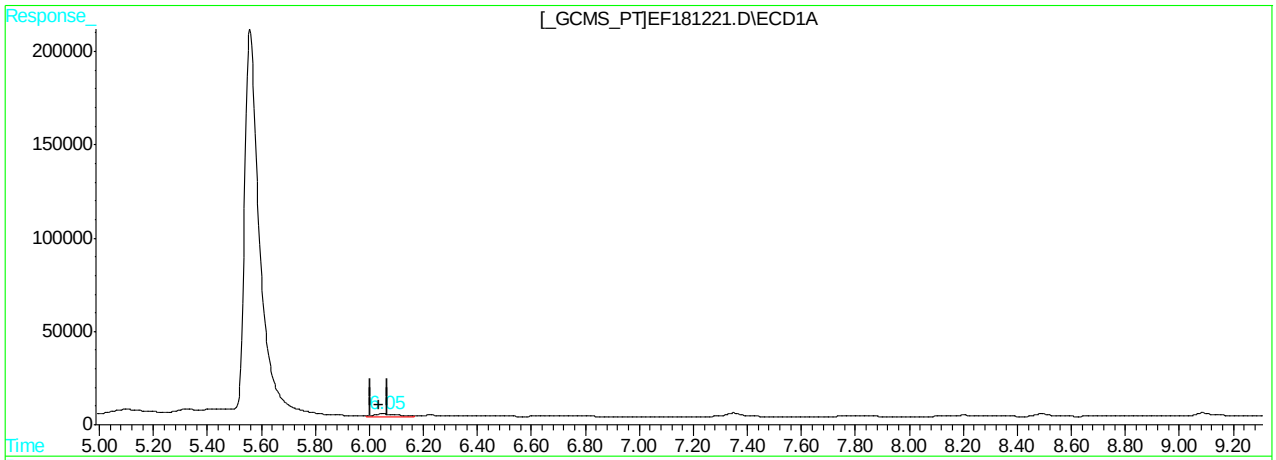
(+) = Expected Retention Time

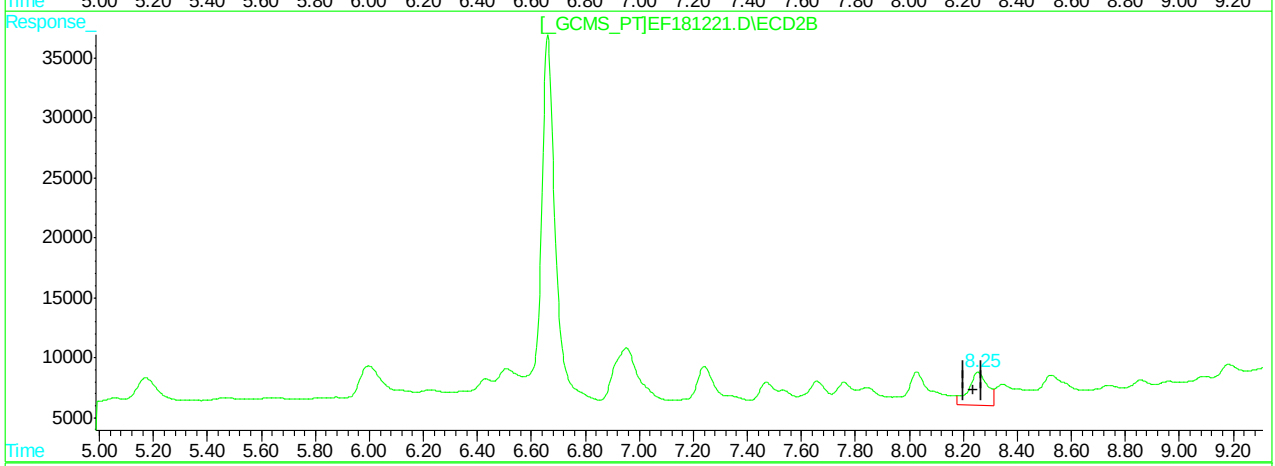
EF181221.D PCB6195.M Thu Mar 29 09:40:33 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.05min 203.990PPB

response 100821

(45) AR1016-E #2

8.26min 277.020PPB

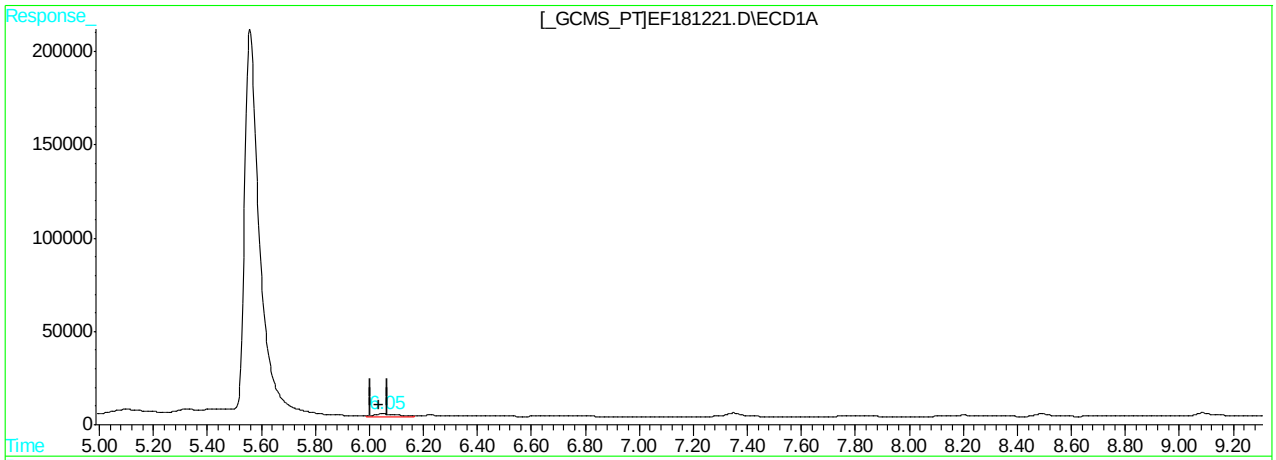
response 132999

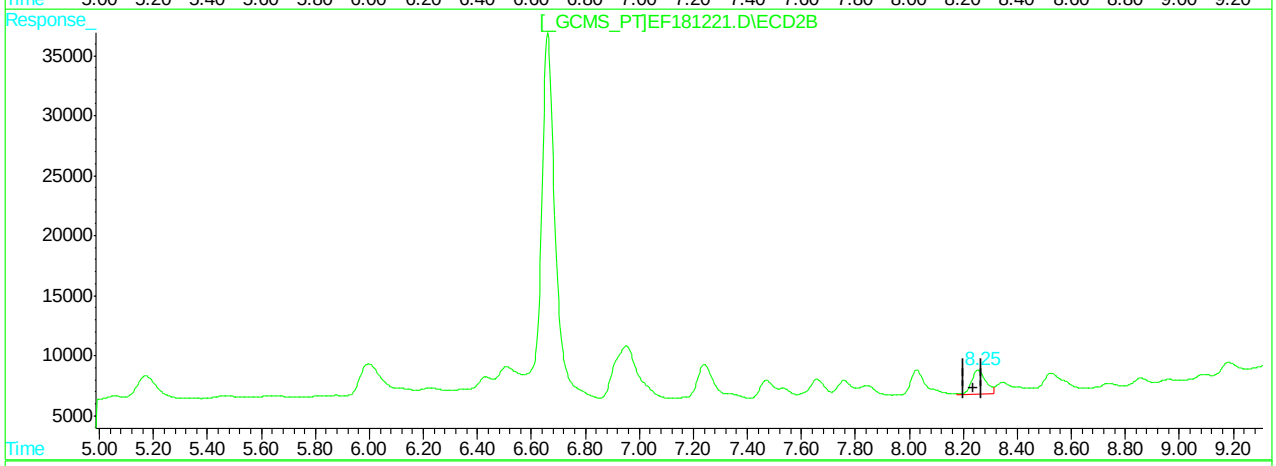
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:41:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.05min 203.990PPB

response 100821

(45) AR1016-E #2

8.25min 153.039PPB m

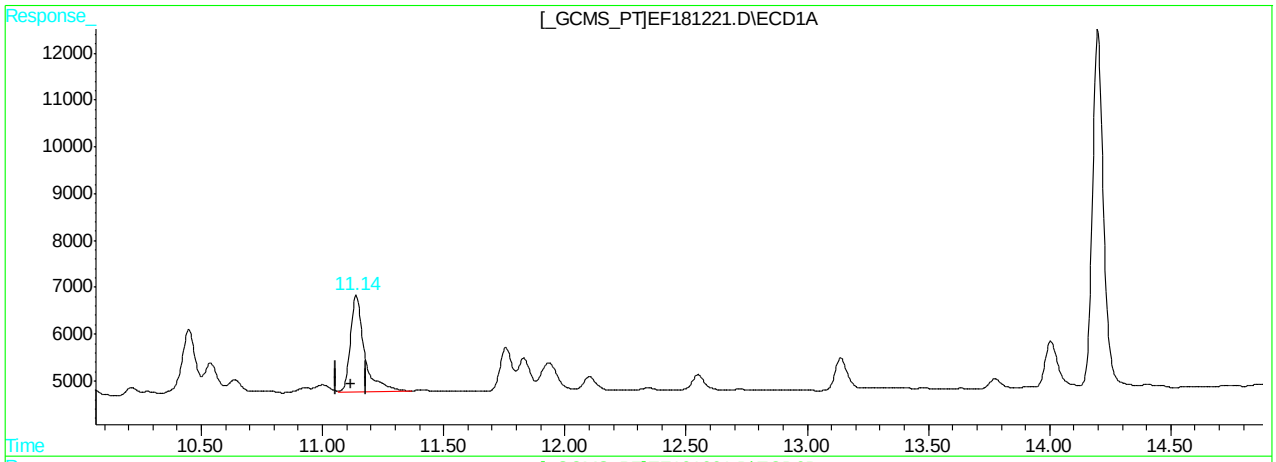
response 73475

(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:41:28 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(49) AR1260-D

11.14min 53.261PPB

response 83471

(49) AR1260-D #2

13.80min 52.494PPB

response 94124

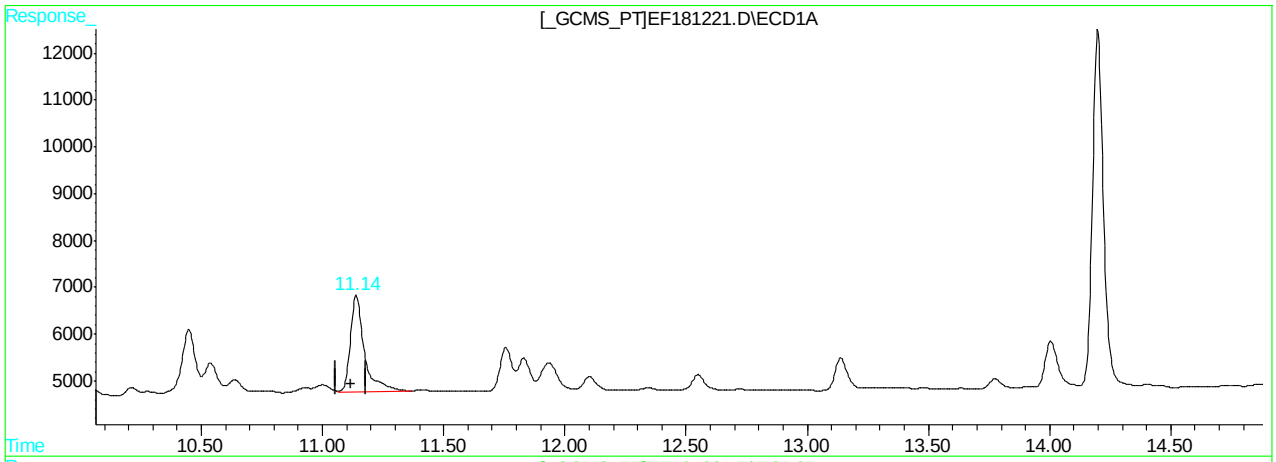
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:41:45 2018 GCEF

11.4.5.10 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(49) AR1260-D

11.14min 53.261PPB

response 83471

(49) AR1260-D #2

13.79min 57.063PPB m

response 102316

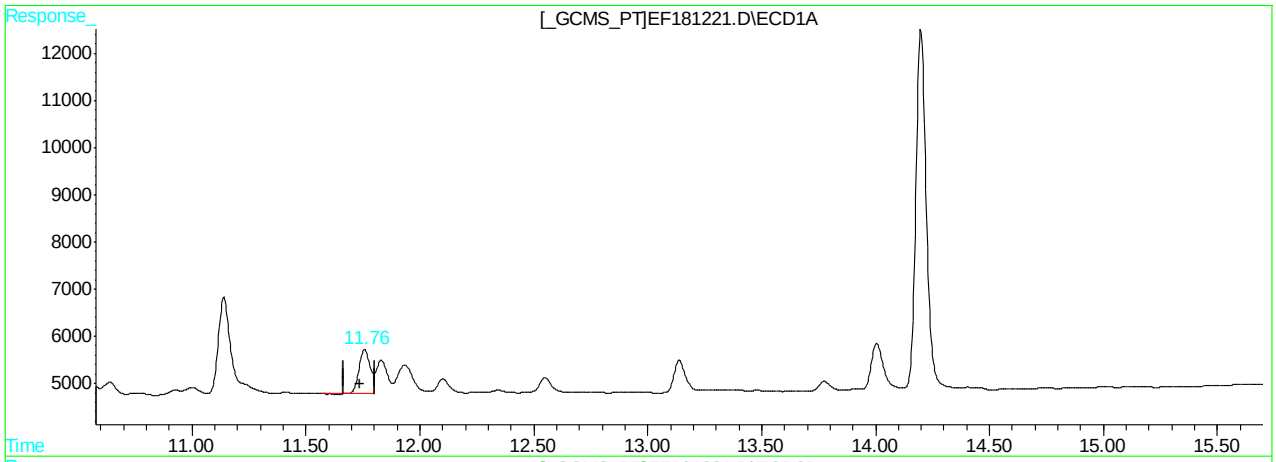
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:41:51 2018 GCEF

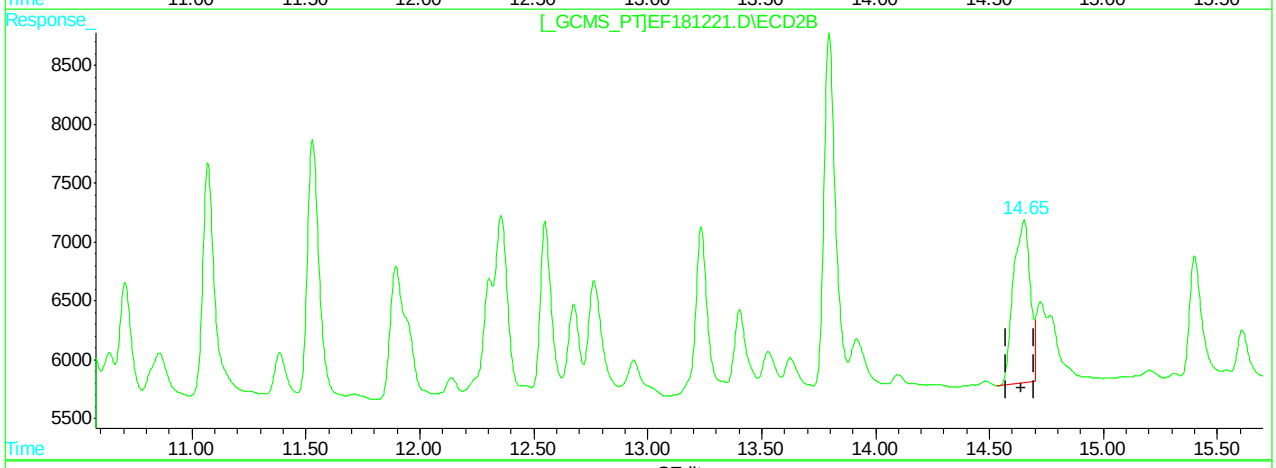
11.4.5.11 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 20.353PPB

response 31412

(50) AR1260-E #2

14.65min 37.557PPB

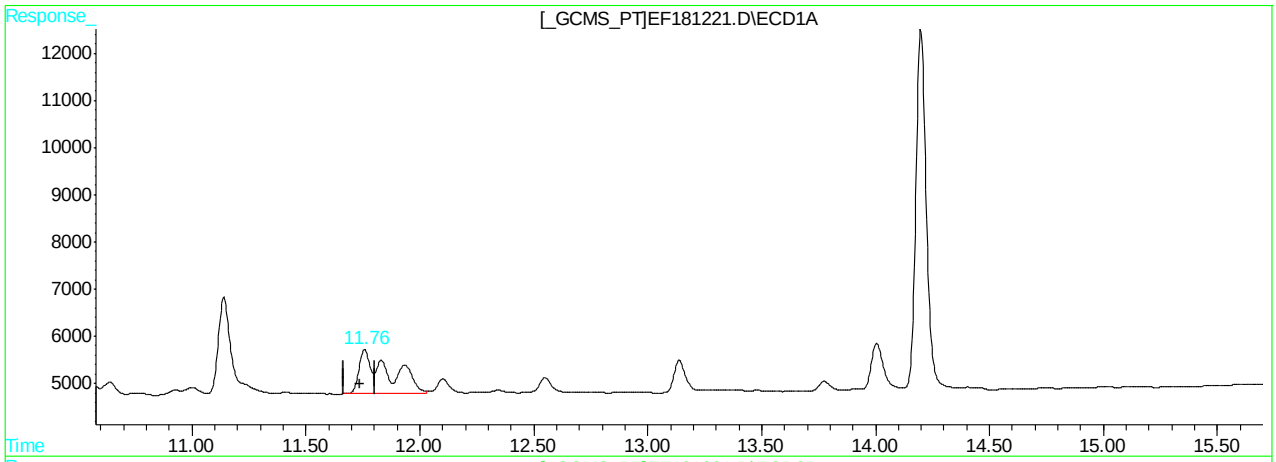
response 70067

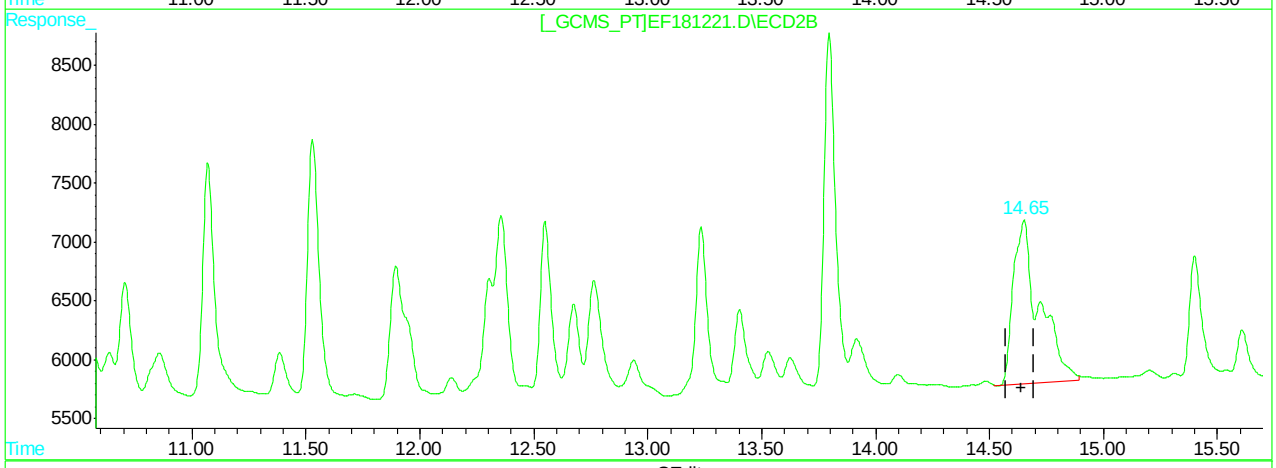
(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:41:55 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD1A.CH Vial: 41
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181221.D\ECD2B.CH
Acq On : 28 Mar 2018 7:04 pm Operator: humarahb
Sample : op10884-ms Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 55.573PPB m

response 85770

(50) AR1260-E #2

14.65min 60.129PPB m

response 112177

(+) = Expected Retention Time
EF181221.D PCB6195.M Thu Mar 29 09:42:04 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/03/18 09:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Apr 3 9:09 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.22	4.23	338023	405244	29.238	26.029m
	Spiked Amount 40.000			Recovery =		73.09%	65.07%
51)	S Decachlorobiphen	14.20	17.33	270330	310257	15.794m	14.779m
	Spiked Amount 40.000			Recovery =		39.49%	36.95%
	Target Compounds						
42)	AR1016-B	4.28f	6.00f	100383	183235	182.045m	227.516m
43)	AR1016-C	5.10f	6.96f	333874	285310	271.957m	177.613 #
45)	AR1016-E	6.06f	8.26f	85448	81068	172.885	168.855
46)	AR1260-A	9.69	12.36	74823	103202	54.951	57.912
47)	AR1260-B	9.93	12.56	46052	56373	70.055	69.957
48)	AR1260-C	10.46	13.24	55247	61499	89.857	71.452
49)	AR1260-D	11.15	13.80	90992	110959	58.059	61.883
50)	AR1260-E	11.76	14.66	89737	116566	58.144m	62.481m

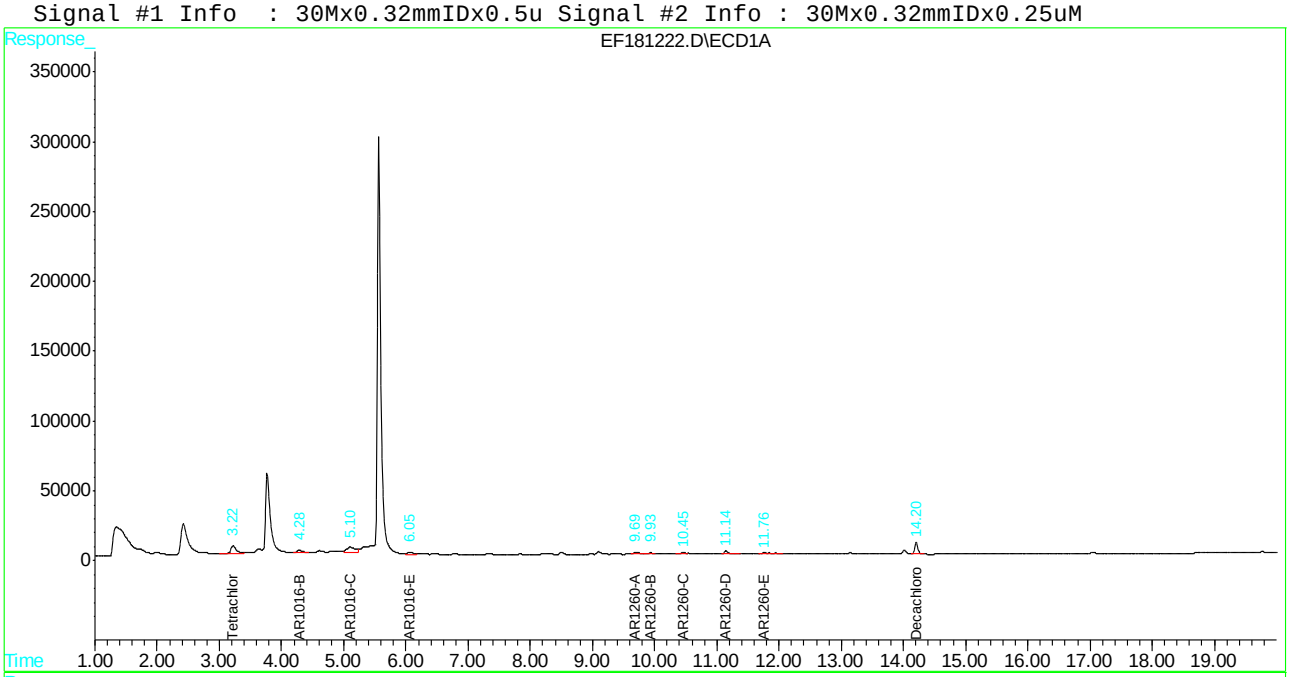
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181222.D PCB6195.M Tue Apr 03 09:09:22 2018 GCEF Page 1

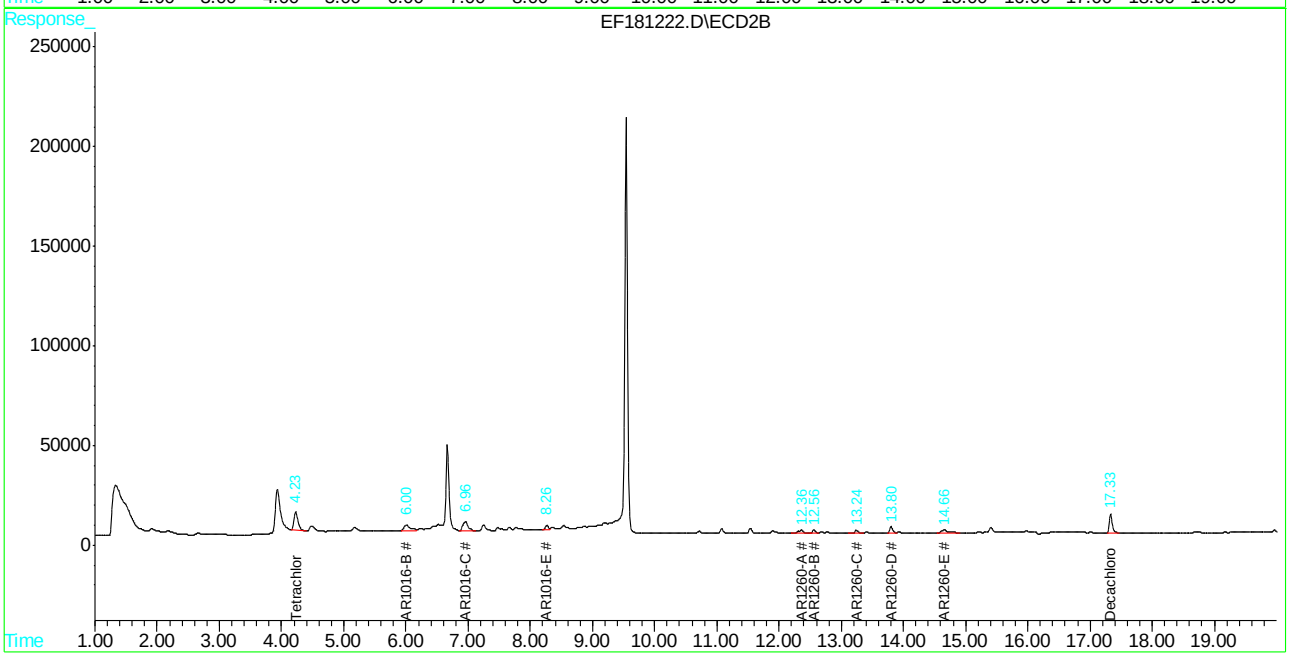
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Apr 3 9:09 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62879

Manual Integration Approval Summary

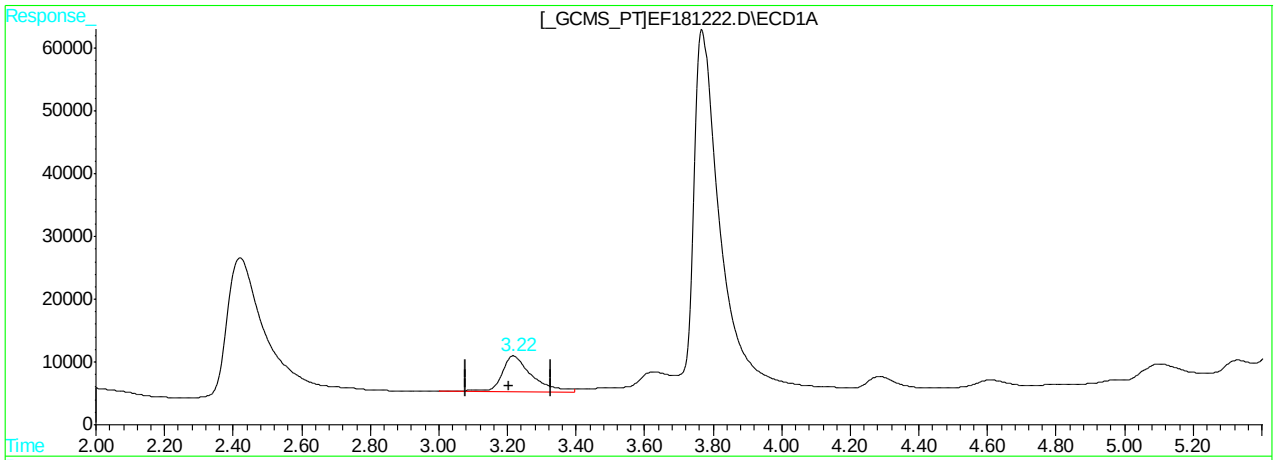
Sample Number: OP10884-MSD
Lab FileID: EF181222.D
Injection Time: 03/28/18 19:29
Method: SW846 8082A
Analyst approved: 04/03/18 09:16 Tianwei Ruan
Supervisor approved: 04/03/18 09:47 Gwendolyn Burns

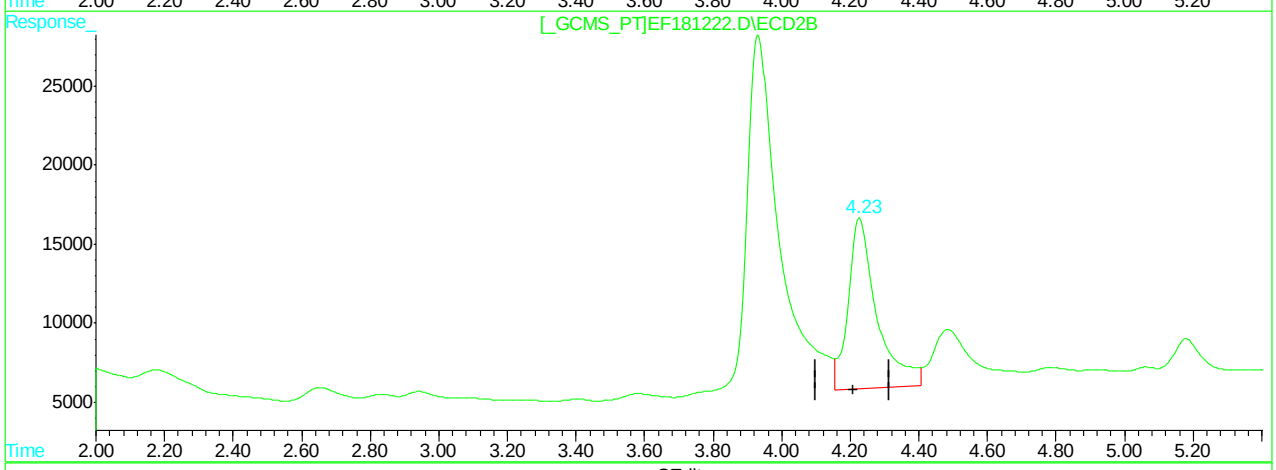
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	4.23	Poorly defined baseline
AR1016-B		1	4.28	Split peak
AR1016-C		1	5.10	Split peak
AR1016-B		2	6.00	Split peak
AR1260-E		1	11.76	Split peak
Decachlorobiphenyl	2051-24-3	1	14.20	Poorly defined baseline
AR1260-E		2	14.66	Split peak
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.22min 29.238PPB

response 338023

(1) Tetrachloro-m-xylene #2 (S)

4.23min 40.701PPB

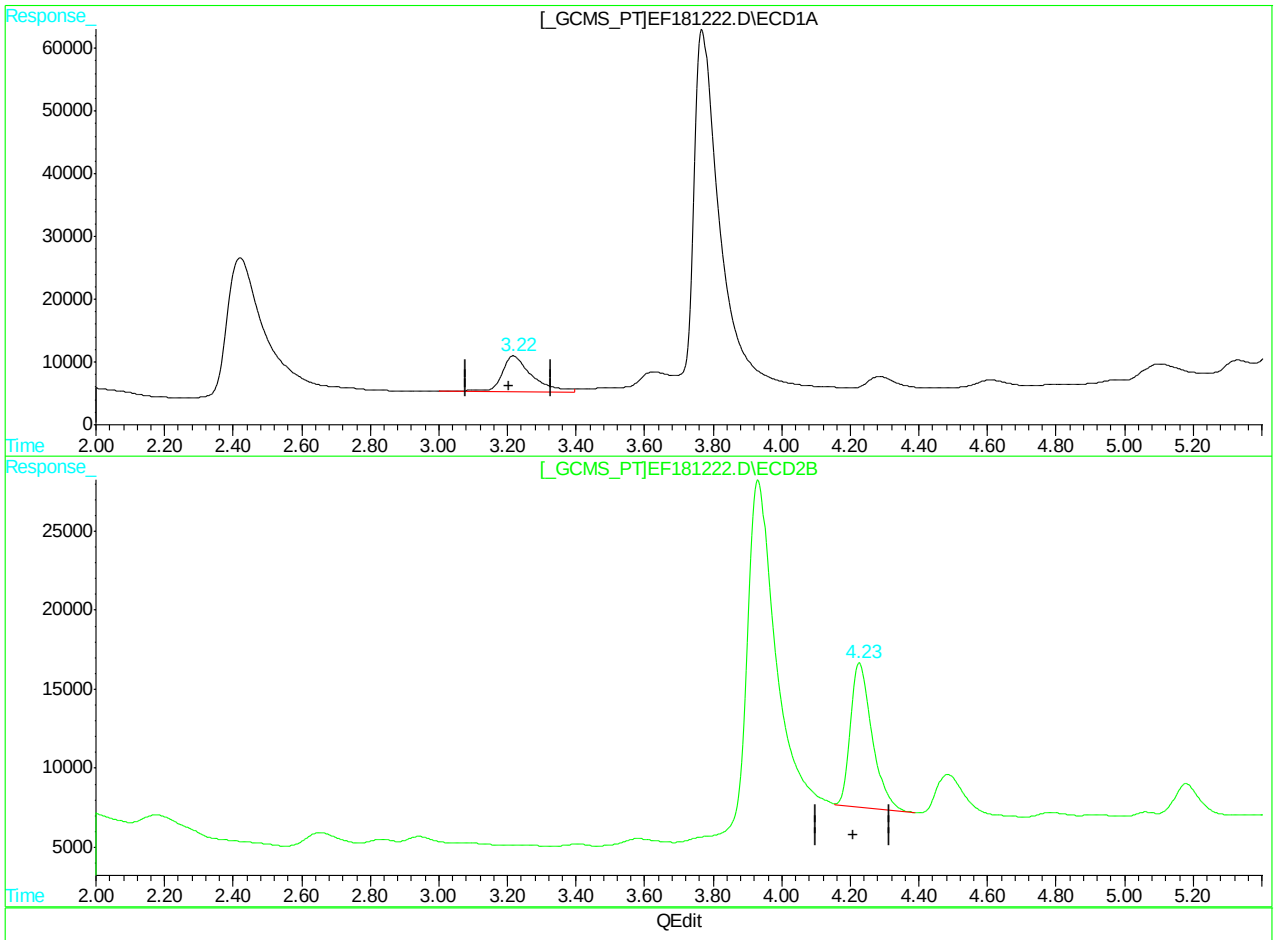
response 633677

(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:45:49 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.22min 29.238PPB

response 338023

(1) Tetrachloro-m-xylene #2 (S)

4.23min 26.029PPB m

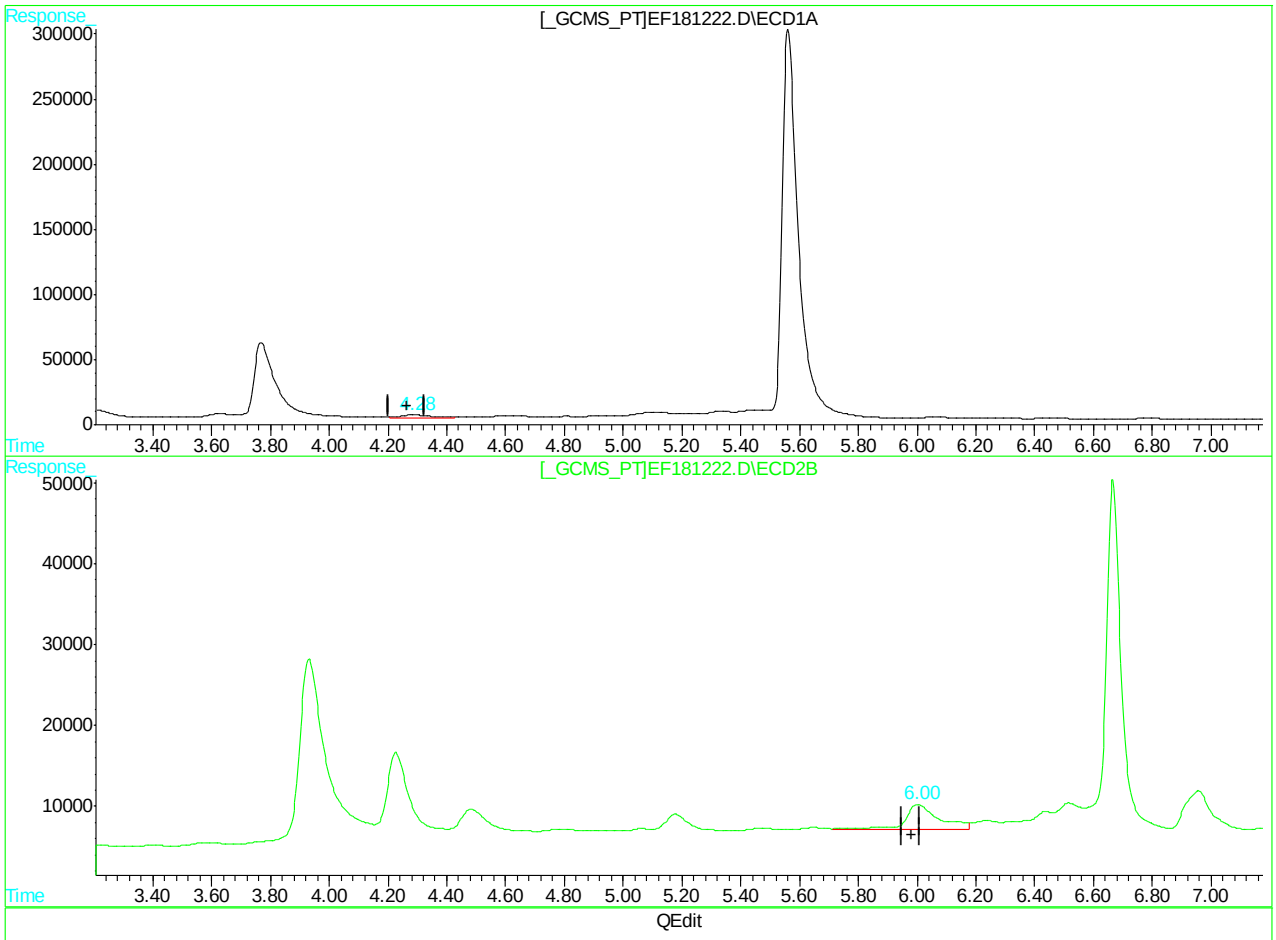
response 405244

(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:45:54 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(42) AR1016-B

4.29min 356.620PPB

response 196647

(42) AR1016-B #2

6.00min 304.654PPB

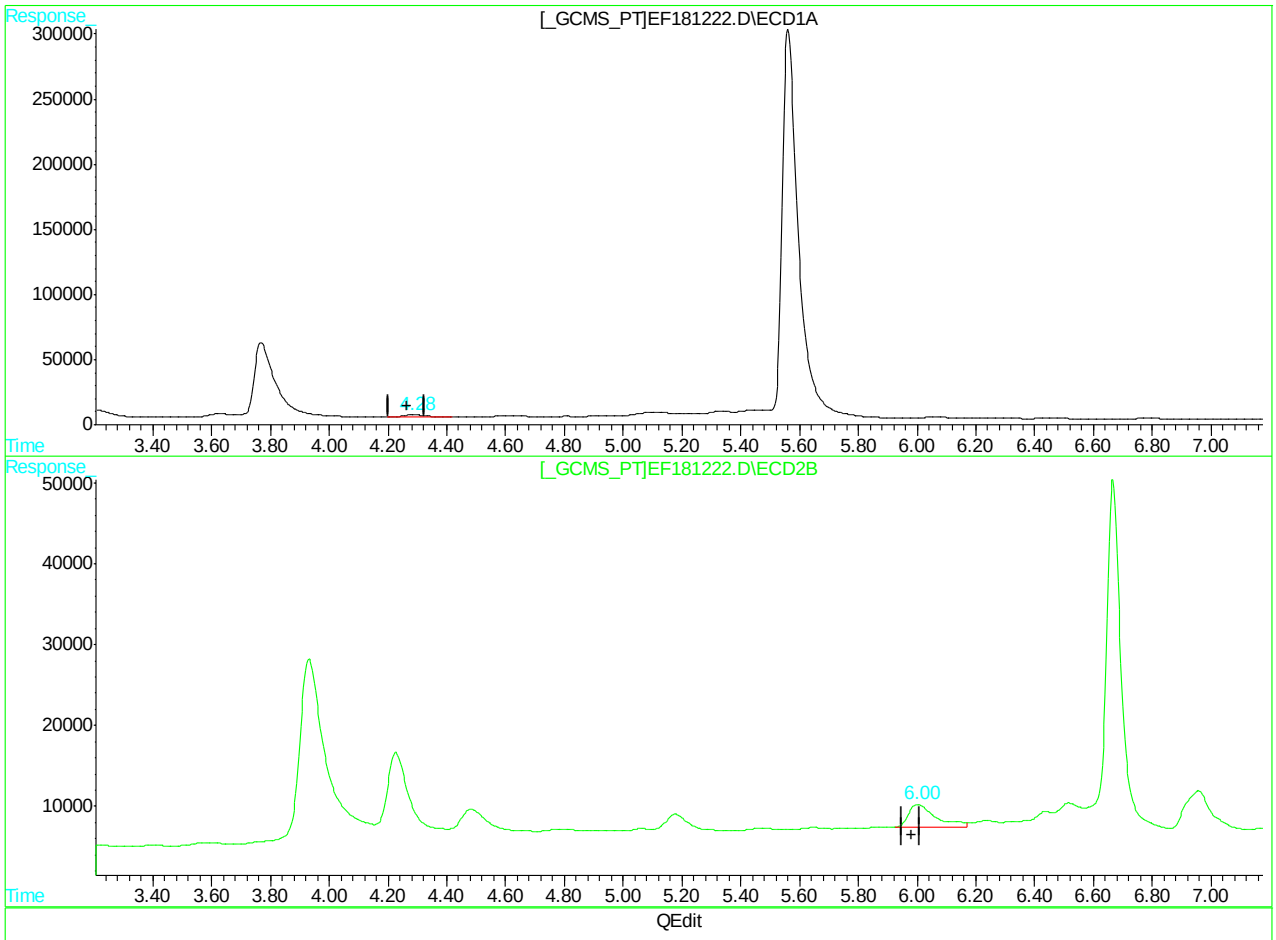
response 245360

(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:46:11 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(42) AR1016-B

4.28min 182.045PPB m

response 100383

(42) AR1016-B #2

6.00min 227.516PPB m

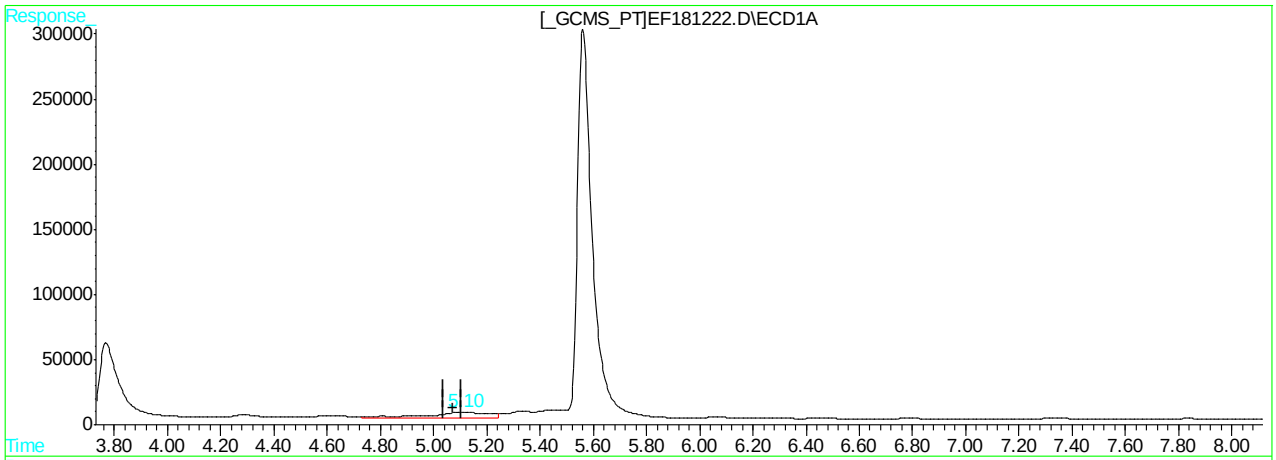
response 183235

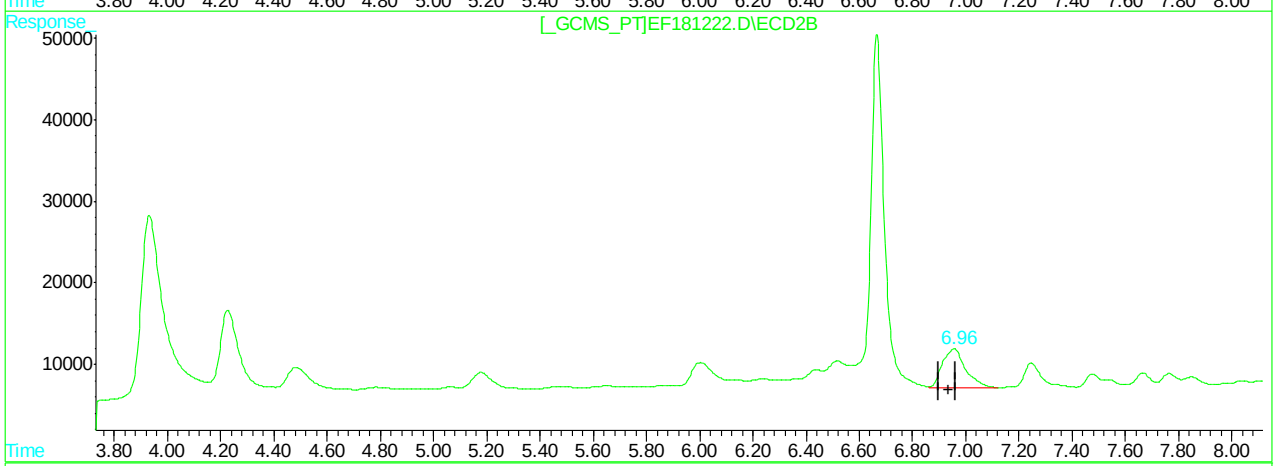
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:46:26 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 660.198PPB

response 810506

(43) AR1016-C #2

6.96min 177.613PPB

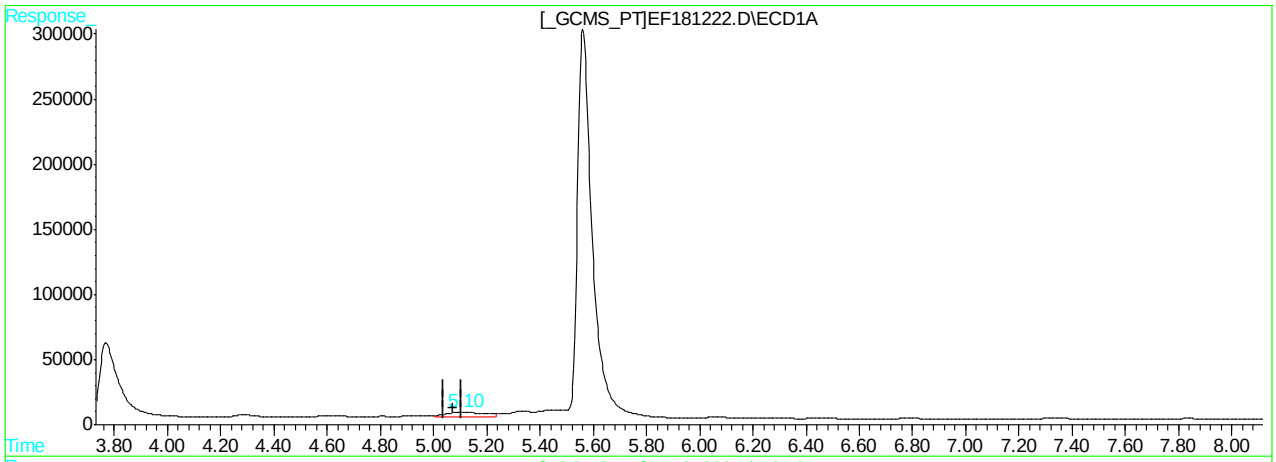
response 285310

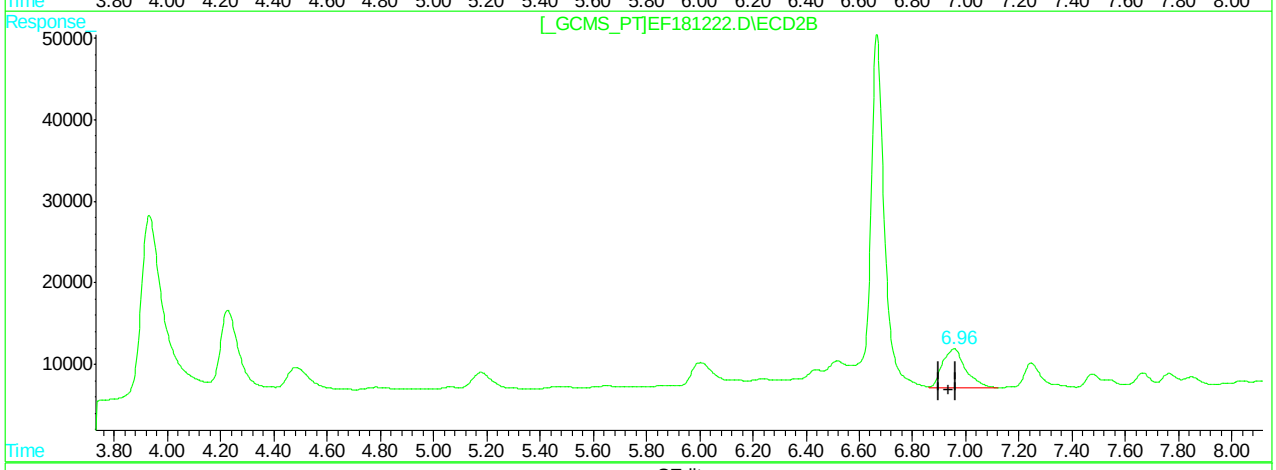
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:46:31 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 271.957PPB m

response 333874

(43) AR1016-C #2

6.96min 177.613PPB

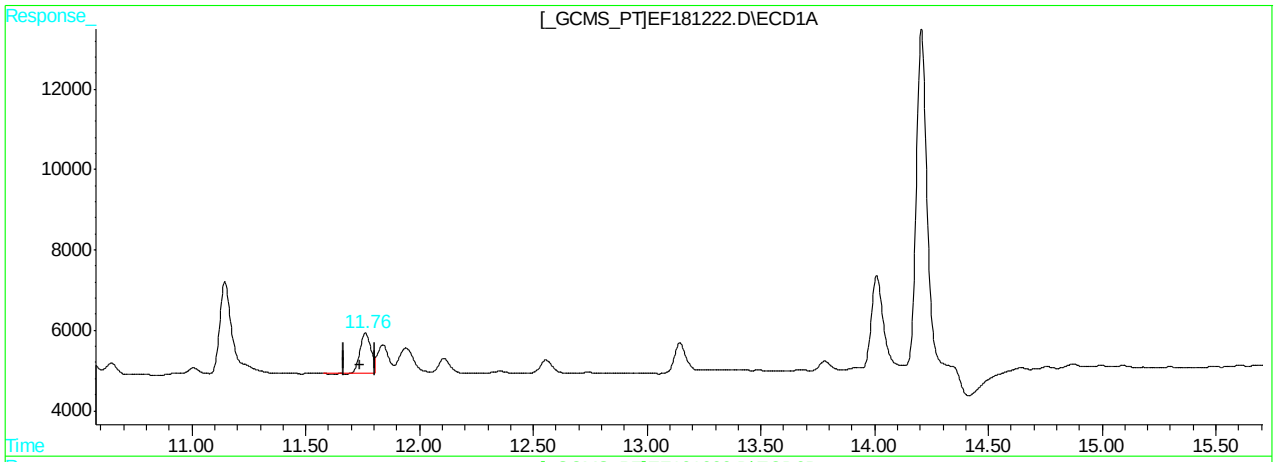
response 285310

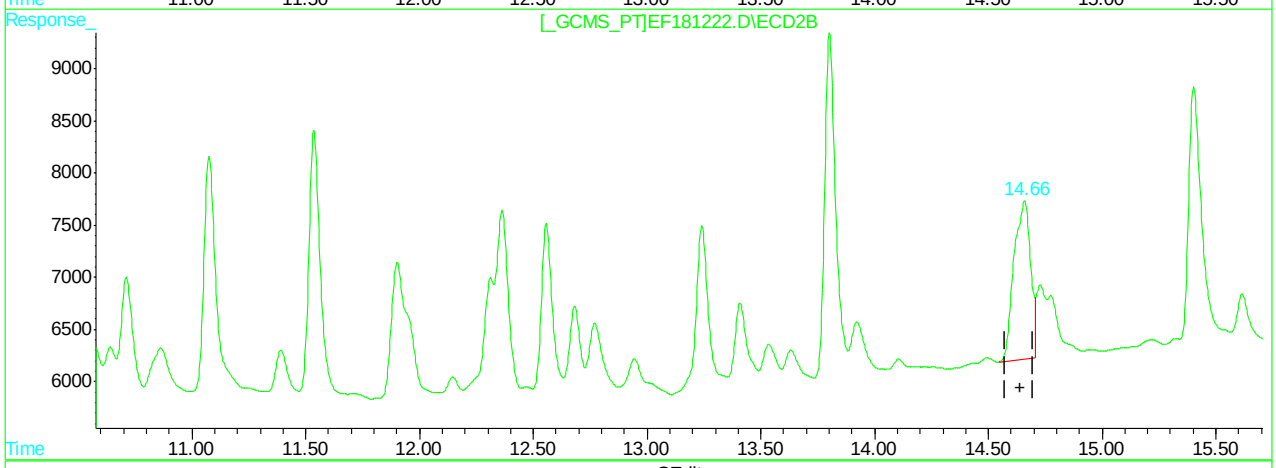
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:46:44 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 22.257PPB

response 34351

(50) AR1260-E #2

14.66min 40.937PPB

response 76373

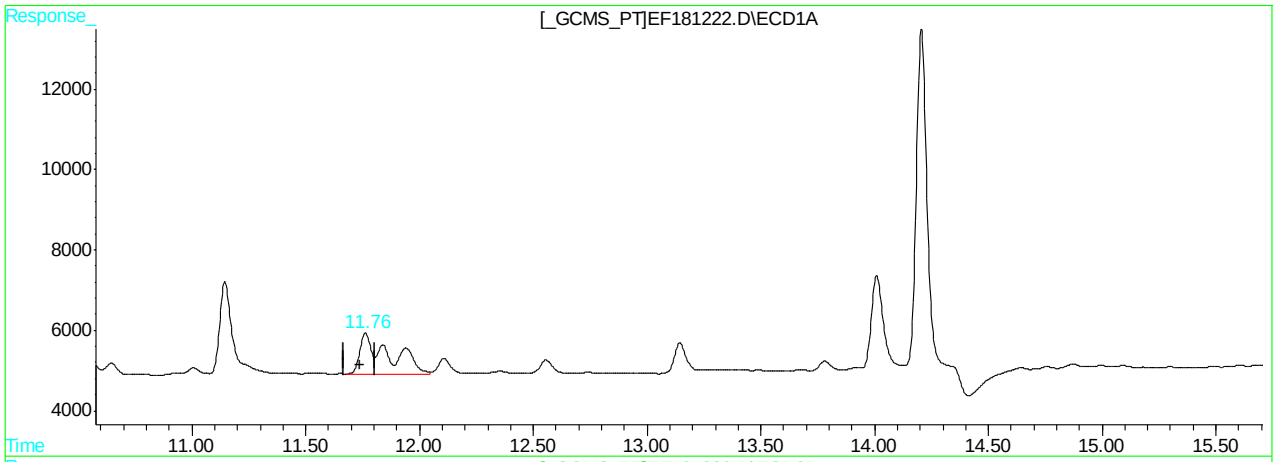
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:47:26 2018 GCEF

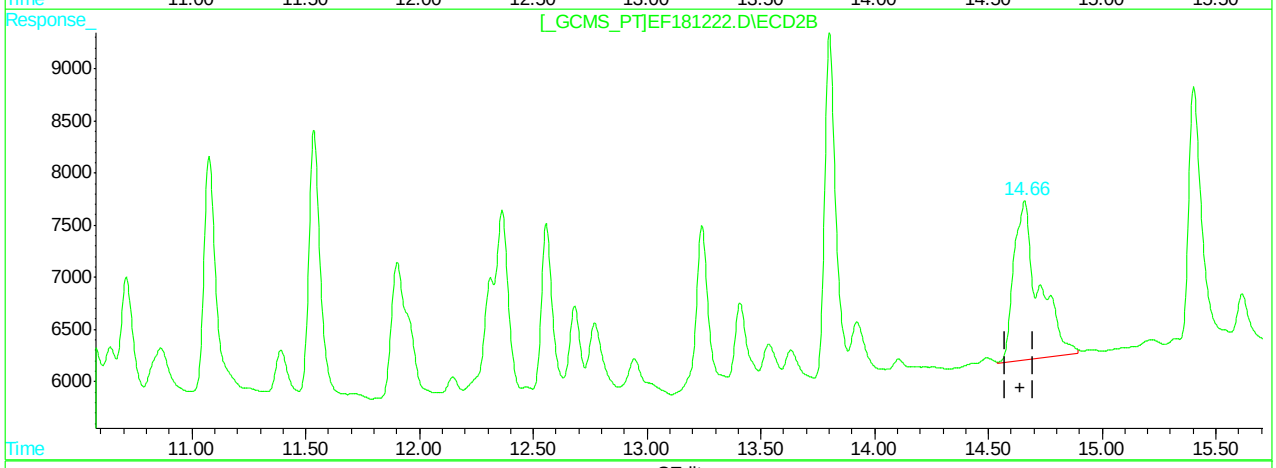
11.4.6.8 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 58.144PPB m

response 89737

(50) AR1260-E #2

14.66min 62.481PPB m

response 116566

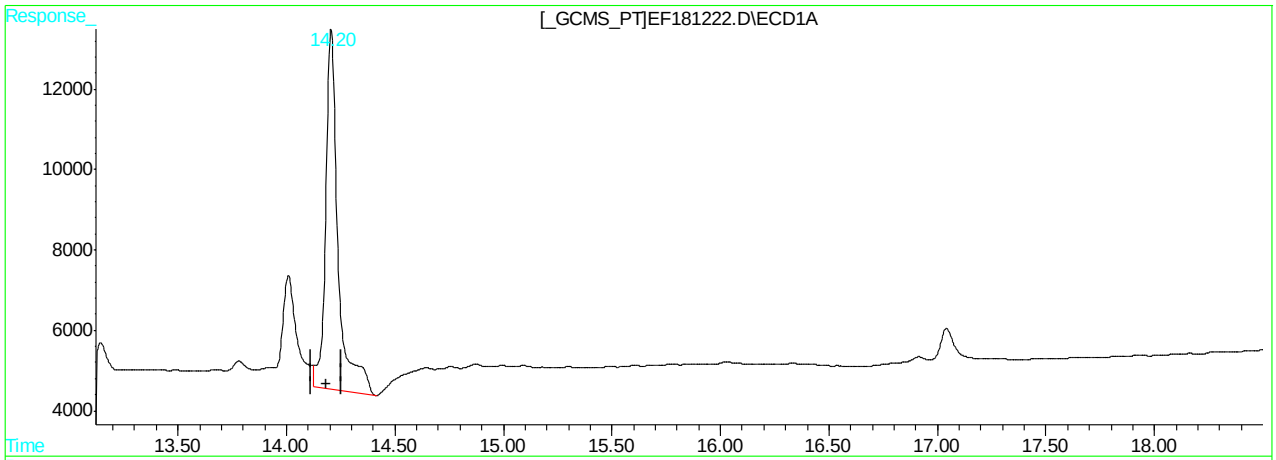
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:47:37 2018 GCEF

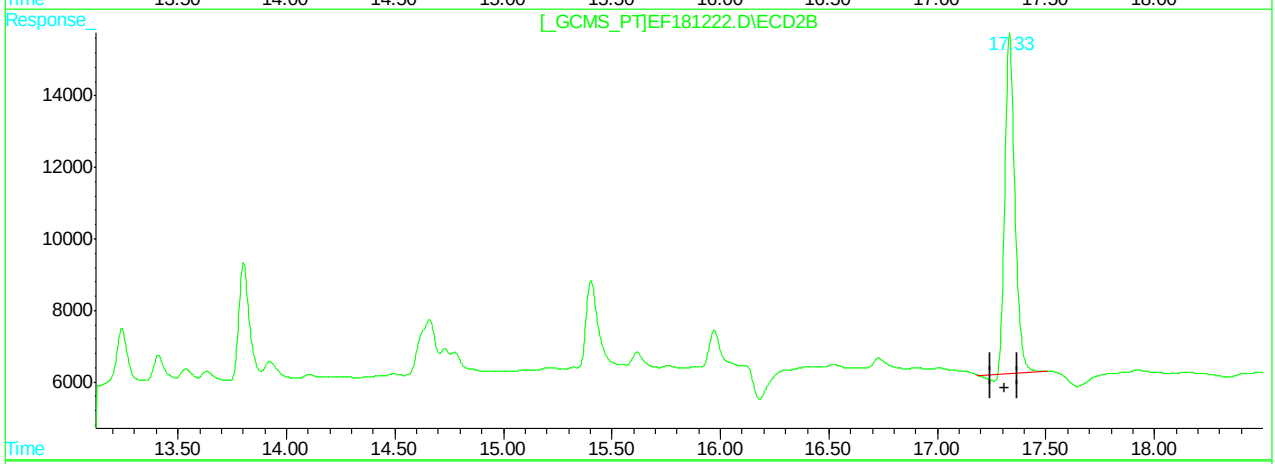
11.4.6.9 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.21min 20.917PPB

response 358023

(51) Decachlorobiphenyl #2 (S)

17.33min 14.314PPB

response 300509

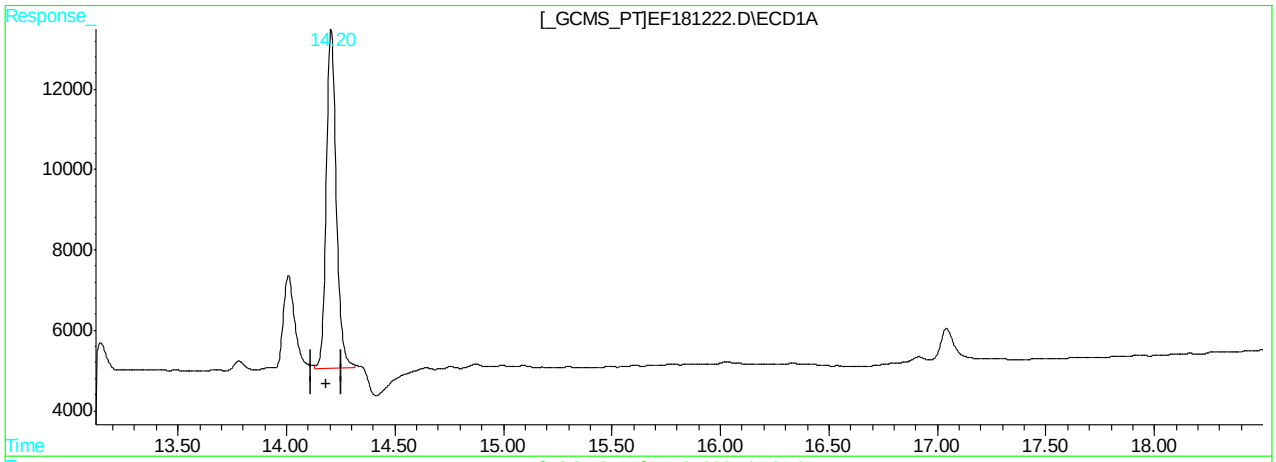
(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:47:41 2018 GCEF

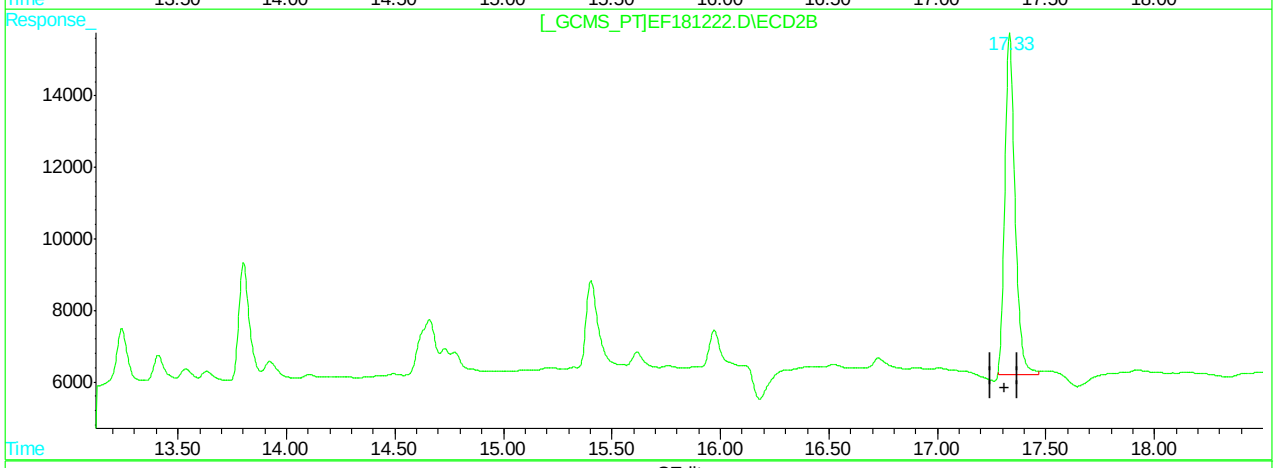
11.4.6.10 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD1A.CH Vial: 42
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181222.D\ECD2B.CH
Acq On : 28 Mar 2018 7:29 pm Operator: humarahb
Sample : op10884-msd Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.20min 15.794PPB m

response 270330

(51) Decachlorobiphenyl #2 (S)

17.33min 14.779PPB m

response 310257

(+) = Expected Retention Time
EF181222.D PCB6195.M Thu Mar 29 09:47:54 2018 GCEF

11.4.6.11 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD1A.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD2B.CH
Acq On : 28 Mar 2018 11:14 pm Operator: humarahb
Sample : op10884-ms2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:55 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.21	4.22	336683	451653	29.122	29.010
	Spiked Amount 40.000			Recovery =		72.80%	72.53%
51)	S Decachlorobiphen	14.19	17.32	430241	427068	25.136m	20.343m
	Spiked Amount 40.000			Recovery =		62.84%	50.86%
	Target Compounds						
41)	AR1016-A	3.76	5.17	72662	98643	229.352m	240.720
42)	AR1016-B	4.28f	5.99	103748	161194	188.149	200.149
43)	AR1016-C	5.11f	6.95f	217476	312386	177.145m	194.468
44)	AR1016-D	5.33f	7.24	93840	157376	197.094	229.142
45)	AR1016-E	6.06f	8.25	89142	95228	180.359	198.348
46)	AR1260-A	9.68	12.35	166707	225036	122.430	126.280
47)	AR1260-B	9.92	12.55	112266	134737	170.782	167.204
48)	AR1260-C	10.45	13.23	123069	135897	200.166	157.892
49)	AR1260-D	11.14	13.79	240123	283096	153.216	157.887
50)	AR1260-E	11.75	14.65	230607	265690	149.418m	142.414

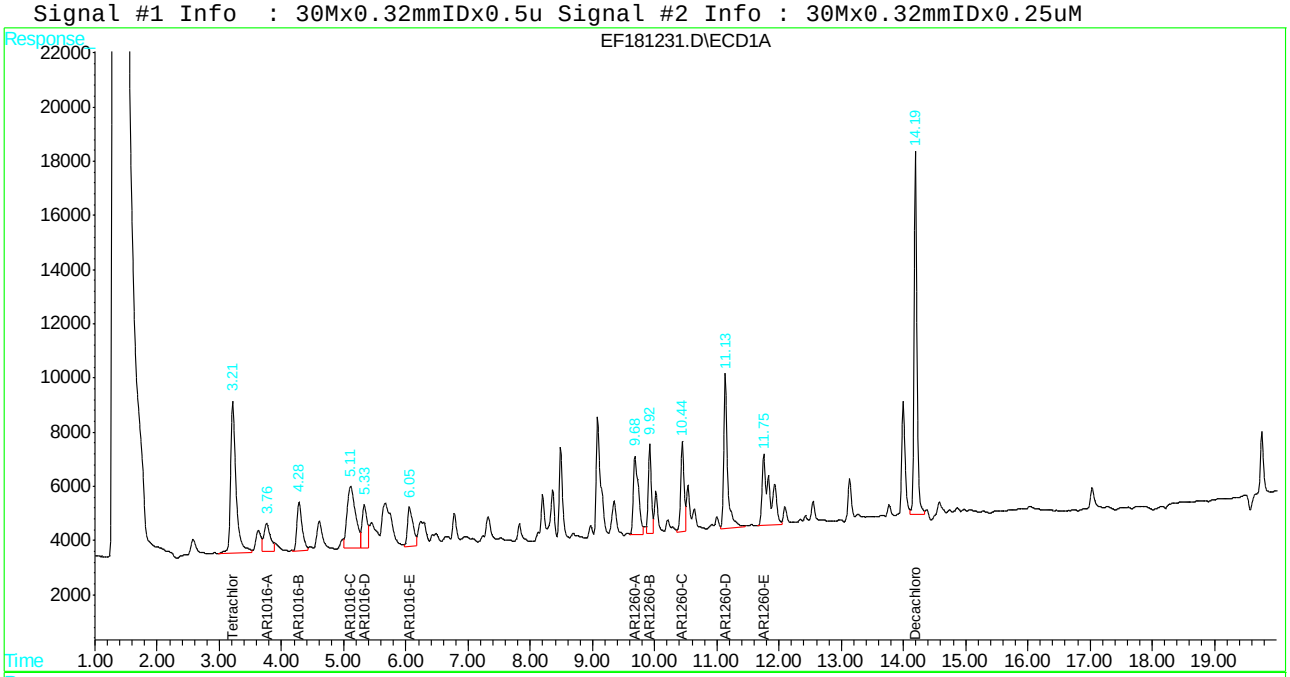
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

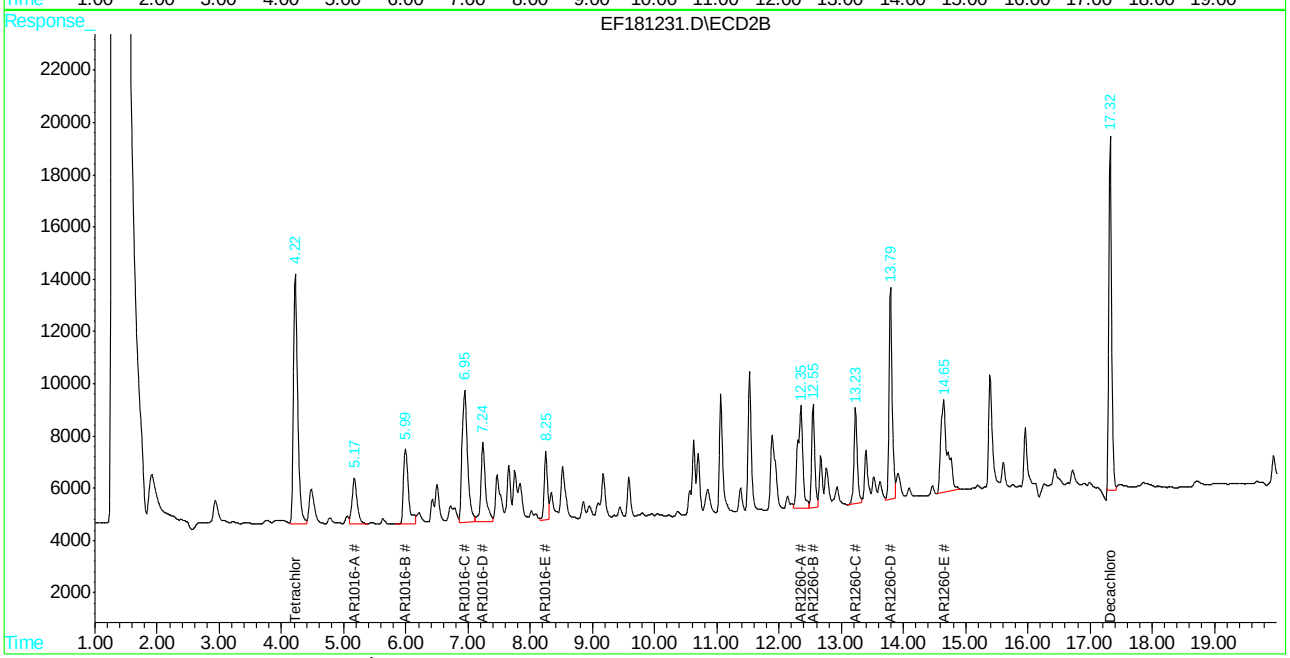
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD1A.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD2B.CH
Acq On : 28 Mar 2018 11:14 pm Operator: humarahb
Sample : op10884-ms2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:55 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62879

Manual Integration Approval Summary

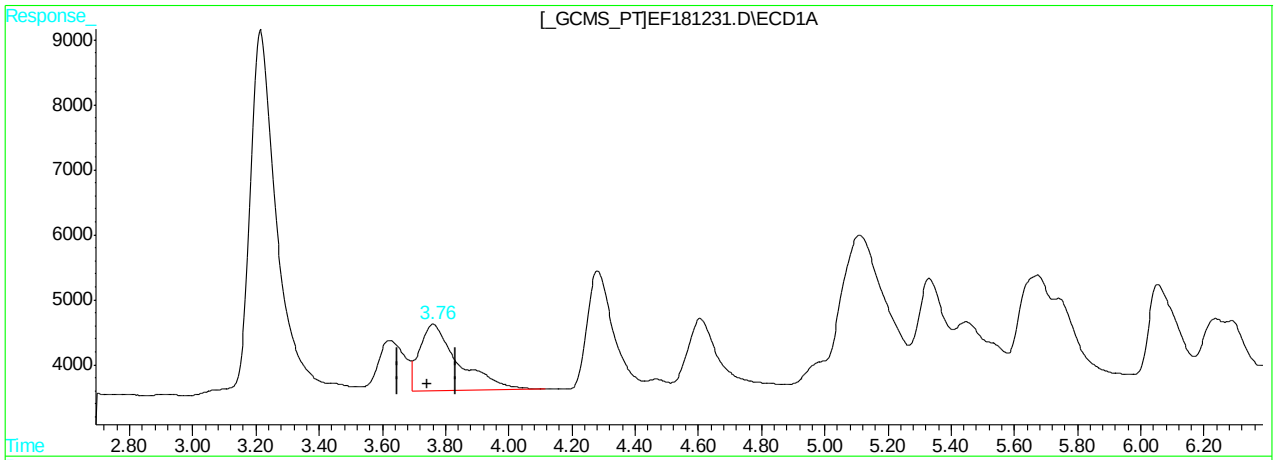
Sample Number:	OP10884-MS2	**Method:**	SW846 8082A
Lab FileID:	EF181231.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/28/18 23:14	**Supervisor approved:**	03/29/18 17:48 Gwendolyn Burns

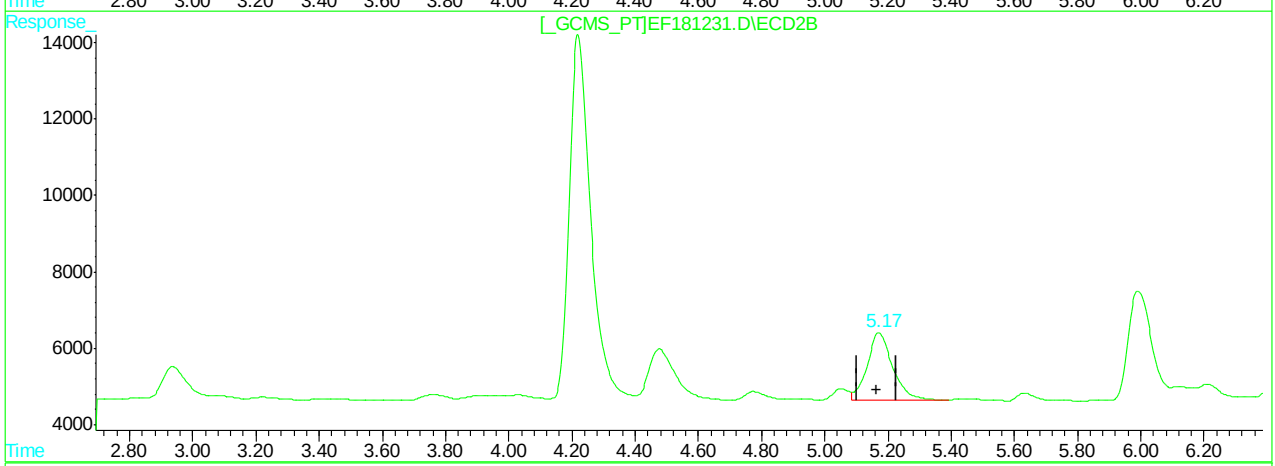
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		1	3.76	Split peak
AR1016-C		1	5.11	Split peak
AR1260-E		1	11.75	Split peak
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD1A.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD2B.CH
Acq On : 28 Mar 2018 11:14 pm Operator: humarahb
Sample : op10884-ms2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:53 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

3.76min 283.091PPB

response 89687

(41) AR1016-A #2

5.17min 240.720PPB

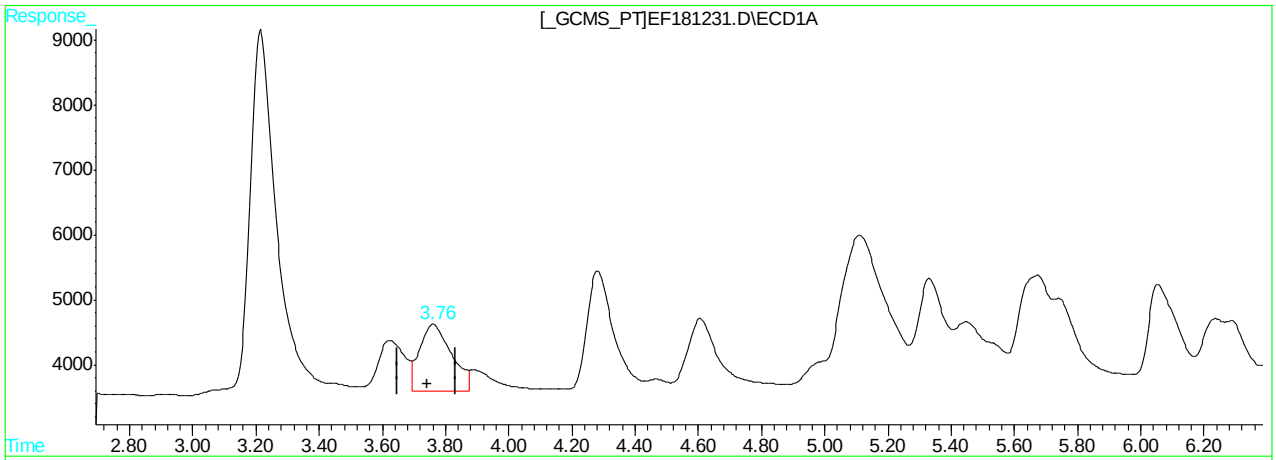
response 98643

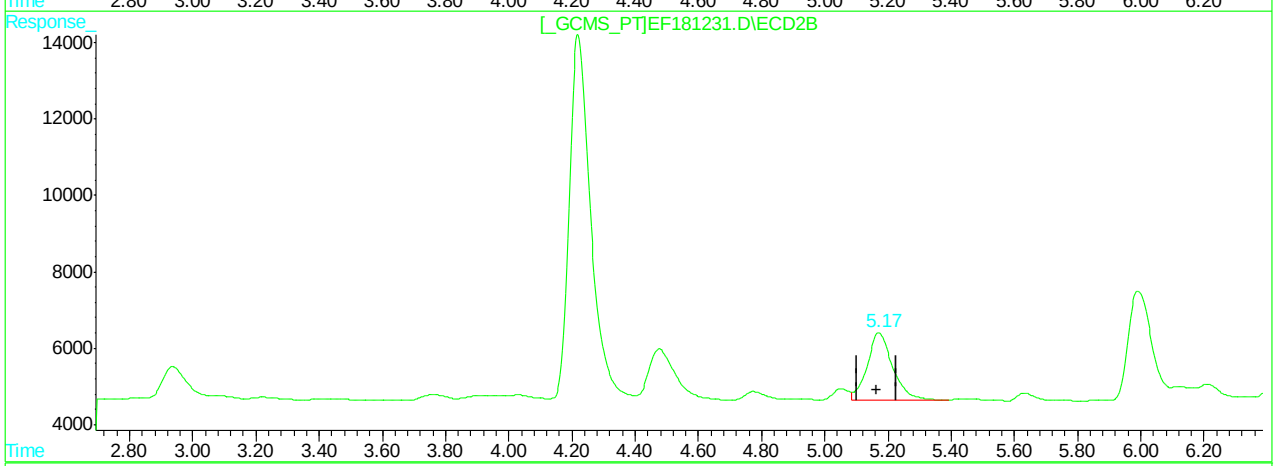
(+) = Expected Retention Time
EF181231.D PCB6195.M Thu Mar 29 09:54:00 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD1A.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD2B.CH
Acq On : 28 Mar 2018 11:14 pm Operator: humarahb
Sample : op10884-ms2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:53 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

3.76min 229.352PPB m

response 72662

(41) AR1016-A #2

5.17min 240.720PPB

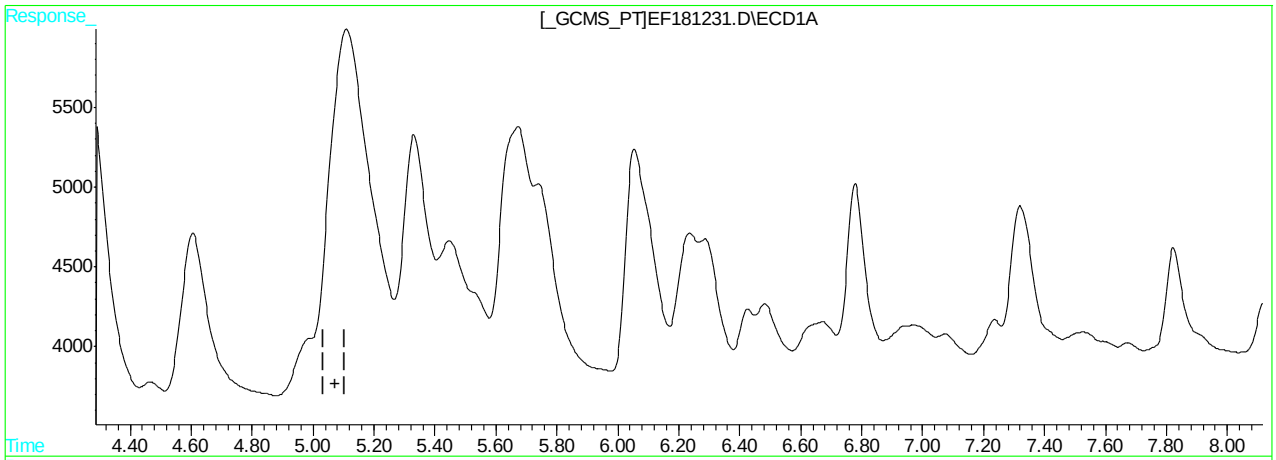
response 98643

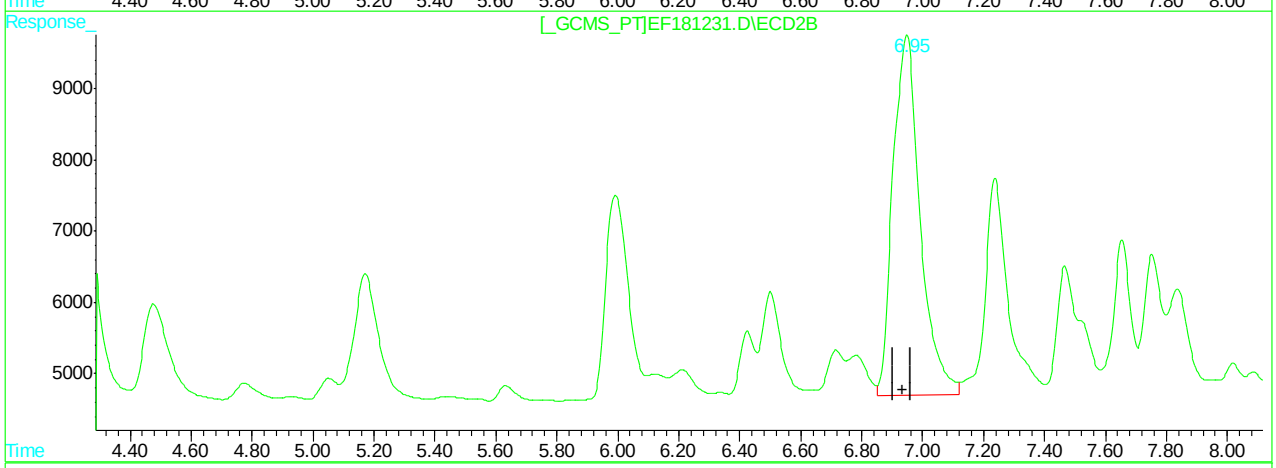
(+) = Expected Retention Time
EF181231.D PCB6195.M Thu Mar 29 09:54:05 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD1A.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD2B.CH
Acq On : 28 Mar 2018 11:14 pm Operator: humarahb
Sample : op10884-ms2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:53 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

0.00min 0.000PPB

response 0

(43) AR1016-C #2

6.95min 194.468PPB

response 312386

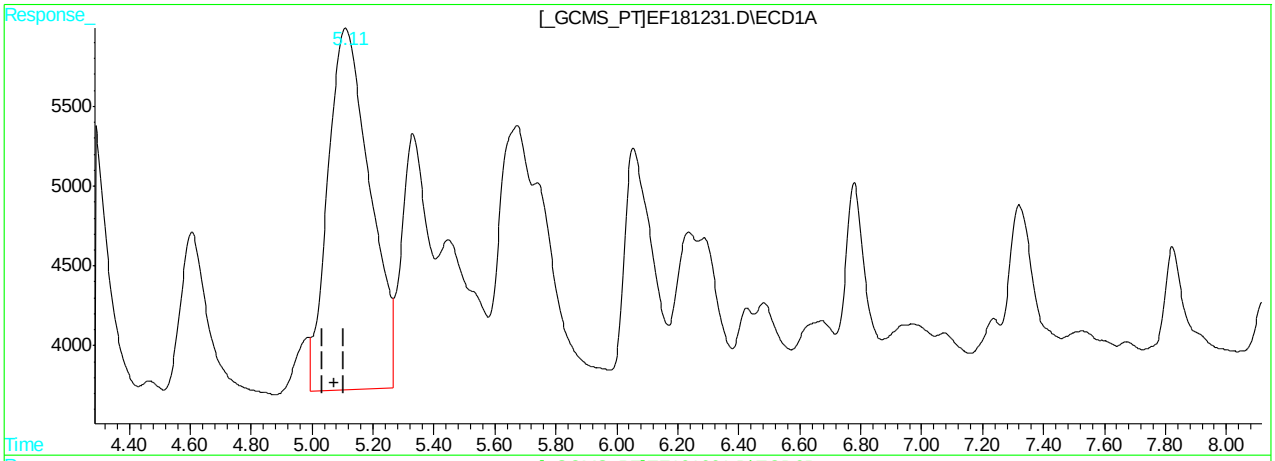
(+) = Expected Retention Time
EF181231.D PCB6195.M Thu Mar 29 09:54:14 2018 GCEF

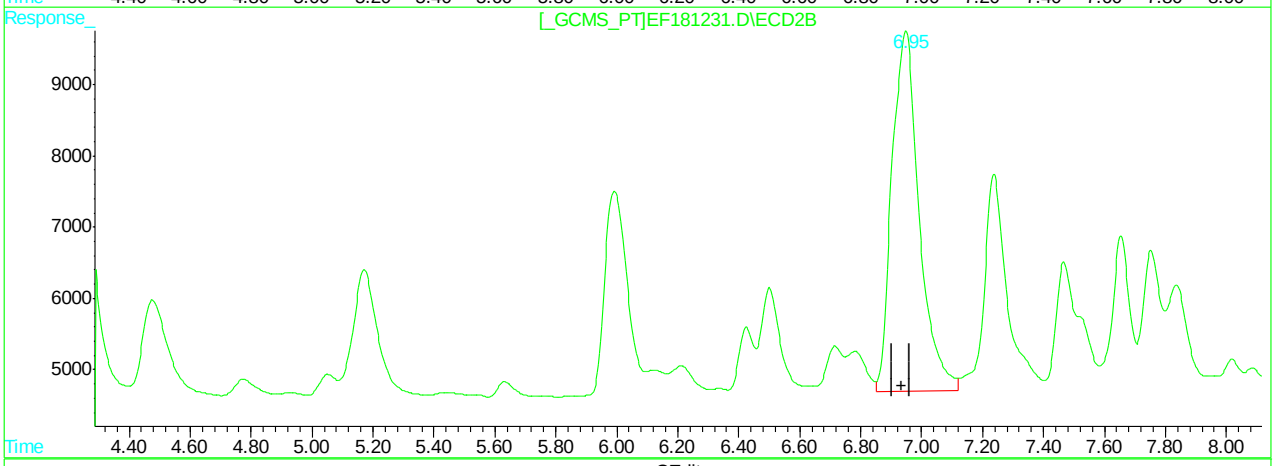
11.4.7.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD1A.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD2B.CH
Acq On : 28 Mar 2018 11:14 pm Operator: humarahb
Sample : op10884-ms2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:53 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.11min 177.145PPB m

response 217476

(43) AR1016-C #2

6.95min 194.468PPB

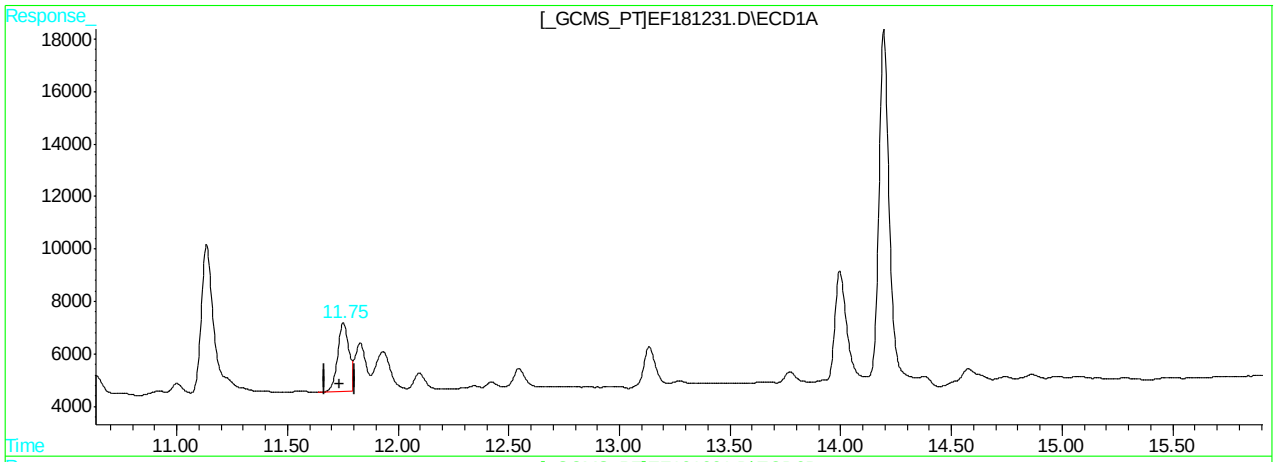
response 312386

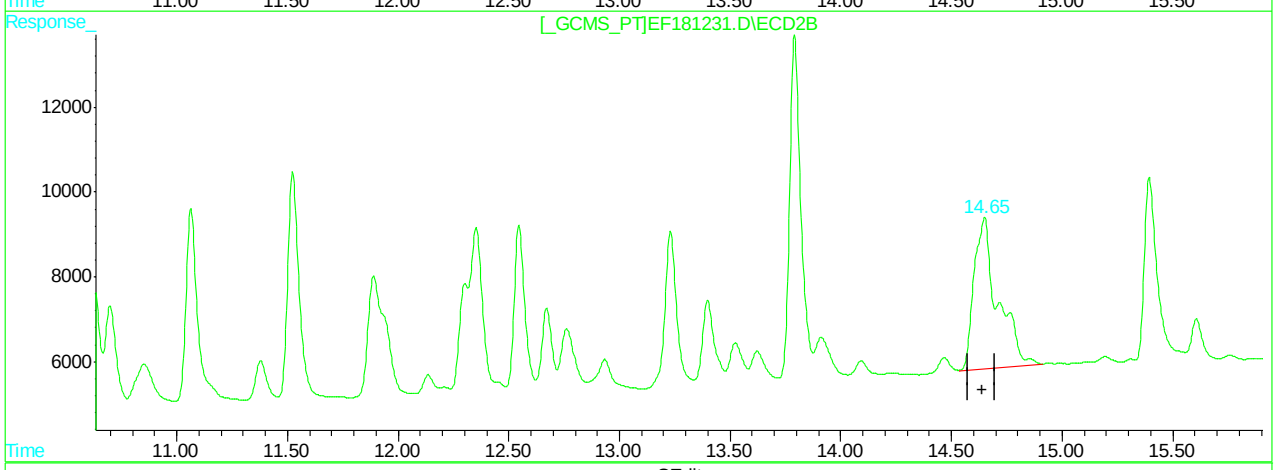
(+) = Expected Retention Time
EF181231.D PCB6195.M Thu Mar 29 09:54:29 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD1A.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD2B.CH
Acq On : 28 Mar 2018 11:14 pm Operator: humarahb
Sample : op10884-ms2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:53 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 60.835PPB

response 93890

(50) AR1260-E #2

14.65min 142.414PPB

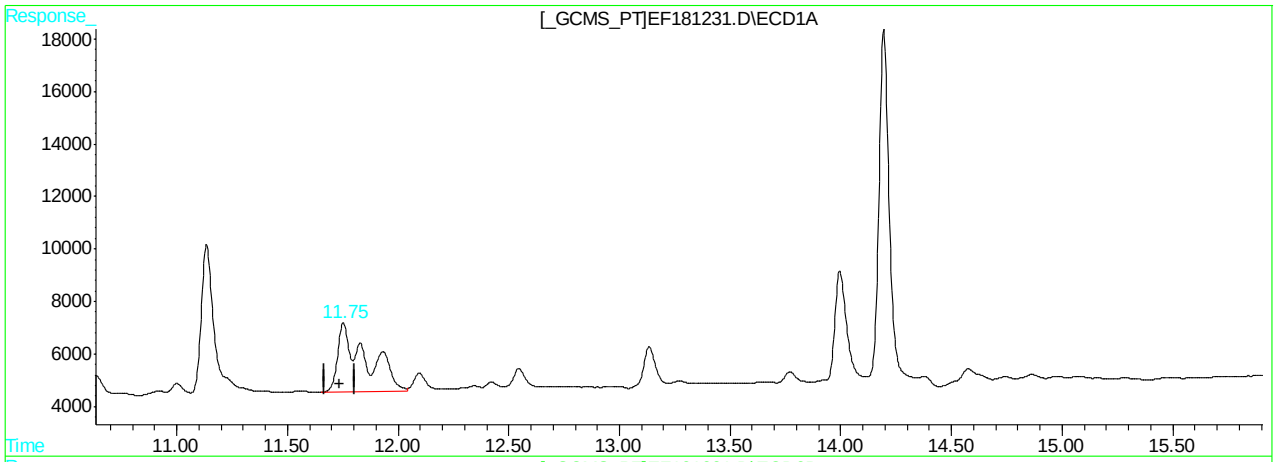
response 265690

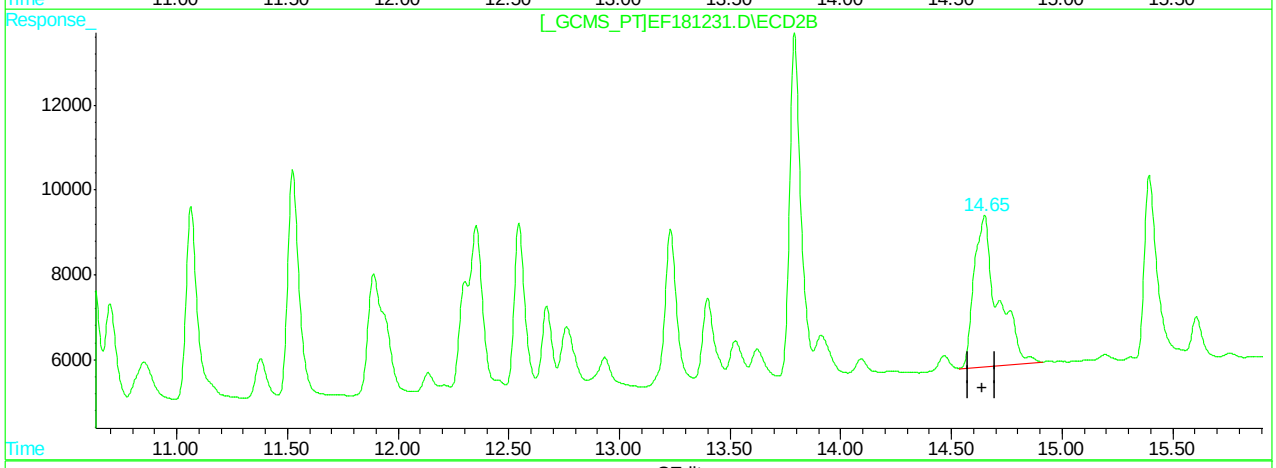
(+) = Expected Retention Time
EF181231.D PCB6195.M Thu Mar 29 09:54:38 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD1A.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD2B.CH
Acq On : 28 Mar 2018 11:14 pm Operator: humarahb
Sample : op10884-ms2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:53 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 149.418PPB m

response 230607

(50) AR1260-E #2

14.65min 142.414PPB

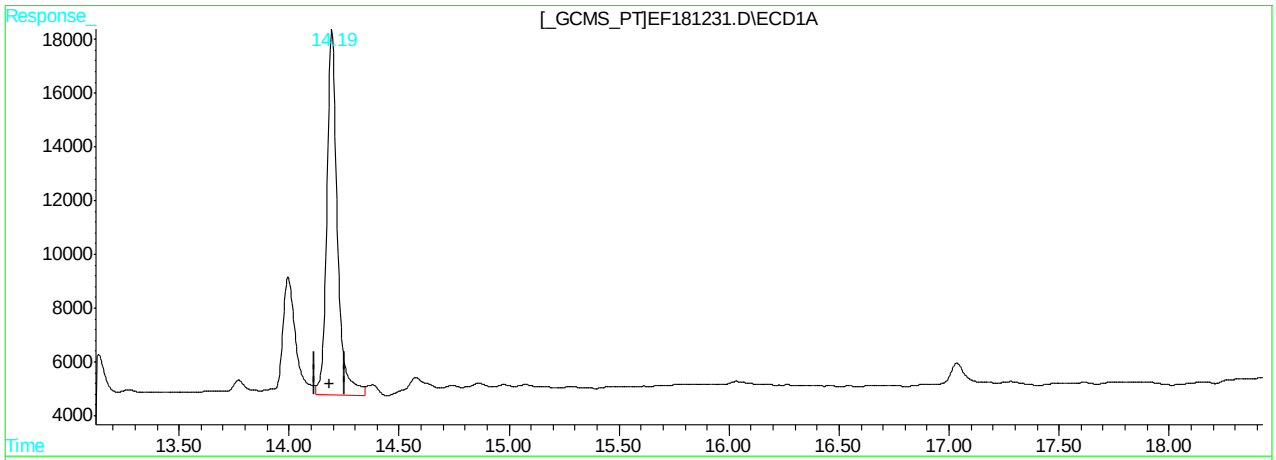
response 265690

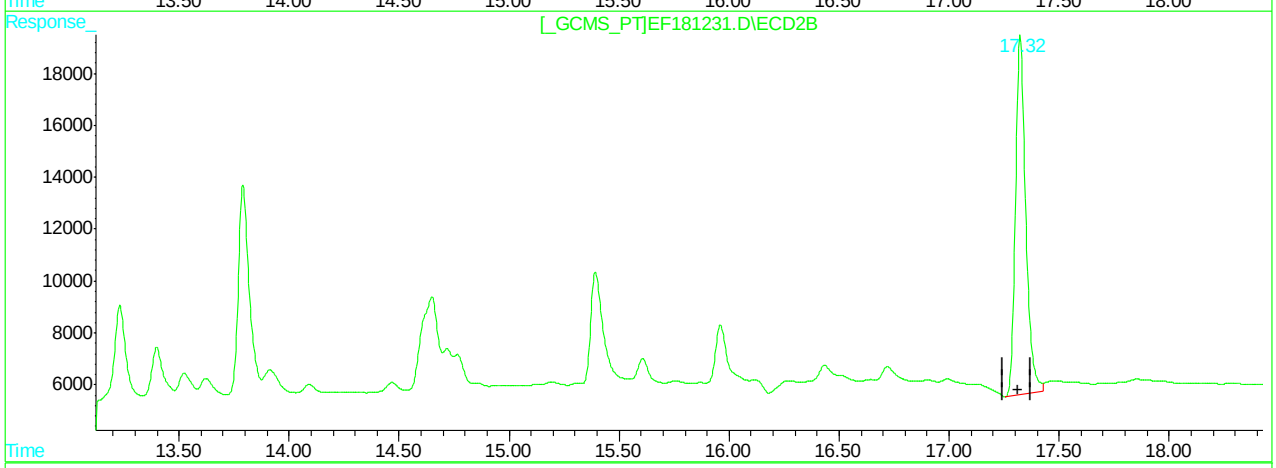
(+) = Expected Retention Time
EF181231.D PCB6195.M Thu Mar 29 09:54:43 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD1A.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD2B.CH
Acq On : 28 Mar 2018 11:14 pm Operator: humarahb
Sample : op10884-ms2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:53 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 26.479PPB

response 453212

(51) Decachlorobiphenyl #2 (S)

17.32min 21.634PPB

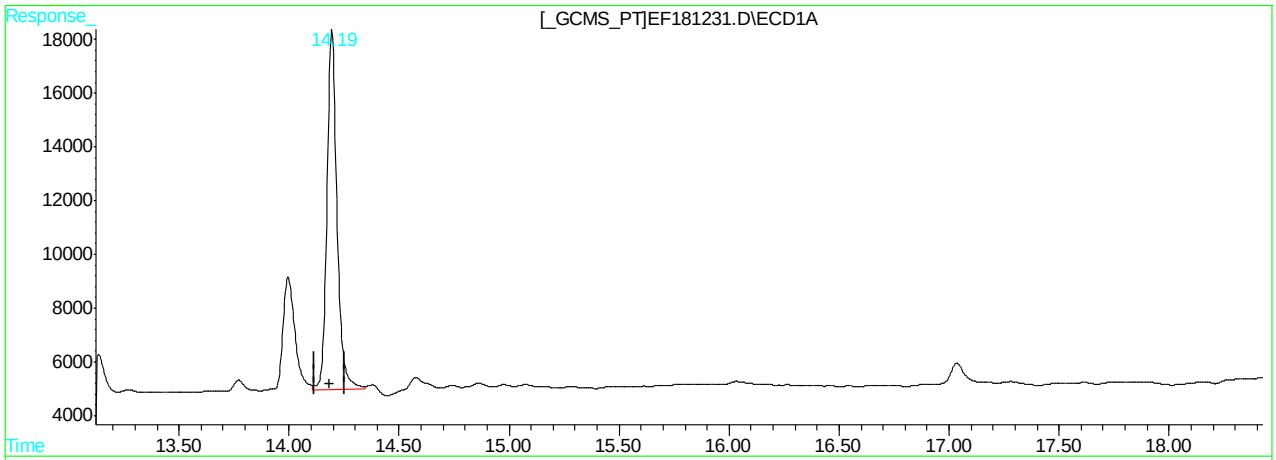
response 454172

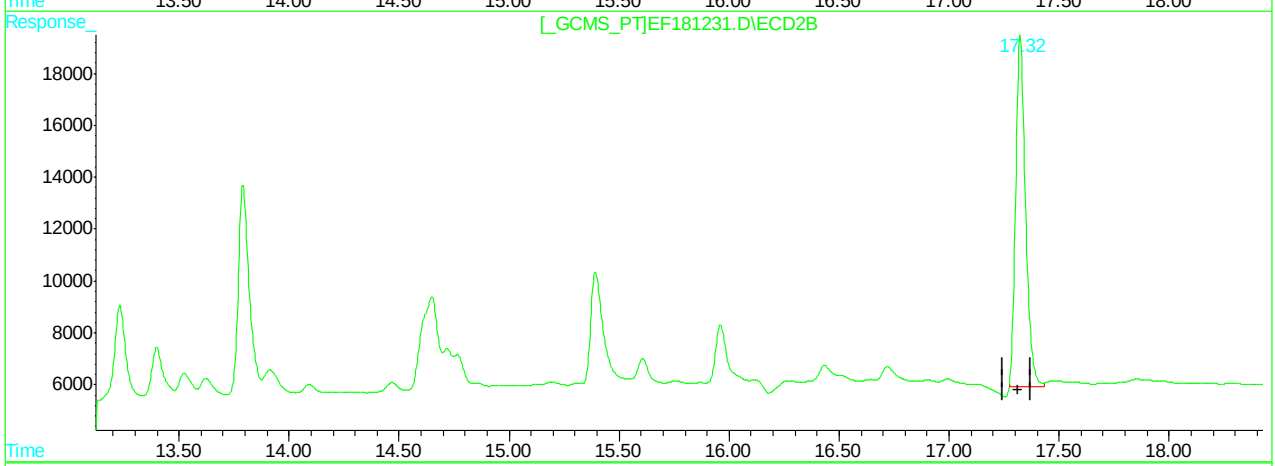
(+) = Expected Retention Time
EF181231.D PCB6195.M Thu Mar 29 09:54:47 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD1A.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181231.D\ECD2B.CH
Acq On : 28 Mar 2018 11:14 pm Operator: humarahb
Sample : op10884-ms2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:53 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 25.136PPB m

response 430241

(51) Decachlorobiphenyl #2 (S)

17.32min 20.343PPB m

response 427068

(+) = Expected Retention Time
EF181231.D PCB6195.M Thu Mar 29 09:55:03 2018 GCEF

11.4.7.9 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 17:48

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD1A.CH Vial: 49
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD2B.CH
Acq On : 28 Mar 2018 11:39 pm Operator: humarahb
Sample : op10884-msd2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:56 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.22	4.22	391824	539915	33.892	34.679
	Spiked Amount 40.000			Recovery =		84.73%	86.70%
51)	S Decachlorobiphen	14.20	17.33	439124	465125	25.655	22.156m
	Spiked Amount 40.000			Recovery =		64.14%	55.39%
	Target Compounds						
41)	AR1016-A	3.76	5.18	75252	106341	237.527	259.507
42)	AR1016-B	4.29f	6.00f	116127	167346	210.596	207.787
43)	AR1016-C	5.12f	6.96f	234490	342597	191.004m	213.276
44)	AR1016-D	5.34f	7.24f	101677	173954	213.554	253.279
45)	AR1016-E	6.06f	8.26f	94488	100222	191.175	208.749
46)	AR1260-A	9.69	12.36	156342	210372	114.819	118.051
47)	AR1260-B	9.93	12.55	109454	125140	166.504	155.294
48)	AR1260-C	10.46	13.24	103933	125396	169.042	145.691
49)	AR1260-D	11.14	13.80	223716	266922	142.747	148.866
50)	AR1260-E	11.76	14.66	220122	253014	142.624m	135.619m

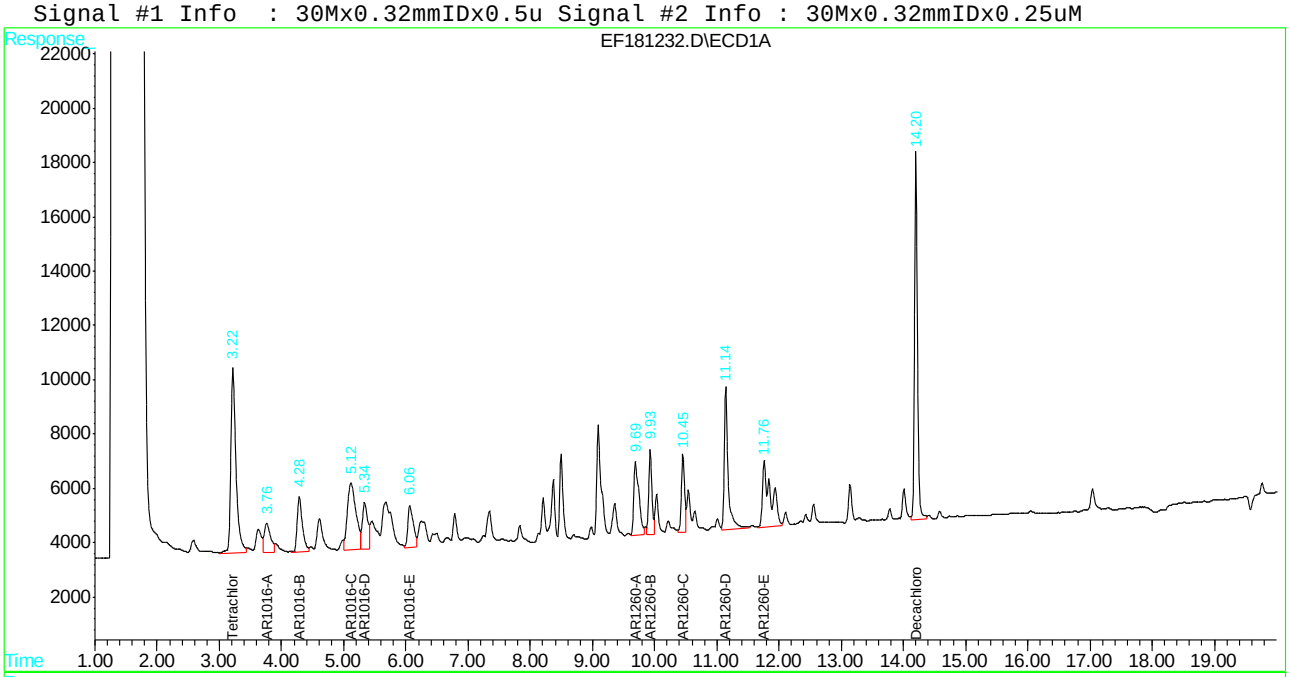
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181232.D PCB6195.M Thu Mar 29 09:56:27 2018 GCEF Page 1

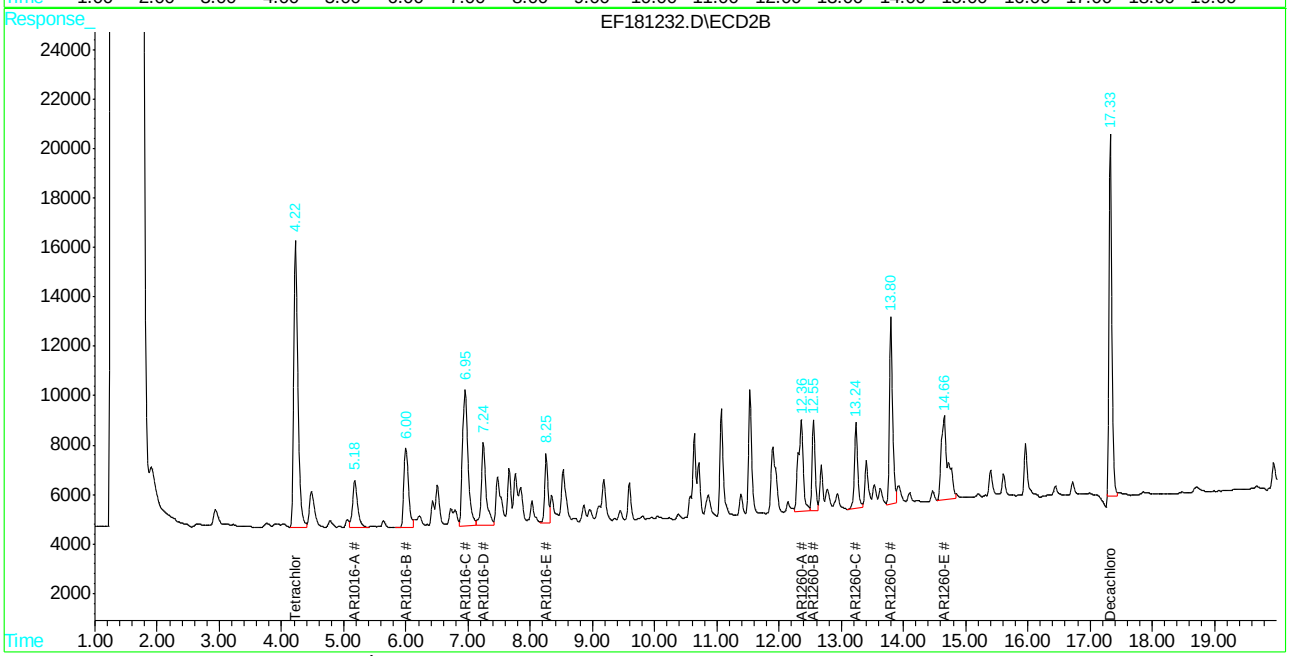
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD1A.CH Vial: 49
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD2B.CH
Acq On : 28 Mar 2018 11:39 pm Operator: humarahb
Sample : op10884-msd2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:56 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

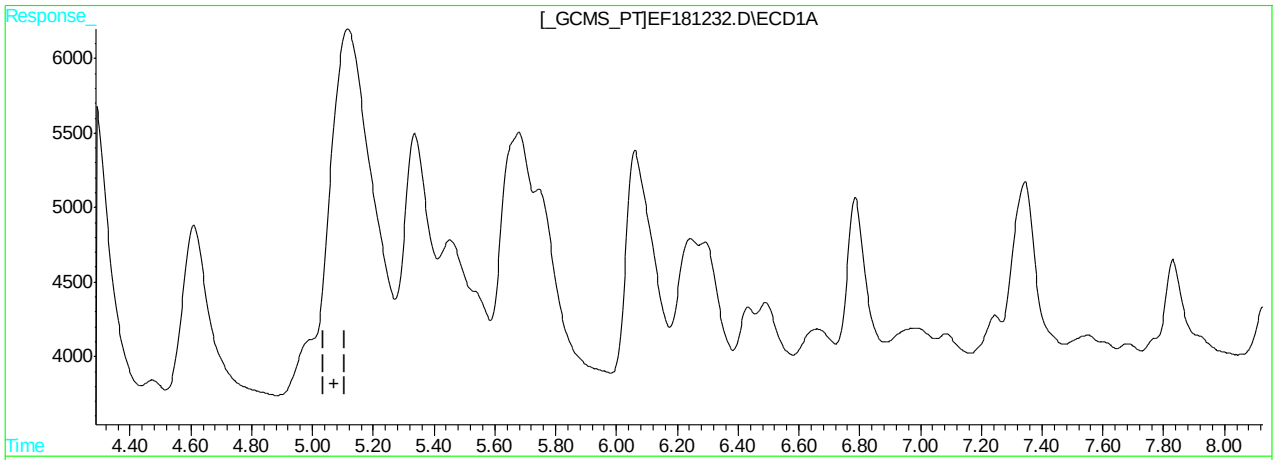
Sample Number:	OP10884-MSD2	**Method:**	SW846 8082A
Lab FileID:	EF181232.D	**Analyst approved:**	03/29/18 11:01 Tianwei Ruan
Injection Time:	03/28/18 23:39	**Supervisor approved:**	03/29/18 17:48 Gwendolyn Burns

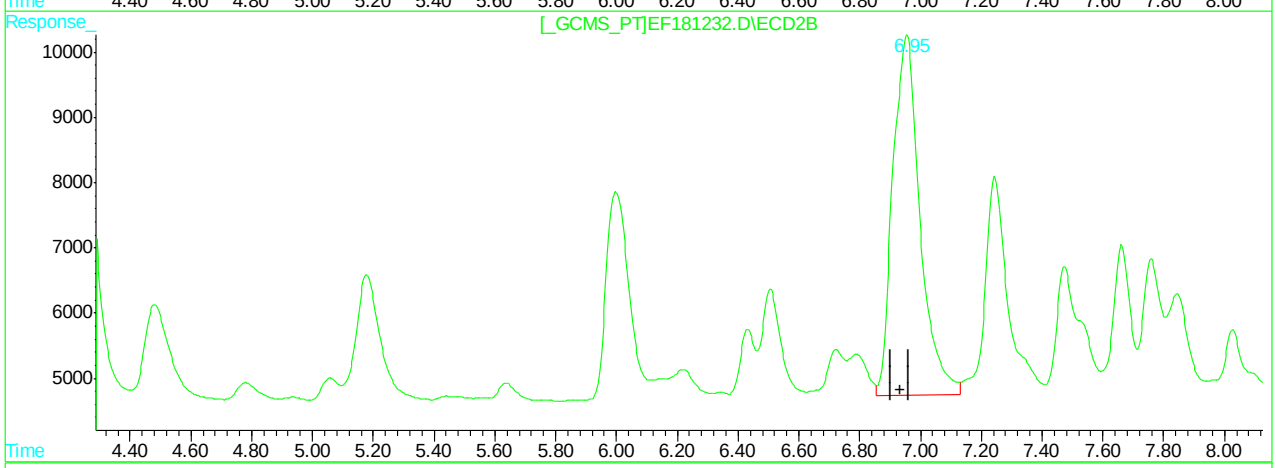
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		1	5.12	Split peak
AR1260-E		1	11.76	Split peak
AR1260-E		2	14.66	Split peak
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD1A.CH Vial: 49
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD2B.CH
Acq On : 28 Mar 2018 11:39 pm Operator: humarahb
Sample : op10884-msd2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:55 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

0.00min 0.000PPB

response 0

(43) AR1016-C #2

6.96min 213.276PPB

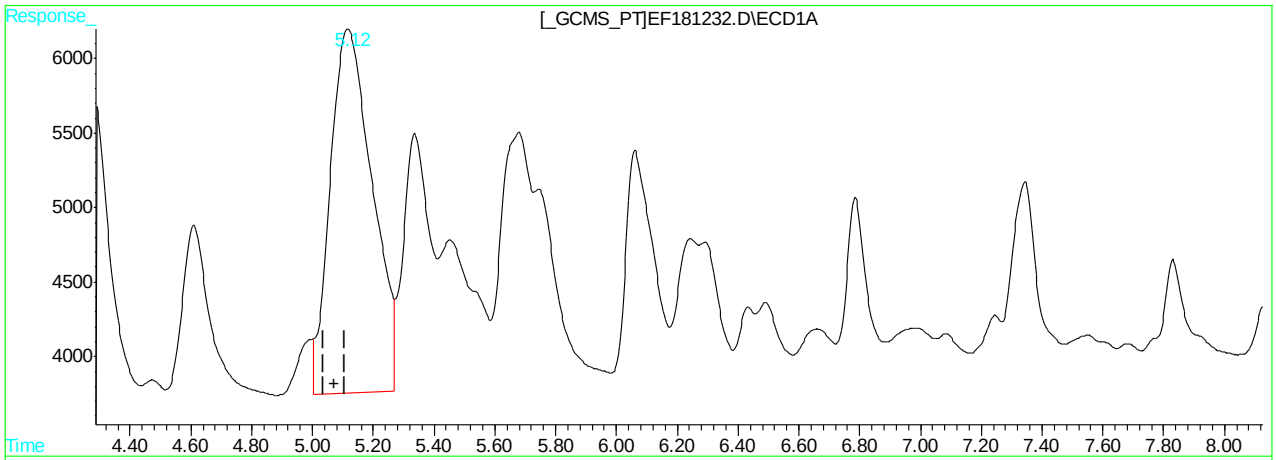
response 342597

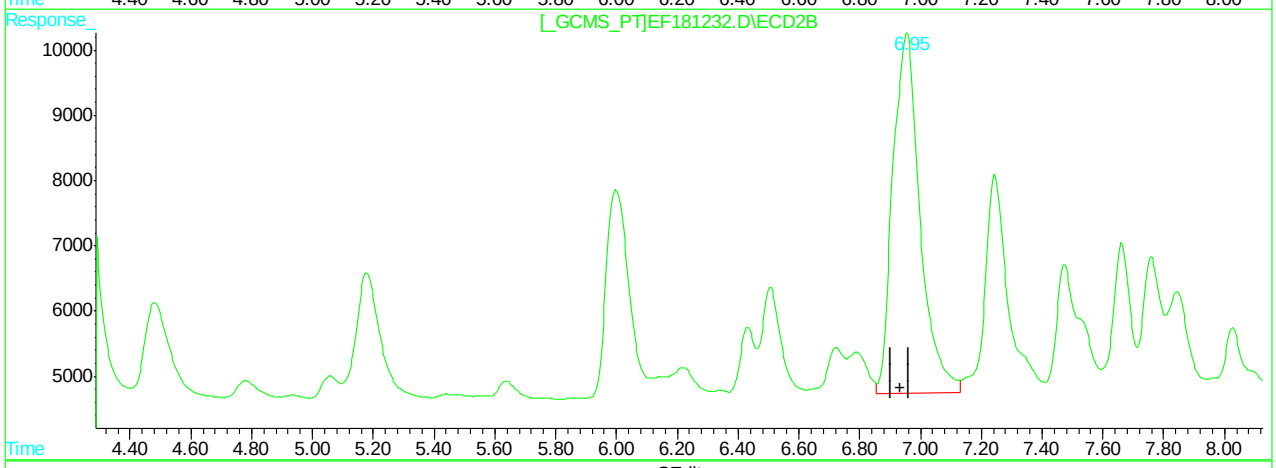
(+) = Expected Retention Time
EF181232.D PCB6195.M Thu Mar 29 09:55:35 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD1A.CH Vial: 49
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD2B.CH
Acq On : 28 Mar 2018 11:39 pm Operator: humarahb
Sample : op10884-msd2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:55 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.12min 191.004PPB m

response 234490

(43) AR1016-C #2

6.96min 213.276PPB

response 342597

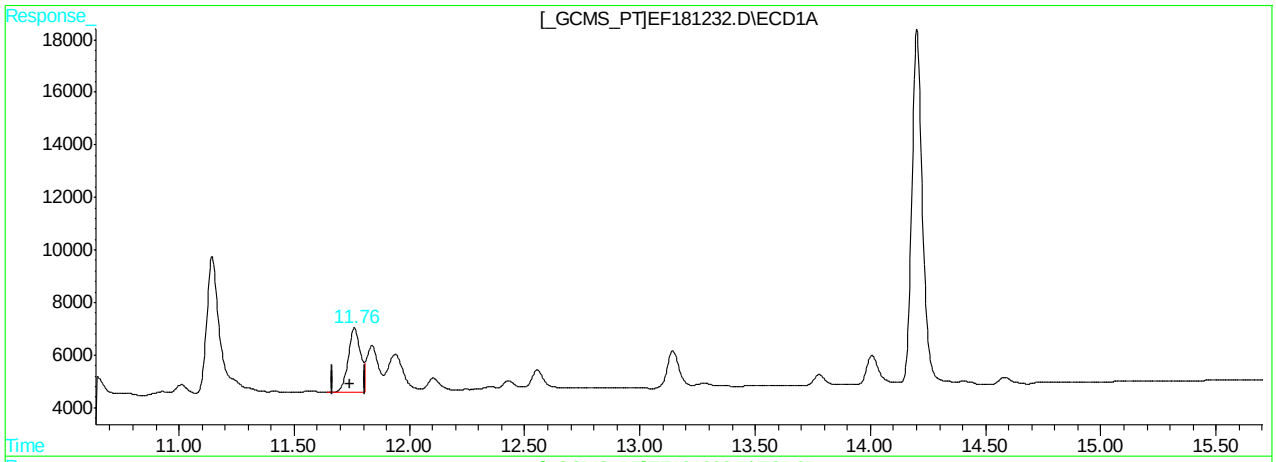
(+) = Expected Retention Time
EF181232.D PCB6195.M Thu Mar 29 09:55:51 2018 GCEF

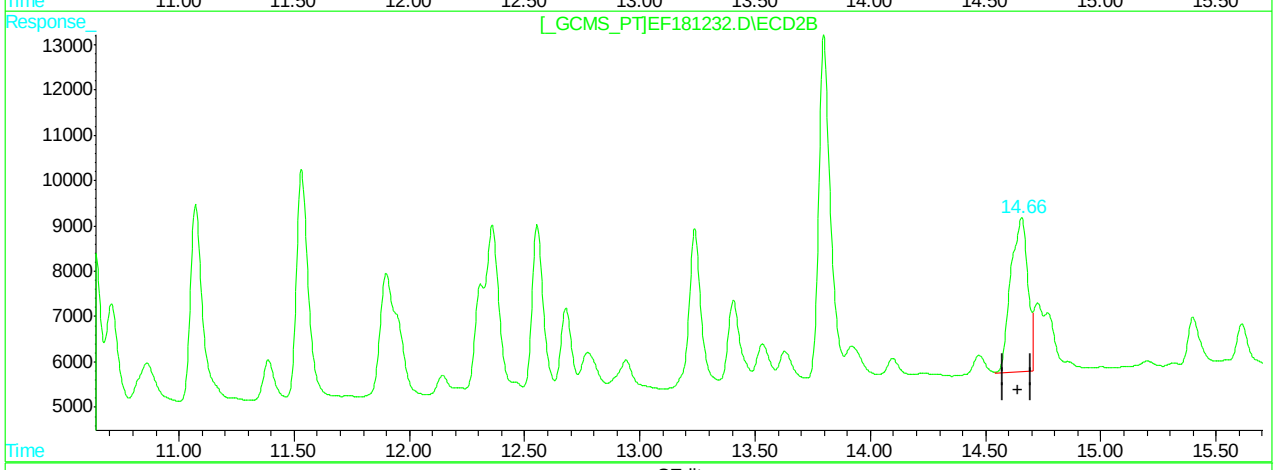
11.4.8.3 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD1A.CH Vial: 49
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD2B.CH
Acq On : 28 Mar 2018 11:39 pm Operator: humarahb
Sample : op10884-msd2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:55 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 57.997PPB

response 89511

(50) AR1260-E #2

14.66min 92.819PPB

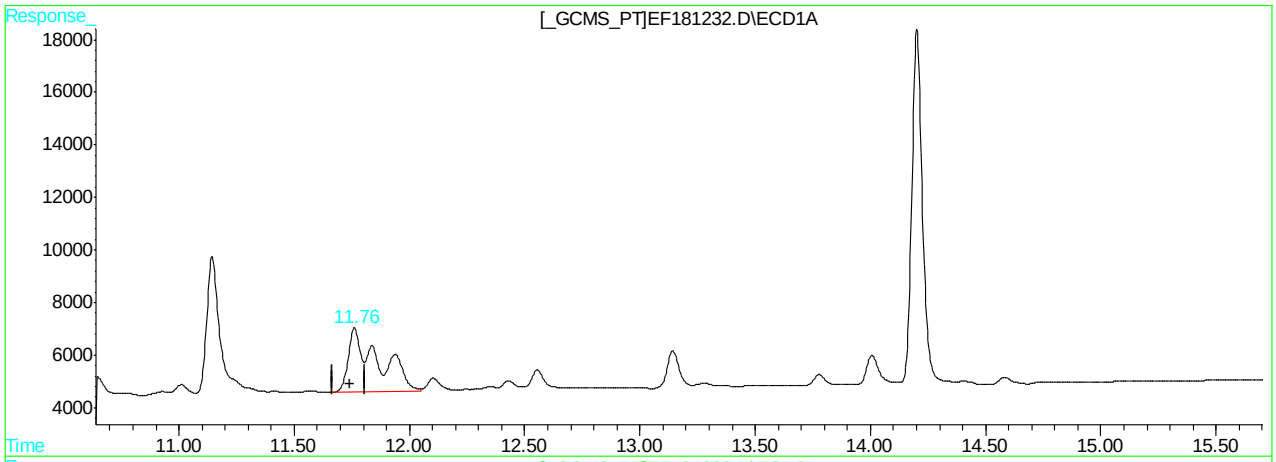
response 173165

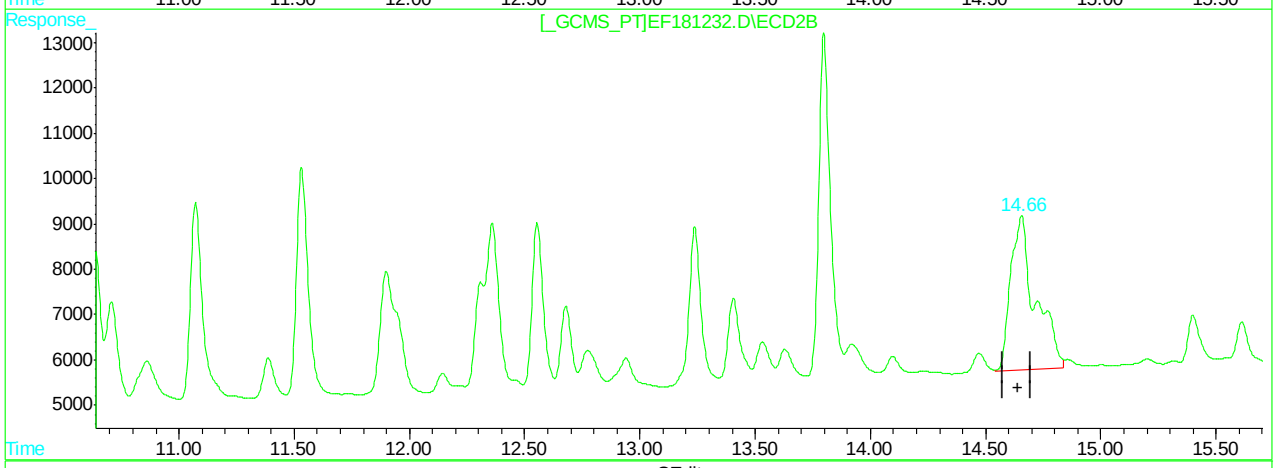
(+) = Expected Retention Time
EF181232.D PCB6195.M Thu Mar 29 09:56:01 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD1A.CH Vial: 49
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD2B.CH
Acq On : 28 Mar 2018 11:39 pm Operator: humarahb
Sample : op10884-msd2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:55 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 142.624PPB m

response 220122

(50) AR1260-E #2

14.66min 135.619PPB m

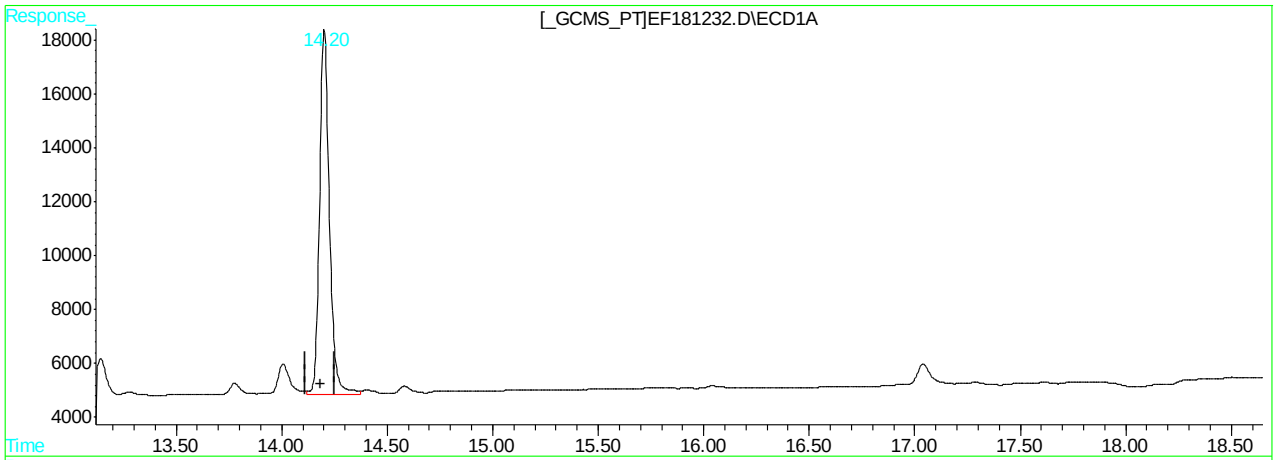
response 253014

(+) = Expected Retention Time
EF181232.D PCB6195.M Thu Mar 29 09:56:11 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD1A.CH Vial: 49
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD2B.CH
Acq On : 28 Mar 2018 11:39 pm Operator: humarahb
Sample : op10884-msd2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:55 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.20min 25.655PPB

response 439124

(51) Decachlorobiphenyl #2 (S)

17.33min 23.572PPB

response 494864

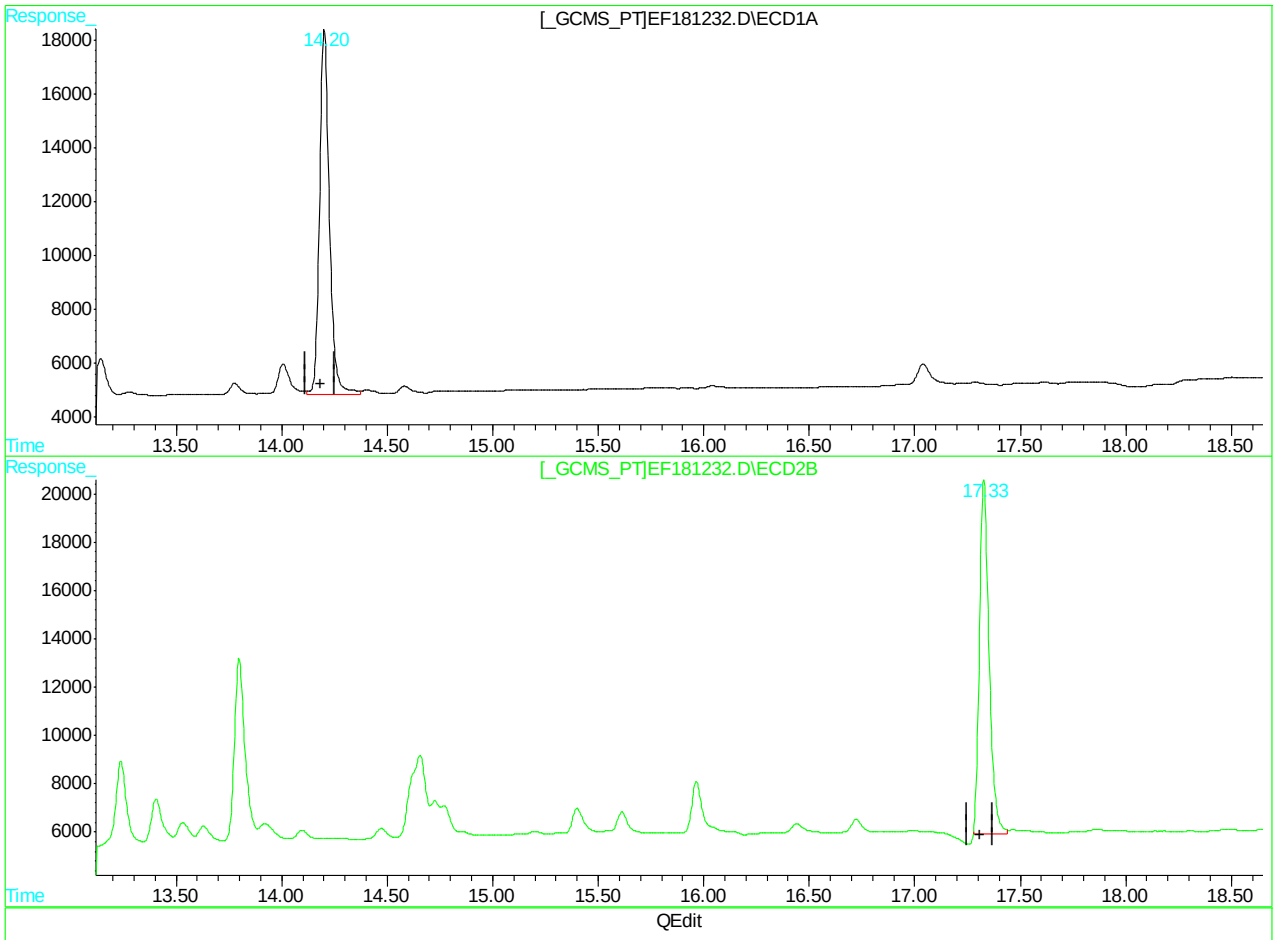
(+) = Expected Retention Time
EF181232.D PCB6195.M Thu Mar 29 09:56:15 2018 GCEF

11.4.8.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD1A.CH Vial: 49
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181232.D\ECD2B.CH
Acq On : 28 Mar 2018 11:39 pm Operator: humarahb
Sample : op10884-msd2 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 9:55 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.20min 25.655PPB

response 439124

(51) Decachlorobiphenyl #2 (S)

17.33min 22.156PPB m

response 465125

(+) = Expected Retention Time
EF181232.D PCB6195.M Thu Mar 29 09:56:21 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:04 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4553.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2-nitrob	2.17	2.46	419.6E6	98846287	50.000	50.000
27)	I 1-bromo-2-nitrob	2.17	2.46	419.6E6	98846287	50.000	50.000
33)	I 1-bromo-2-nitrob	2.17	2.46	419.6E6	98846287	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachloro-m-xy	2.79	3.36	378.2E6	87917680	44.509	44.046
	Spiked Amount 40.000	Range 30 - 150		Recovery =		111.27%	110.12%
26)	SA Decachlorobiphen	10.15	12.07	307.2E6	69607144	38.959	46.197
	Spiked Amount 40.000			Recovery =		97.40%	115.49%
	Target Compounds						
15)	B 4,4'-DDE	5.65	7.32	11036658	3279560	1.326m	1.553
17)	MA Endrin	6.41	8.17	394.5E6	95115906	45.266	46.823
18)	A 4,4'-DDD	6.51	8.31	12494289	5407524	1.788m	3.146
20)	MA 4,4'-DDT	6.94	8.86	654.4E6	133.6E6	111.208	108.010
21)	B Endrin Aldehyde	7.37	9.12	2254334	571873	0.304m	0.363m
25)	B Endrin Ketone	8.53	10.34	2509313	826010	0.325m	0.475m

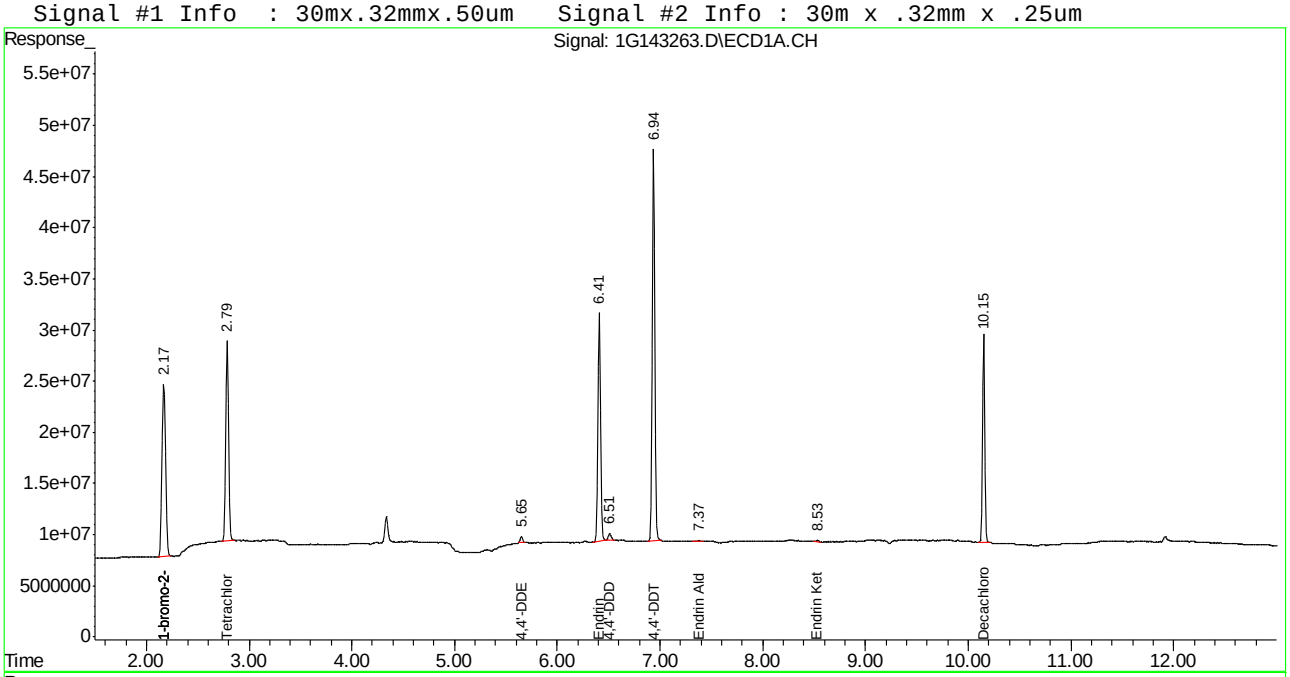
(f)=RT Delta > 1/2 Window (m)=manual int.

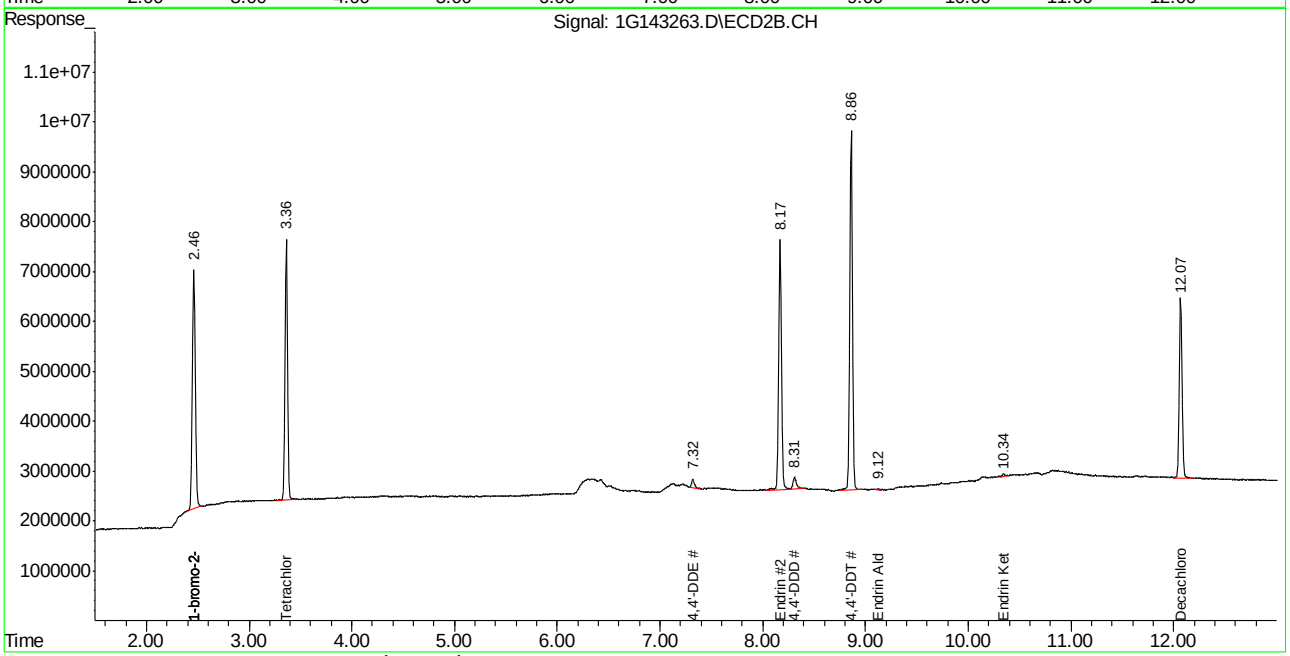
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:04 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4553.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

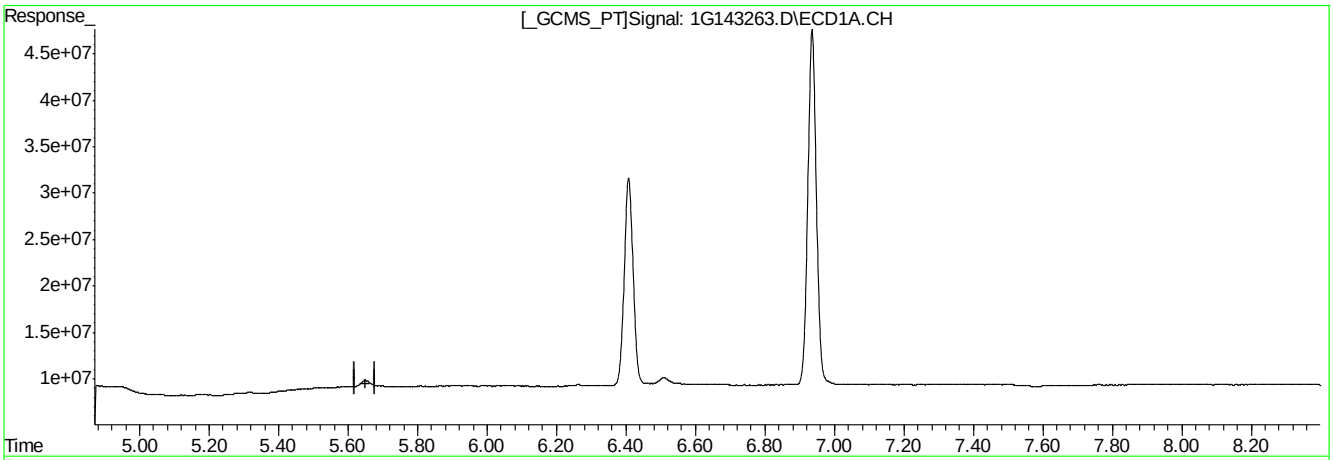
Sample Number: G1G4557-DDT
Lab FileID: 1G143263.D
Injection Time: 02/08/18 09:19
Method: SW846 8081B
Analyst approved: 02/08/18 14:13 Kristen Drake
Supervisor approved: 02/09/18 10:15 Gwendolyn Burns

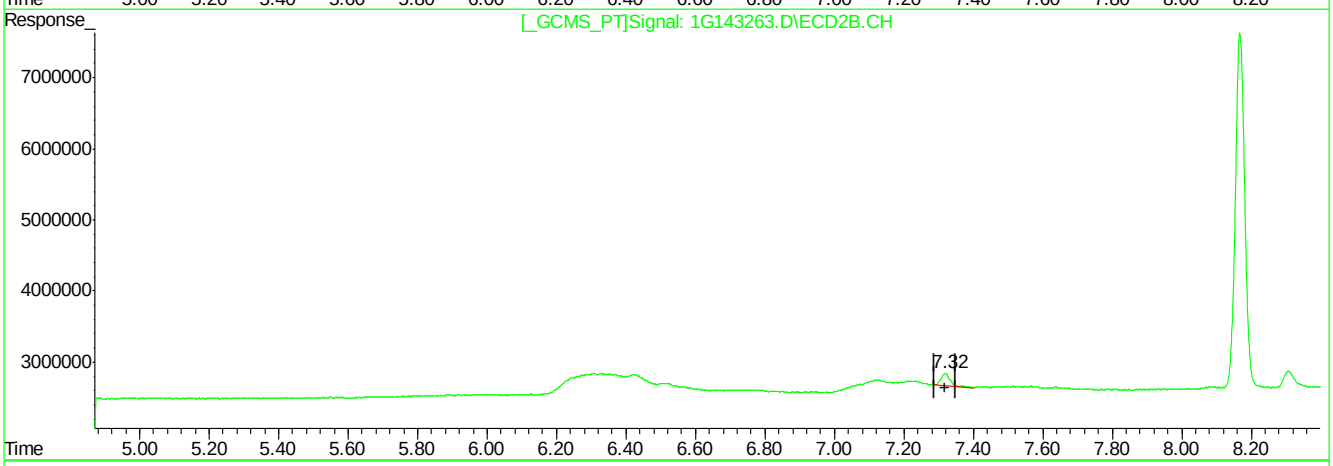
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	5.65	Poorly defined baseline
4,4'-DDD	72-54-8	1	6.51	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	7.37	Poorly defined baseline
Endrin ketone	53494-70-5	1	8.53	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	9.12	Poorly defined baseline
Endrin ketone	53494-70-5	2	10.34	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(15) 4,4'-DDE (B)

0.00min 0.000PPB

response 0

(15) 4,4'-DDE #2 (B)

7.32min 1.553PPB

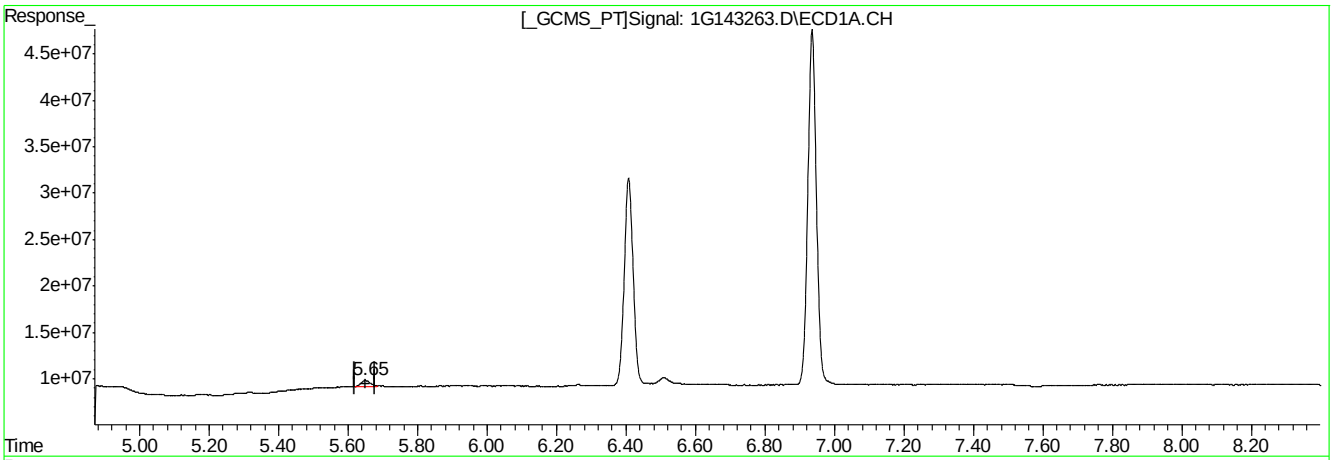
response 3279560

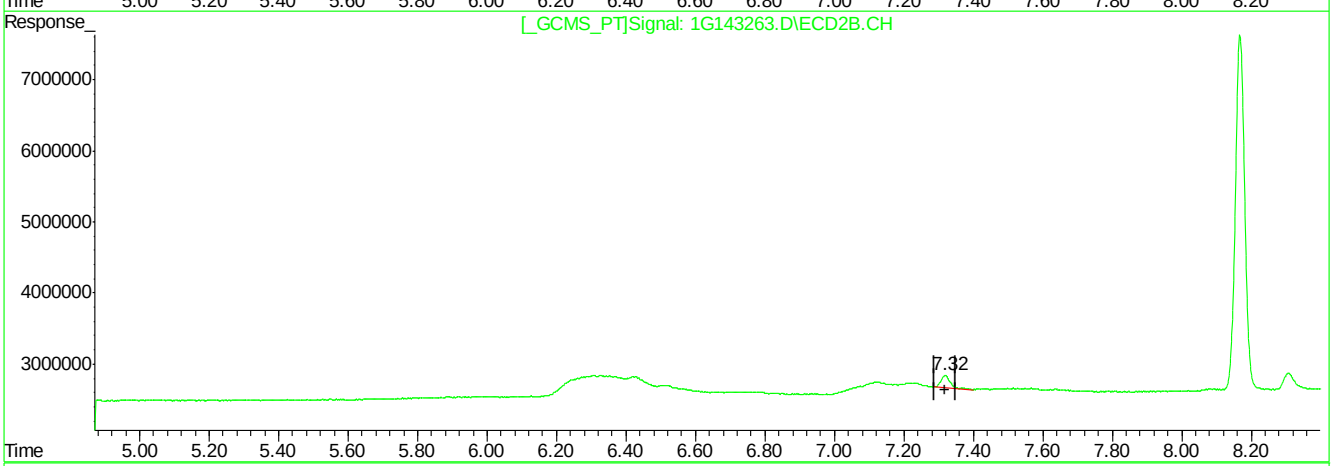
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:03:35 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(15) 4,4'-DDE (B)

5.65min 1.326PPB m

response 11036658

(15) 4,4'-DDE #2 (B)

7.32min 1.553PPB

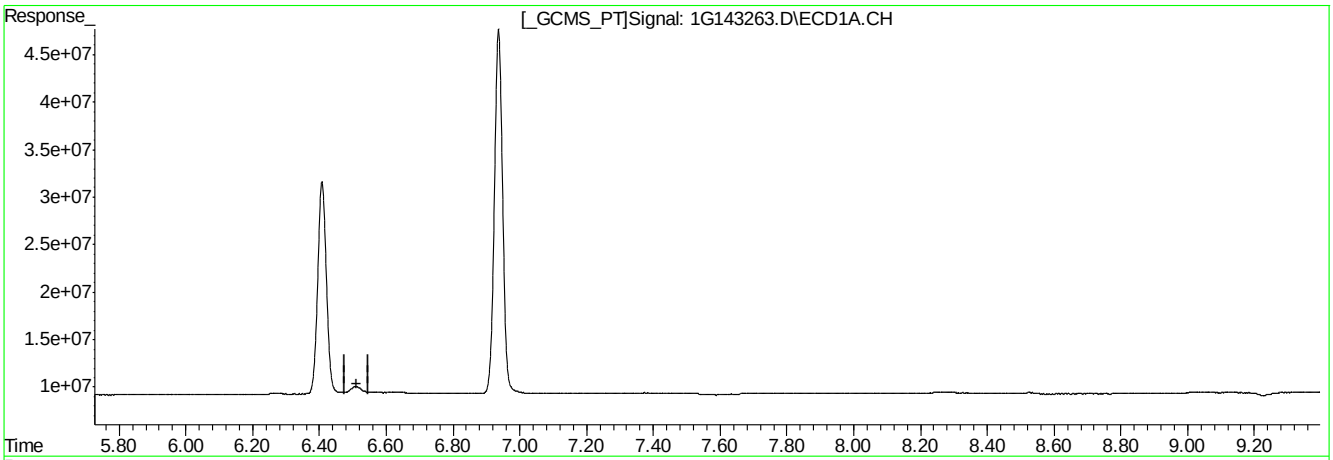
response 3279560

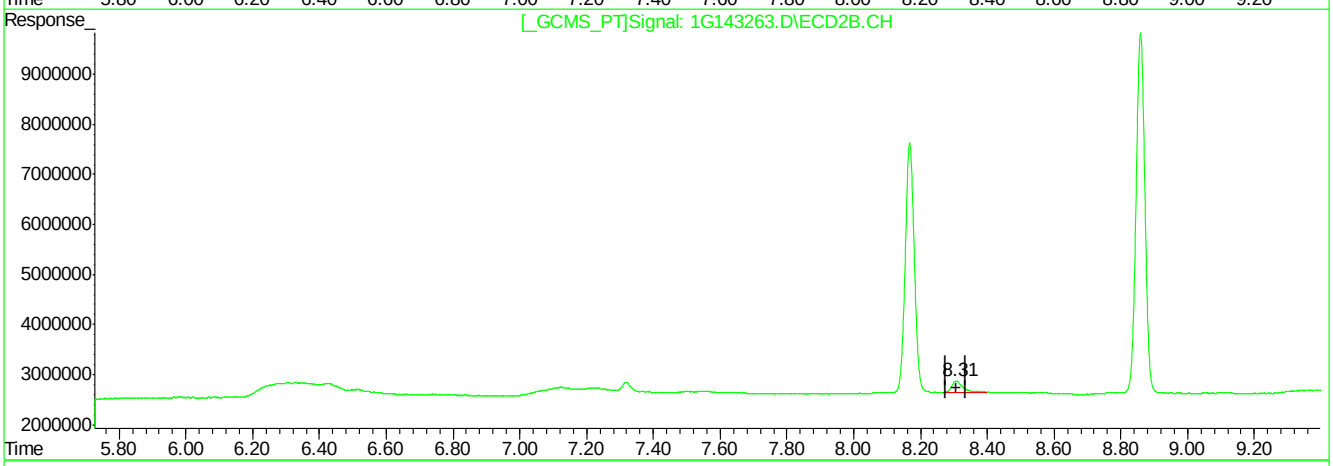
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:03:42 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

0.00min 0.000PPB

response 0

(18) 4,4'-DDD #2 (A)

8.31min 3.146PPB

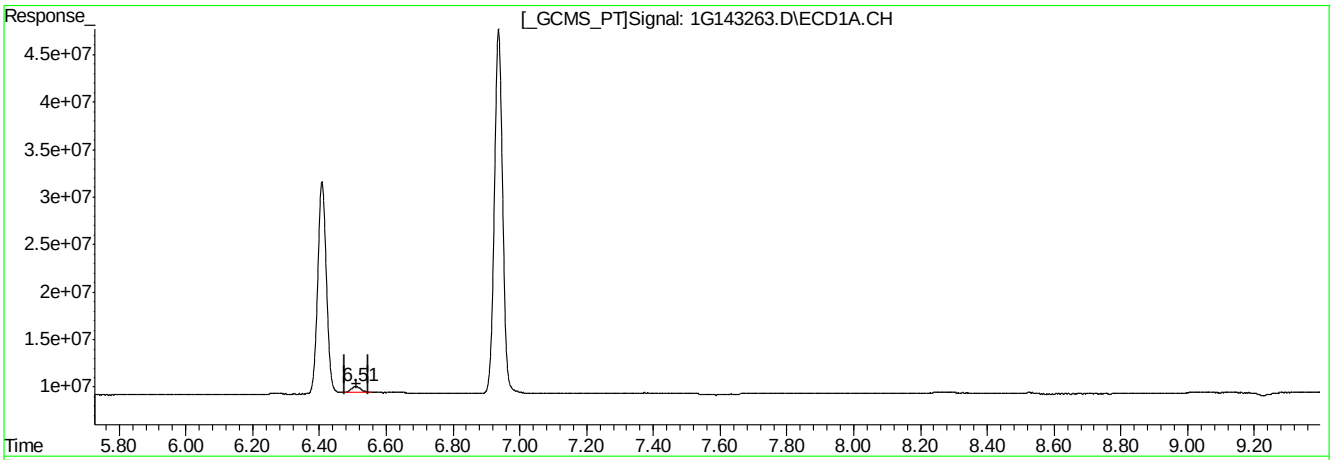
response 5407524

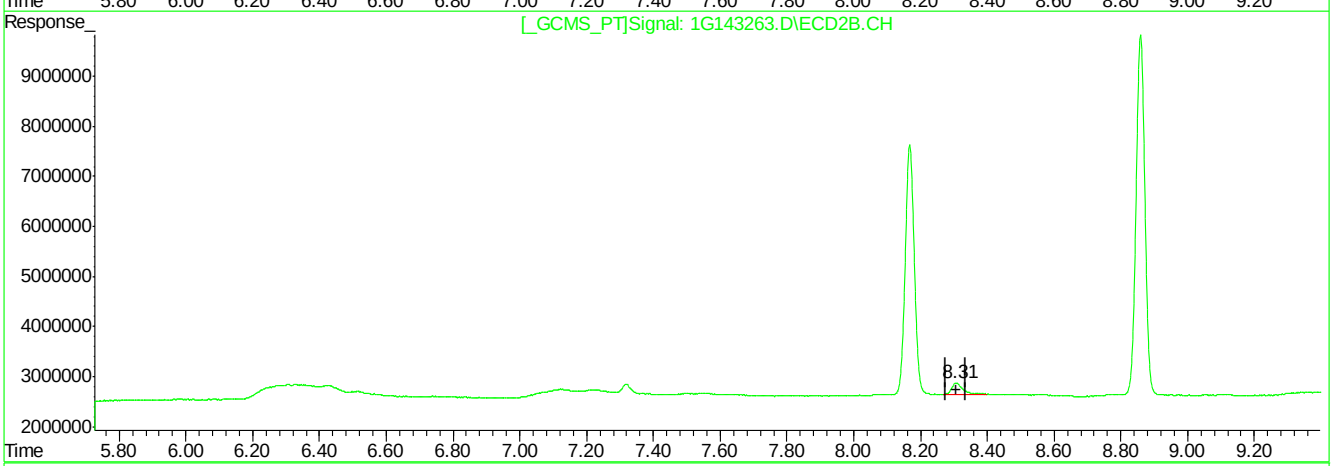
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:03:47 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

6.51min 1.788PPB m

response 12494289

(18) 4,4'-DDD #2 (A)

8.31min 3.146PPB

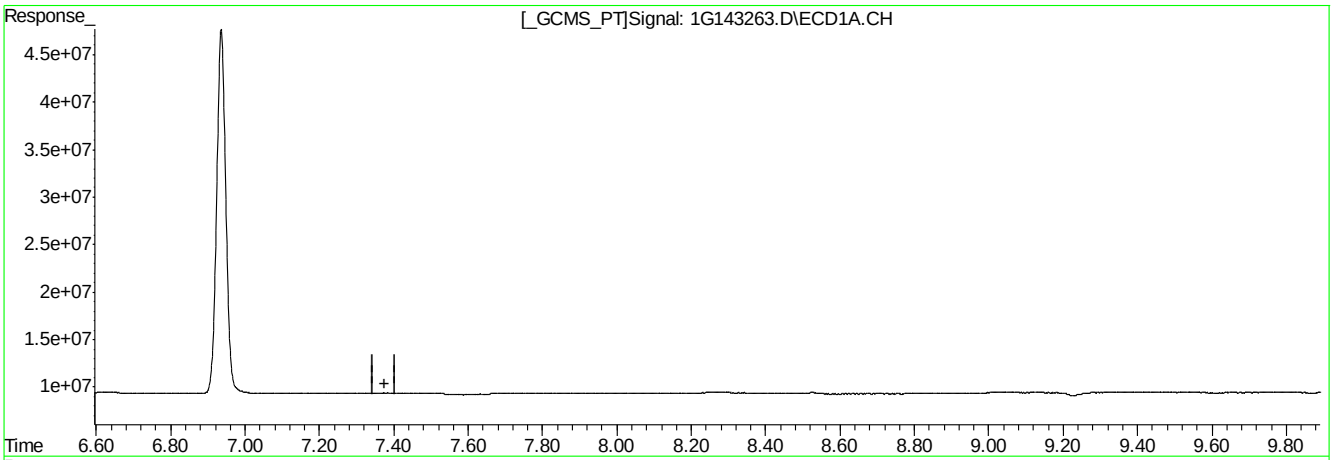
response 5407524

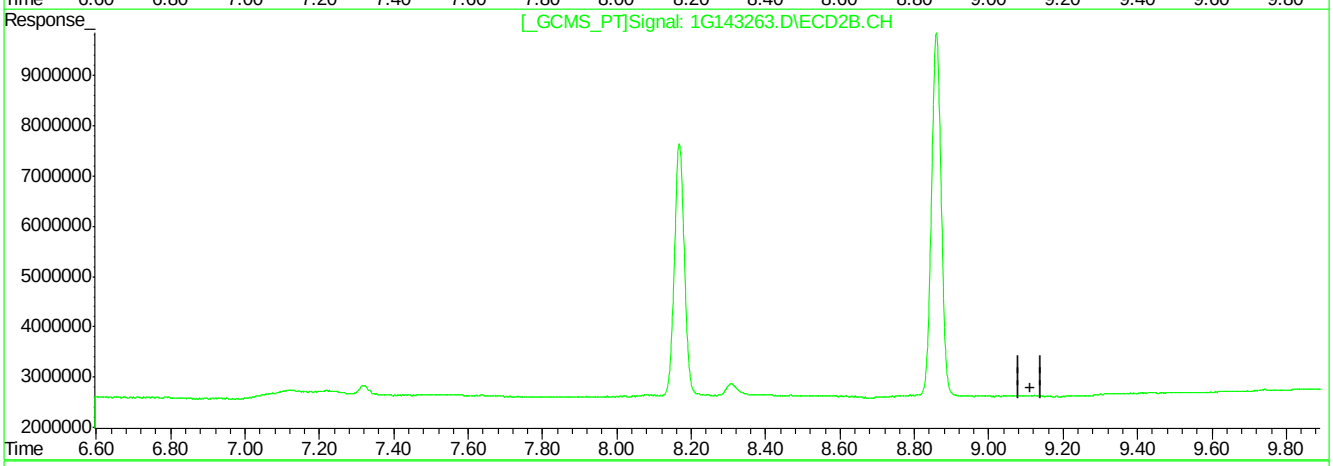
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:03:52 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(21) Endrin Aldehyde (B)

0.00min 0.000PPB

response 0

(21) Endrin Aldehyde #2 (B)

0.00min 0.000PPB

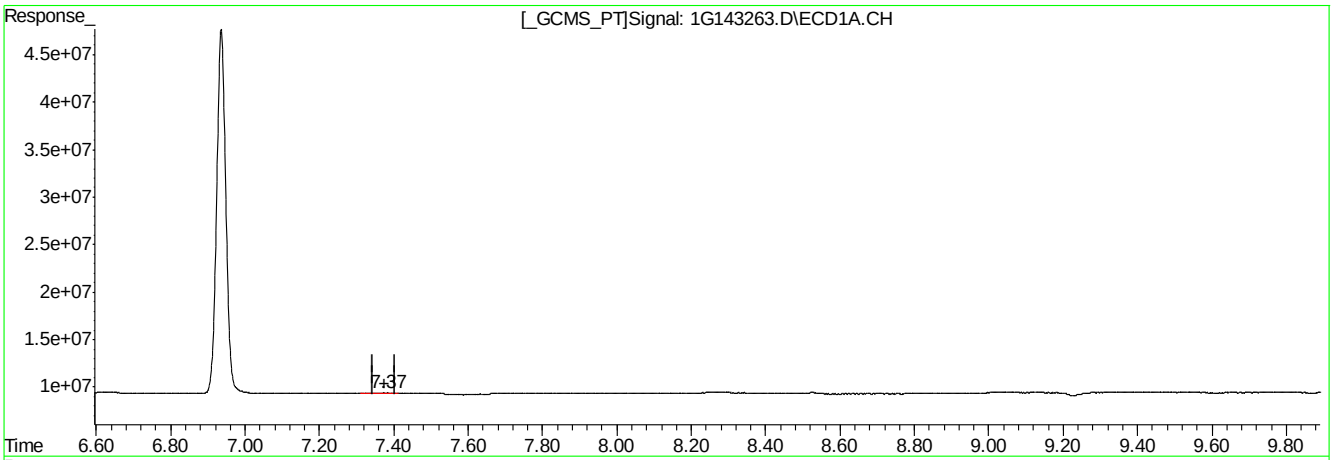
response 0

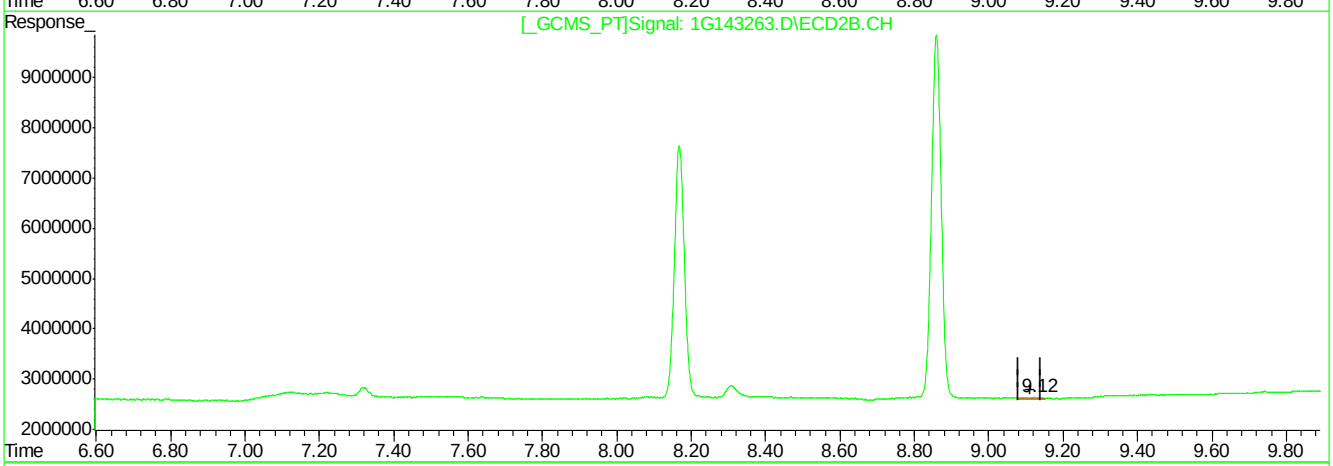
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:03:59 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(21) Endrin Aldehyde (B)

7.37min 0.304PPB m

response 2254334

(21) Endrin Aldehyde #2 (B)

9.12min 0.363PPB m

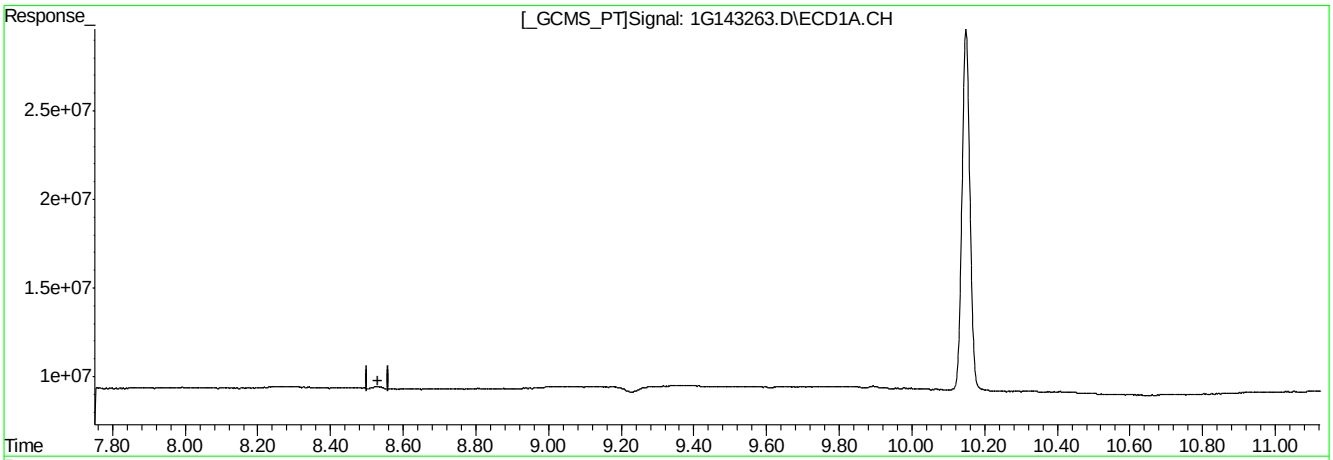
response 571873

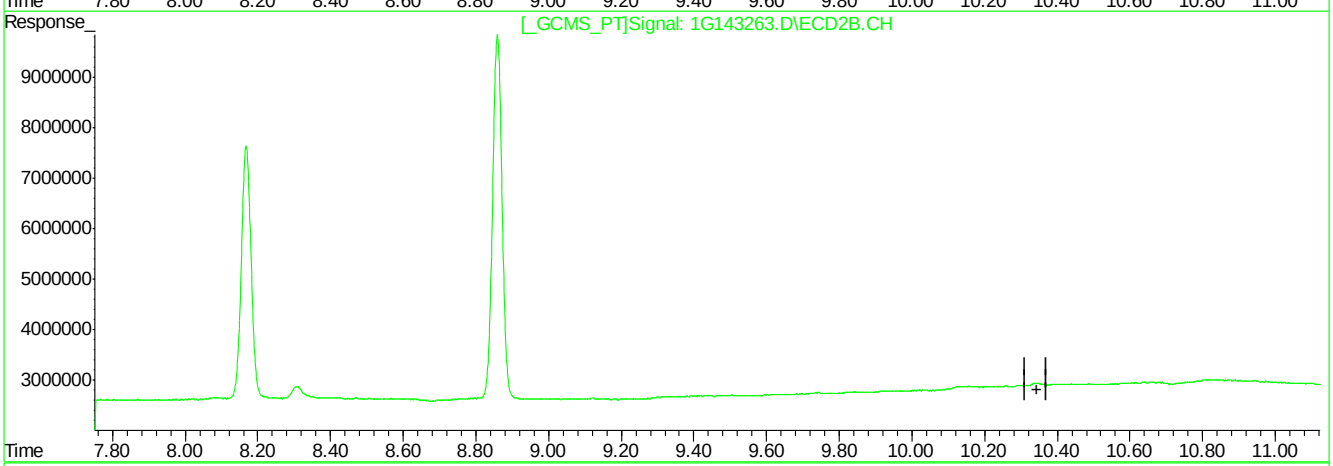
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:04:09 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

0.00min 0.000PPB

response 0

(25) Endrin Ketone #2 (B)

0.00min 0.000PPB

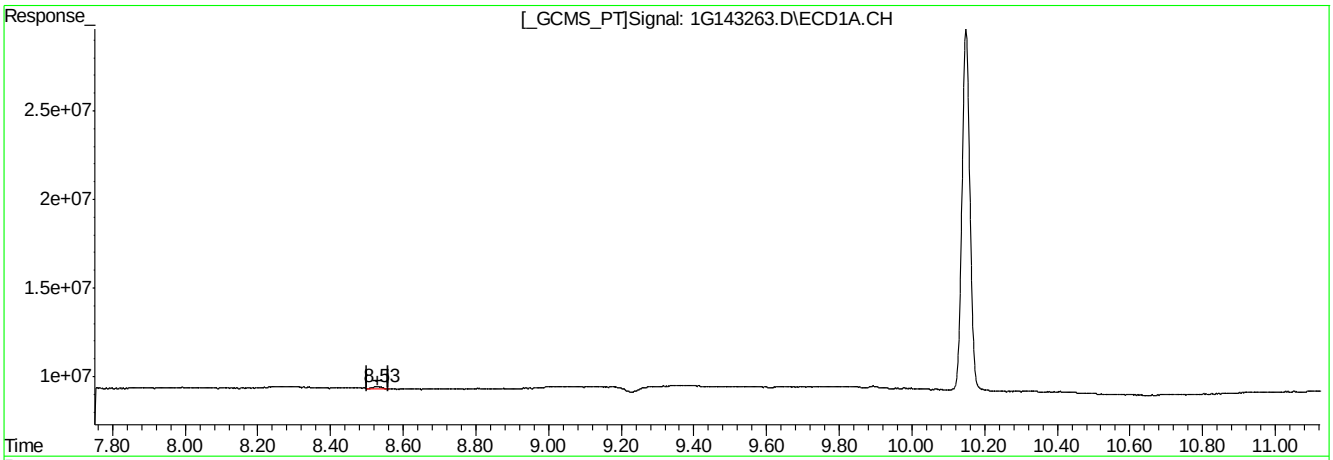
response 0

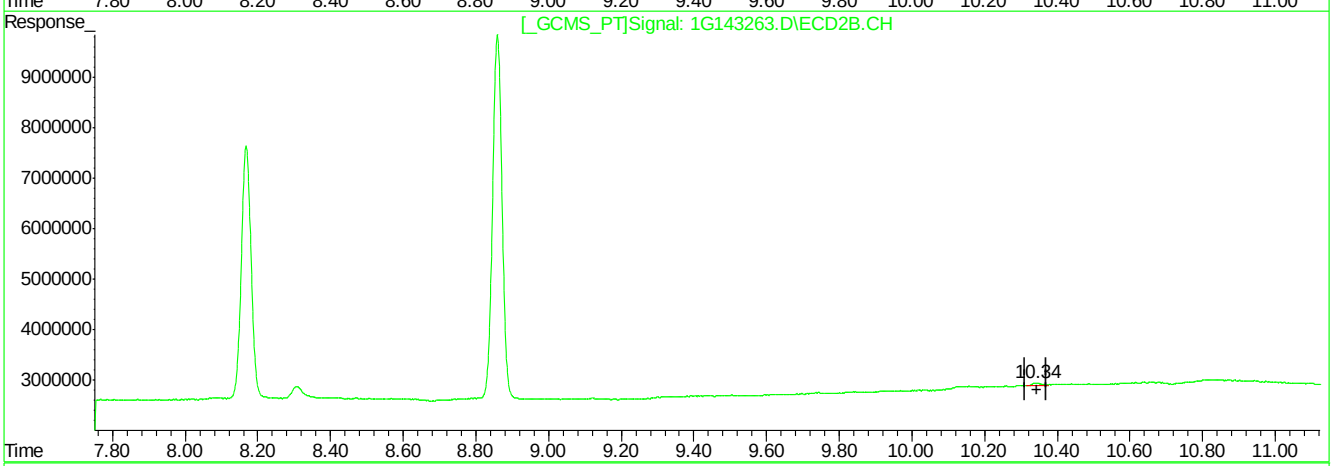
(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:04:17 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143263.D\ECD2B.CH
Acq On : 2-8-18 09:19:27 AM Operator: minam
Sample : ddt Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:03 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

8.53min 0.325PPB m

response 2509313

(25) Endrin Ketone #2 (B)

10.34min 0.475PPB m

response 826010

(+) = Expected Retention Time
1G143263.D 1PST4557.M Thu Feb 08 11:04:39 2018 RPT1

11.5.1.9 11

1G143263.D edits: Endrin Ketone

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 09:21

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:37 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2-nitrob	2.16	2.45	488.8E6	112.3E6	50.000	50.000
27)	I 1-bromo-2-nitrob	2.16	2.45	488.8E6	112.3E6	50.000	50.000
33)	I 1-bromo-2-nitrob	2.16	2.45	488.8E6	112.3E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachloro-m-xy	2.77	3.34	459.2E6	104.9E6	53.064	51.471
	Spiked Amount 40.000	Range 30 - 150		Recovery =		132.66%	128.68%
26)	SA Decachlorobiphen	10.12	12.03	391.2E6	73415051	55.366	49.894
	Spiked Amount 40.000			Recovery =		138.41%	124.74%
	Target Compounds						
15)	B 4,4'-DDE	5.63	7.29	14182701	2622428	1.620m	1.167m
17)	MA Endrin	6.37	8.13	515.6E6	111.1E6	60.664	55.305
18)	A 4,4'-DDD	6.50	8.28	8481928	6292746	1.304m	3.631m
20)	MA 4,4'-DDT	6.91	8.82	760.8E6	155.4E6	127.038	132.857
21)	B Endrin Aldehyde	7.34	9.07	2670001	822543	0.376m	0.523m
25)	B Endrin Ketone	8.49	10.32	3185936	1178531	0.449m	0.745m

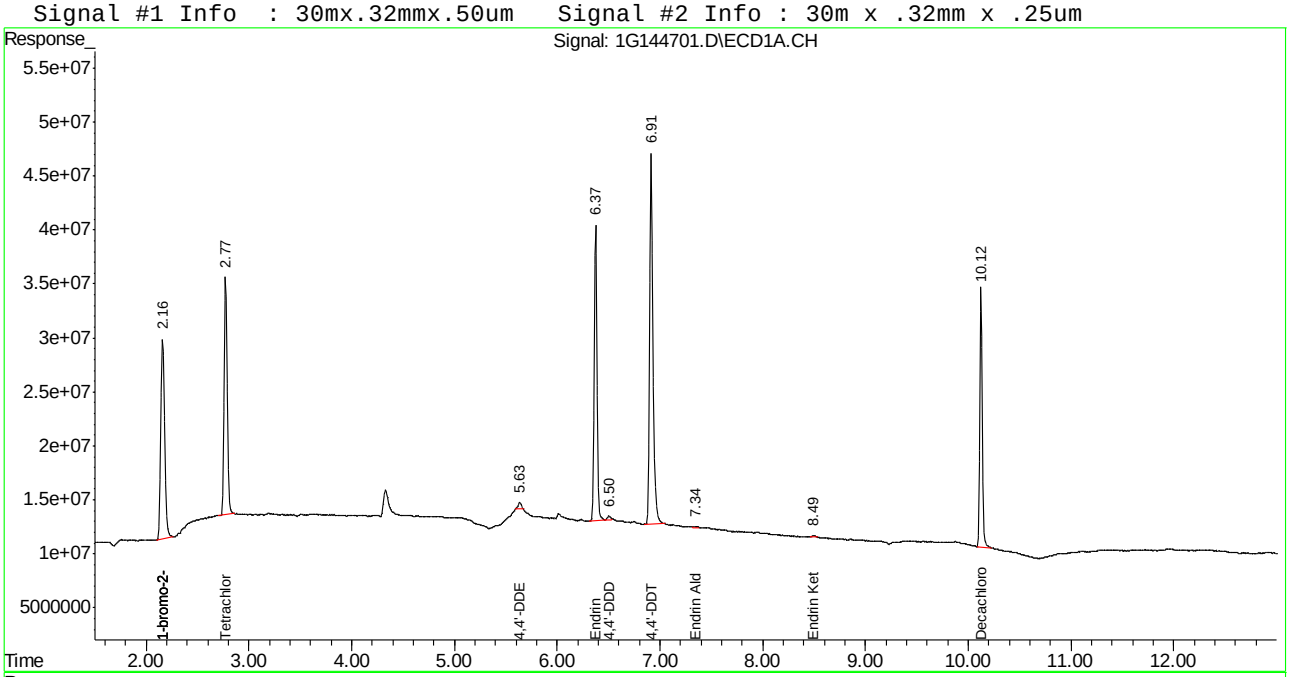
(f)=RT Delta > 1/2 Window (m)=manual int.

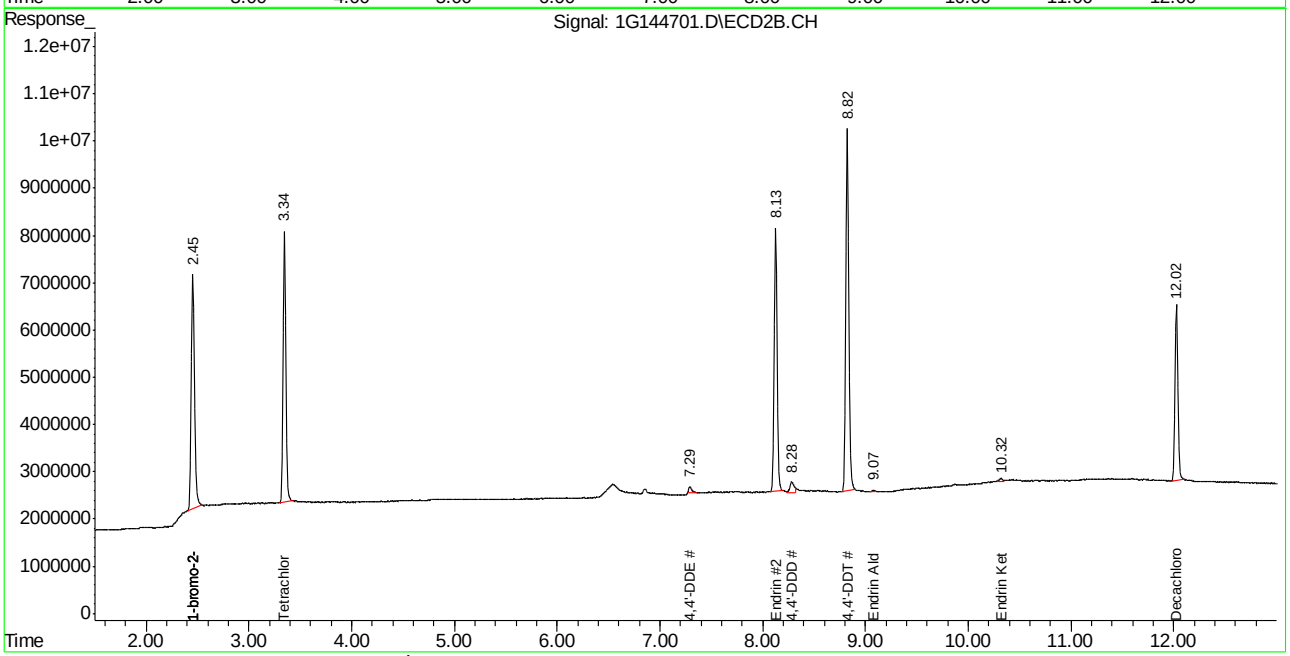
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:37 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

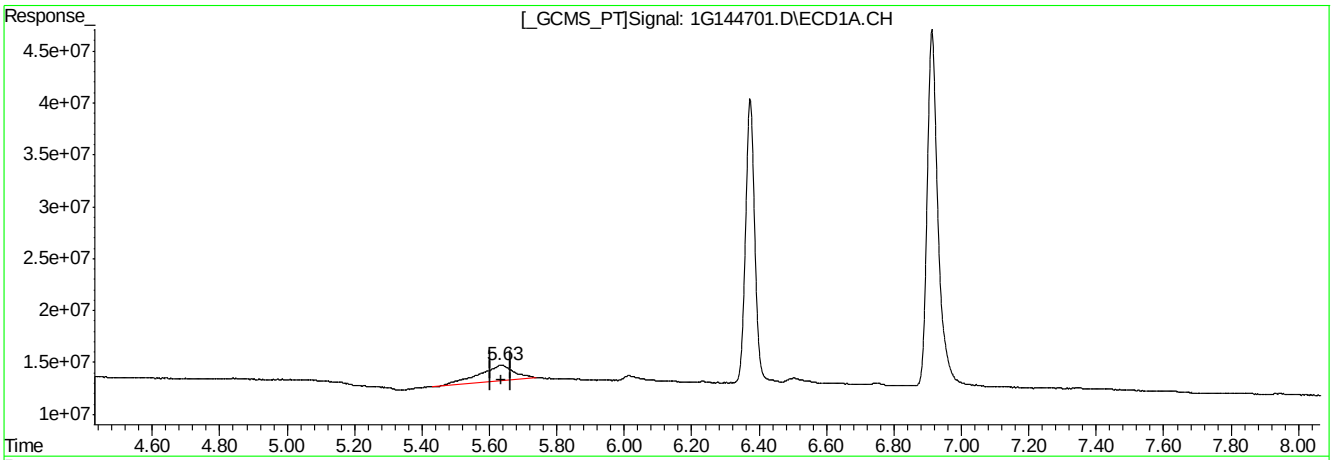
Sample Number: G1G4598-DDT
Lab FileID: 1G144701.D
Injection Time: 03/28/18 00:30
Method: SW846 8081B
Analyst approved: 03/28/18 09:29 Dharmistha Mehta
Supervisor approved: 03/29/18 09:21 Gwendolyn Burns

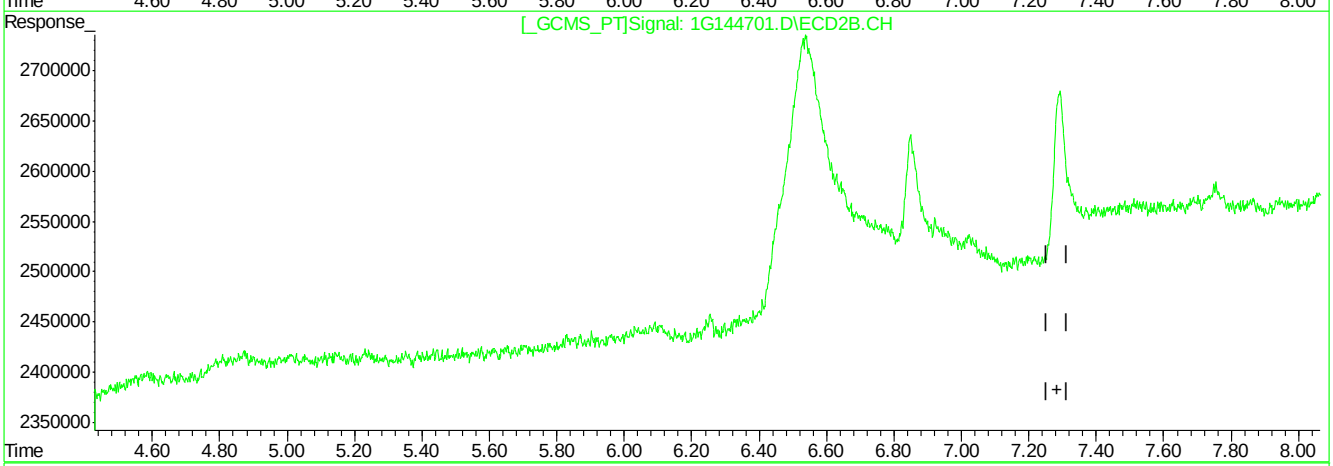
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	5.63	Poorly defined baseline
4,4'-DDD	72-54-8	1	6.50	Poorly defined baseline
4,4'-DDE	72-55-9	2	7.29	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	7.34	Poorly defined baseline
4,4'-DDD	72-54-8	2	8.28	Poorly defined baseline
Endrin ketone	53494-70-5	1	8.49	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	9.07	Poorly defined baseline
Endrin ketone	53494-70-5	2	10.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(15) 4,4'-DDE (B)

5.63min 12.617PPB

response 110486800

(15) 4,4'-DDE #2 (B)

0.00min 0.000PPB

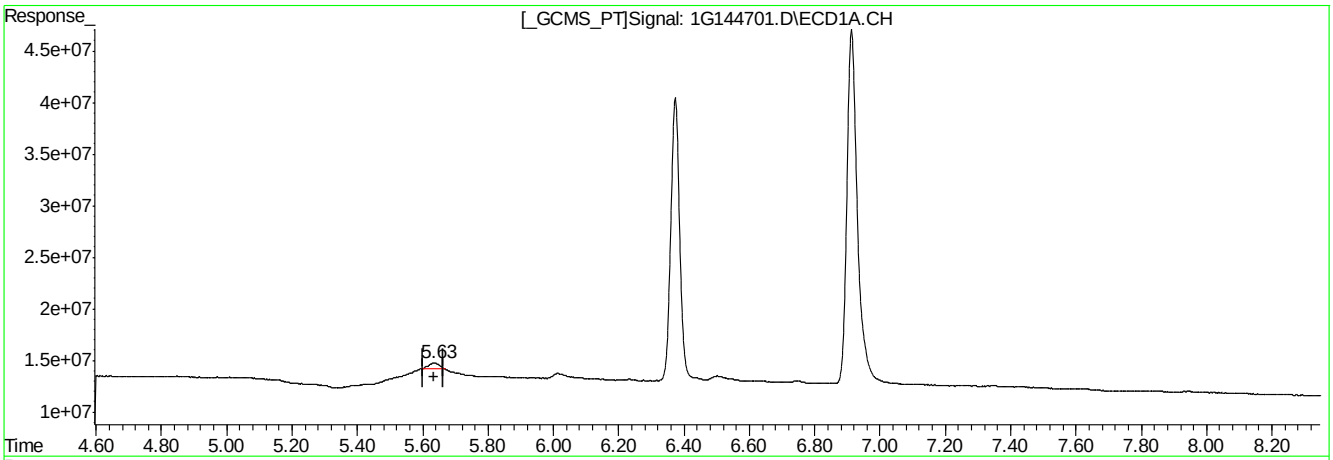
response 0

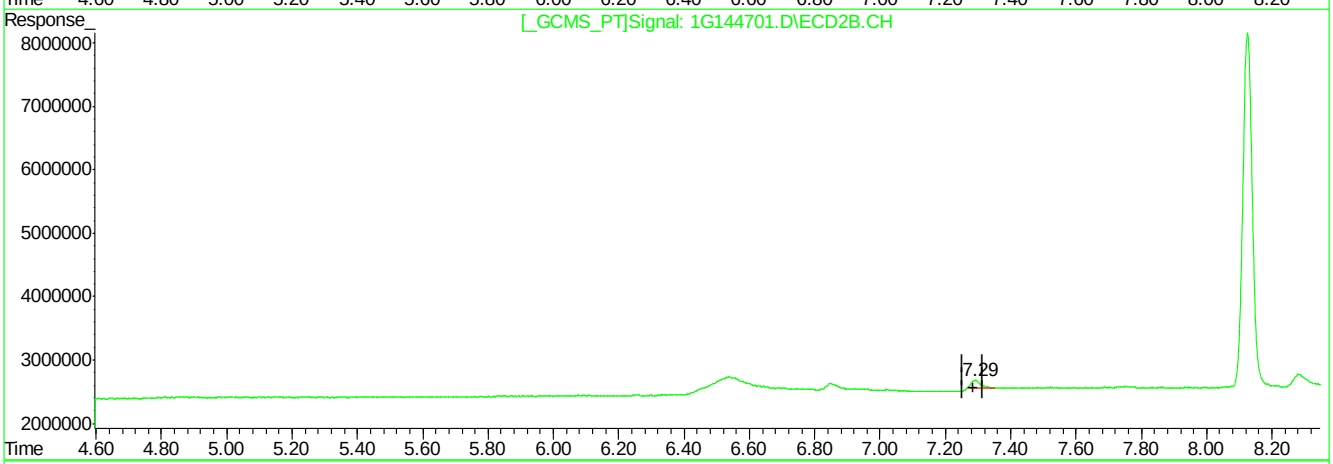
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:35:30 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(15) 4,4'-DDE (B)

5.63min 1.620PPB m

response 14182701

(15) 4,4'-DDE #2 (B)

7.29min 1.167PPB m

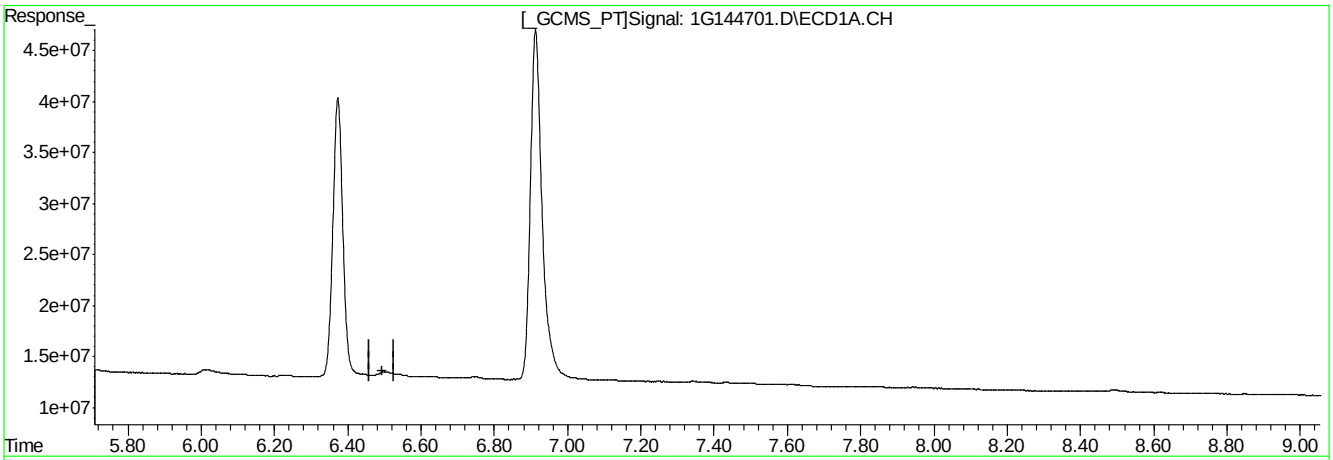
response 2622428

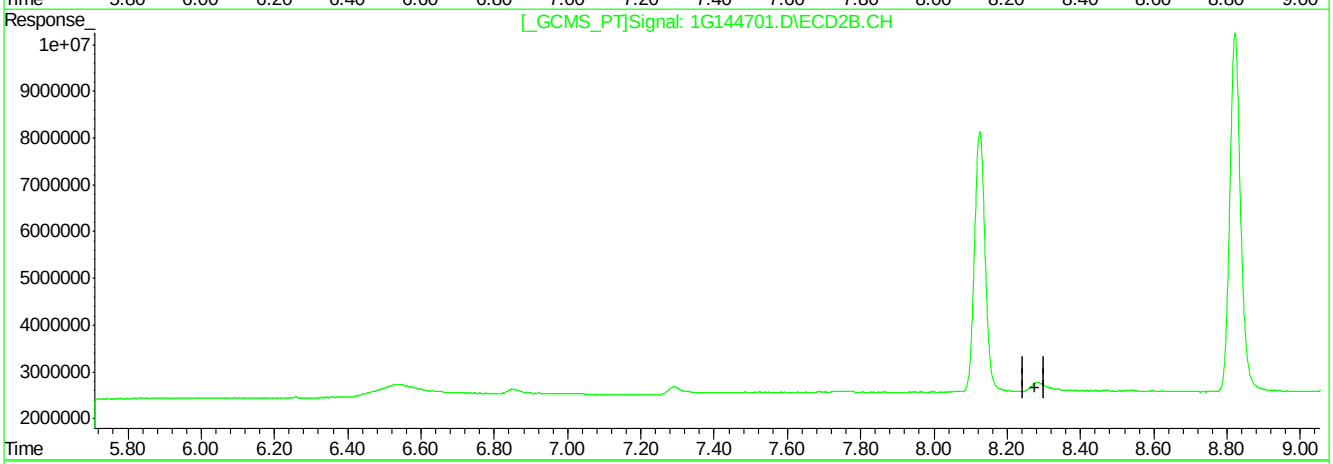
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:35:52 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

0.00min 0.000PPB

response 0

(18) 4,4'-DDD #2 (A)

0.00min 0.000PPB

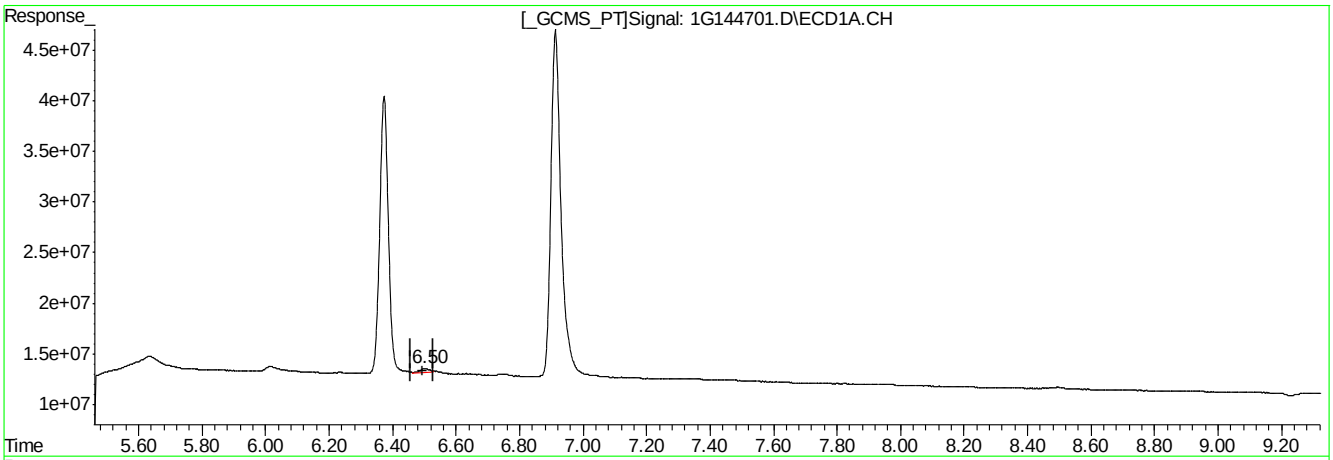
response 0

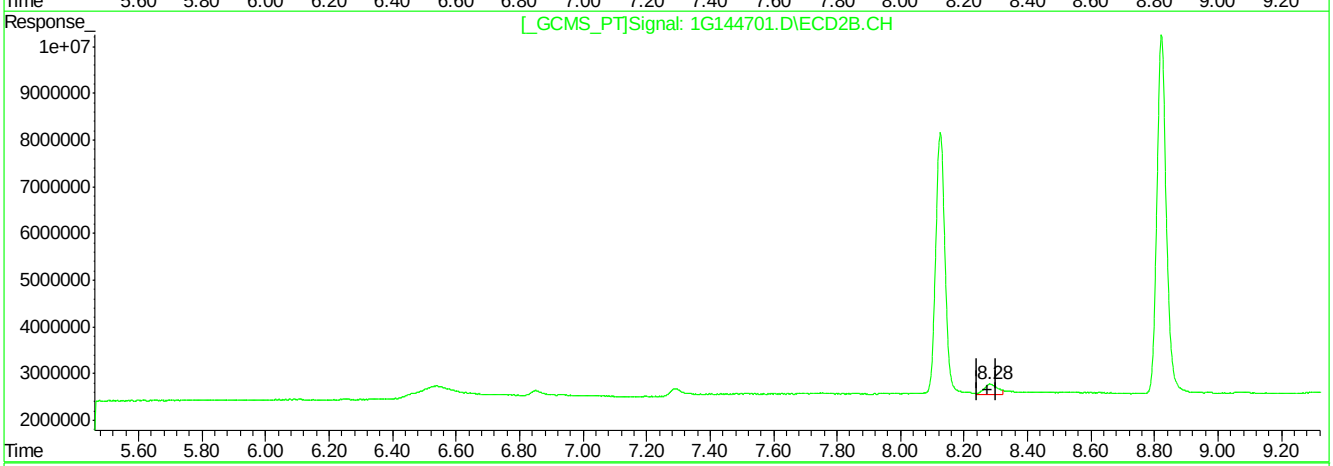
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:36:02 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

6.50min 1.304PPB m

response 8481928

(18) 4,4'-DDD #2 (A)

8.28min 3.631PPB m

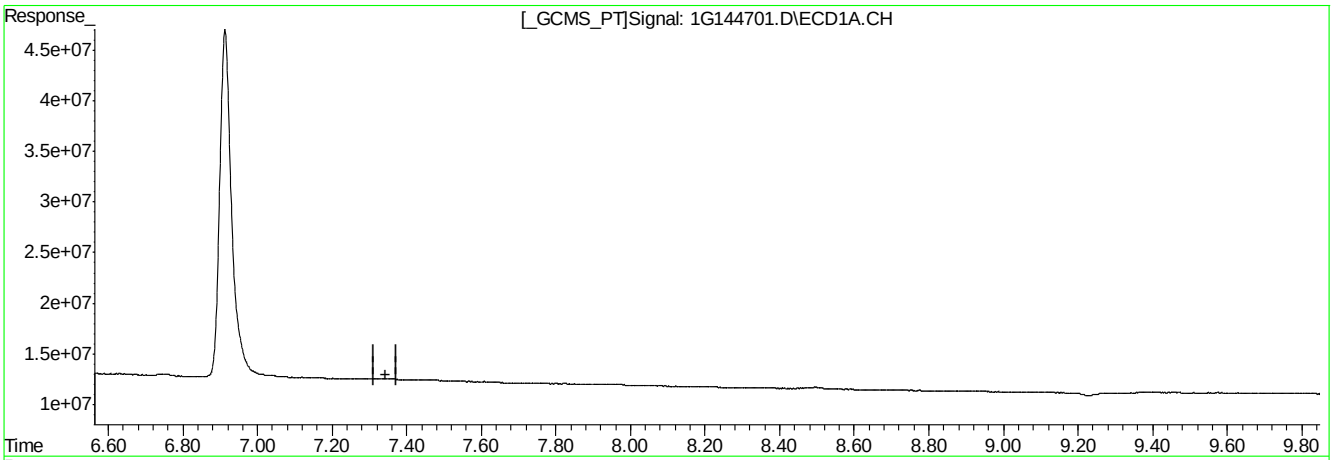
response 6292746

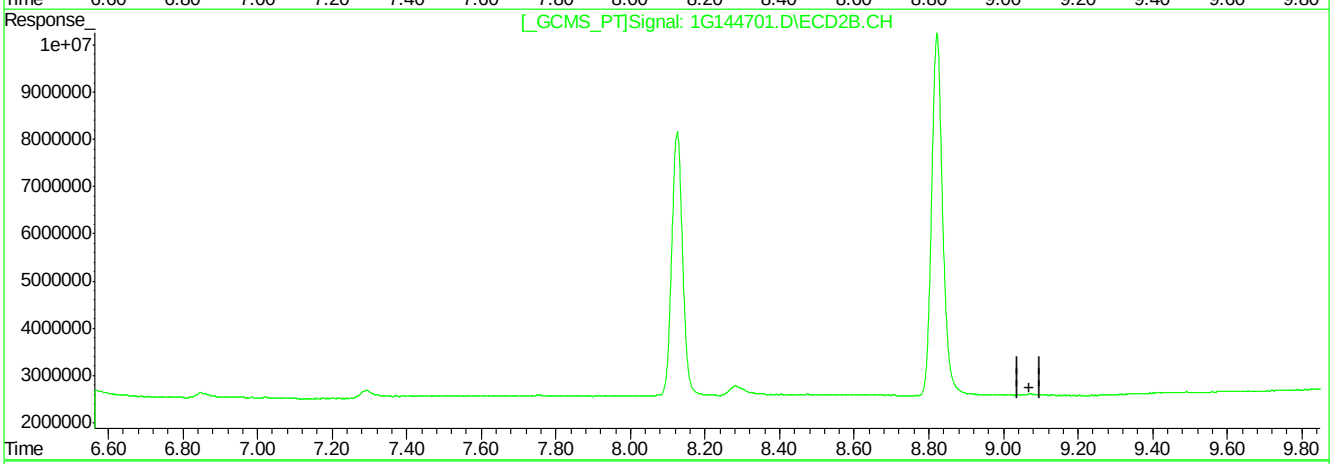
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:36:24 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(21) Endrin Aldehyde (B)

0.00min 0.000PPB

response 0

(21) Endrin Aldehyde #2 (B)

0.00min 0.000PPB

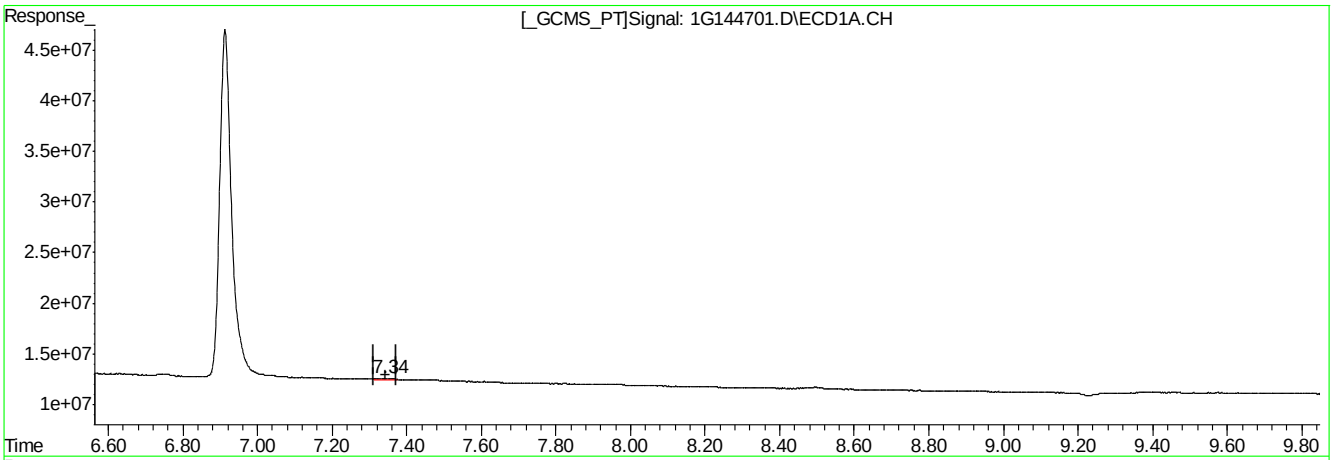
response 0

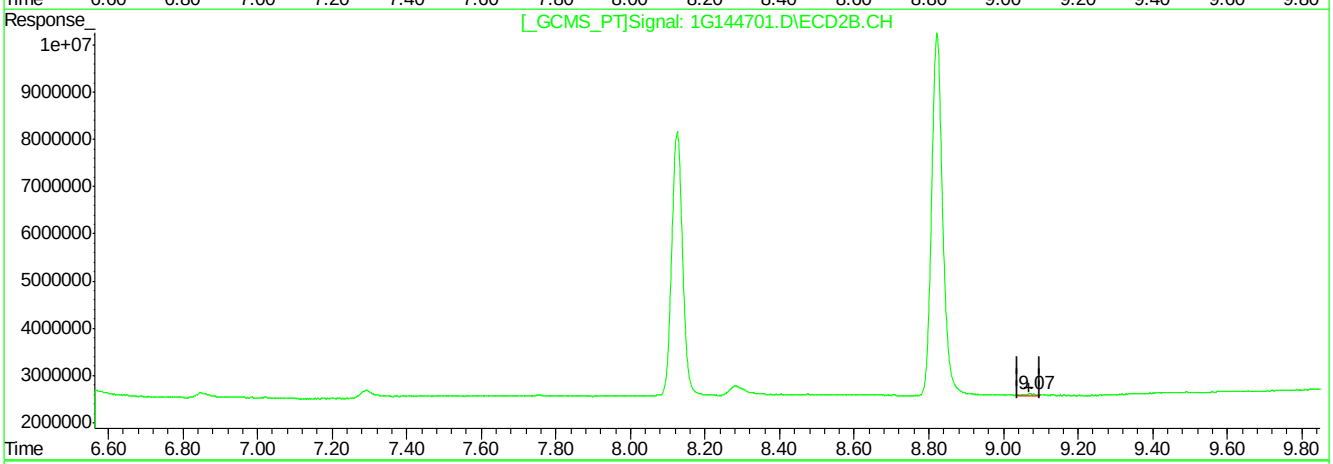
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:36:37 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(21) Endrin Aldehyde (B)

7.34min 0.376PPB m

response 2670001

(21) Endrin Aldehyde #2 (B)

9.07min 0.523PPB m

response 822543

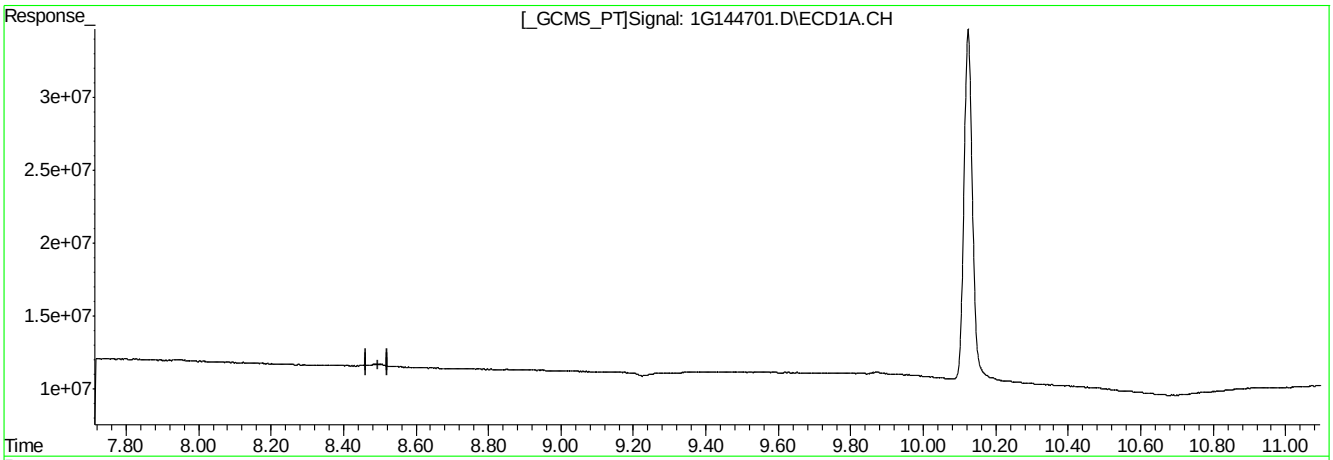
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:37:00 2018 RPT1

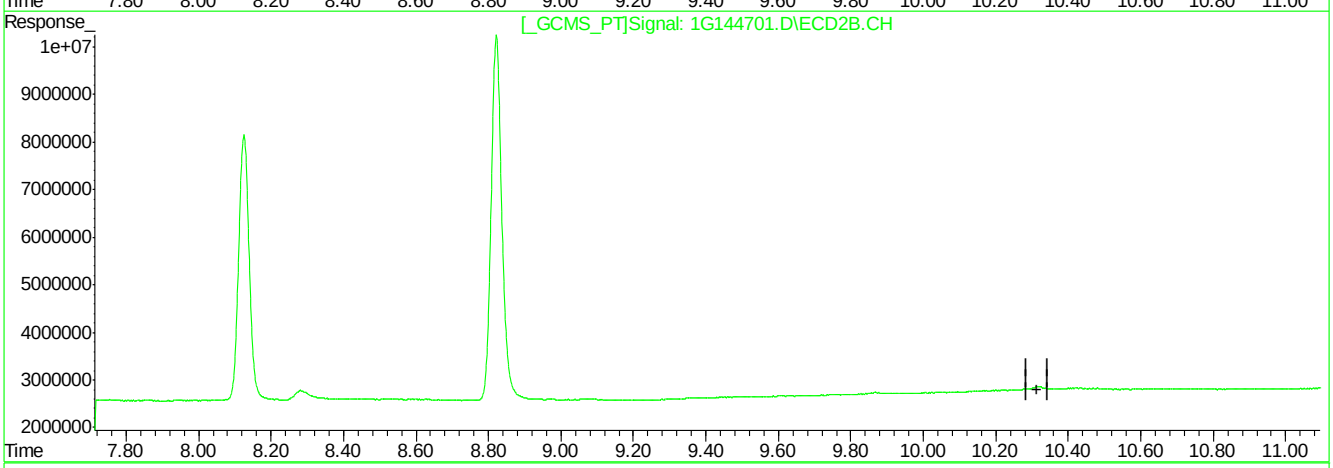
11.5.2.7 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

0.00min 0.000PPB

response 0

(25) Endrin Ketone #2 (B)

0.00min 0.000PPB

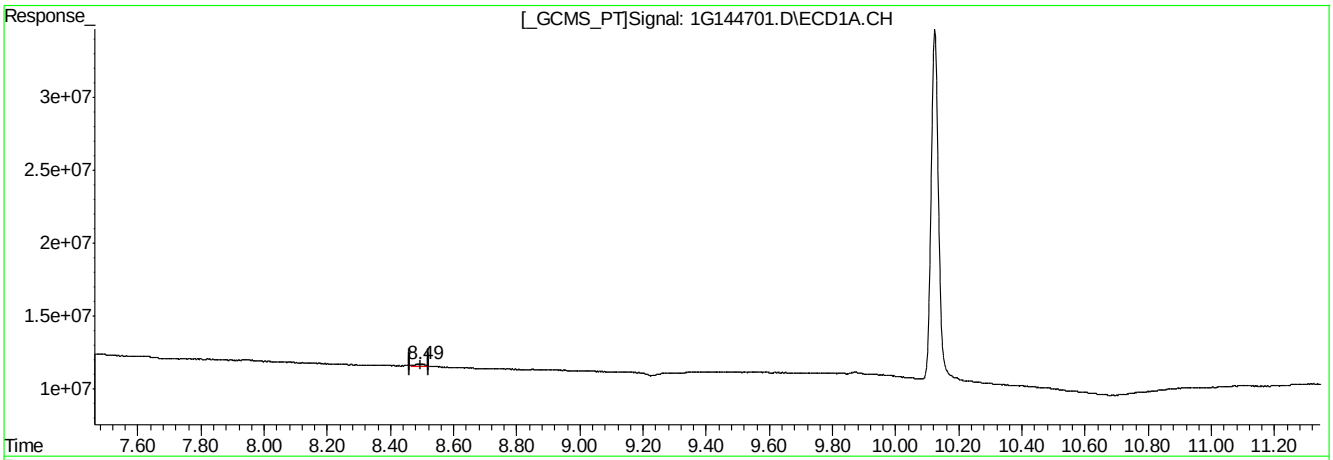
response 0

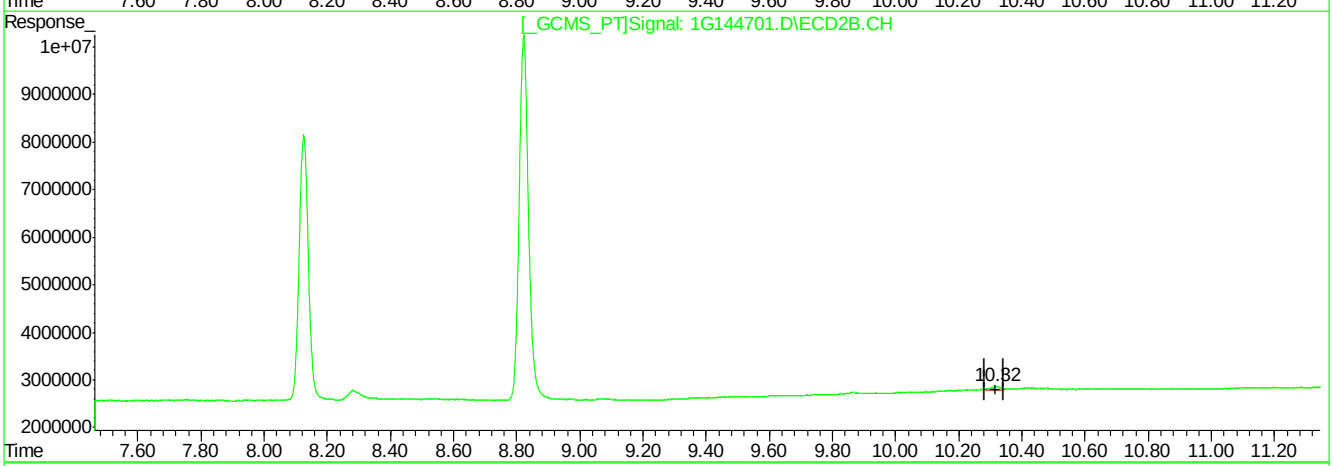
(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:37:09 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144701.D\ECD2B.CH
Acq On : 28 Mar 2018 12:30 am Operator: christp
Sample : ddt Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:34 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

8.49min 0.449PPB m

response 3185936

(25) Endrin Ketone #2 (B)

10.32min 0.745PPB m

response 1178531

(+) = Expected Retention Time
1G144701.D 1PST4557.M Wed Mar 28 08:37:42 2018 RPT1

11.5.2.9 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90000.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:00 pm
Operator : kristend
Sample : ddt
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:02:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.478f	1.895f	1101.4E6	247.9E6	50.000	50.000
27)	I 1-bromo-2...	1.478	1.895	1101.4E6	247.9E6	50.000	50.000
33)	I 1-bromo-2...	1.478	1.895	1101.4E6	247.9E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.100f	2.791f	1034.1E6	232.7E6	61.884	54.301
	Spiked Amount 40.000	Range 30 - 150		Recovery = 154.71%#		135.75%	
26)	SA Decachlor...	9.409	11.902	1027.9E6	192.6E6	58.675	51.556
	Spiked Amount 40.000			Recovery = 146.69%		128.89%	
	Target Compounds						
15)	B 4,4'-DDE	4.850	6.649	68300502	6811339	3.472m	1.520m#
17)	MA Endrin	5.540	7.441	1116.3E6	244.0E6	68.697	64.393
18)	A 4,4'-DDD	5.673	7.617	21774451	5570696	1.346m	1.488m
20)	MA 4,4'-DDT	6.087	8.153	1896.6E6	426.9E6	133.490	128.569
21)	B Endrin Al...	6.499f	8.375	12859968	1025285	0.908m	0.296m#
25)	B Endrin Ke...	7.590	9.835	11812087	11774573	0.660m	2.660m#
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

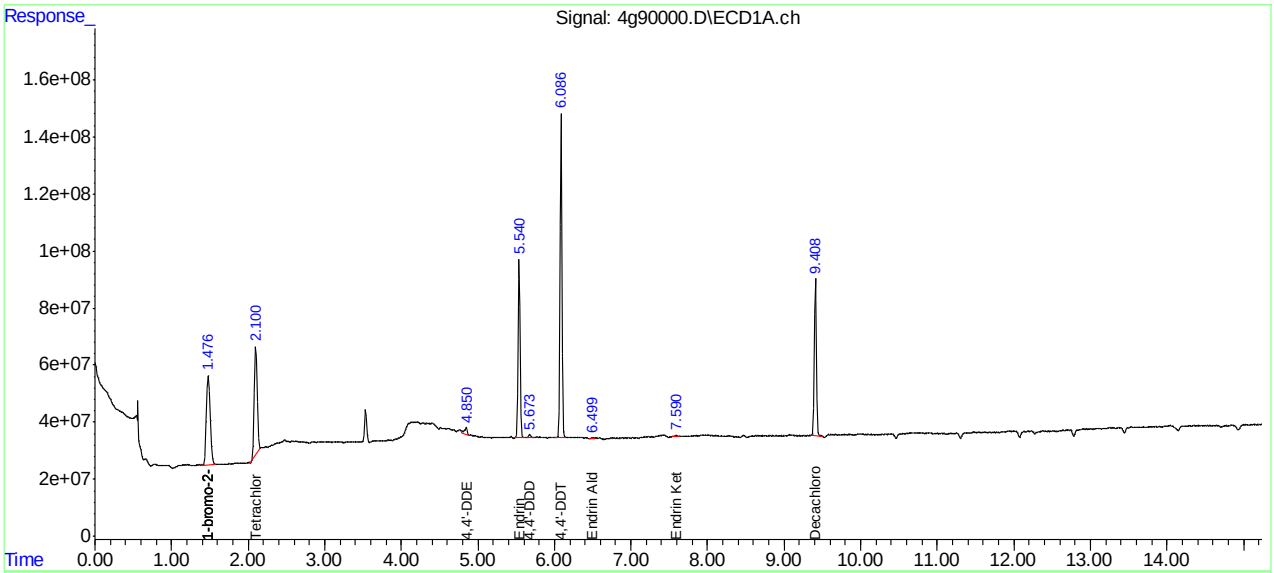
11.5.3 11

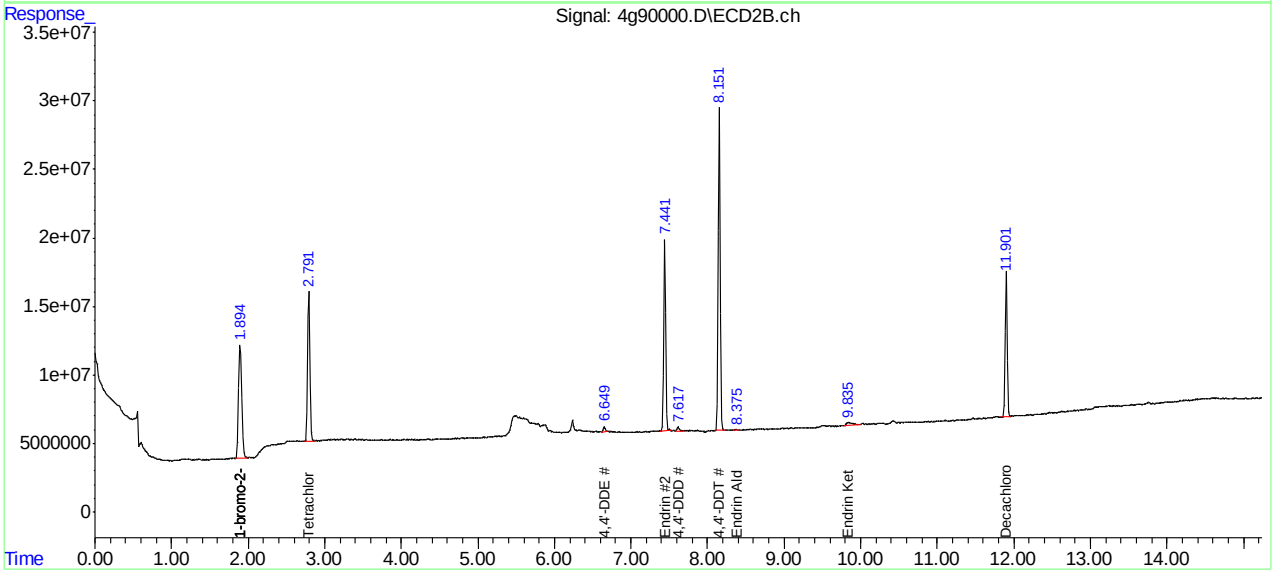
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90000.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:00 pm
Operator : kristend
Sample : ddt
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:02:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number: G4G2366-DDT
Lab FileID: 4G90000.D
Injection Time: 02/16/18 16:00
Method: SW846 8081B
Analyst approved: 02/19/18 09:31 Kristen Drake
Supervisor approved: 02/20/18 07:32 Gwendolyn Burns

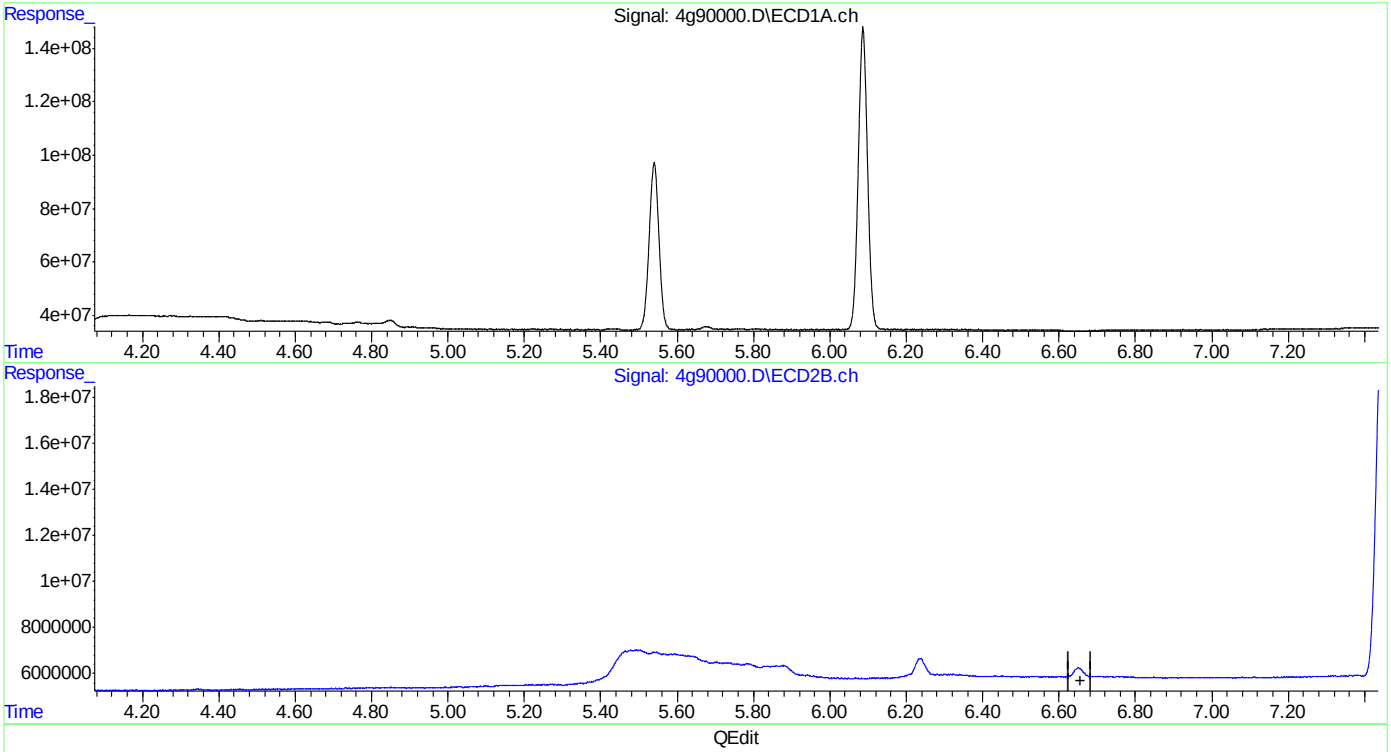
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	4.85	Poorly defined baseline
4,4'-DDD	72-54-8	1	5.67	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.50	Poorly defined baseline
4,4'-DDE	72-55-9	2	6.65	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.59	Poorly defined baseline
4,4'-DDD	72-54-8	2	7.62	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	8.38	Poorly defined baseline
Endrin ketone	53494-70-5	2	9.83	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90000.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:00 pm
Operator : kristend
Sample : ddt
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:00:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(15) 4,4'-DDE (B)
0.000min 0.000 PPB
response 0

(15) 4,4'-DDE #2 (B)
0.000min 0.000 PPB
response 0

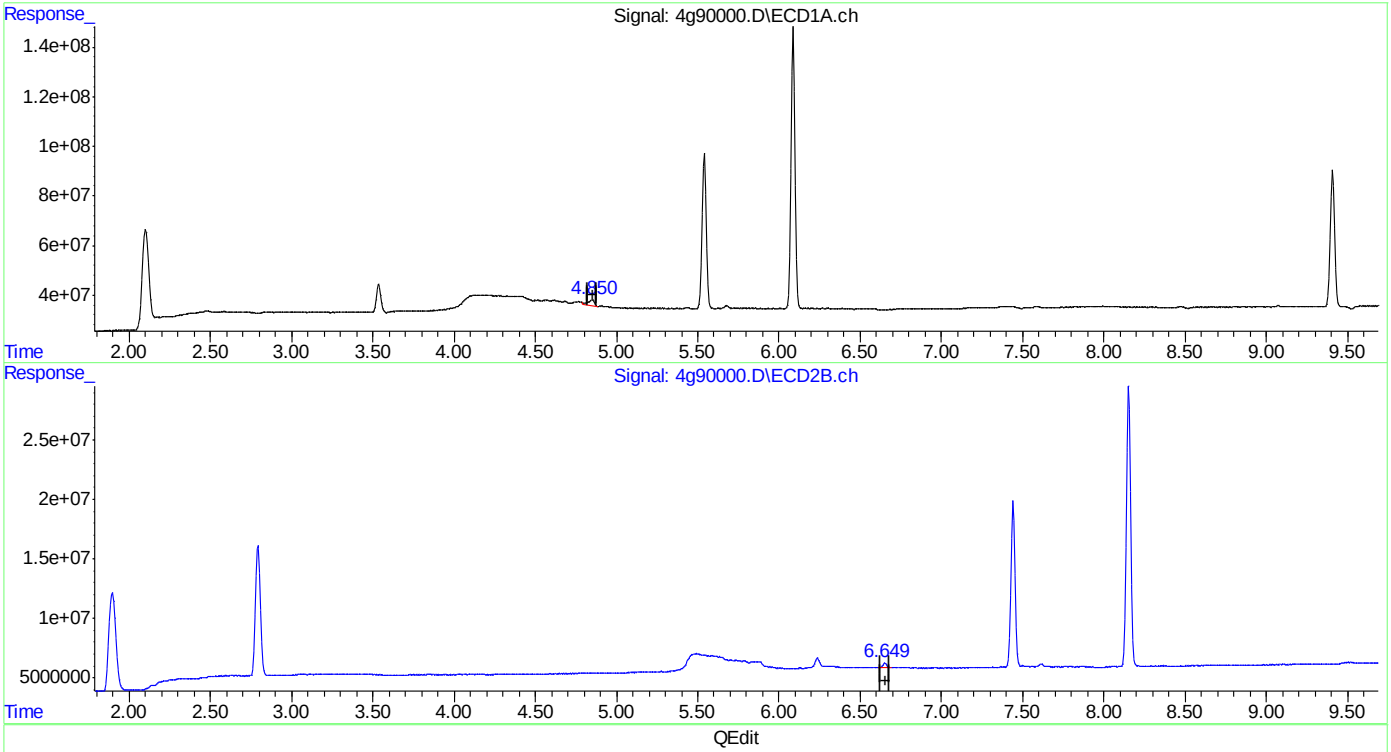
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90000.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:00 pm
Operator : kristend
Sample : ddt
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:00:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(15) 4,4'-DDE (B)
4.850min 3.472 PPB m
response 68300502

(15) 4,4'-DDE #2 (B)
6.649min 1.520 PPB m
response 6811339

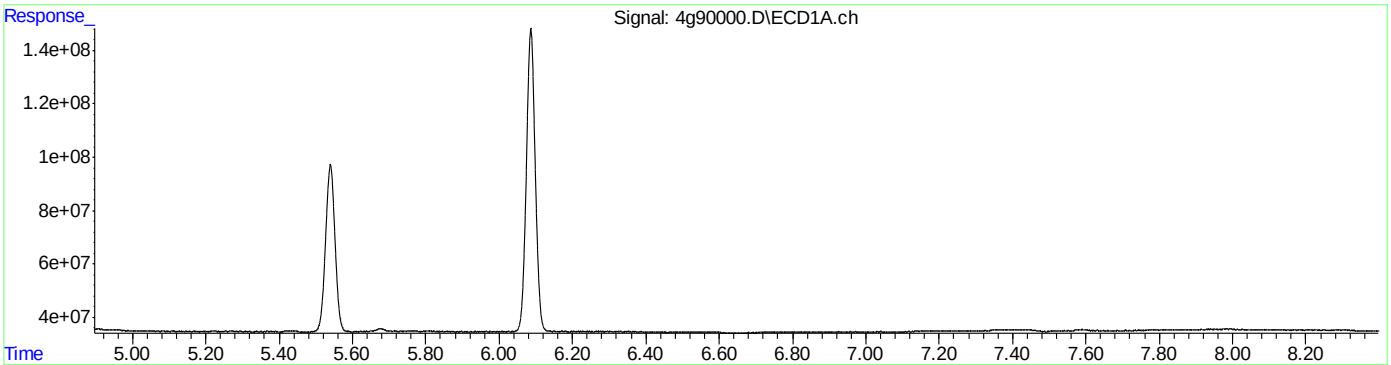
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:01:01 2018 RPT1

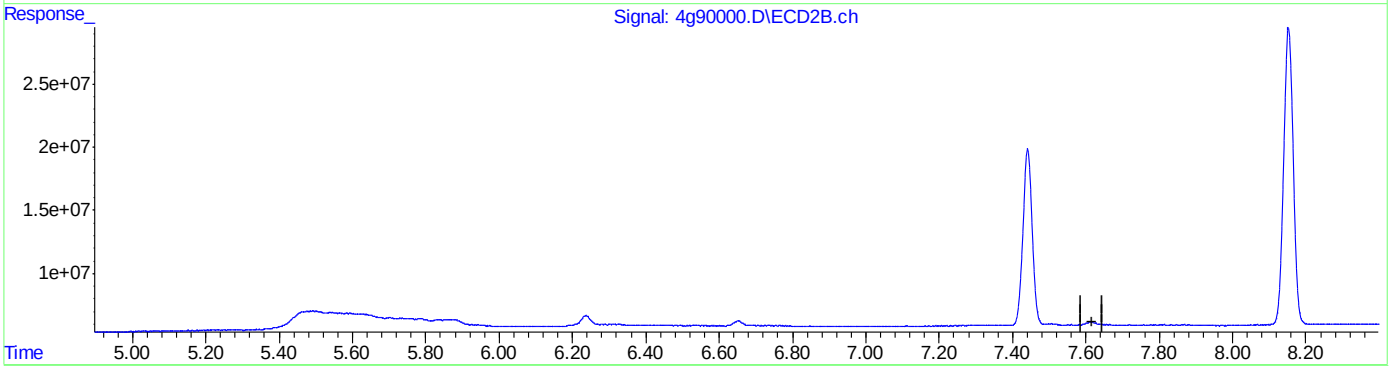
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90000.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:00 pm
Operator : kristend
Sample : ddt
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:00:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(18) 4,4'-DDD (A)
0.000min 0.000 PPB
response 0

(18) 4,4'-DDD #2 (A)
0.000min 0.000 PPB
response 0

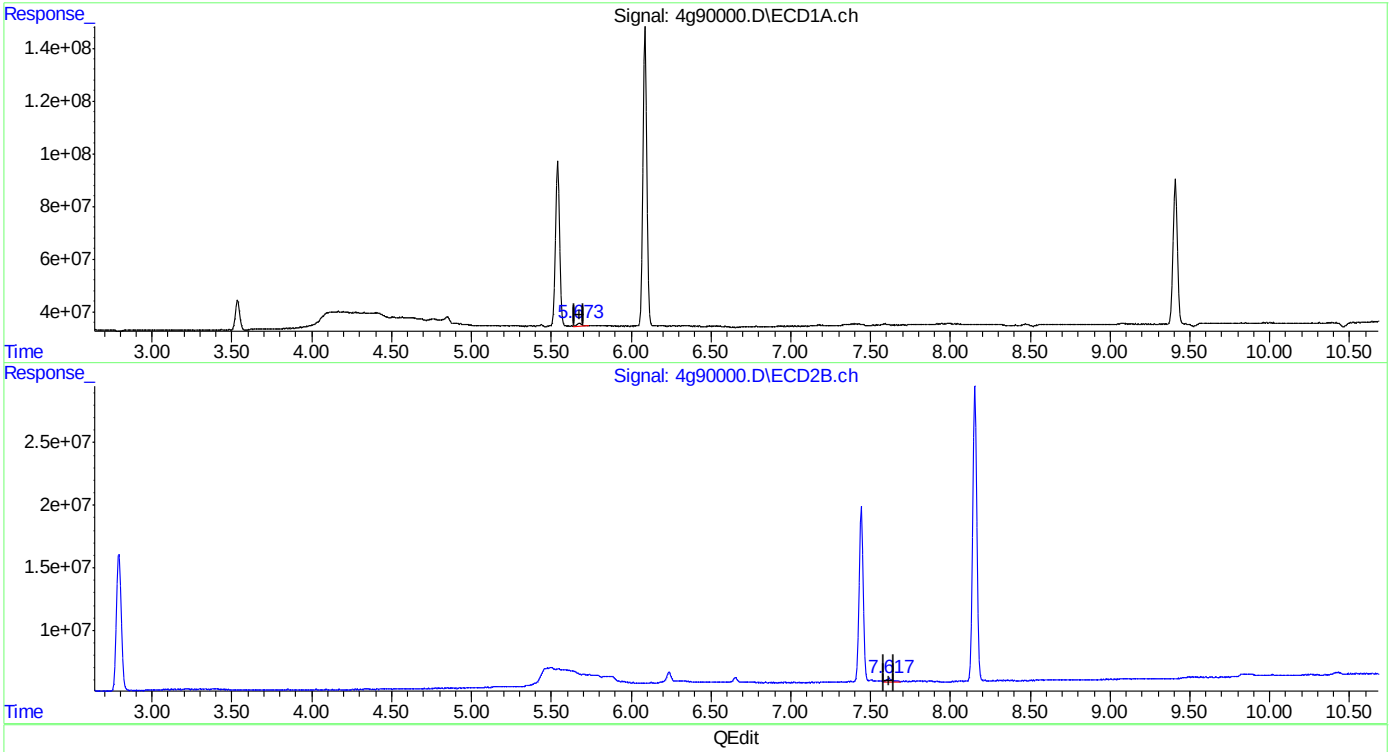
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:01:08 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90000.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:00 pm
Operator : kristend
Sample : ddt
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:00:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(18) 4,4'-DDD (A)
5.673min 1.346 PPB m
response 21774451

(18) 4,4'-DDD #2 (A)
7.617min 1.488 PPB m
response 5570696

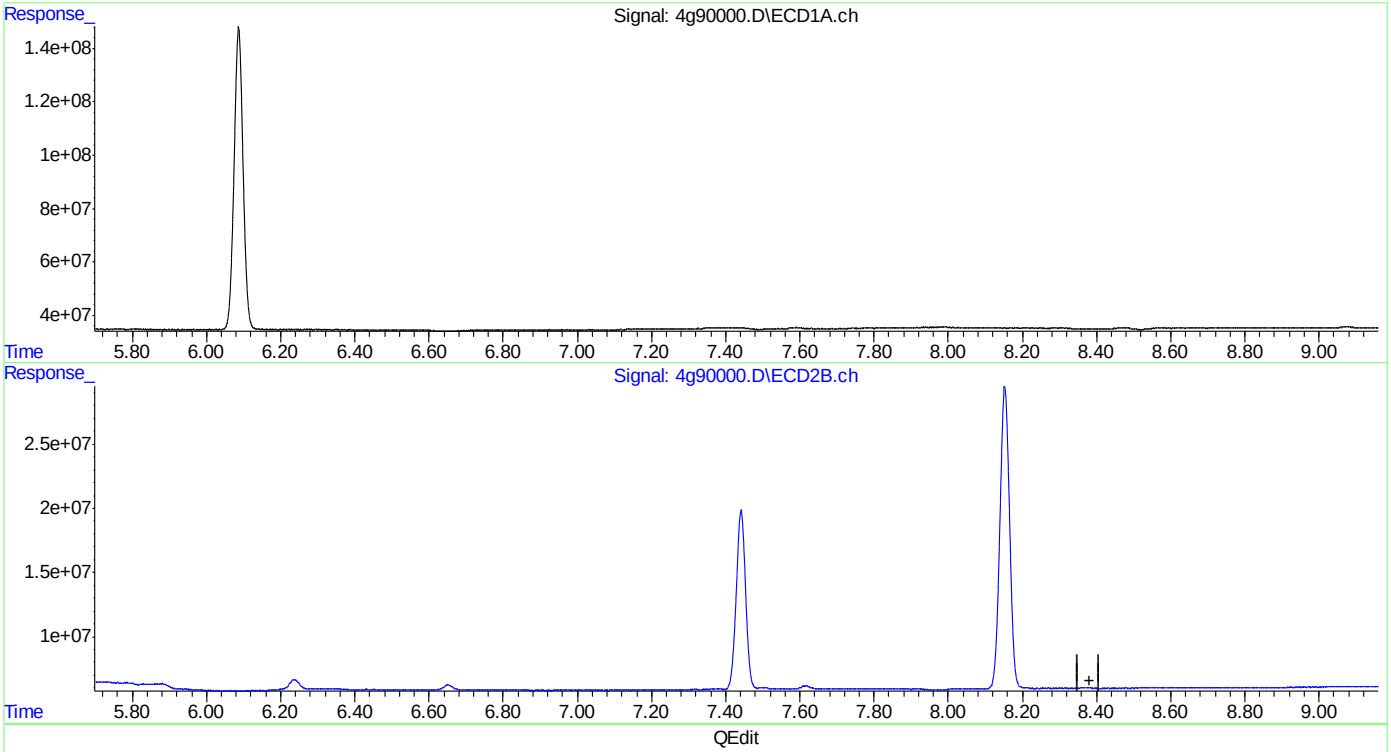
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:01:16 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90000.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:00 pm
Operator : kristend
Sample : ddt
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:00:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(21) Endrin Aldehyde (B)
0.000min 0.000 PPB
response 0

(21) Endrin Aldehyde #2 (B)
0.000min 0.000 PPB
response 0

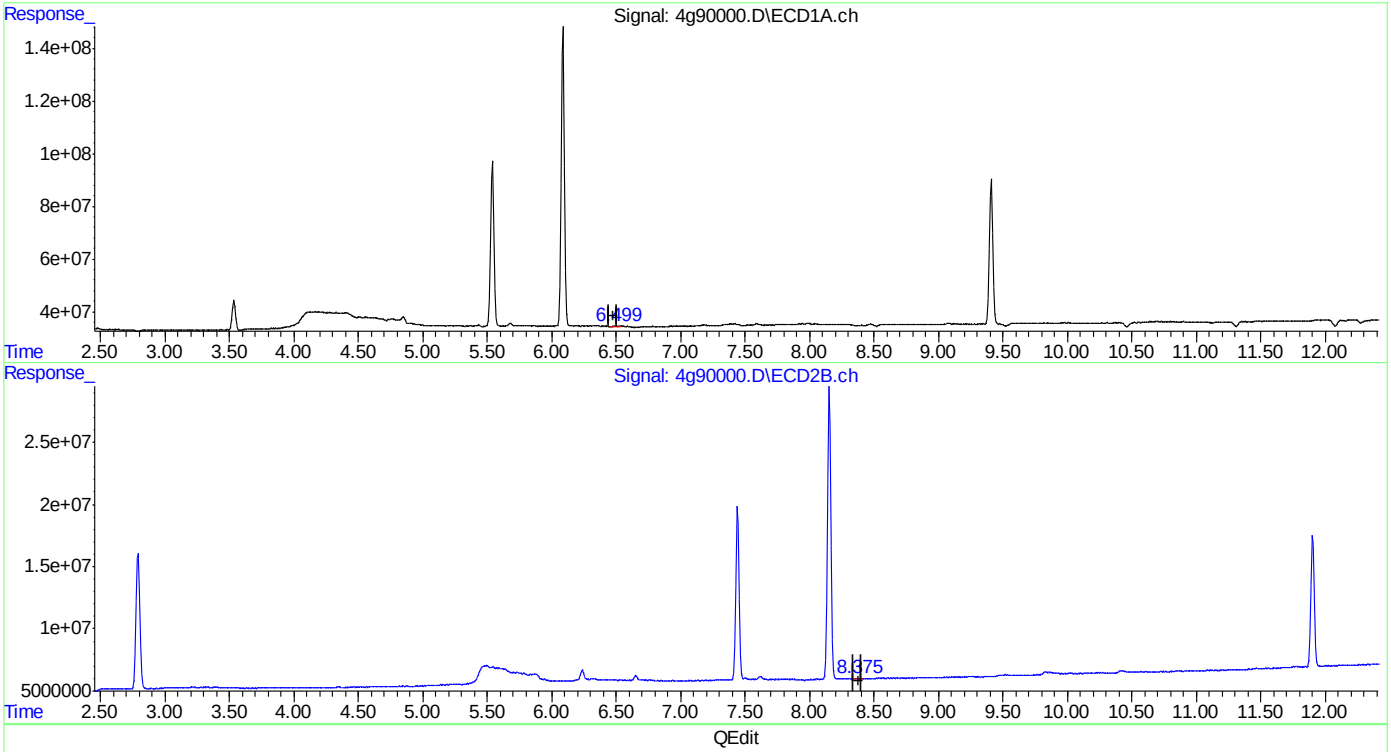
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:01:25 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90000.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:00 pm
Operator : kristend
Sample : ddt
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:00:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(21) Endrin Aldehyde (B)
6.499min 0.908 PPB m
response 12859968

(21) Endrin Aldehyde #2 (B)
8.375min 0.296 PPB m
response 1025285

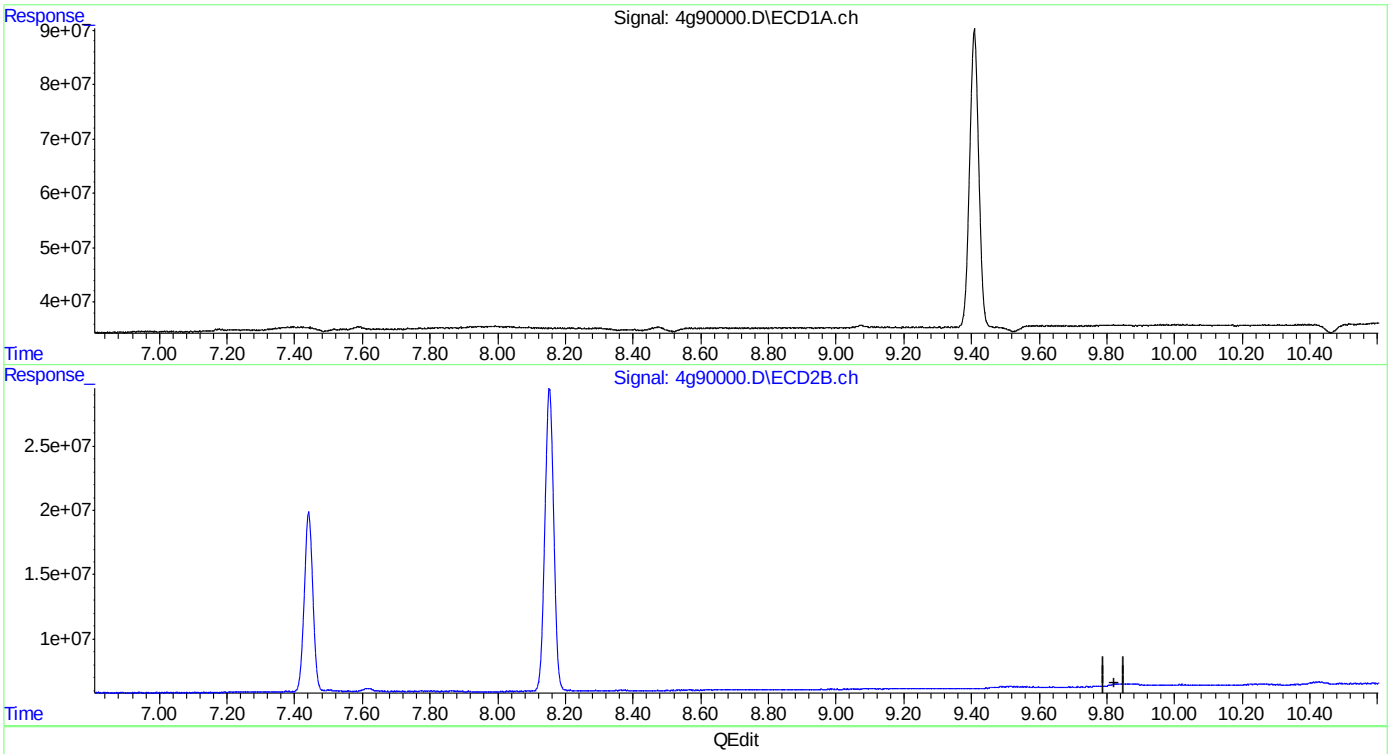
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90000.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:00 pm
Operator : kristend
Sample : ddt
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:00:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(25) Endrin Ketone (B)
0.000min 0.000 PPB
response 0

(25) Endrin Ketone #2 (B)
0.000min 0.000 PPB
response 0

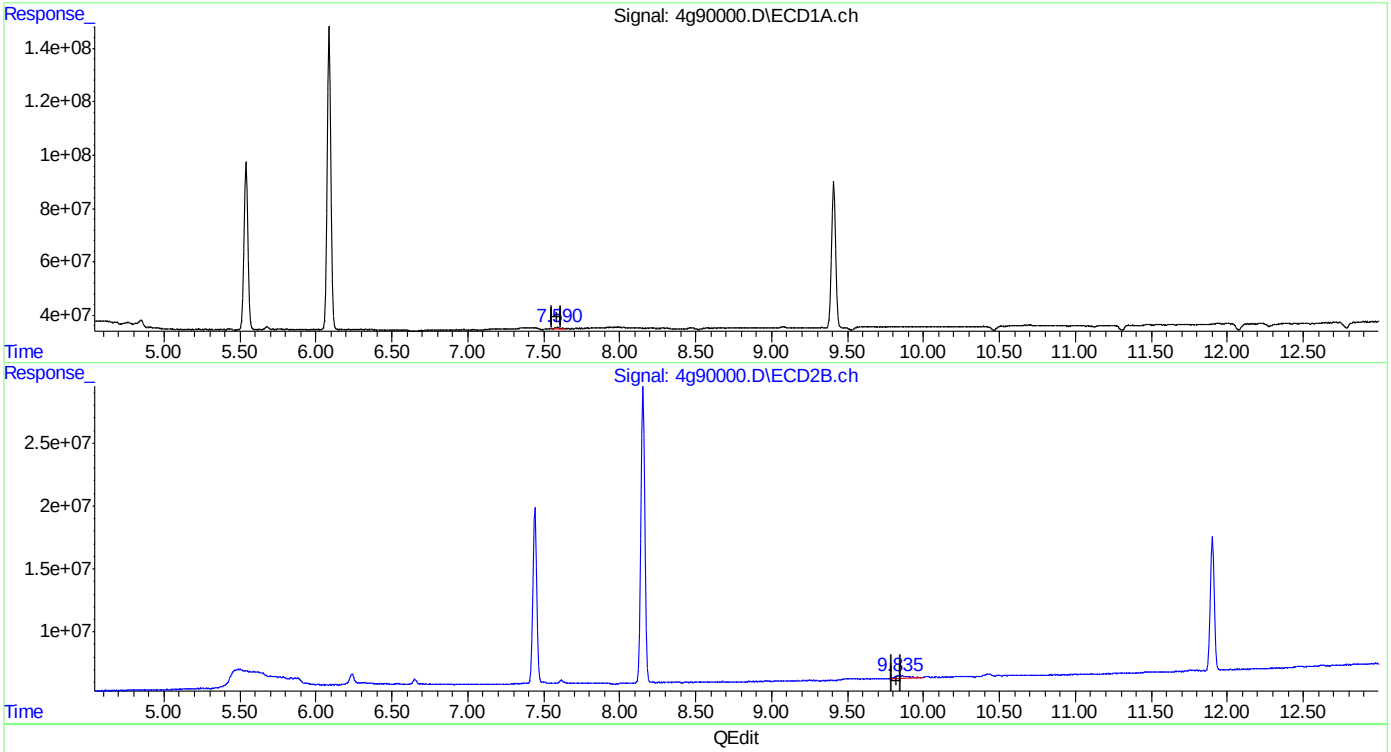
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:01:52 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90000.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:00 pm
Operator : kristend
Sample : ddt
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:00:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(25) Endrin Ketone (B)
7.590min 0.660 PPB m
response 11812087

(25) Endrin Ketone #2 (B)
9.835min 2.660 PPB m
response 11774573

(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:02:02 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/20/18 07:33

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2367\
Data File : 4g90017.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Feb 2018 11:08 am
Operator : kristend
Sample : ddt
Misc : op9981,g4g2367,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 13:02:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.475	1.901	1325.2E6	299.1E6	50.000	50.000
27) I	1-bromo-2...	1.475	1.901	1325.2E6	299.1E6	50.000	50.000
33) I	1-bromo-2...	1.475	1.901	1325.2E6	299.1E6	50.000	50.000
	System Monitoring Compounds						
2) SA	Tetrachlo...	2.091	2.797	1255.4E6	284.0E6	49.037	51.589
	Spiked Amount 40.000	Range 30 - 150		Recovery = 122.59%		128.97%	
26) SA	Decachlor...	9.400	11.902	1279.7E6	236.5E6	54.397	51.829
	Spiked Amount 40.000			Recovery = 135.99%		129.57%	
	Target Compounds						
15) B	4,4'-DDE	4.846	6.655	74153835	10782742	2.884	1.885 #
17) MA	Endrin	5.531	7.445	1437.4E6	299.0E6	58.173	55.496
18) A	4,4'-DDD	5.667	7.618	32978465	6854513	1.594m	1.503m
20) MA	4,4'-DDT	6.078	8.156	2413.0E6	521.7E6	126.322	121.203
21) B	Endrin Al...	6.494f	8.391	8542158	1003540	0.516m	0.246m#
25) B	Endrin Ke...	7.578	9.822	11208058	2747518	0.536m	0.580m
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

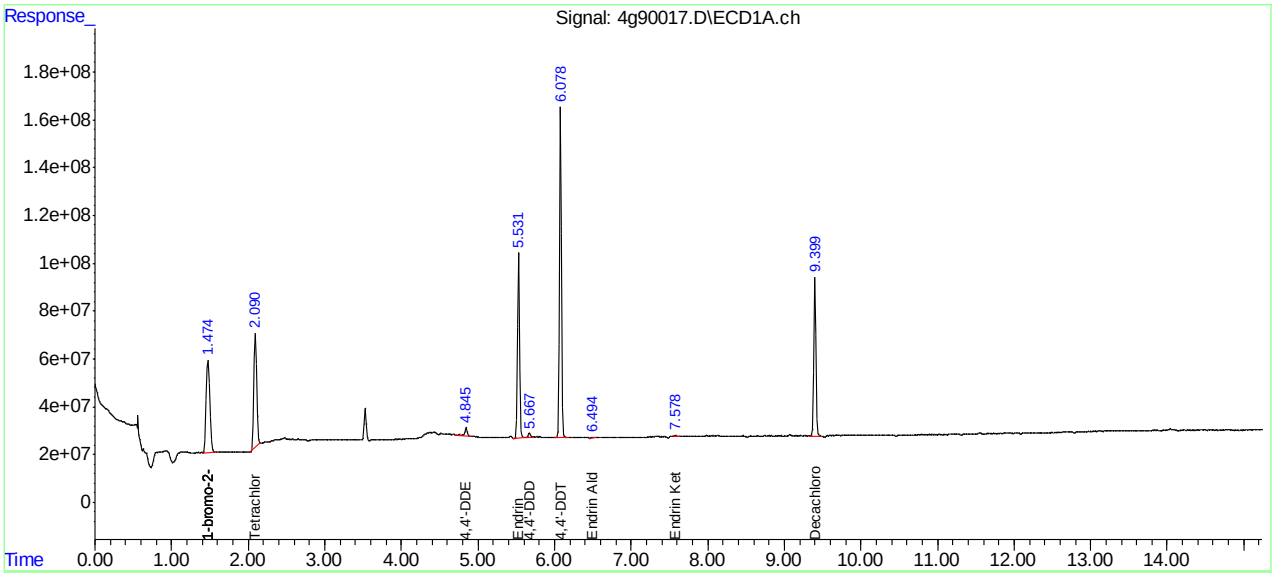
11.5.4 11

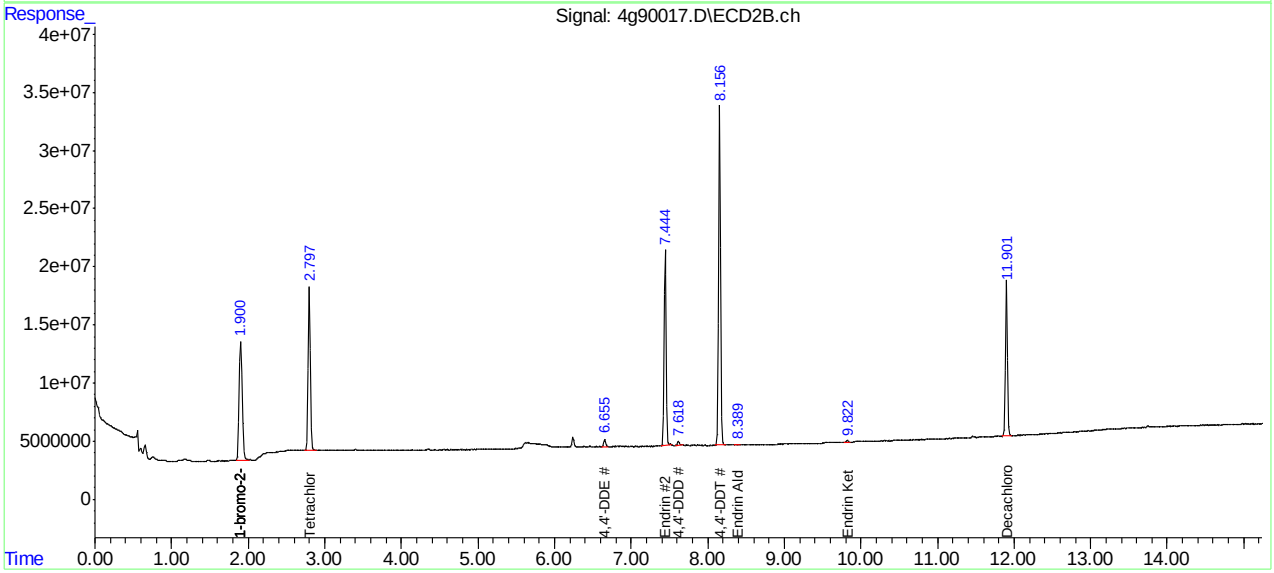
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2367\
Data File : 4g90017.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Feb 2018 11:08 am
Operator : kristend
Sample : ddt
Misc : op9981,g4g2367,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 13:02:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number: G4G2367-DDT
Lab FileID: 4G90017.D
Injection Time: 02/19/18 11:08
Method: SW846 8081B
Analyst approved: 02/19/18 13:04 Kristen Drake
Supervisor approved: 02/20/18 07:33 Gwendolyn Burns

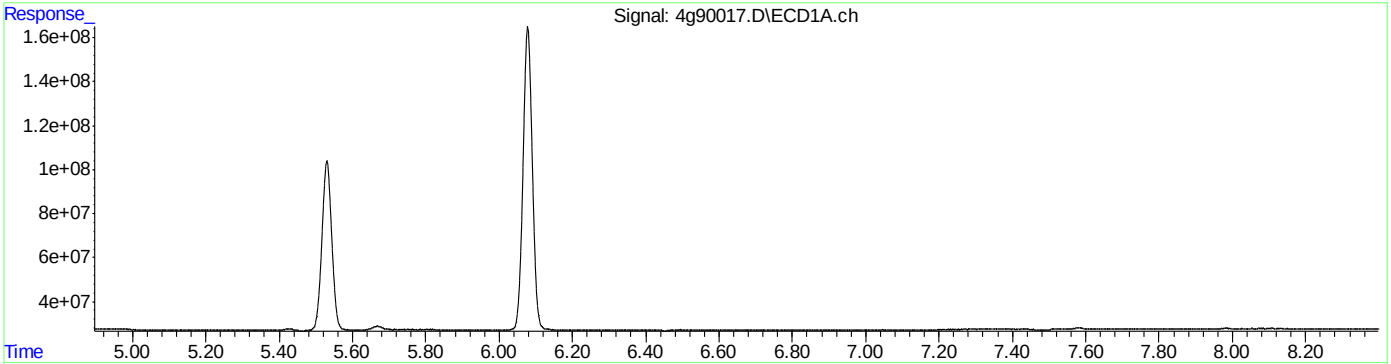
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDD	72-54-8	1	5.67	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.49	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.58	Poorly defined baseline
4,4'-DDD	72-54-8	2	7.62	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	8.39	Poorly defined baseline
Endrin ketone	53494-70-5	2	9.82	Poorly defined baseline

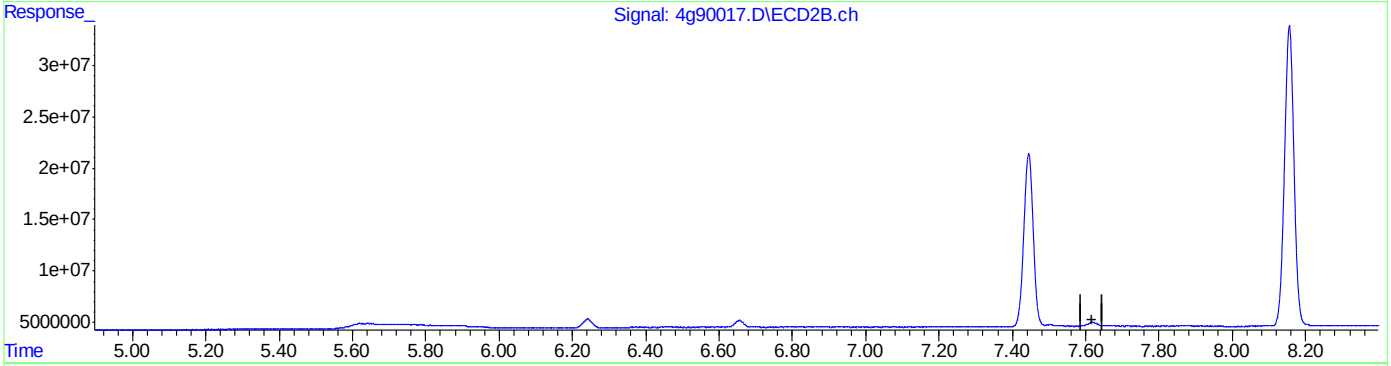
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2367\
Data File : 4g90017.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Feb 2018 11:08 am
Operator : kristend
Sample : ddt
Misc : op9981,g4g2367,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 13:01:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(18) 4,4'-DDD (A)
0.000min 0.000 PPB
response 0

(18) 4,4'-DDD #2 (A)
0.000min 0.000 PPB
response 0

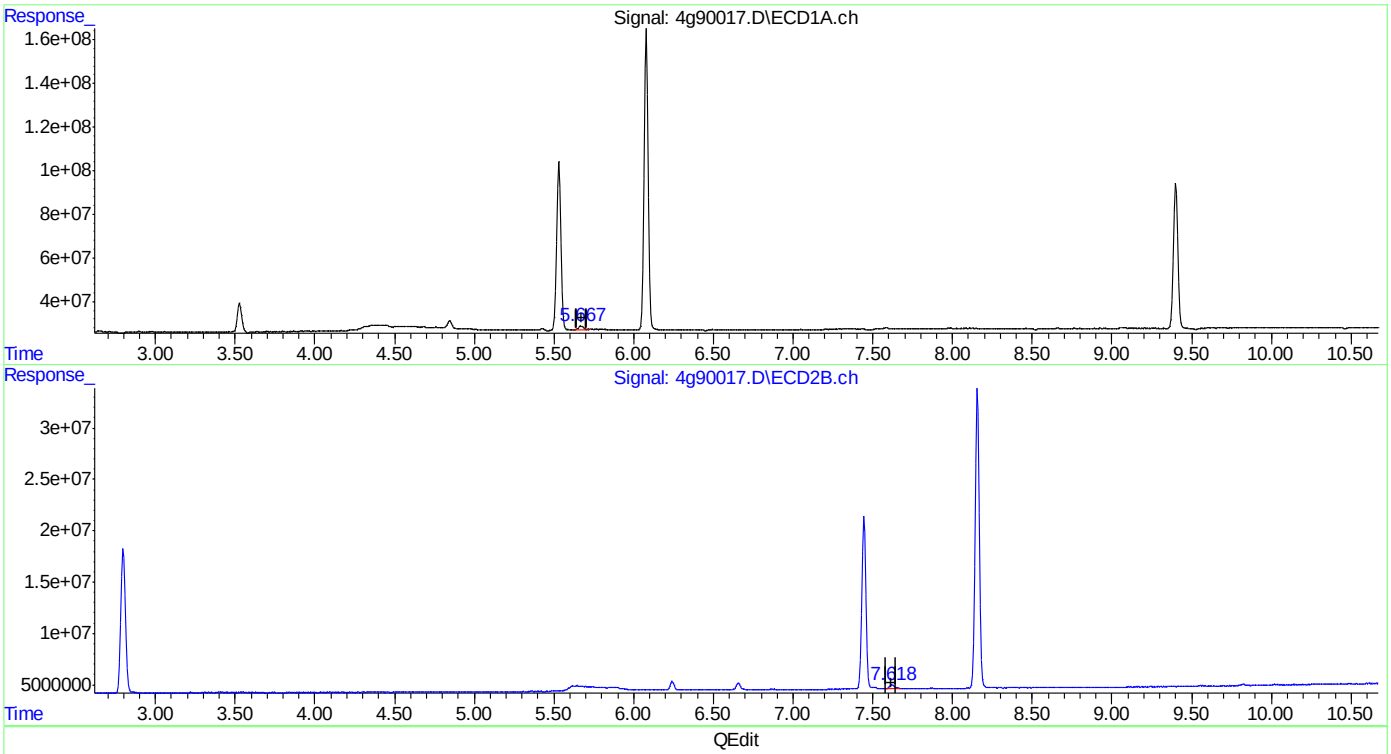
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 13:01:33 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2367\
Data File : 4g90017.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Feb 2018 11:08 am
Operator : kristend
Sample : ddt
Misc : op9981,g4g2367,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 13:01:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(18) 4,4'-DDD (A)
5.667min 1.594 PPB m
response 32978465

(18) 4,4'-DDD #2 (A)
7.618min 1.503 PPB m
response 6854513

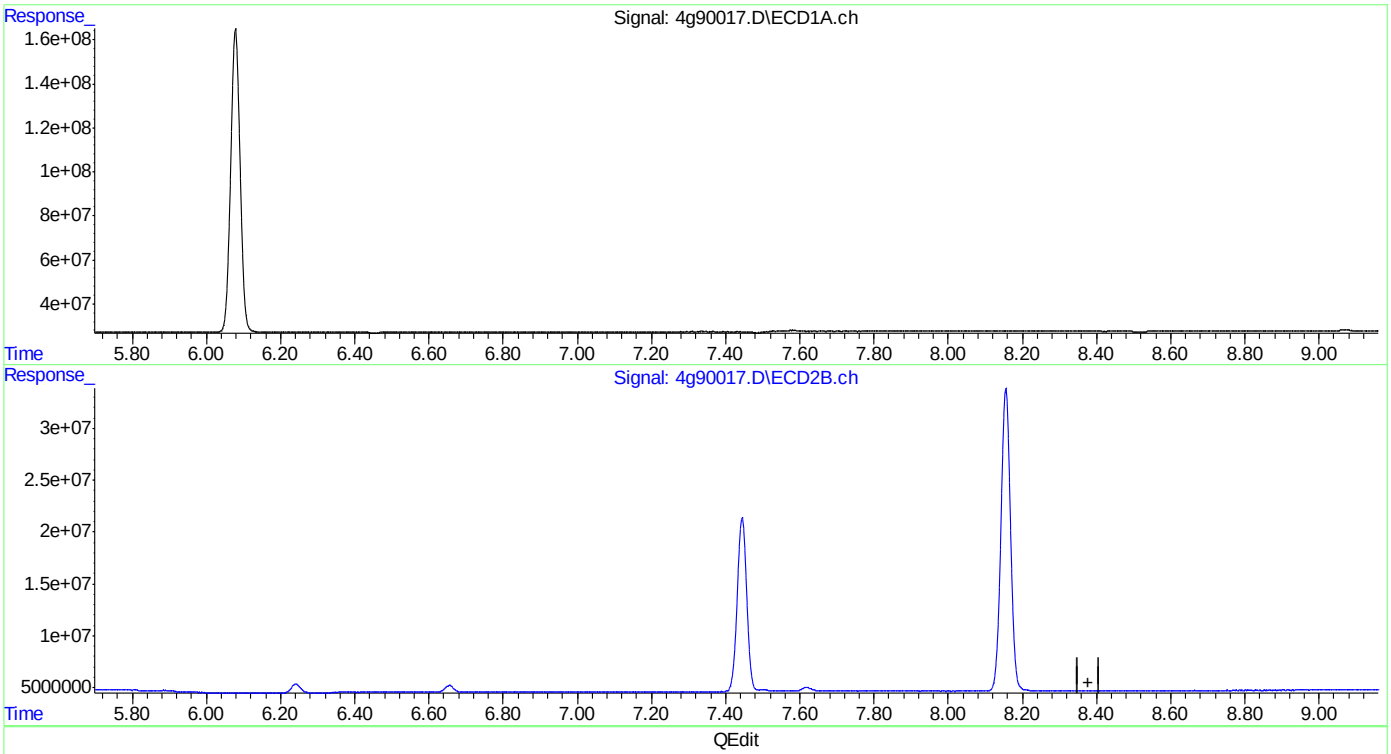
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2367\
Data File : 4g90017.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Feb 2018 11:08 am
Operator : kristend
Sample : ddt
Misc : op9981,g4g2367,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 13:01:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(21) Endrin Aldehyde (B)
0.000min 0.000 PPB
response 0

(21) Endrin Aldehyde #2 (B)
0.000min 0.000 PPB
response 0

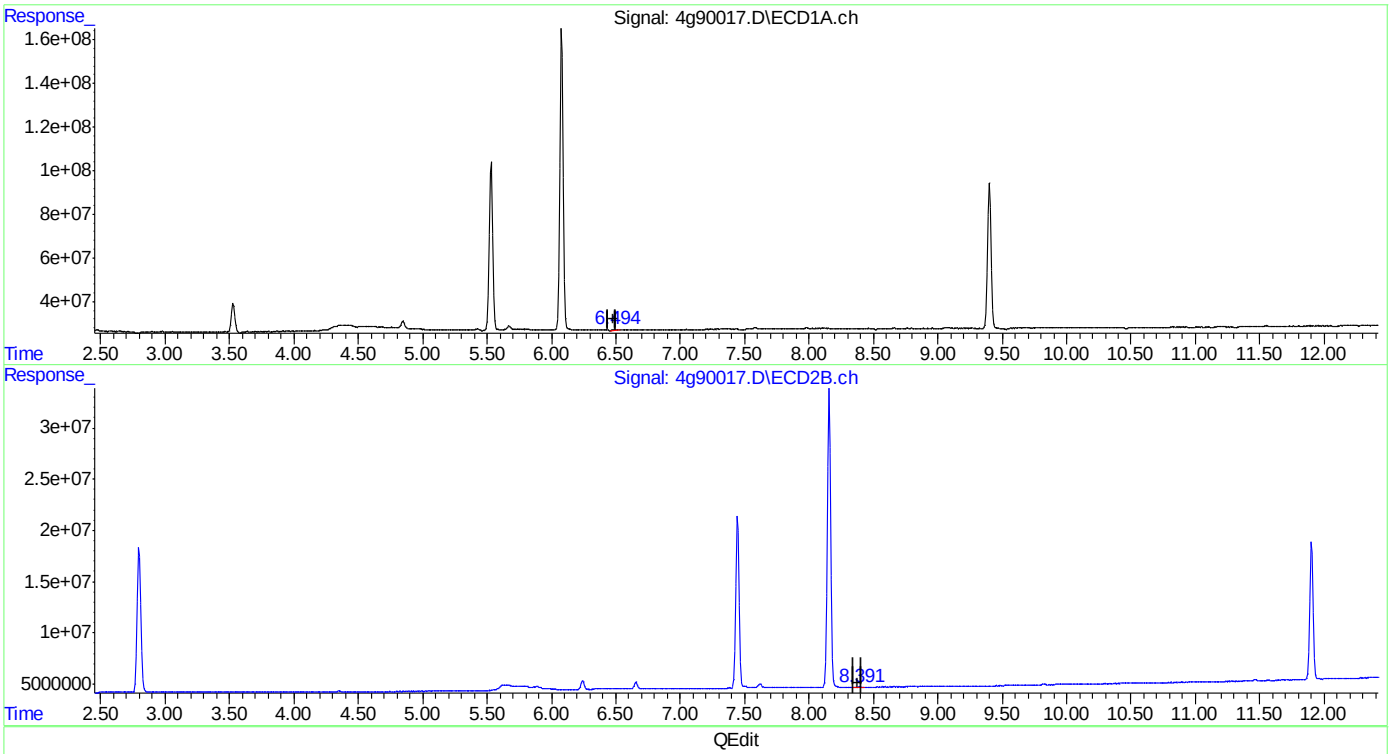
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2367\
Data File : 4g90017.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Feb 2018 11:08 am
Operator : kristend
Sample : ddt
Misc : op9981,g4g2367,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 13:01:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(21) Endrin Aldehyde (B)
6.494min 0.516 PPB m
response 8542158

(21) Endrin Aldehyde #2 (B)
8.391min 0.246 PPB m
response 1003540

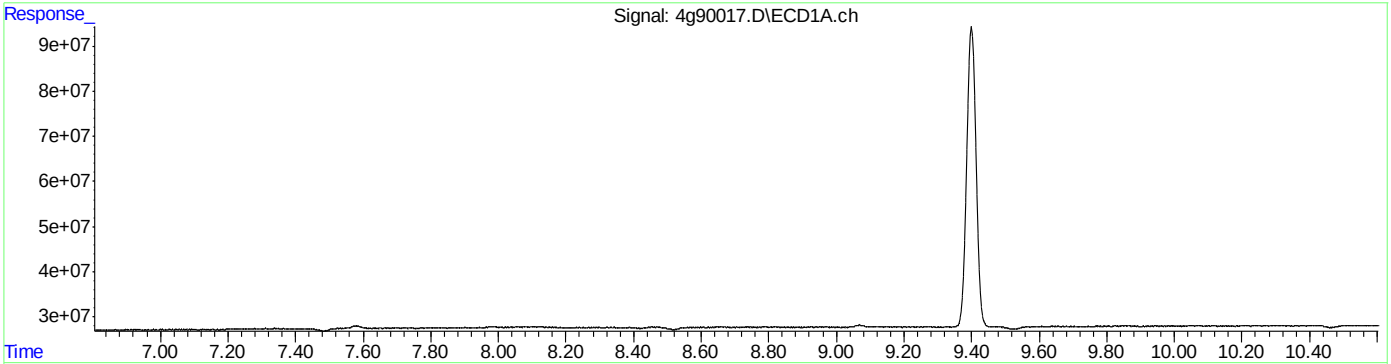
(+) = Expected Retention Time

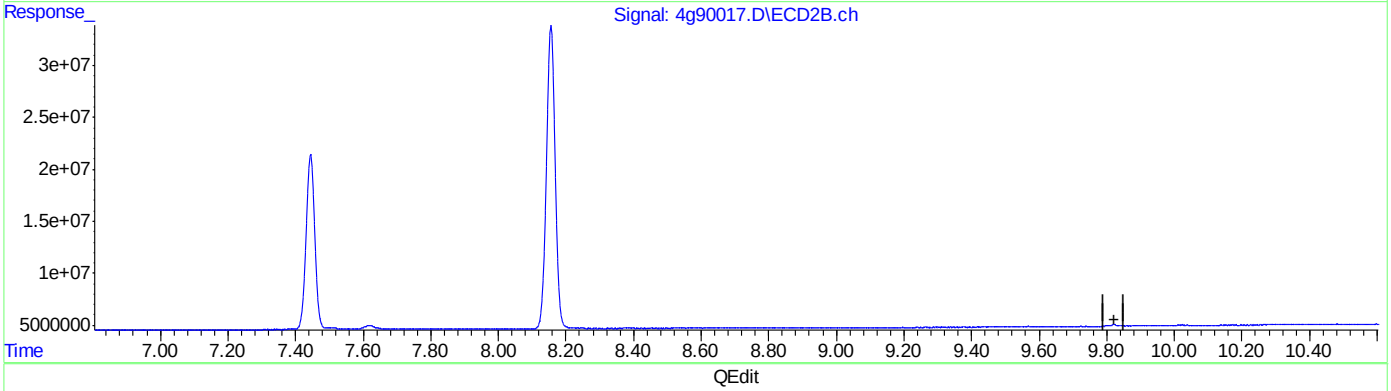
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2367\
Data File : 4g90017.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Feb 2018 11:08 am
Operator : kristend
Sample : ddt
Misc : op9981,g4g2367,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 13:01:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(25) Endrin Ketone (B)
0.000min 0.000 PPB
response 0

(25) Endrin Ketone #2 (B)
0.000min 0.000 PPB
response 0

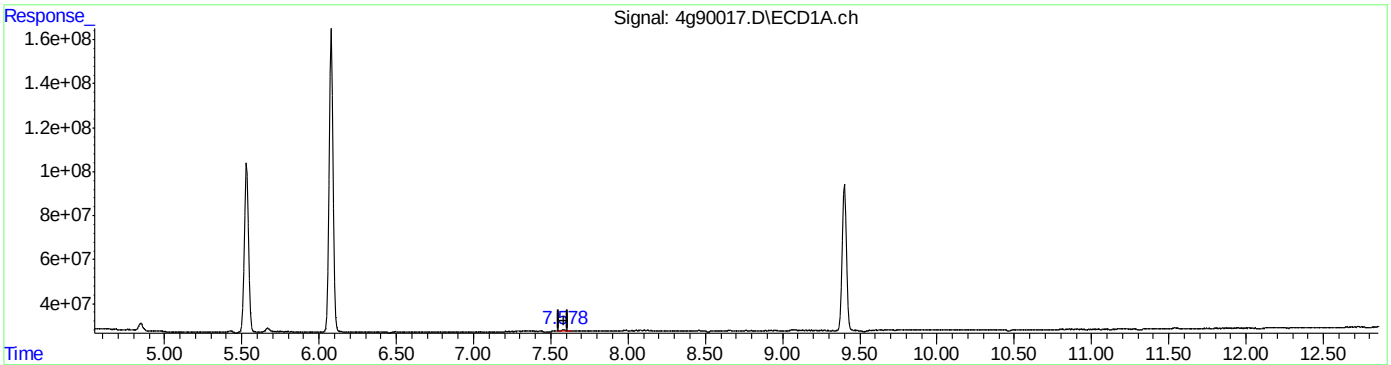
(+) = Expected Retention Time

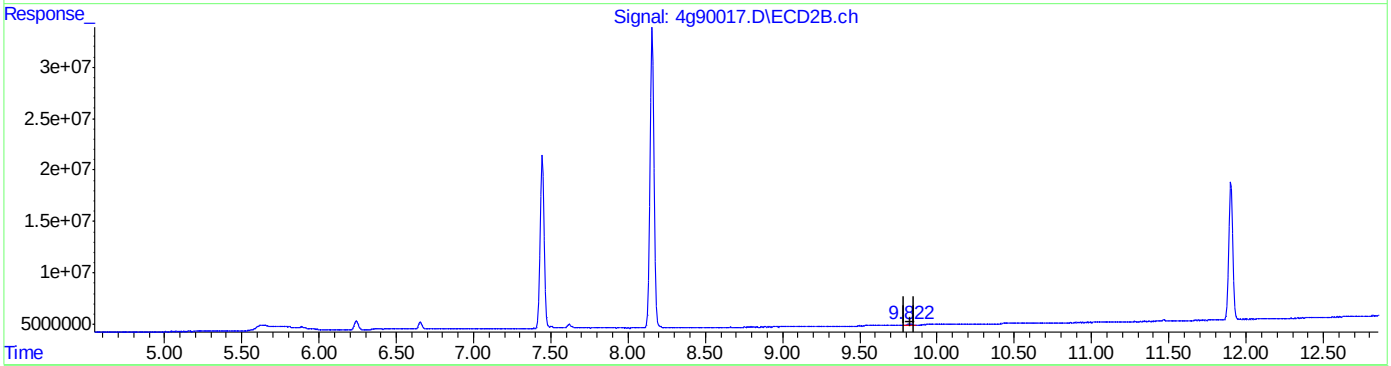
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2367\
Data File : 4g90017.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Feb 2018 11:08 am
Operator : kristend
Sample : ddt
Misc : op9981,g4g2367,880,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 13:01:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(25) Endrin Ketone (B)
7.578min 0.536 PPB m
response 11208058

(25) Endrin Ketone #2 (B)
9.822min 0.580 PPB m
response 2747518

(+) = Expected Retention Time
4PST2366.M Mon Feb 19 13:02:16 2018 RPT1

4G90017.D edits: Endrin Ketone

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/27/18 11:44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90982.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:03 am
Operator : kristend
Sample : ddt
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:23:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.462	1.883	1257.6E6	231.3E6	50.000	50.000
27) I	1-bromo-2...	1.462	1.883	1257.6E6	231.3E6	50.000	50.000
33) I	1-bromo-2...	1.462	1.883	1257.6E6	231.3E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.070	2.762	1191.0E6	210.2E6	49.020	49.373
	Spiked Amount 40.000	Range 30 - 150		Recovery = 122.55%		123.43%	
26) SA	Decachlor...	9.299	11.809	1110.0E6	171.0E6	49.719	48.450
	Spiked Amount 40.000			Recovery = 124.30%		121.13%	
	Target Compounds						
15) B	4,4'-DDE	4.778	6.572	31388945	5298481	1.286m	1.198m
17) MA	Endrin	5.450	7.355	1182.1E6	199.2E6	50.412	47.813
18) A	4,4'-DDD	5.594	7.529	42647584	8366634	2.173	2.372m
20) MA	4,4'-DDT	5.998	8.066	1879.3E6	330.3E6	103.668	99.212
21) B	Endrin Al...	6.361f	8.281	11008392	1896899	0.700m	0.602m
25) B	Endrin Ke...	7.480	9.719	14541709	2119173	0.733m	0.578m
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

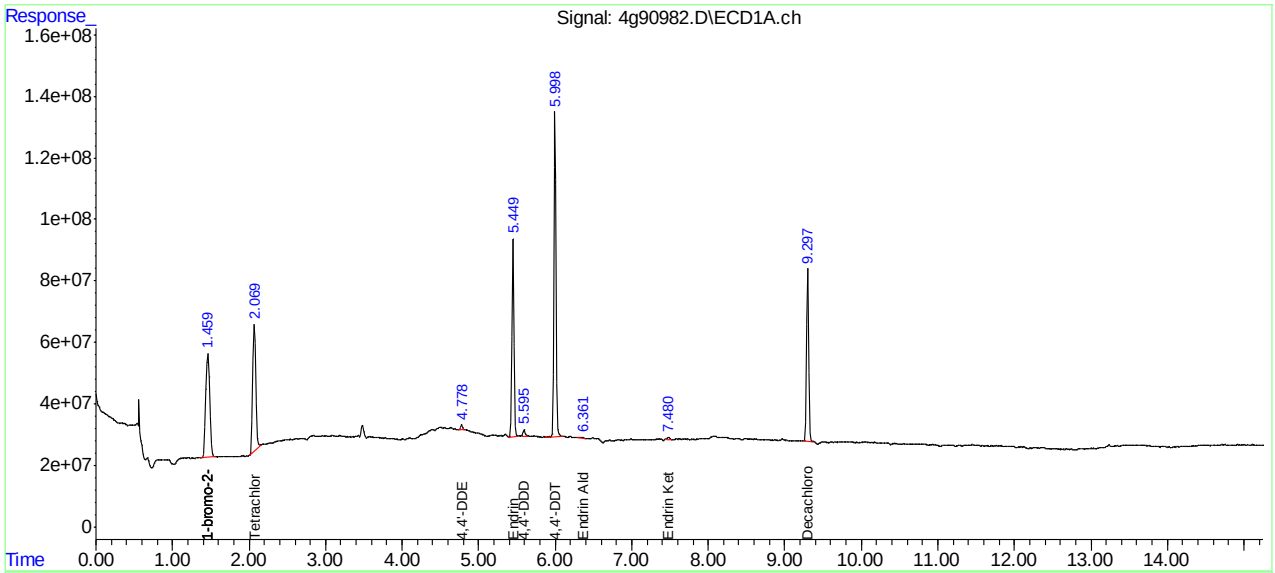
11.5.5 11

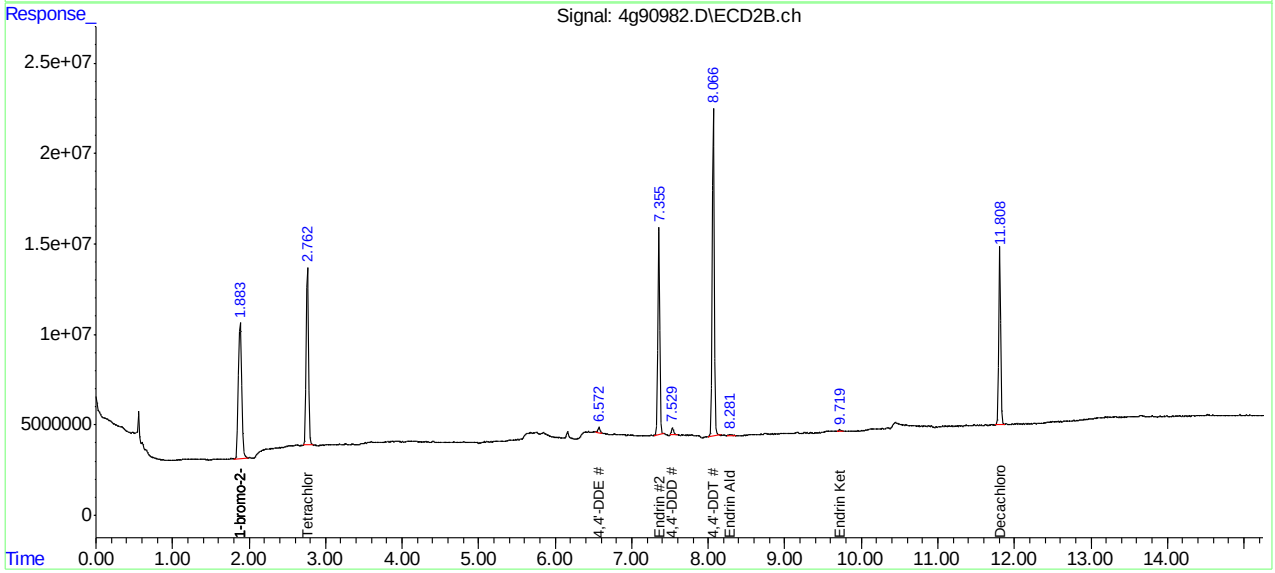
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90982.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:03 am
Operator : kristend
Sample : ddt
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:23:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number: G4G2399-DDT
Lab FileID: 4G90982.D
Injection Time: 03/27/18 09:03
Method: SW846 8081B
Analyst approved: 03/27/18 09:24 Kristen Drake
Supervisor approved: 03/27/18 11:44 Gwendolyn Burns

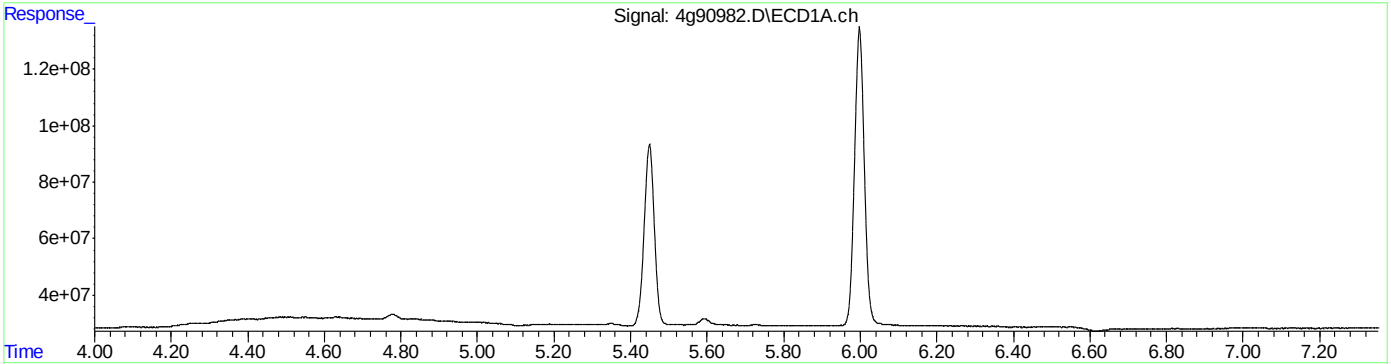
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	4.78	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.36	Poorly defined baseline
4,4'-DDE	72-55-9	2	6.57	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.48	Poorly defined baseline
4,4'-DDD	72-54-8	2	7.53	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	8.28	Poorly defined baseline
Endrin ketone	53494-70-5	2	9.72	Poorly defined baseline

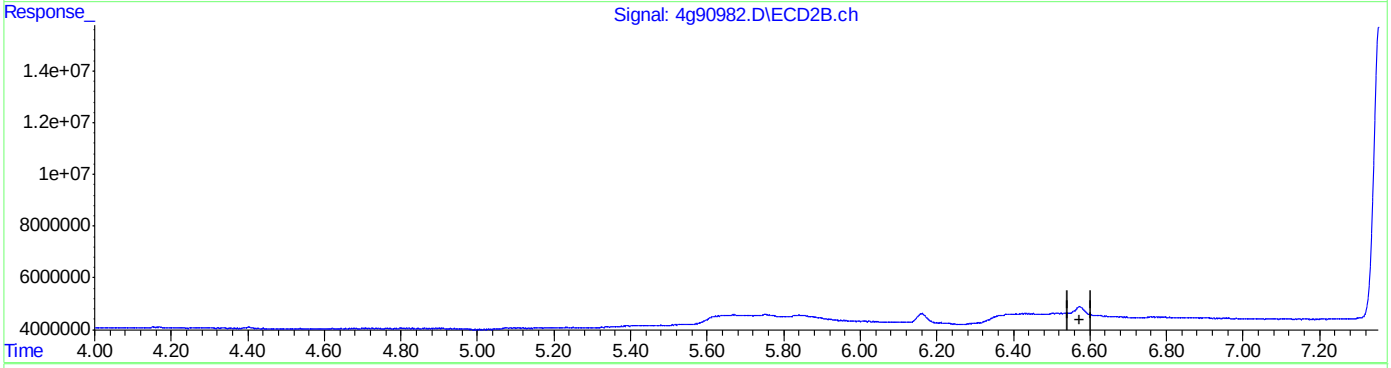
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90982.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:03 am
Operator : kristend
Sample : ddt
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:21:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(15) 4,4'-DDE (B)
0.000min 0.000 PPB
response 0

(15) 4,4'-DDE #2 (B)
0.000min 0.000 PPB
response 0

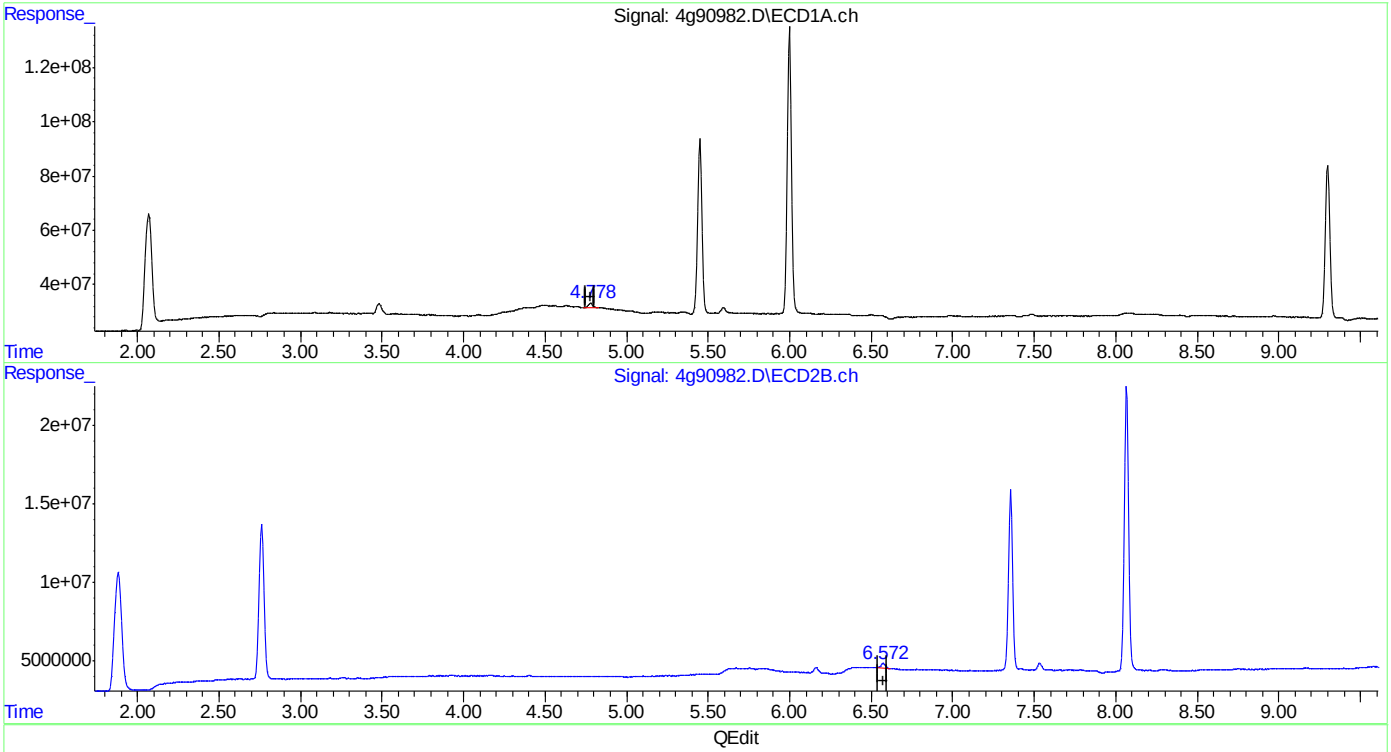
(+) = Expected Retention Time
4PST2366.M Tue Mar 27 09:21:56 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90982.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:03 am
Operator : kristend
Sample : ddt
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:21:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(15) 4,4'-DDE (B)
4.778min 1.286 PPB m
response 31388945

(15) 4,4'-DDE #2 (B)
6.572min 1.198 PPB m
response 5298481

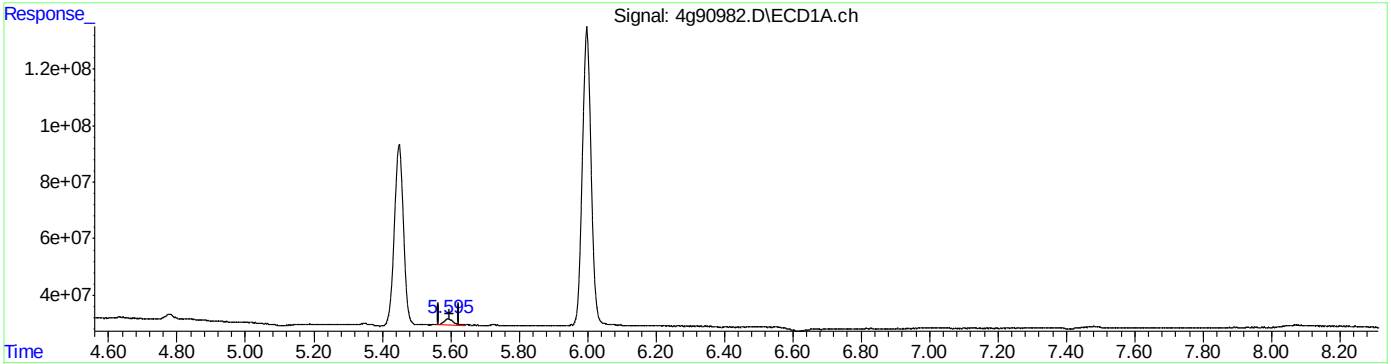
(+) = Expected Retention Time

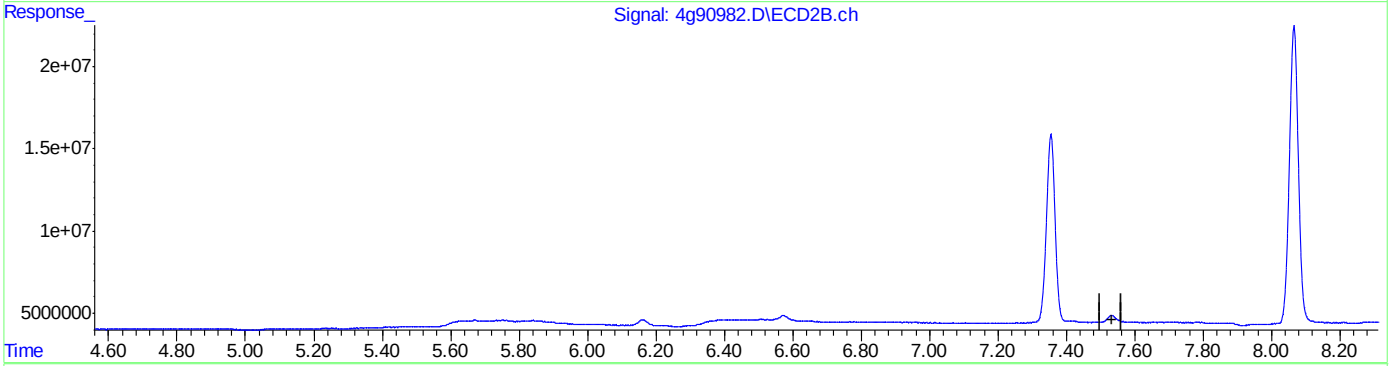
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90982.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:03 am
Operator : kristend
Sample : ddt
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:21:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(18) 4,4'-DDD (A)
5.594min 2.173 PPB
response 42647584

(18) 4,4'-DDD #2 (A)
0.000min 0.000 PPB
response 0

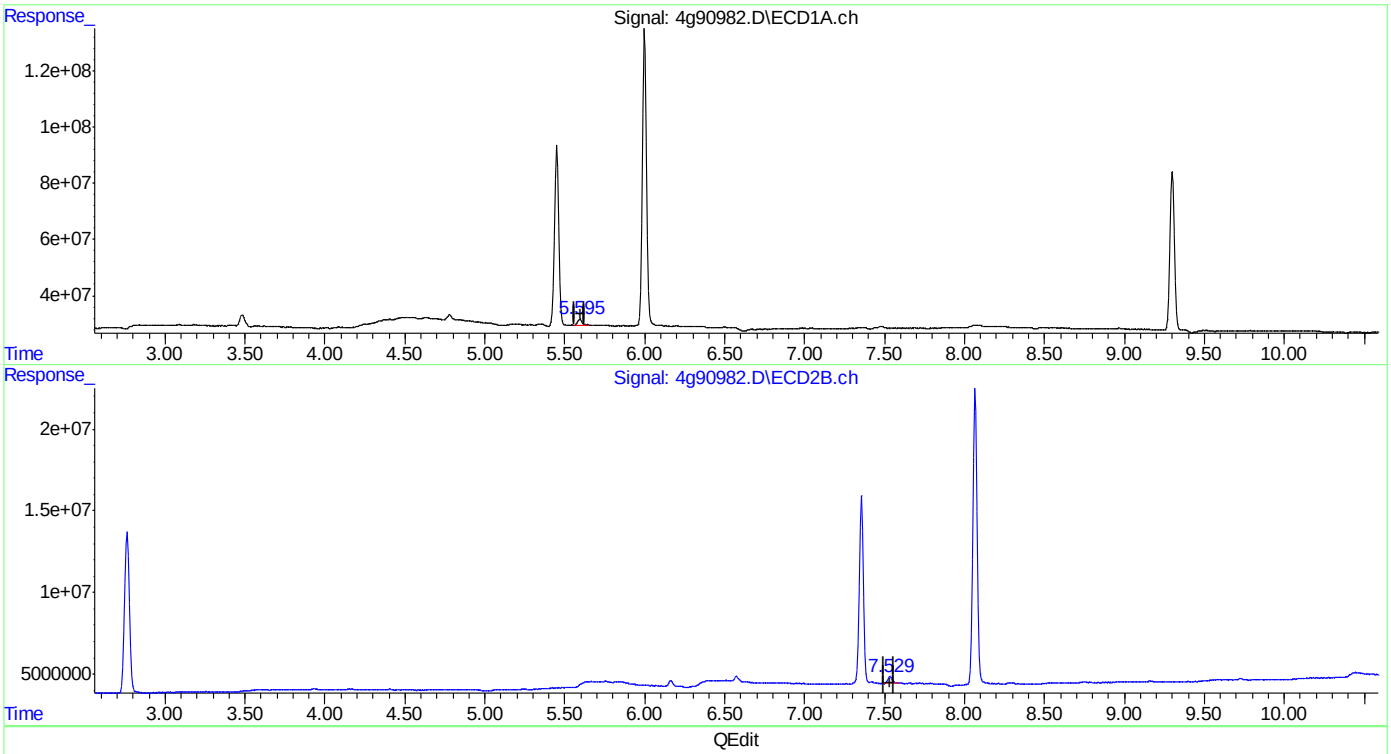
(+) = Expected Retention Time
4PST2366.M Tue Mar 27 09:22:11 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90982.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:03 am
Operator : kristend
Sample : ddt
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:21:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(18) 4,4'-DDD (A)
5.594min 2.173 PPB
response 42647584

(18) 4,4'-DDD #2 (A)
7.529min 2.372 PPB m
response 8366634

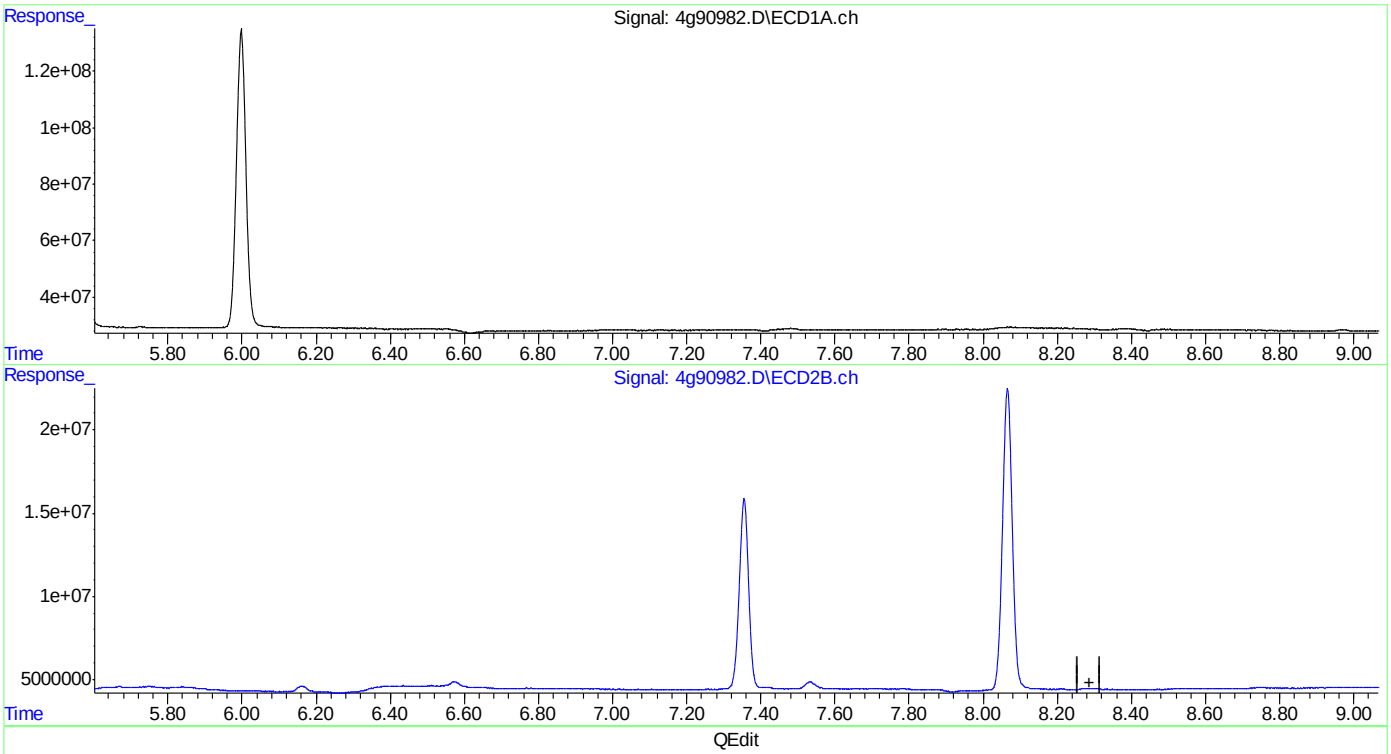
(+) = Expected Retention Time
4PST2366.M Tue Mar 27 09:22:20 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90982.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:03 am
Operator : kristend
Sample : ddt
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:21:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(21) Endrin Aldehyde (B)
0.000min 0.000 PPB
response 0

(21) Endrin Aldehyde #2 (B)
0.000min 0.000 PPB
response 0

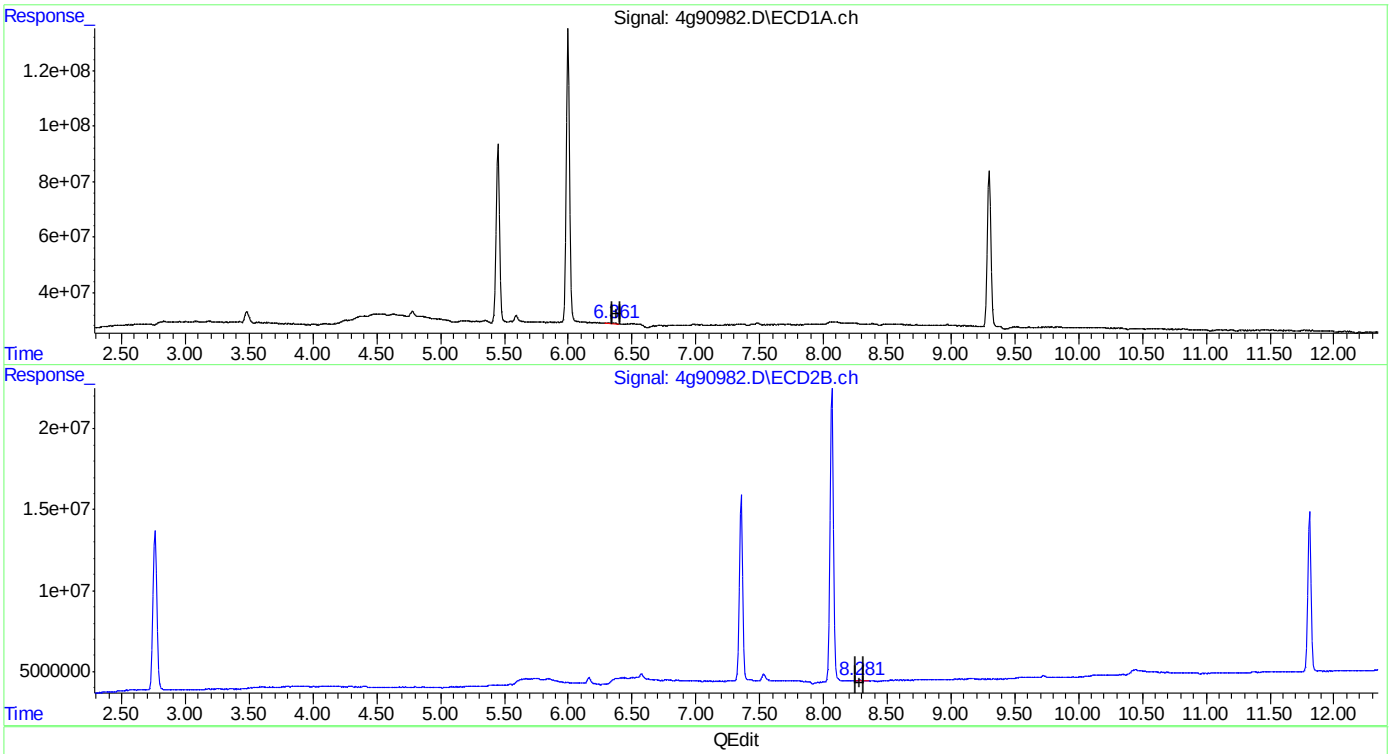
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90982.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:03 am
Operator : kristend
Sample : ddt
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:21:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(21) Endrin Aldehyde (B)
6.361min 0.700 PPB m
response 11008392

(21) Endrin Aldehyde #2 (B)
8.281min 0.602 PPB m
response 1896899

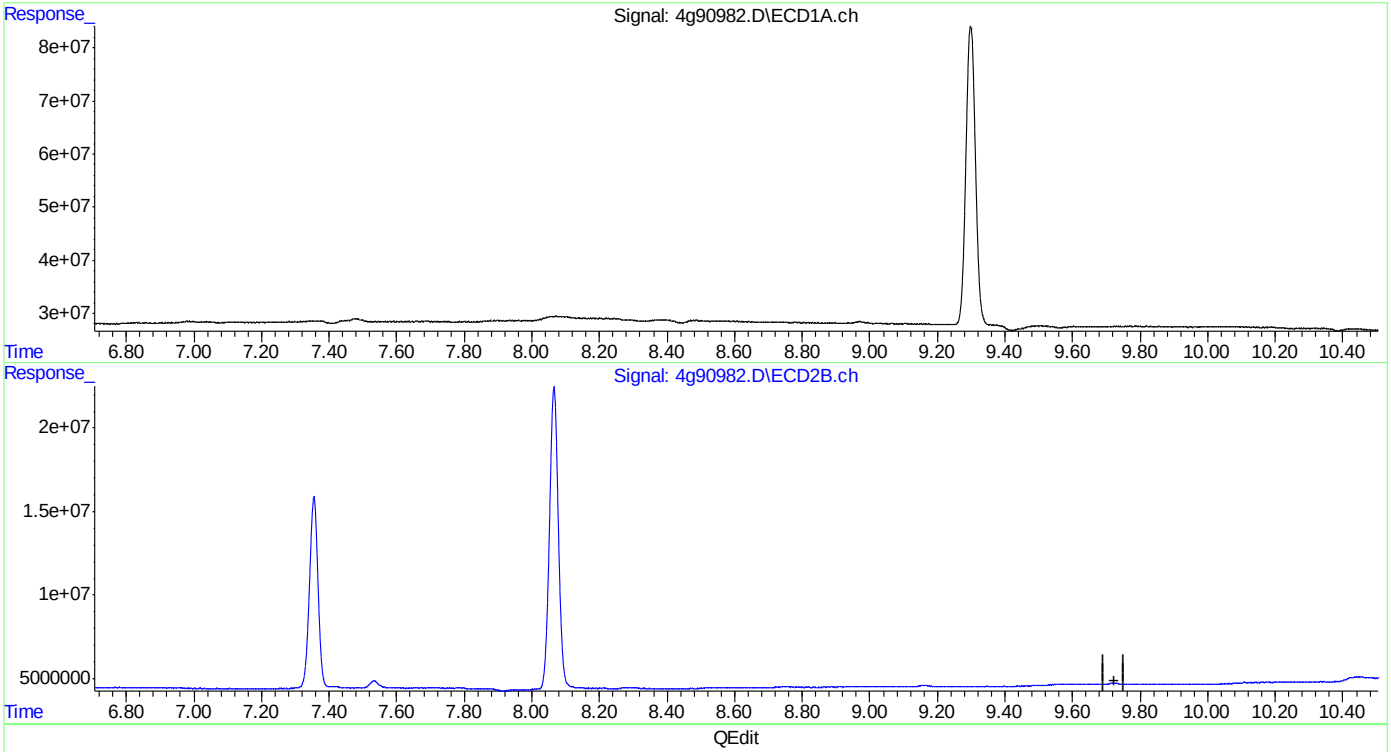
(+) = Expected Retention Time
4PST2366.M Tue Mar 27 09:22:38 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90982.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:03 am
Operator : kristend
Sample : ddt
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:21:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(25) Endrin Ketone (B)
0.000min 0.000 PPB
response 0

(25) Endrin Ketone #2 (B)
0.000min 0.000 PPB
response 0

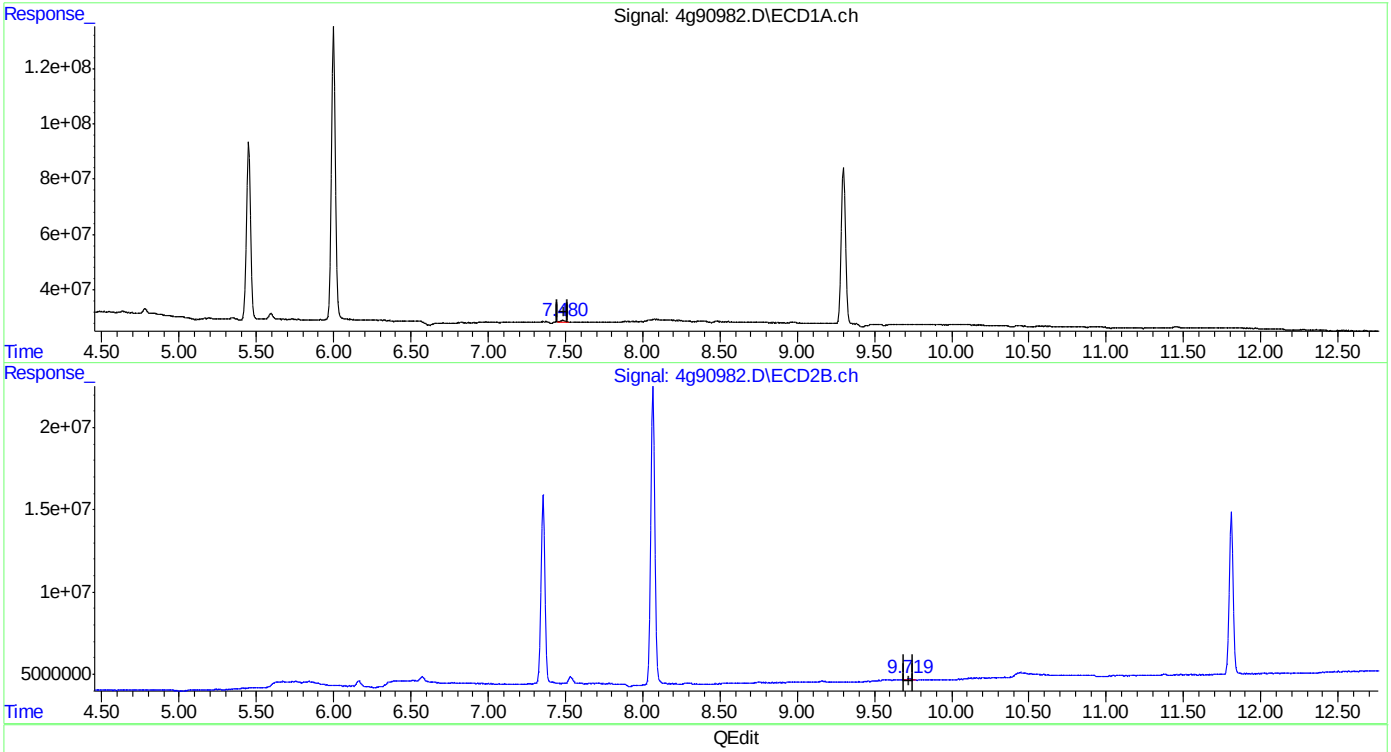
(+) = Expected Retention Time
4PST2366.M Tue Mar 27 09:22:45 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90982.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:03 am
Operator : kristend
Sample : ddt
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:21:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(25) Endrin Ketone (B)
7.480min 0.733 PPB m
response 14541709

(25) Endrin Ketone #2 (B)
9.719min 0.578 PPB m
response 2119173

(+) = Expected Retention Time
4PST2366.M Tue Mar 27 09:22:58 2018 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143265.D\ECD1A.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143265.D\ECD2B.CH
Acq On : 2-8-18 09:54:08 AM Operator: minam
Sample : ic4557-100 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.17	2.46	455.2E6	106.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.79	3.36	827.7E6	187.0E6	89.801	87.195
	Spiked Amount 40.000	Range 30 - 150		Recovery =		224.50%#	217.99%#
26) SA	Decachlorobiphen	10.15	12.07	638.4E6	137.5E6	74.652	84.936
	Spiked Amount 40.000			Recovery =		186.63%	212.34%
	Target Compounds						
3)	Hexachlorobenzen	3.14	3.92	1000.5E6	258.4E6	86.104	84.602
4) A	alpha-BHC	3.28	4.09	1160.7E6	269.1E6	96.608	92.133
5) MA	gamma-BHC	3.59	4.55	1057.8E6	240.6E6	88.176	90.501
6) MA	Heptachlor	4.11	5.18	1043.0E6	223.7E6	85.057	88.657
7) B	beta-BHC	3.67	4.63	461.2E6	98550083	75.088	82.929
8) B	delta-BHC	3.87	5.07	917.4E6	219.6E6	101.993	92.476
9) MB	Aldrin	4.47	5.67	967.2E6	220.9E6	89.220	85.066
10)	Alachlor	4.59	5.42	118.9E6	25960455	74.702	77.844
11) B	Heptachlor Epoxi	5.20	6.54	831.2E6	203.3E6	80.568	85.198
12) B	gamma-Chlordane	5.38	6.84	809.5E6	198.8E6	99.794	84.862
13) B	alpha-Chlordane	5.55	7.07	862.5E6	191.6E6	82.529	84.421
14) A	Endosulfan I	5.74	7.18	832.2E6	187.5E6	82.600	85.637
15) B	4,4'-DDE	5.65	7.32	825.9E6	200.3E6	91.496	88.309
16) MA	Dieldrin	6.07	7.64	914.5E6	210.5E6	87.887	84.727
17) MA	Endrin	6.41	8.17	852.7E6	189.1E6	90.198	86.653
18) A	4,4'-DDD	6.51	8.31	683.8E6	162.3E6	90.234	87.882
19) B	Endosulfan II	6.74	8.53	813.4E6	181.6E6	85.347	84.516
20) MA	4,4'-DDT	6.94	8.86	678.5E6	135.6E6	106.300	102.053
21) B	Endrin Aldehyde	7.37	9.11	669.5E6	141.3E6	83.308	83.407
22) B	Endosulfan Sulfa	8.07	9.56	668.2E6	136.7E6	82.467	82.961
23) A	Methoxychlor	7.72	9.98	357.4E6	70838310	82.401	99.707
24)	Mirex	7.94	10.31	672.4E6	107.8E6	72.622	76.140
25) B	Endrin Ketone	8.53	10.34	717.1E6	163.6E6	85.491	87.589

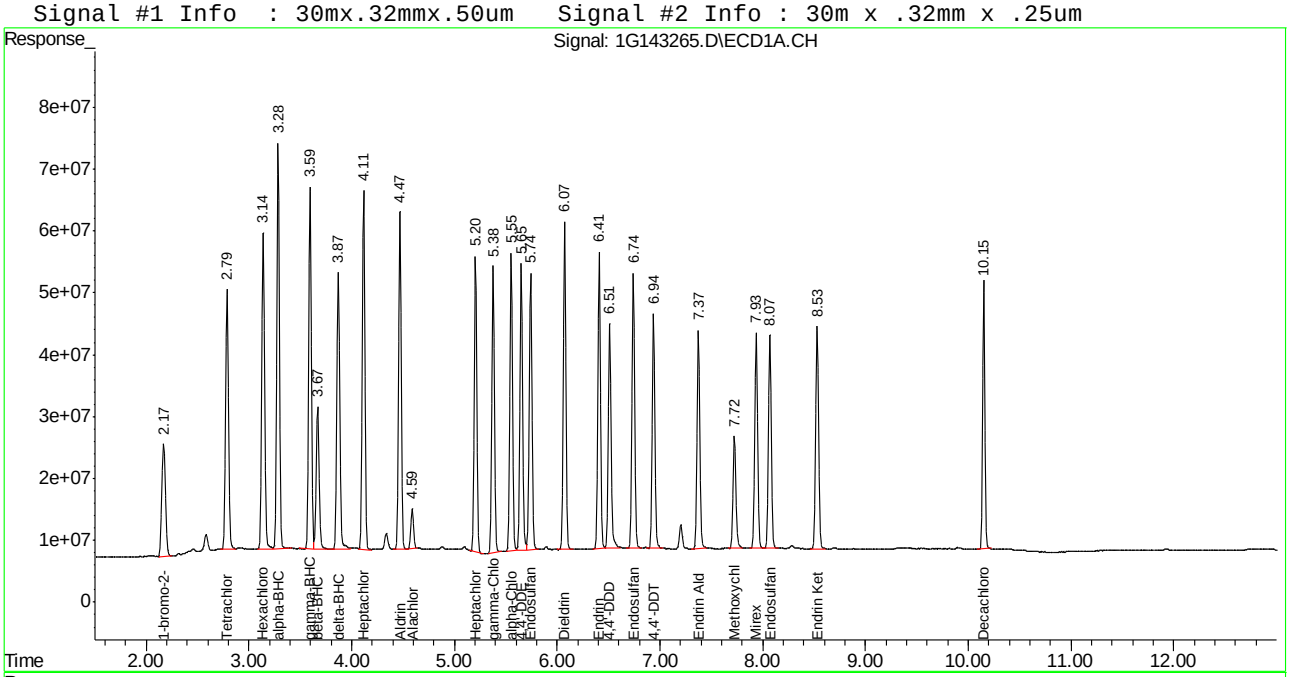
(f)=RT Delta > 1/2 Window (m)=manual int.

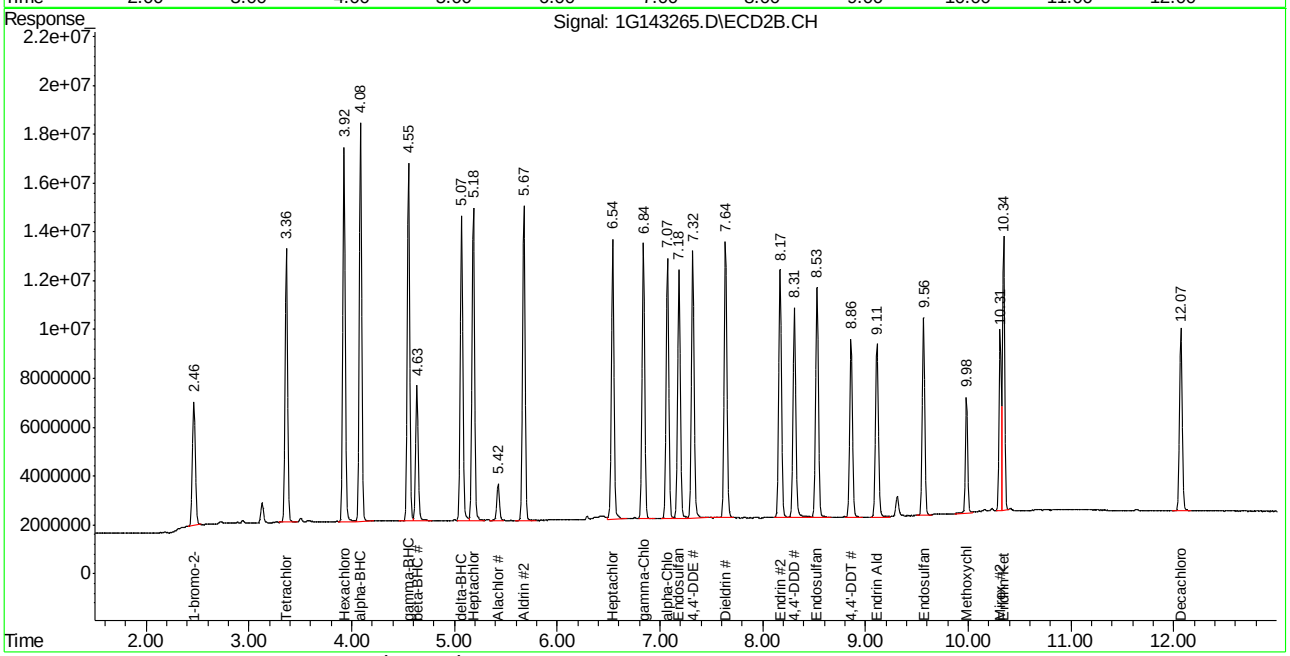
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143265.D\ECD1A.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143265.D\ECD2B.CH
Acq On : 2-8-18 09:54:08 AM Operator: minam
Sample : ic4557-100 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143266.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143266.D\ECD2B.CH
Acq On : 08 Feb 2018 10:11 am Operator: minam
Sample : ic4557-75 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.17	2.46	458.4E6	106.4E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.36	623.4E6	140.9E6	67.158	65.567
		Spiked Amount 40.000	Range 30 - 150		Recovery =		167.89%#	163.92%#
26)	SA	Decachlorobiphen	10.15	12.07	480.8E6	103.3E6	55.822	63.681
		Spiked Amount 40.000			Recovery =		139.56%	159.20%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	756.4E6	193.9E6	64.638	63.359
4)	A	alpha-BHC	3.28	4.08	853.4E6	200.3E6	70.527	68.439
5)	MA	gamma-BHC	3.59	4.55	783.7E6	179.0E6	64.864	67.214
6)	MA	Heptachlor	4.11	5.18	775.0E6	166.5E6	62.750	65.866
7)	B	beta-BHC	3.67	4.63	353.3E6	74824038	57.112	62.844
8)	B	delta-BHC	3.87	5.07	671.8E6	161.9E6	74.158	68.061
9)	MB	Aldrin	4.47	5.67	719.3E6	165.5E6	65.879	63.628
10)		Alachlor	4.59	5.42	91052480	20077501	56.804	60.090
11)	B	Heptachlor Epoxi	5.20	6.54	647.0E6	153.1E6	62.271	64.015
12)	B	gamma-Chlordane	5.38	6.84	607.7E6	149.6E6	74.380	63.705
13)	B	alpha-Chlordane	5.55	7.07	650.4E6	143.7E6	61.798	63.227
14)	A	Endosulfan I	5.74	7.19	628.8E6	140.0E6	61.969	63.813
15)	B	4,4'-DDE	5.65	7.32	612.7E6	149.6E6	67.390	65.835
16)	MA	Dieldrin	6.07	7.64	680.9E6	157.6E6	64.973	63.333
17)	MA	Endrin	6.41	8.17	632.1E6	140.7E6	66.385	64.372
18)	A	4,4'-DDD	6.51	8.31	504.4E6	120.2E6	66.087	64.979
19)	B	Endosulfan II	6.74	8.53	607.7E6	135.4E6	63.315	62.868
20)	MA	4,4'-DDT	6.94	8.86	490.5E6	98090393	76.295	73.681
21)	B	Endrin Aldehyde	7.37	9.11	504.4E6	105.5E6	62.326	62.116
22)	B	Endosulfan Sulfa	8.07	9.56	496.9E6	101.1E6	60.892	61.201
23)	A	Methoxychlor	7.73	9.98	263.4E6	50655138	60.286	71.163
24)		Mirex	7.94	10.31	516.3E6	81641089	55.368	57.557
25)	B	Endrin Ketone	8.53	10.34	529.4E6	120.1E6	62.663	64.178

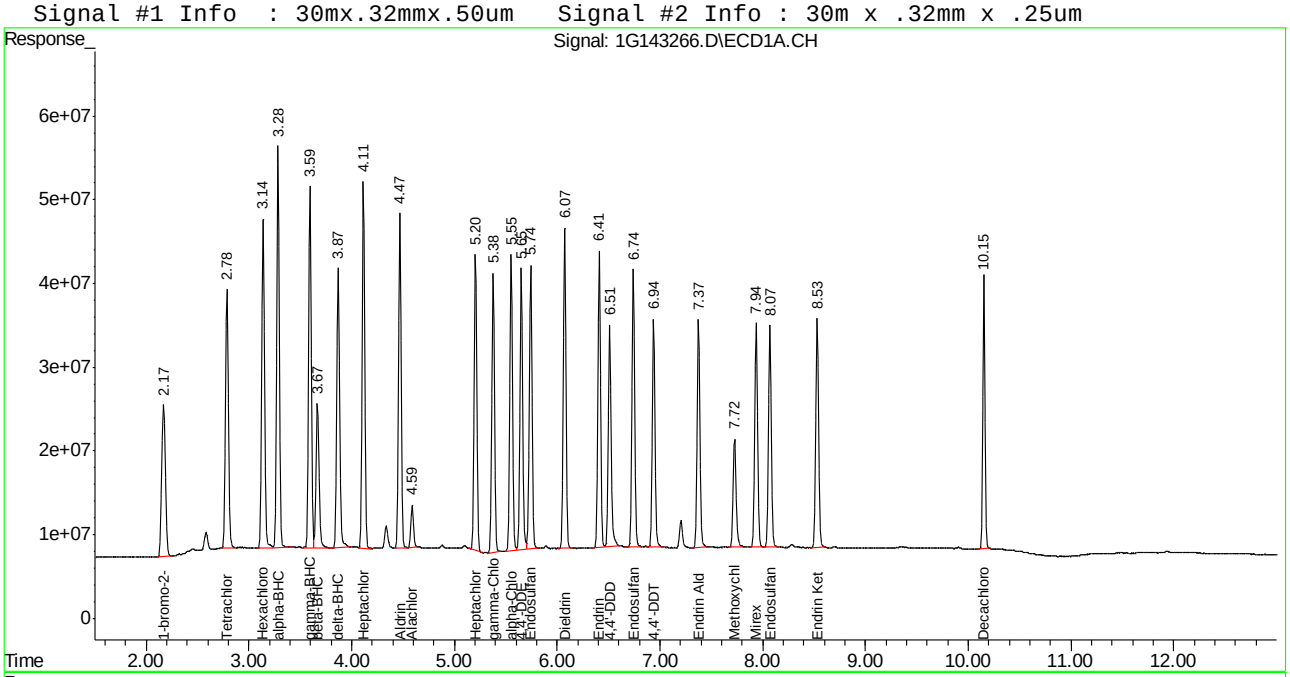
(f)=RT Delta > 1/2 Window (m)=manual int.

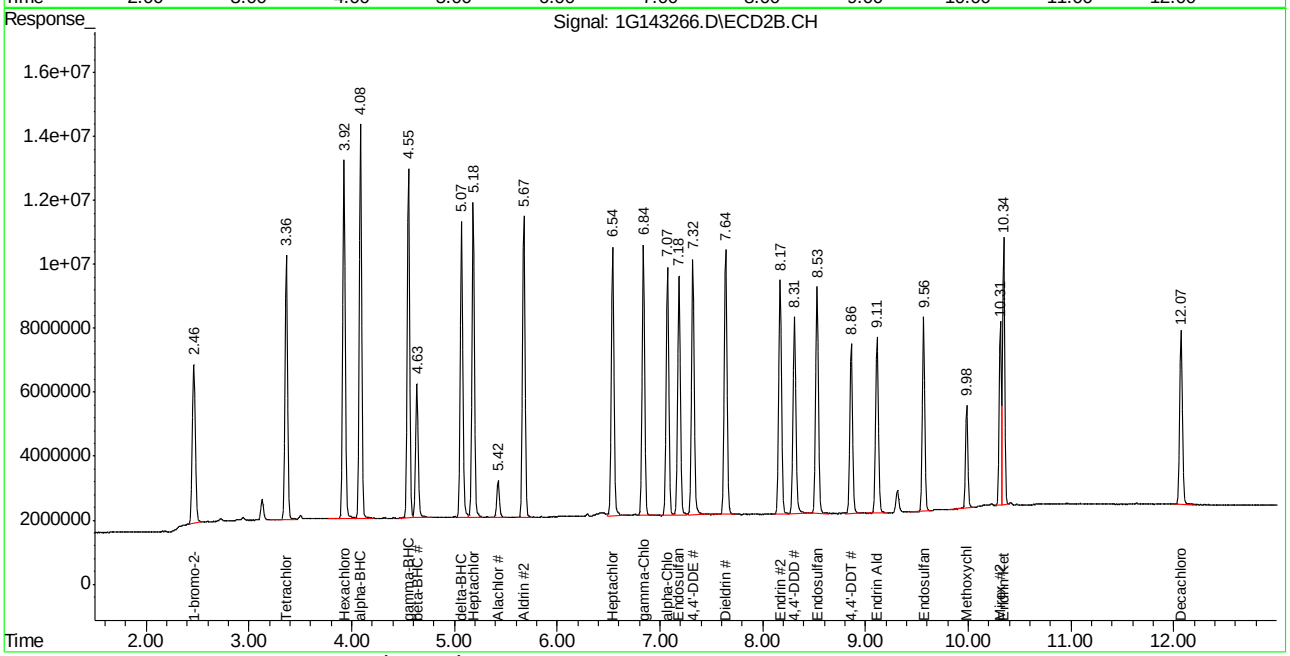
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143266.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143266.D\ECD2B.CH
Acq On : 08 Feb 2018 10:11 am Operator: minam
Sample : ic4557-75 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





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Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143267.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143267.D\ECD2B.CH
Acq On : 08 Feb 2018 10:28 am Operator: minam
Sample : ic4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2-nitrob	2.17	2.46	466.1E6	107.3E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	2.79	3.36	414.5E6	94166878	43.921	43.449
	Spiked Amount 40.000	Range 30 - 150		Recovery =		109.80%	108.62%
26) SA	Decachlorobiphen	10.15	12.07	323.5E6	68819867	36.942	42.065
	Spiked Amount 40.000			Recovery =		92.36%	105.16%
	Target Compounds						
3)	Hexachlorobenzen	3.14	3.92	513.5E6	129.7E6	43.159	42.016
4) A	alpha-BHC	3.28	4.08	551.6E6	130.9E6	44.833	44.325
5) MA	gamma-BHC	3.59	4.55	513.7E6	118.0E6	41.817	43.916
6) MA	Heptachlor	4.11	5.18	517.1E6	110.4E6	41.176	43.303
7) B	beta-BHC	3.67	4.63	238.3E6	49940023	37.883	41.574
8) B	delta-BHC	3.87	5.07	440.9E6	106.3E6	47.872	44.283
9) MB	Aldrin	4.47	5.67	477.1E6	110.3E6	42.975	42.019
10)	Alachlor	4.59	5.42	63958408	13559572	39.243	40.224
11) B	Heptachlor Epoxi	5.20	6.54	441.3E6	103.3E6	41.773	42.837
12) B	gamma-Chlordane	5.38	6.84	407.2E6	99833080	49.019	42.151
13) B	alpha-Chlordane	5.55	7.07	442.1E6	96594063	41.310	42.114
14) A	Endosulfan I	5.74	7.18	426.4E6	94284793	41.333	42.601
15) B	4,4'-DDE	5.65	7.32	407.3E6	100.4E6	44.057	43.787
16) MA	Dieldrin	6.07	7.64	455.6E6	105.4E6	42.758	41.989
17) MA	Endrin	6.41	8.17	421.5E6	94027826	43.538	42.630
18) A	4,4'-DDD	6.51	8.31	333.0E6	80625581	42.907	43.199
19) B	Endosulfan II	6.74	8.53	411.2E6	91060152	42.130	41.923
20) MA	4,4'-DDT	6.94	8.86	317.4E6	63349623	48.561	47.165
21) B	Endrin Aldehyde	7.38	9.11	343.5E6	71742480	41.746	41.884
22) B	Endosulfan Sulfa	8.07	9.56	331.3E6	66838531	39.926	40.117
23) A	Methoxychlor	7.73	9.98	176.6E6	32082371	39.757	44.673
24)	Mirex	7.94	10.31	362.7E6	55316133	38.254	38.654
25) B	Endrin Ketone	8.53	10.34	349.1E6	78926119	40.647	41.808

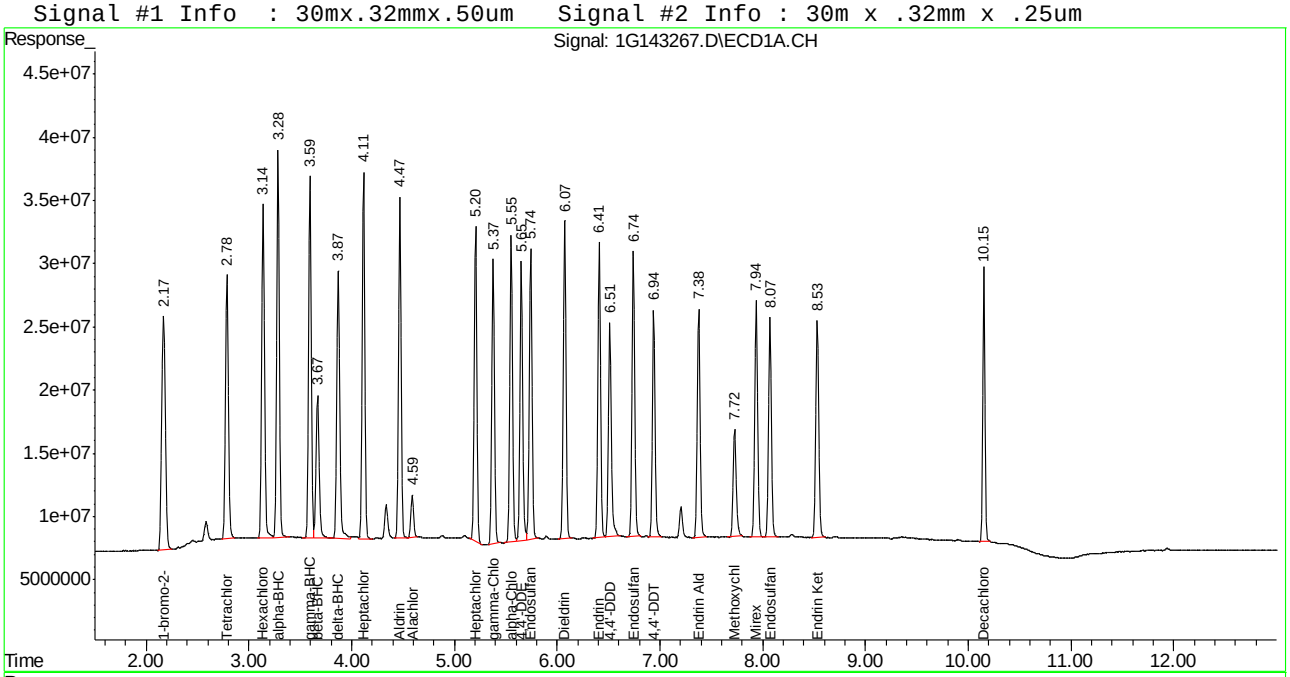
(f)=RT Delta > 1/2 Window (m)=manual int.

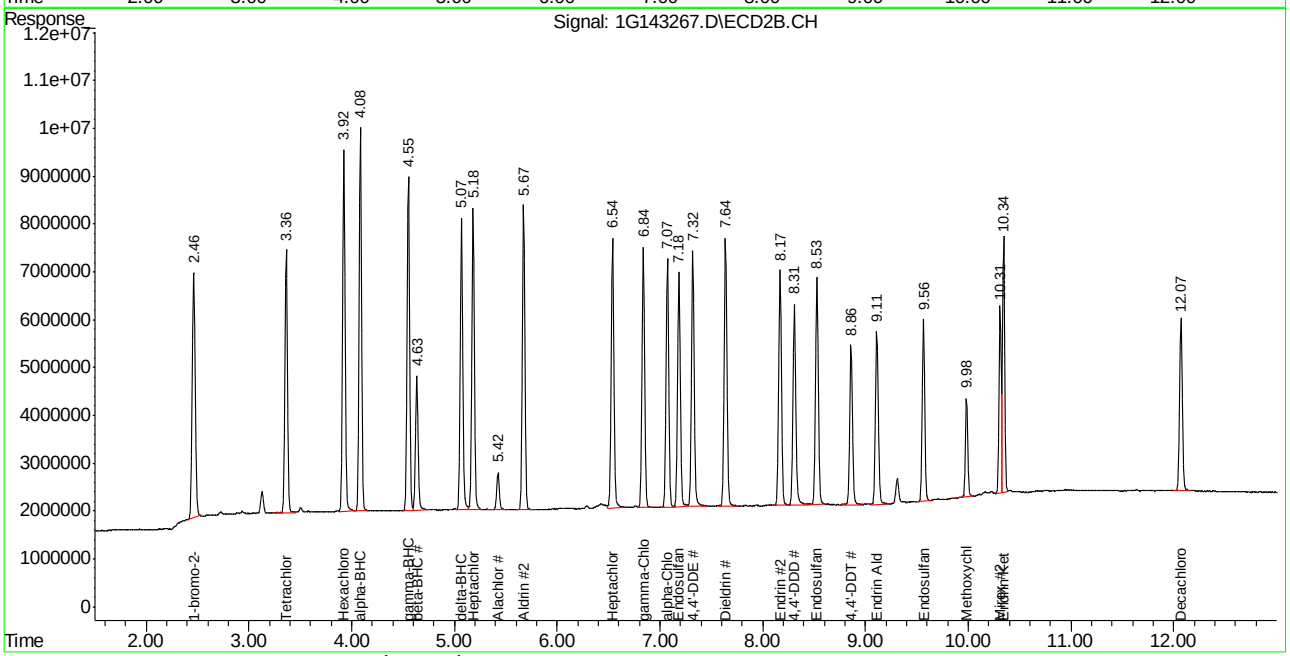
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143267.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143267.D\ECD2B.CH
Acq On : 08 Feb 2018 10:28 am Operator: minam
Sample : ic4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD2B.CH
Acq On : 08 Feb 2018 10:45 am Operator: minam
Sample : icc4557-25 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.17	2.46	471.8E6	108.8E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.36	204.4E6	47571681	21.393	21.652
		Spiked Amount 40.000	Range 30 - 150		Recovery =		53.48%	54.13%
26)	SA	Decachlorobiphen	10.15	12.07	165.6E6	34849183	18.684	21.012
		Spiked Amount 40.000			Recovery =		46.71%	52.53%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	257.8E6	66640340	21.410	21.291
4)	A	alpha-BHC	3.28	4.08	263.3E6	65230056	21.142	21.796
5)	MA	gamma-BHC	3.59	4.55	247.5E6	58847584	19.907	21.604
6)	MA	Heptachlor	4.11	5.18	253.9E6	56344557	19.977	21.795
7)	B	beta-BHC	3.67	4.63	124.8E6	24934025	19.600	20.476
8)	B	delta-BHC	3.87	5.07	205.5E6	52943925	22.046	21.762
9)	MB	Aldrin	4.47	5.67	232.4E6	56457942	20.684	21.216
10)		Alachlor	4.59	5.42	33163799	7428032	20.105	21.736
11)	B	Heptachlor Epoxi	5.20	6.54	229.0E6	52449229	21.413	21.445m
12)	B	gamma-Chlordane	5.38	6.84	200.2E6	50735816	23.810	21.131
13)	B	alpha-Chlordane	5.55	7.07	218.2E6	49650636	20.147	21.354
14)	A	Endosulfan I	5.74	7.19	212.2E6	48602152	20.325	21.663
15)	B	4,4'-DDE	5.65	7.32	192.5E6	51816722	20.576	22.293
16)	MA	Dieldrin	6.07	7.64	222.5E6	53563020	20.629	21.040
17)	MA	Endrin	6.41	8.17	205.2E6	47876824	20.942	21.412
18)	A	4,4'-DDD	6.51	8.31	156.5E6	40712304	19.925	21.518
19)	B	Endosulfan II	6.74	8.53	203.7E6	46680328	20.627	21.200
20)	MA	4,4'-DDT	6.94	8.86	146.4E6	29900448	22.127	21.960
21)	B	Endrin Aldehyde	7.38	9.11	170.2E6	36489430	20.431	21.014
22)	B	Endosulfan Sulfa	8.07	9.56	161.1E6	33443774	19.189	19.801
23)	A	Methoxychlor	7.73	9.98	84643049	15502521	18.828	21.294
24)		Mirex	7.94	10.31	189.9E6	29174128	19.788	20.110
25)	B	Endrin Ketone	8.53	10.34	170.4E6	38799232	19.601	20.274

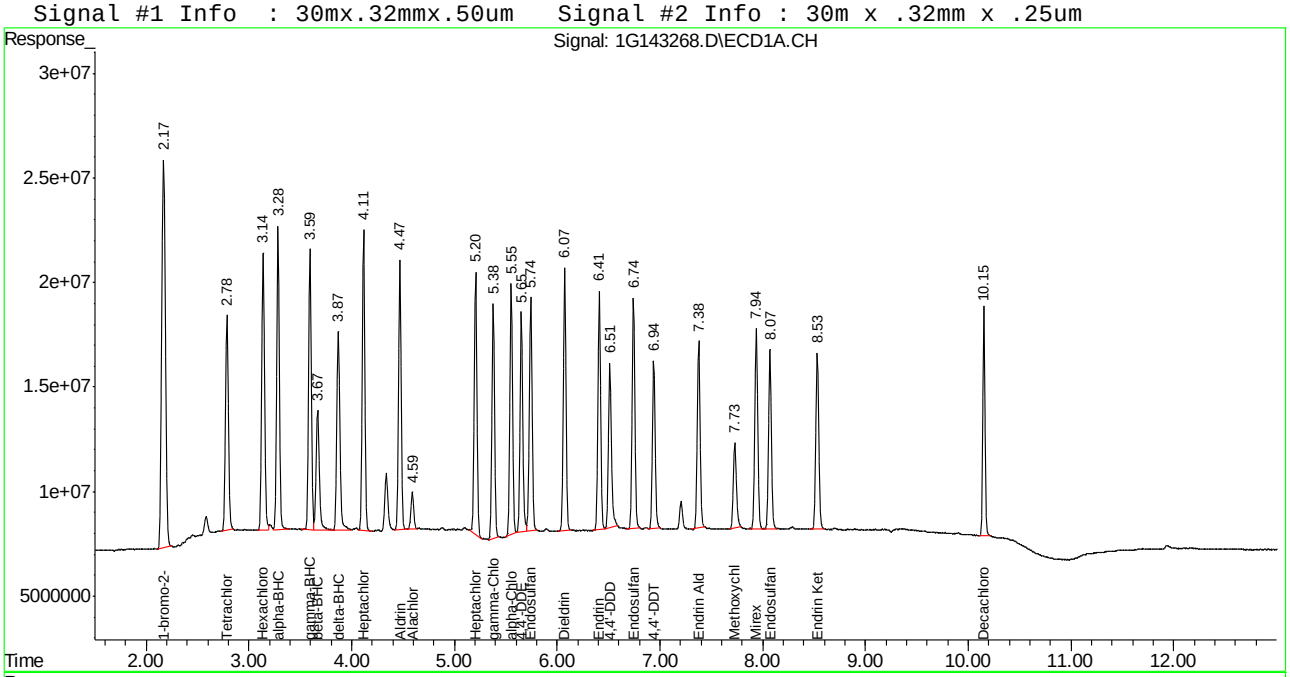
(f)=RT Delta > 1/2 Window (m)=manual int.

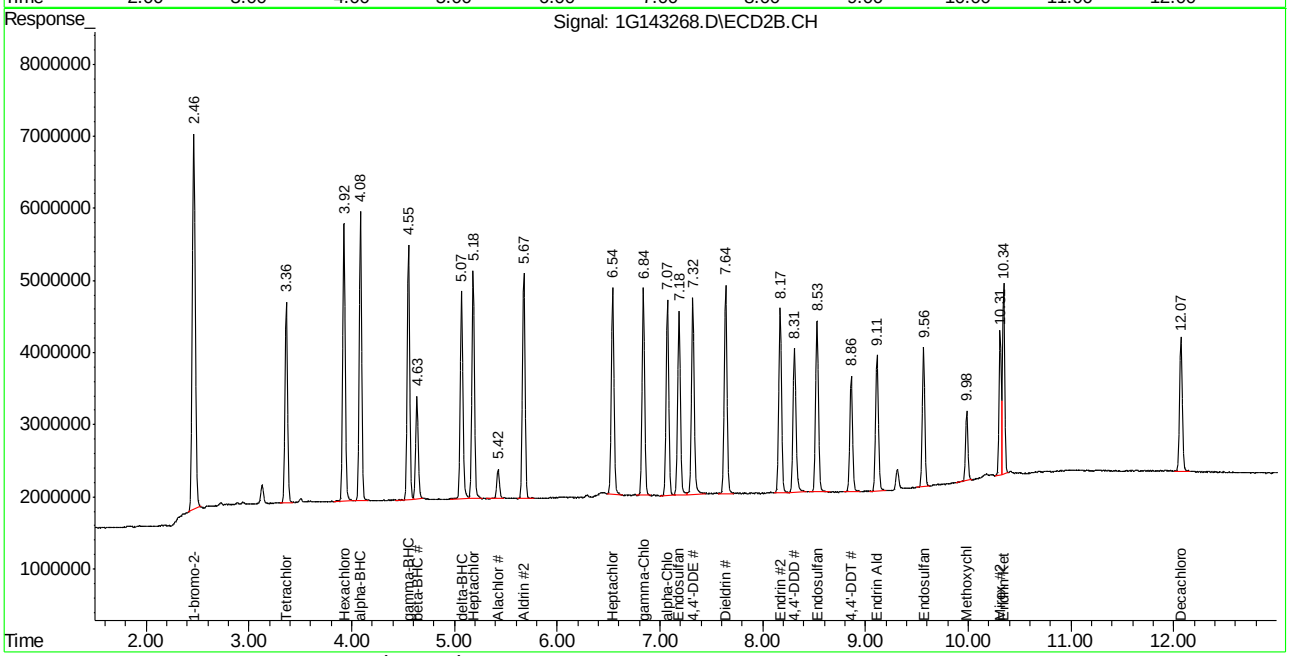
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD2B.CH
Acq On : 08 Feb 2018 10:45 am Operator: minam
Sample : icc4557-25 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:16 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

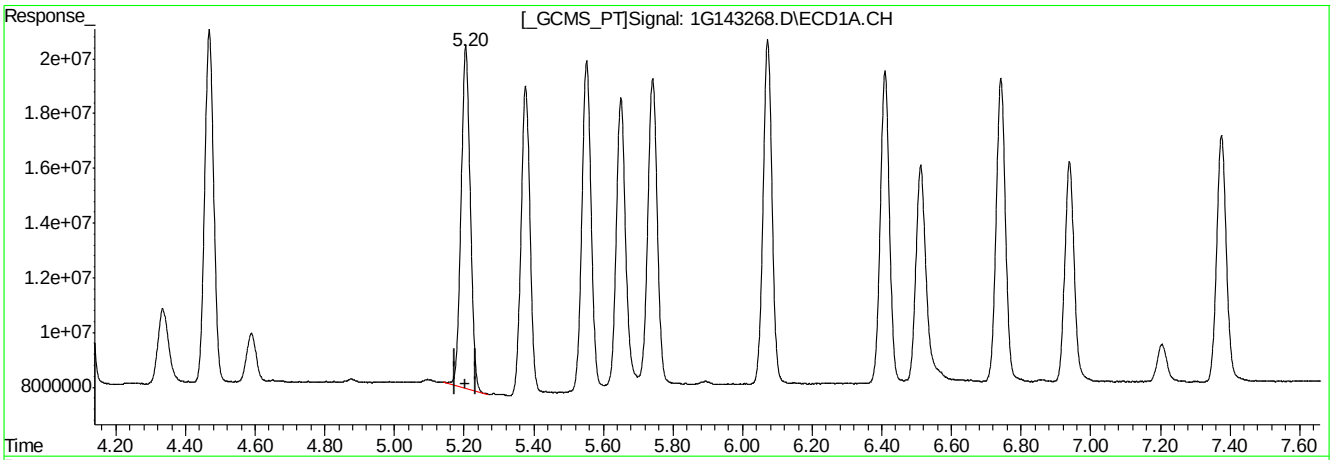
Sample Number:	G1G4557-ICC4557	**Method:**	SW846 8081B
Lab FileID:	1G143268.D	**Analyst approved:**	02/08/18 14:13 Kristen Drake
Injection Time:	02/08/18 10:45	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

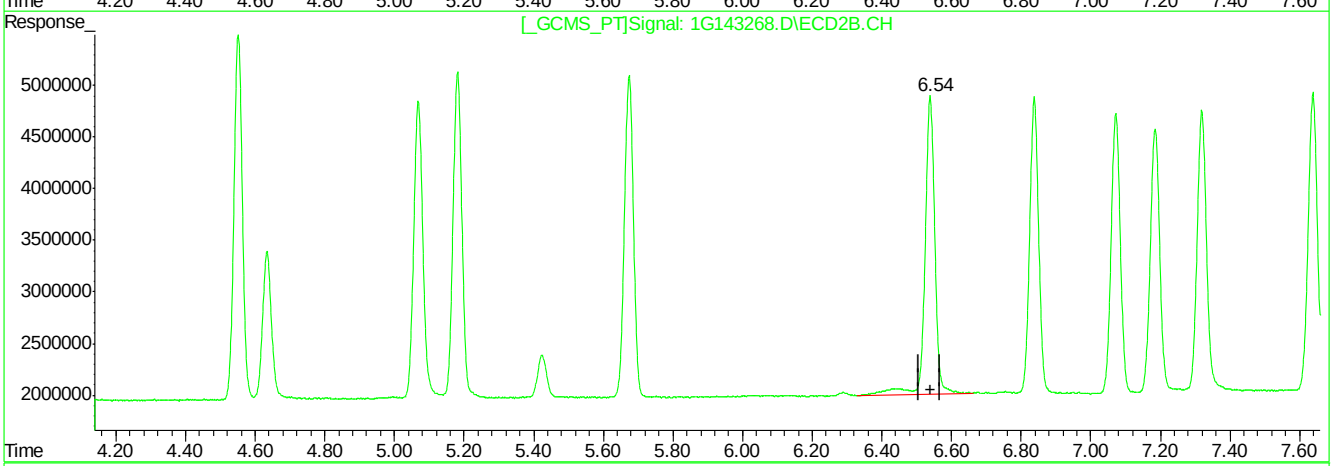
Parameter	CAS	Sig#	R.T. (min.)	Reason
Heptachlor epoxide	1024-57-3	2	6.54	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD2B.CH
Acq On : 08 Feb 2018 10:45 am Operator: minam
Sample : icc4557-25 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 21.413PPB

response 228961263

(11) Heptachlor Epoxide #2 (B)

6.54min 23.368PPB

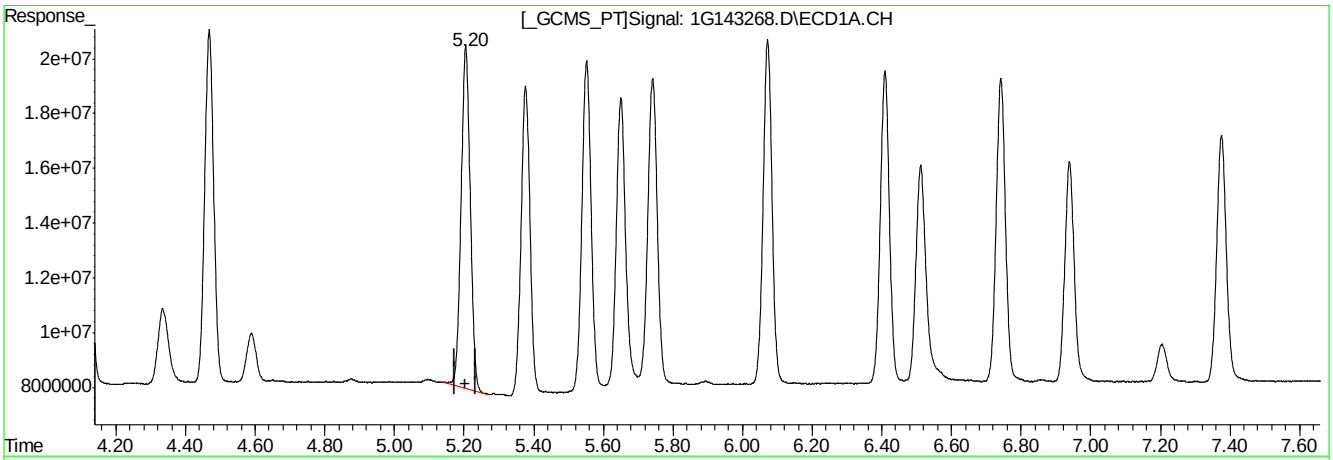
response 57150824

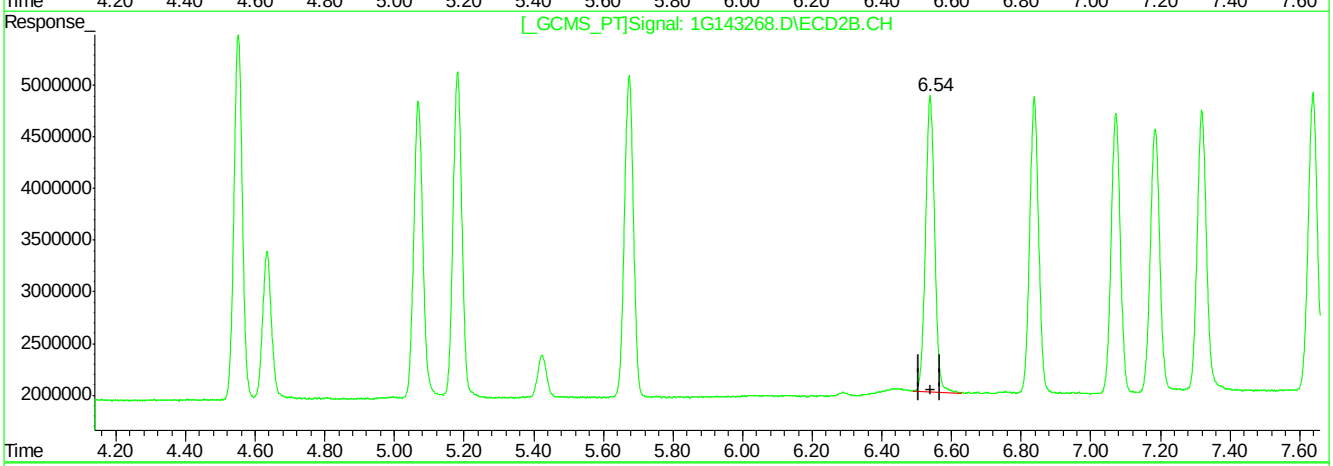
(+) = Expected Retention Time
1G143268.D 1PST4557.M Thu Feb 08 11:02:42 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143268.D\ECD2B.CH
Acq On : 08 Feb 2018 10:45 am Operator: minam
Sample : icc4557-25 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:02:00 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 21.413PPB

response 228961263

(11) Heptachlor Epoxide #2 (B)

6.54min 21.445PPB m

response 52449229

(+) = Expected Retention Time
1G143268.D 1PST4557.M Thu Feb 08 11:02:49 2018 RPT1

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.17	2.46	466.4E6	107.4E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.36	83515475	19798072	8.844	9.130
		Spiked Amount 40.000	Range 30 - 150		Recovery =		22.11%#	22.82%#
26)	SA	Decachlorobiphen	10.15	12.07	67959168	13859466	7.756	8.466
		Spiked Amount 40.000			Recovery =		19.39%	21.16%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	102.7E6	27816777	8.626	9.004
4)	A	alpha-BHC	3.28	4.08	98527572	26098992	8.004	8.836
5)	MA	gamma-BHC	3.59	4.55	96105660	23723878	7.819	8.824
6)	MA	Heptachlor	4.11	5.18	101.6E6	22488752	8.084	8.813
7)	B	beta-BHC	3.67	4.63	50046711	10674162	7.952	8.881
8)	B	delta-BHC	3.87	5.07	76221333	20435811	8.271	8.510
9)	MB	Aldrin	4.47	5.67	90969956	22786657	8.190	8.676
10)		Alachlor	4.59	5.42	13698808	2997849	8.401	8.888
11)	B	Heptachlor Epoxi	5.20	6.54	95723864	21739352	9.056	9.006
12)	B	gamma-Chlordane	5.38	6.84	76680618	20880088	9.226	8.811
13)	B	alpha-Chlordane	5.55	7.07	91025100	20272815	8.501	8.834
14)	A	Endosulfan I	5.74	7.18	87636025	19556509	8.490	8.831
15)	B	4,4'-DDE	5.65	7.32	80280034	20975807	8.680	9.143
16)	MA	Dieldrin	6.07	7.64	87571570	21947784	8.214	8.734
17)	MA	Endrin	6.41	8.17	80720278	19403524	8.334	8.792
18)	A	4,4'-DDD	6.51	8.31	62617056	16670688	8.064	8.927
19)	B	Endosulfan II	6.74	8.53	81866239	18880884	8.384	8.687
20)	MA	4,4'-DDT	6.94	8.86	53637825	10668566	8.201	7.938
21)	B	Endrin Aldehyde	7.38	9.11	69409649	14827207	8.430	8.651
22)	B	Endosulfan Sulfa	8.07	9.57	62499784	13192278	7.529	7.913
23)	A	Methoxychlor	7.73	9.99	32559435	5824803	7.326	8.106m
24)		Mirex	7.94	10.31	79960809	11886472	8.429	8.301m
25)	B	Endrin Ketone	8.53	10.35	67146671	14793401	7.813	7.832

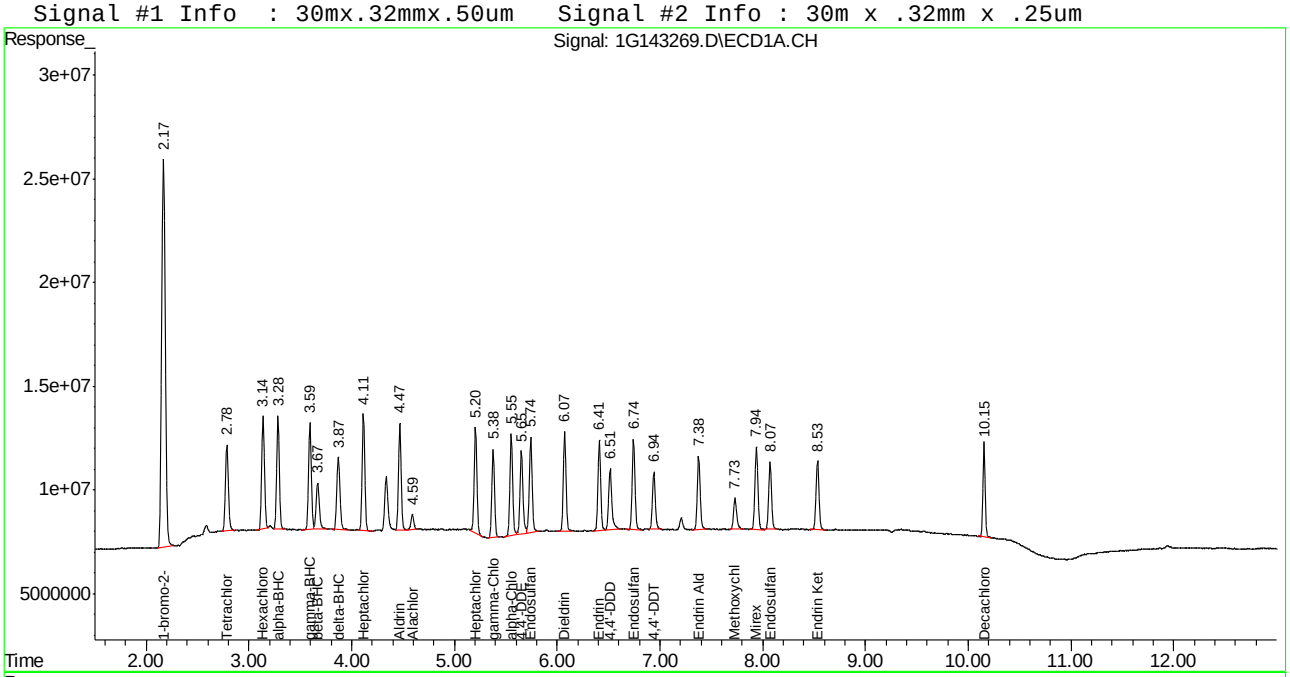
(f)=RT Delta > 1/2 Window (m)=manual int.

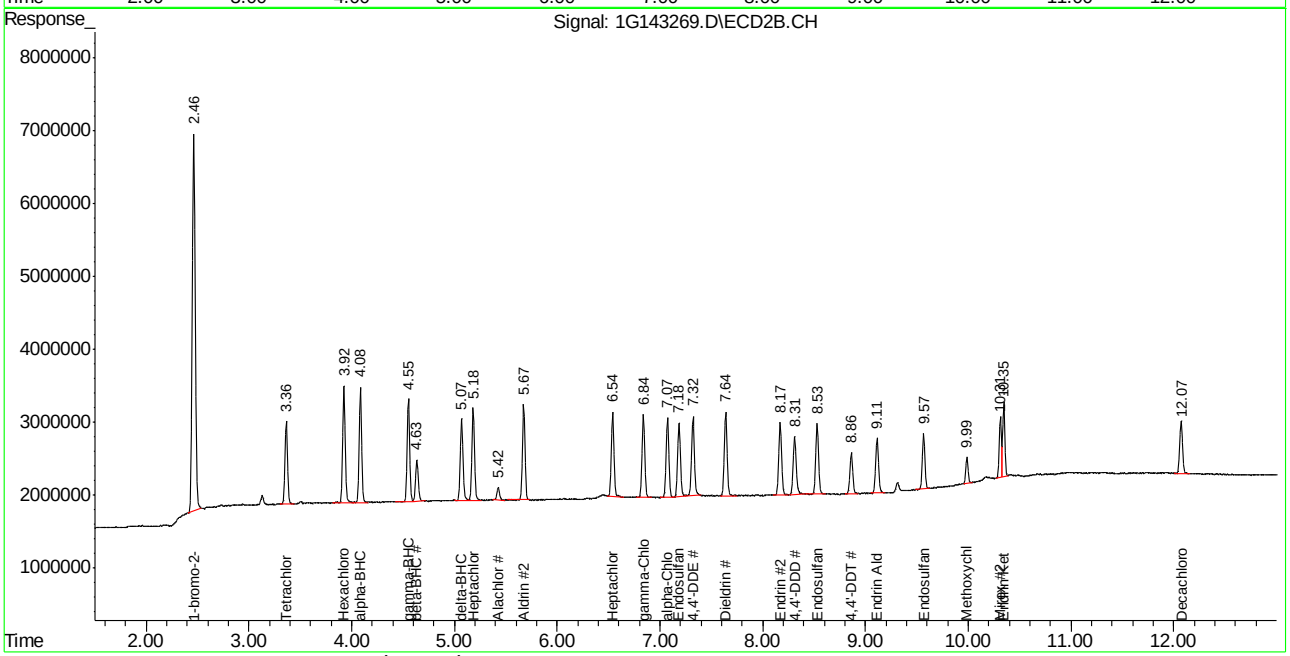
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

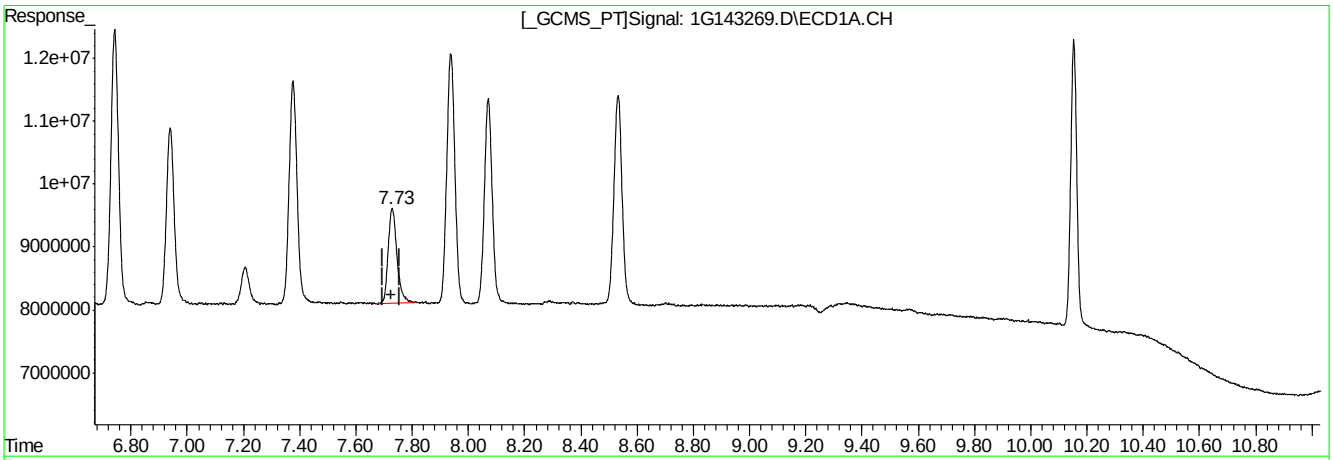
Sample Number:	G1G4557-IC4557	**Method:**	SW846 8081B
Lab FileID:	1G143269.D	**Analyst approved:**	02/08/18 14:13 Kristen Drake
Injection Time:	02/08/18 11:02	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

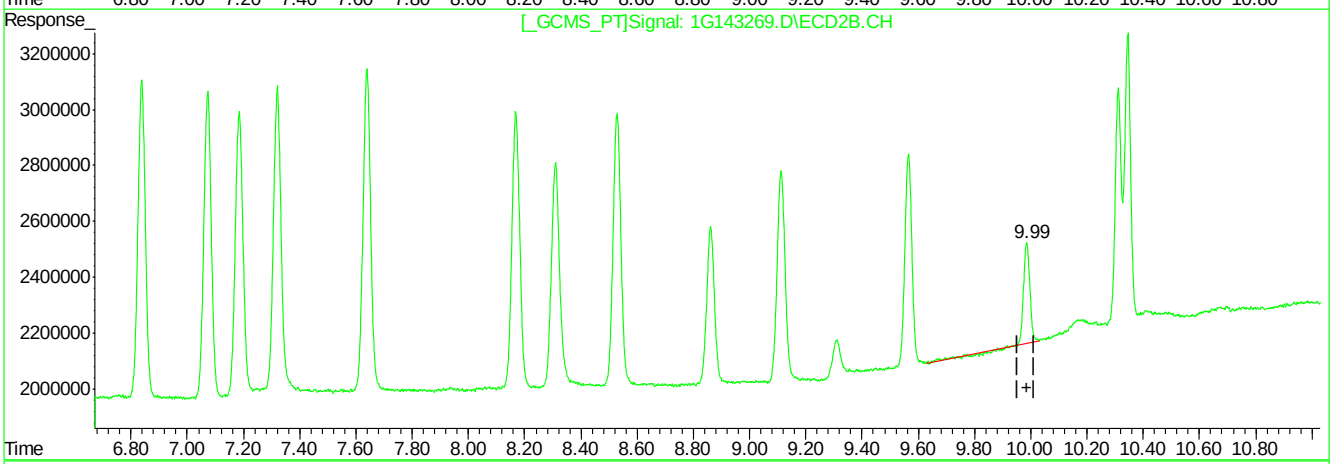
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	2	9.99	Poorly defined baseline
Mirex	2385-85-5	2	10.31	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:41 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 7.326PPB

response 32559435

(23) Methoxychlor #2 (A)

9.99min 7.411PPB

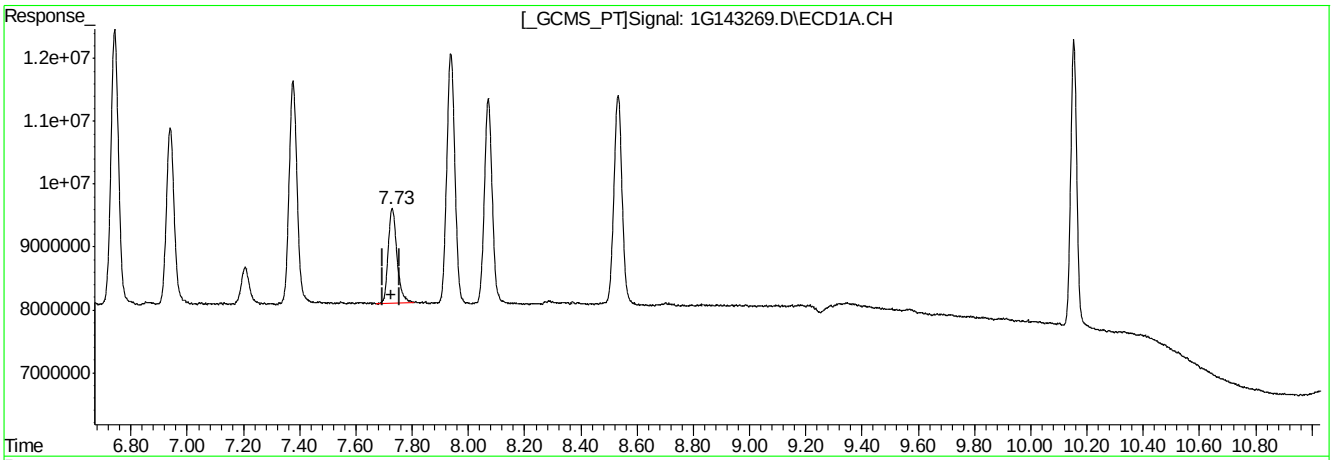
response 5325143

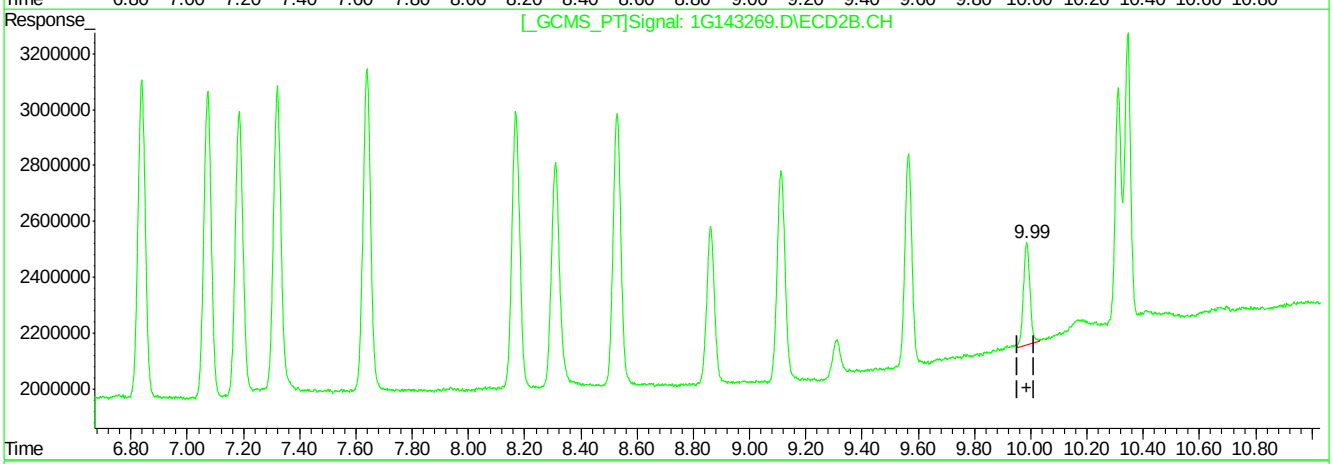
(+) = Expected Retention Time
1G143269.D 1PST4557.M Thu Feb 08 11:41:39 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:41 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 7.326PPB

response 32559435

(23) Methoxychlor #2 (A)

9.99min 8.106PPB m

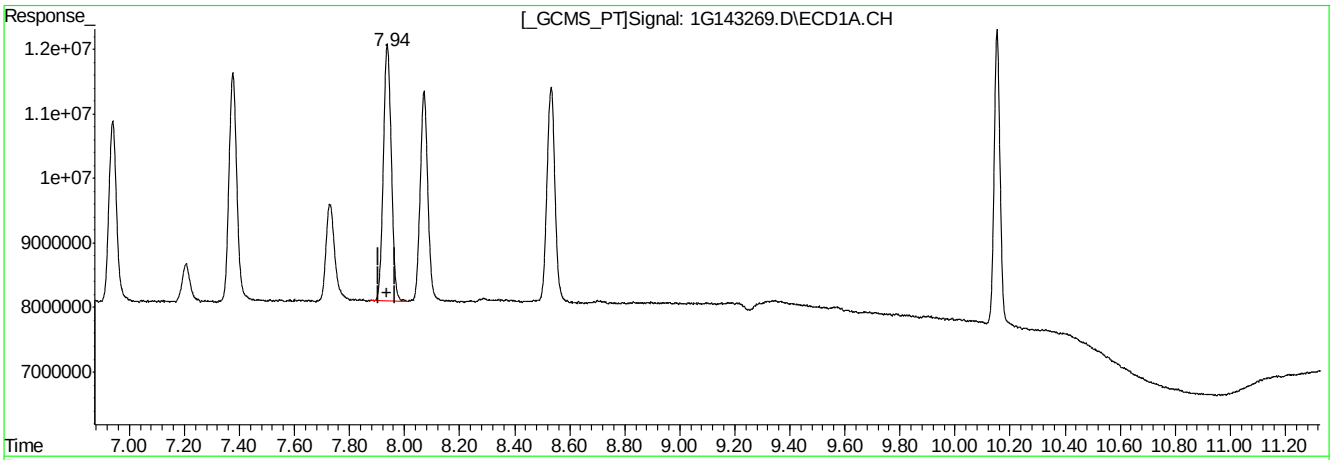
response 5824803

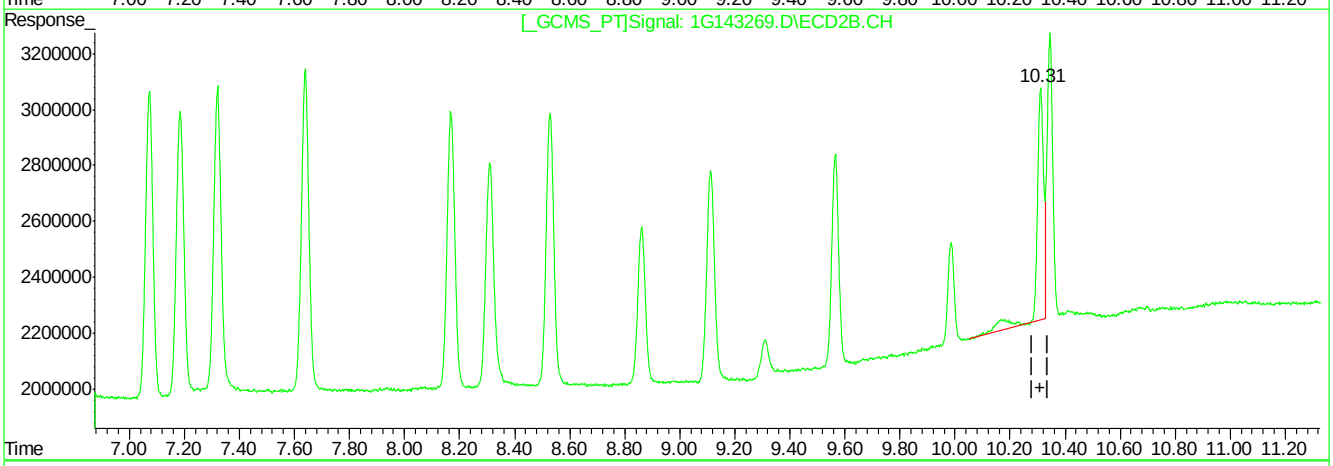
(+) = Expected Retention Time
1G143269.D 1PST4557.M Thu Feb 08 11:41:45 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:41 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 8.429PPB

response 79960809

(24) Mirex #2

10.31min 9.439PPB

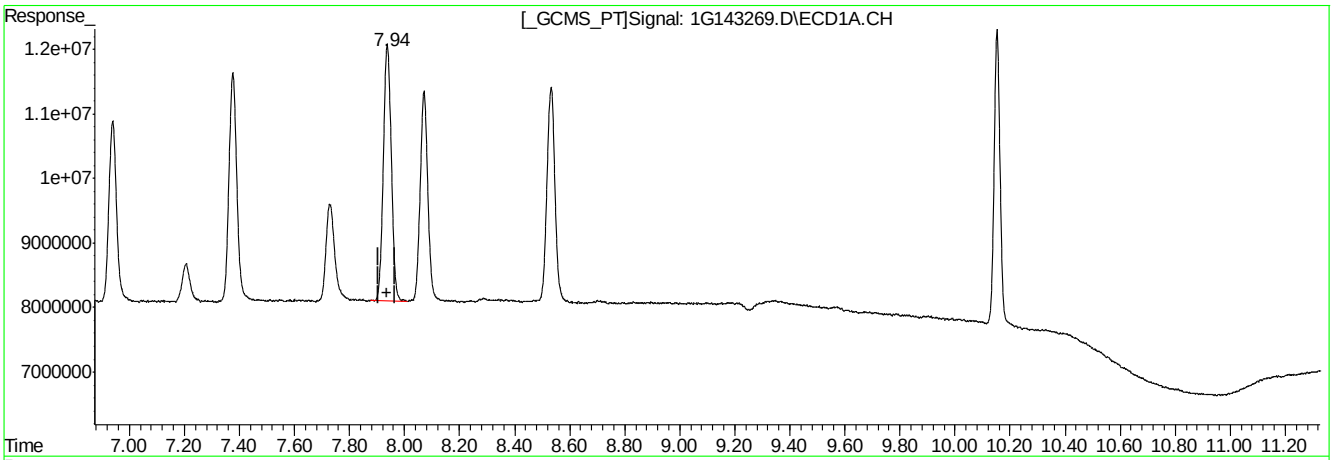
response 13515137

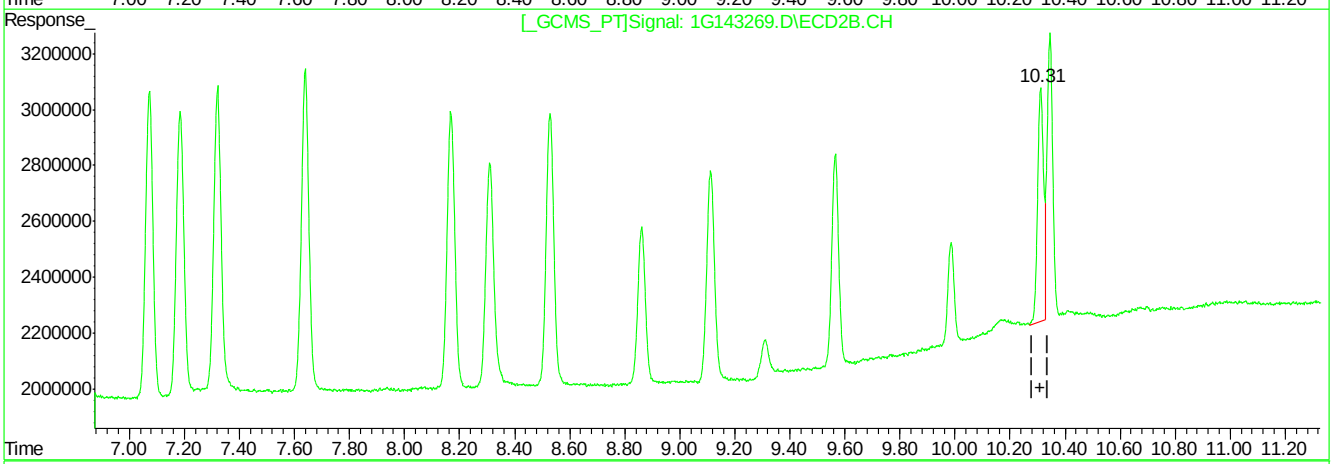
(+) = Expected Retention Time
1G143269.D 1PST4557.M Thu Feb 08 11:41:49 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143269.D\ECD2B.CH
Acq On : 08 Feb 2018 11:02 am Operator: minam
Sample : ic4557-10 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:41 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 8.429PPB

response 79960809

(24) Mirex #2

10.31min 8.301PPB m

response 11886472

(+) = Expected Retention Time
1G143269.D 1PST4557.M Thu Feb 08 11:42:23 2018 RPT1

11.6.5.5 11

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.17	2.46	475.0E6	109.1E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.36	41730472	10278016	4.339	4.666
		Spiked Amount 40.000	Range 30 - 150		Recovery =		10.85%#	11.67%#
26)	SA	Decachlorobiphen	10.15	12.07	35421613	7151526	3.969	4.301
		Spiked Amount 40.000			Recovery =		9.92%	10.75%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	52744338	14084176	4.350	4.488
4)	A	alpha-BHC	3.28	4.08	49571876	13413608	3.954	4.471
5)	MA	gamma-BHC	3.59	4.55	48346252	11993470	3.863	4.392
6)	MA	Heptachlor	4.11	5.18	50508585	11566519	3.947	4.463
7)	B	beta-BHC	3.67	4.64	25311873	5335167	3.949	4.370
8)	B	delta-BHC	3.87	5.07	37310633	10597101	3.976	4.345
9)	MB	Aldrin	4.47	5.67	45939056	11887490	4.061	4.456
10)		Alachlor	4.59	5.42	6929468	1568014	4.173m	4.577m
11)	B	Heptachlor Epoxi	5.21	6.54	50485391	11327528	4.690	4.620
12)	B	gamma-Chlordane	5.38	6.84	36070878	10683445	4.262	4.438
13)	B	alpha-Chlordane	5.55	7.07	44258384	10570503	4.059	4.535
14)	A	Endosulfan I	5.74	7.19	43590328	10169100	4.147	4.521
15)	B	4,4'-DDE	5.65	7.32	38051500	11236108	4.040	4.822
16)	MA	Dieldrin	6.07	7.64	44344179	11338079	4.084	4.442
17)	MA	Endrin	6.41	8.17	40228704	9946268	4.078	4.437
18)	A	4,4'-DDD	6.52	8.31	30975516	8561232	3.917	4.513
19)	B	Endosulfan II	6.74	8.53	41113866	9869189	4.135	4.471
20)	MA	4,4'-DDT	6.94	8.86	25177374	5180456	3.780	3.795
21)	B	Endrin Aldehyde	7.38	9.11	35020849	7931772	4.177	4.556
22)	B	Endosulfan Sulfa	8.07	9.57	31628084	6829198	3.741	4.033
23)	A	Methoxychlor	7.73	9.99	16014790	2646159	3.538m	3.625
24)		Mirex	7.94	10.31	40598826	6063828	4.202	4.169m
25)	B	Endrin Ketone	8.53	10.35	33891384	7465672	3.872	3.891

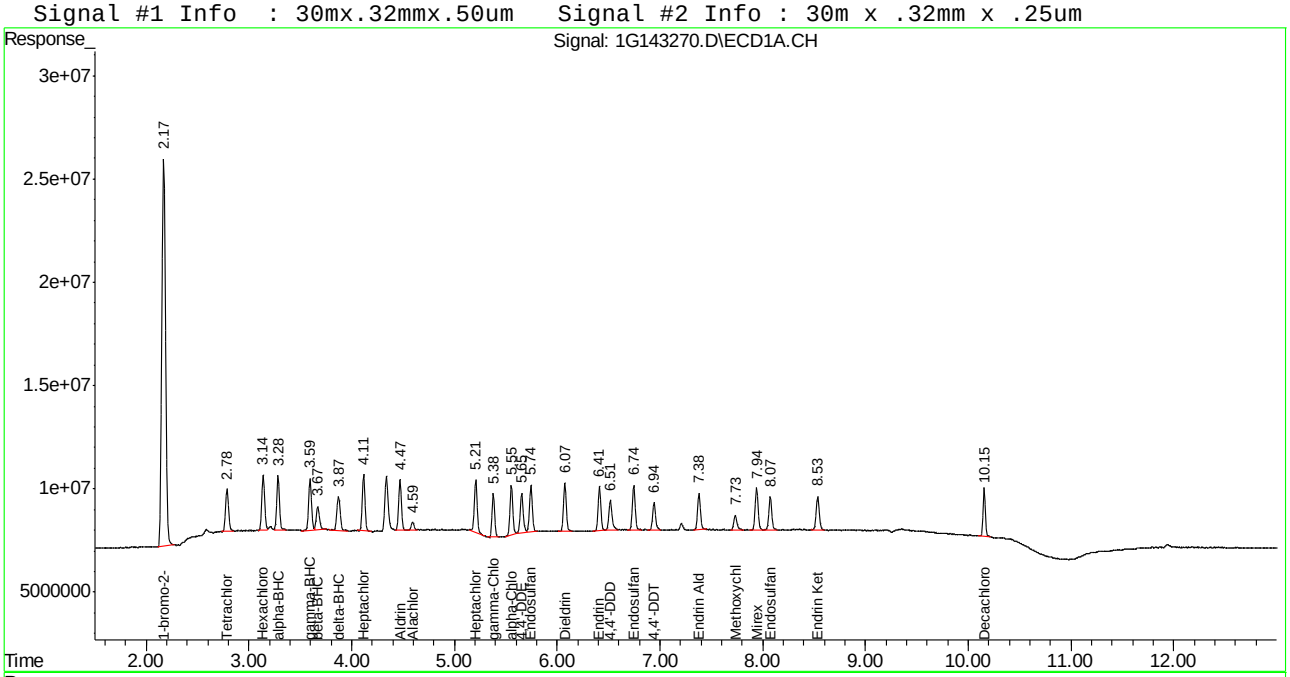
(f)=RT Delta > 1/2 Window (m)=manual int.

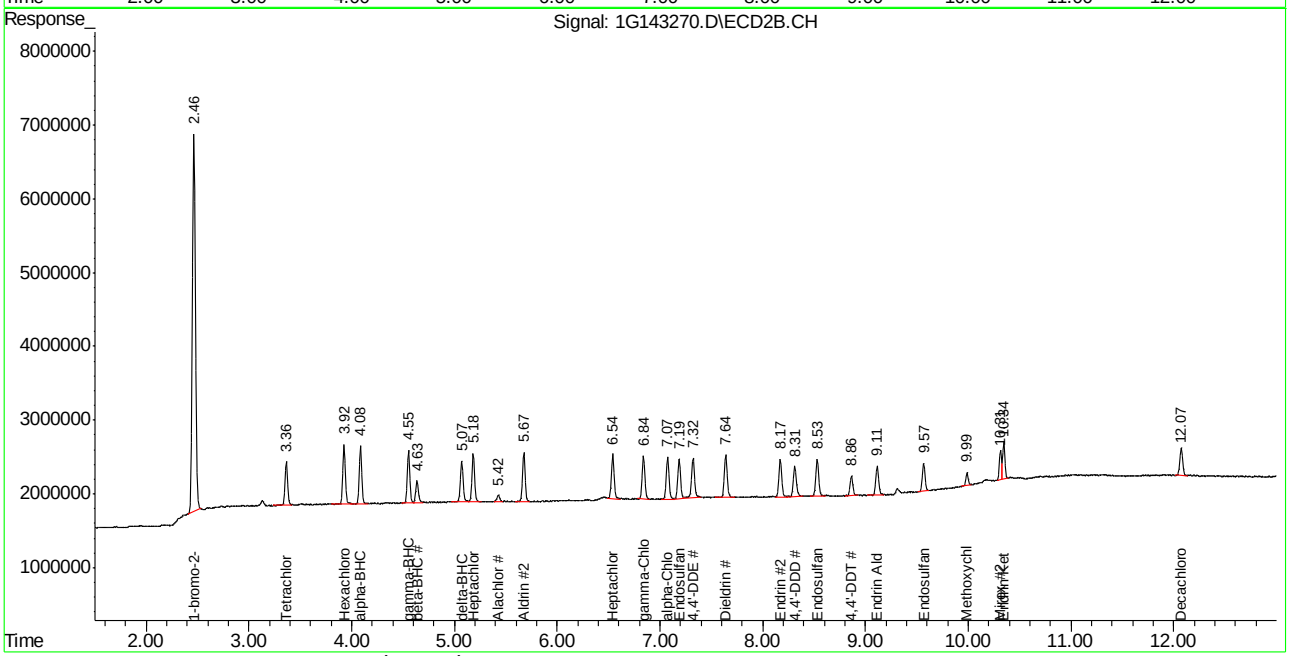
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

Sample Number: G1G4557-IC4557
Lab FileID: 1G143270.D
Injection Time: 02/08/18 11:19

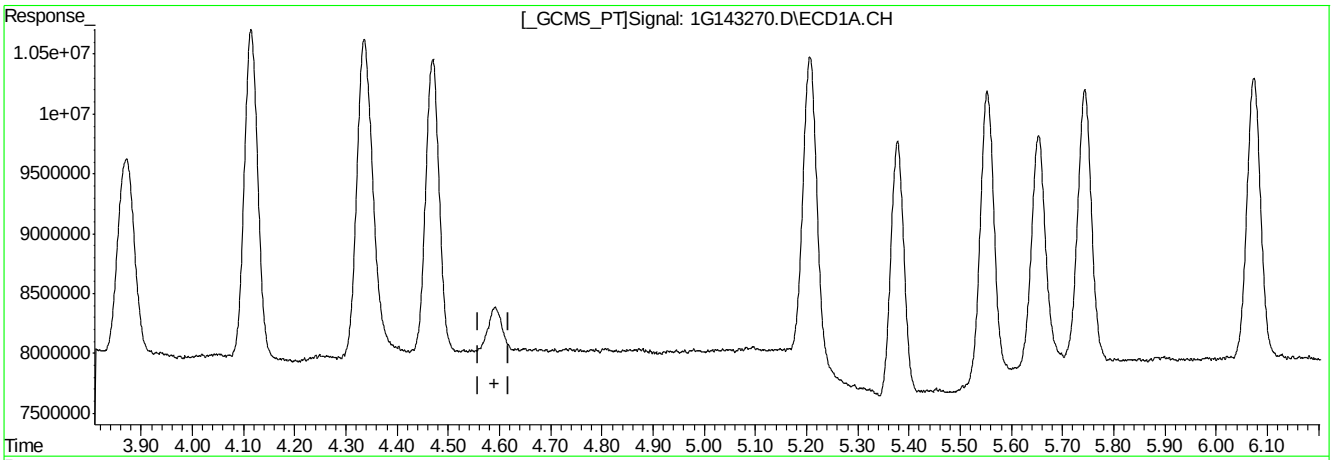
Method: SW846 8081B
Analyst approved: 02/08/18 14:13 Kristen Drake
Supervisor approved: 02/09/18 10:15 Gwendolyn Burns

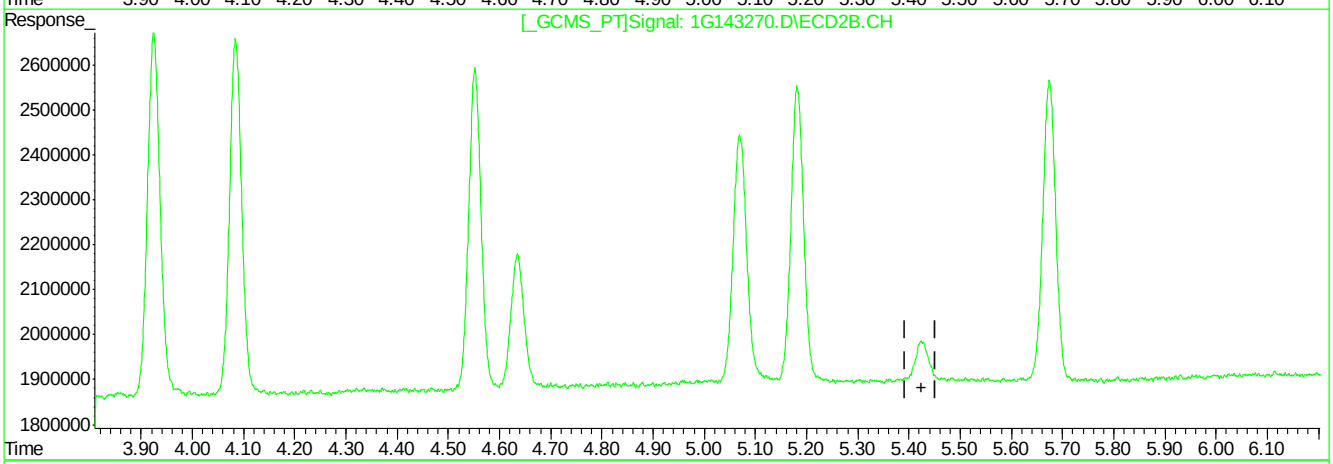
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	4.59	Poorly defined baseline
Alachlor	15972-60-8	2	5.42	Poorly defined baseline
Methoxychlor	72-43-5	1	7.73	Poorly defined baseline
Mirex	2385-85-5	2	10.31	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

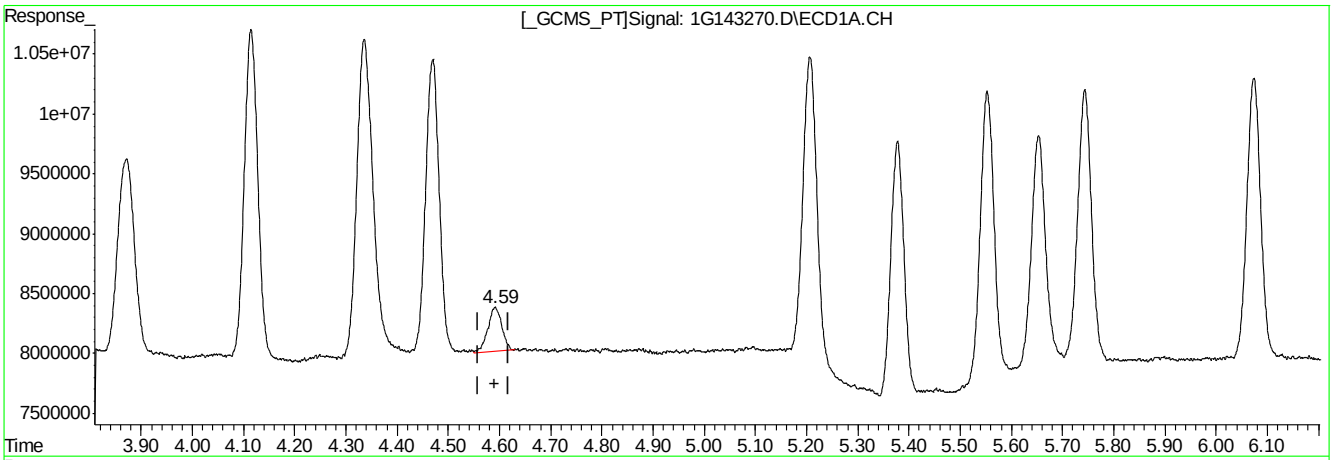
response 0

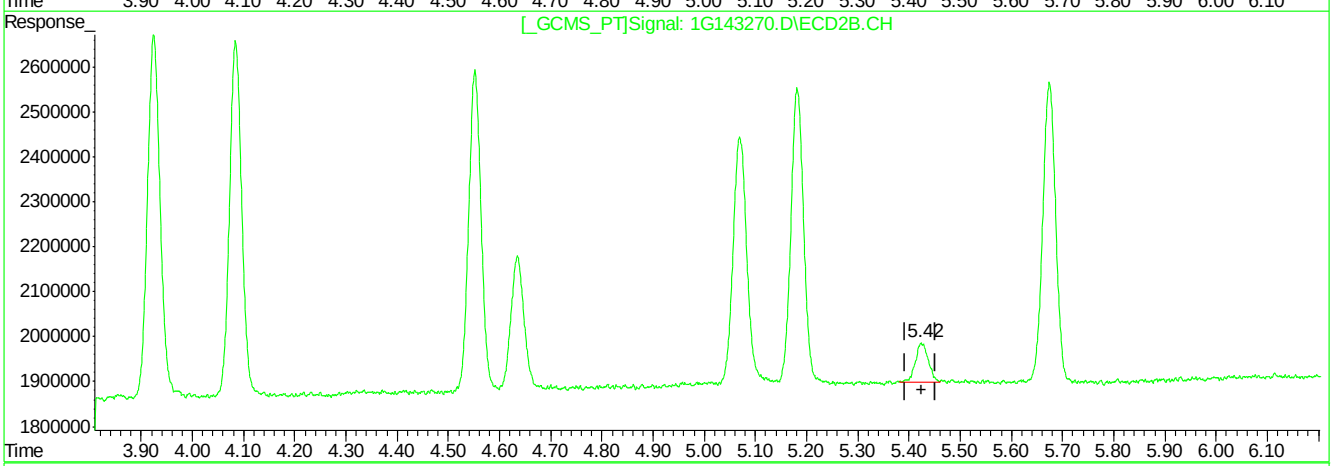
(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:12 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.59min 4.173PPB m

response 6929468

(10) Alachlor #2

5.42min 4.577PPB m

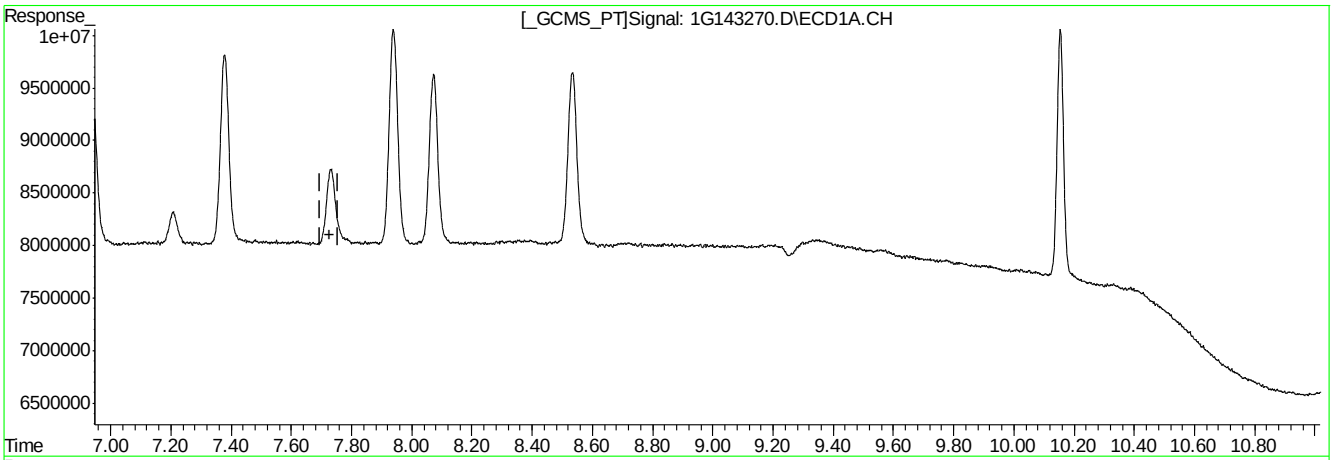
response 1568014

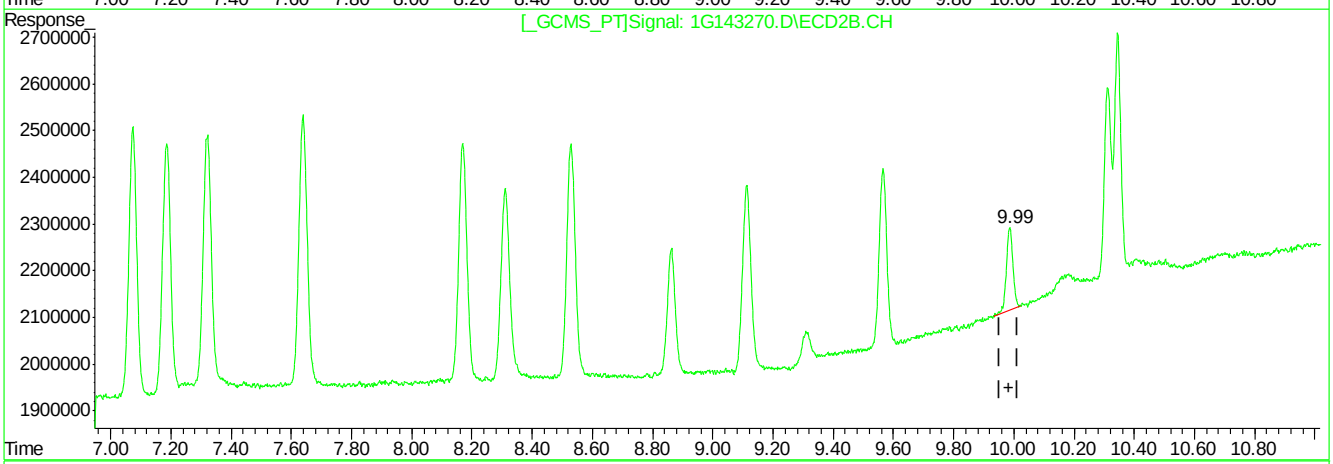
(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:21 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

0.00min 0.000PPB

response 0

(23) Methoxychlor #2 (A)

9.99min 3.625PPB

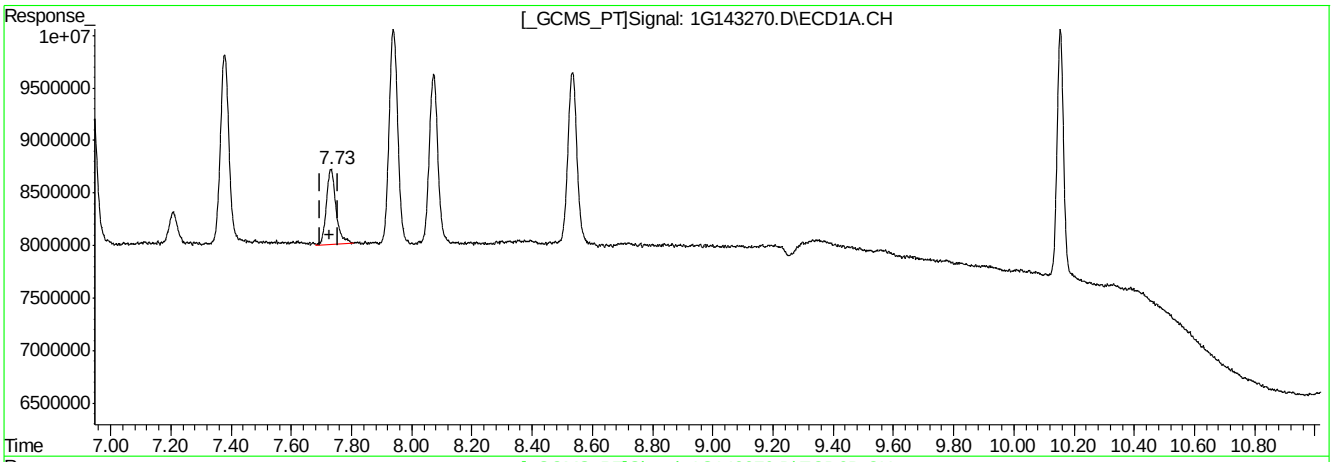
response 2646159

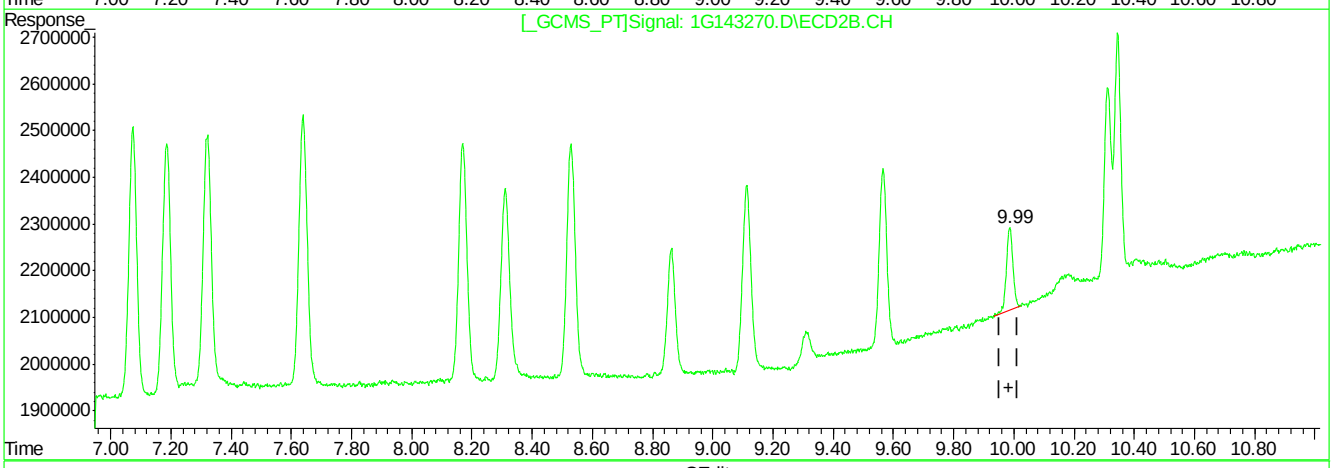
(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:33 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 3.538PPB m

response 16014790

(23) Methoxychlor #2 (A)

9.99min 3.625PPB

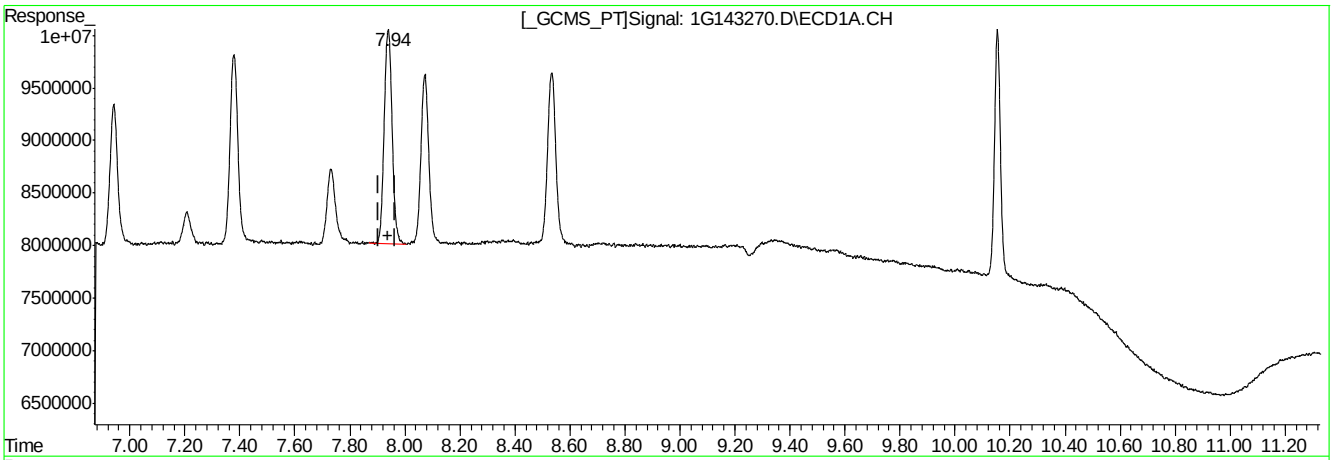
response 2646159

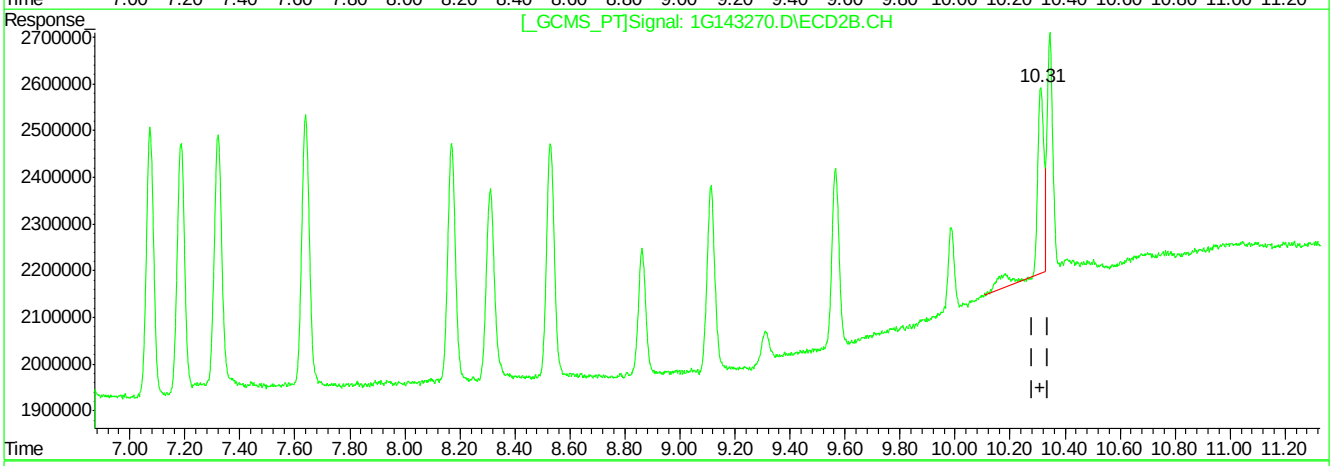
(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:39 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 4.202PPB

response 40598826

(24) Mirex #2

10.31min 4.768PPB

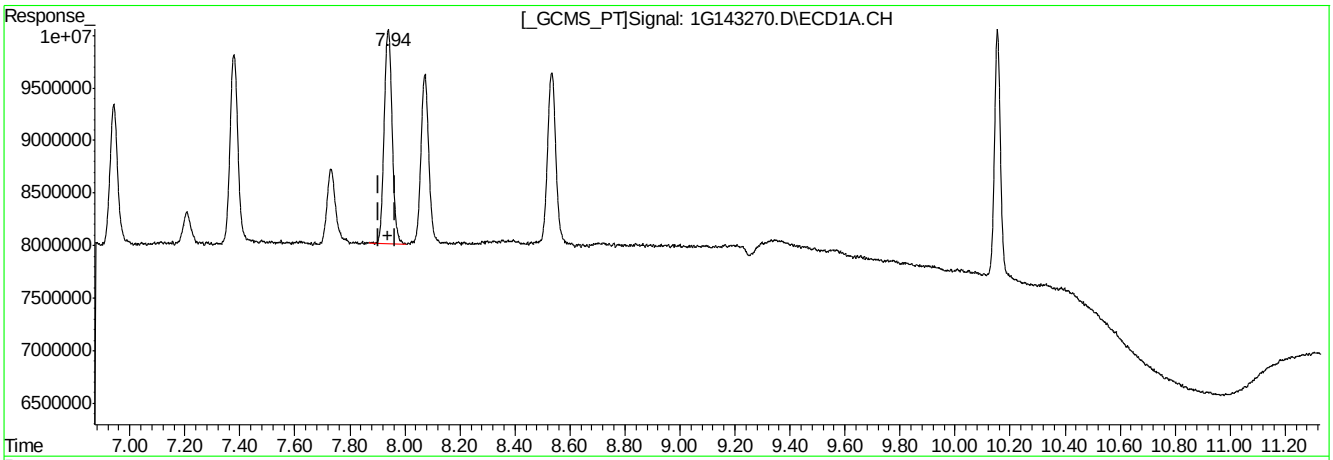
response 6935121

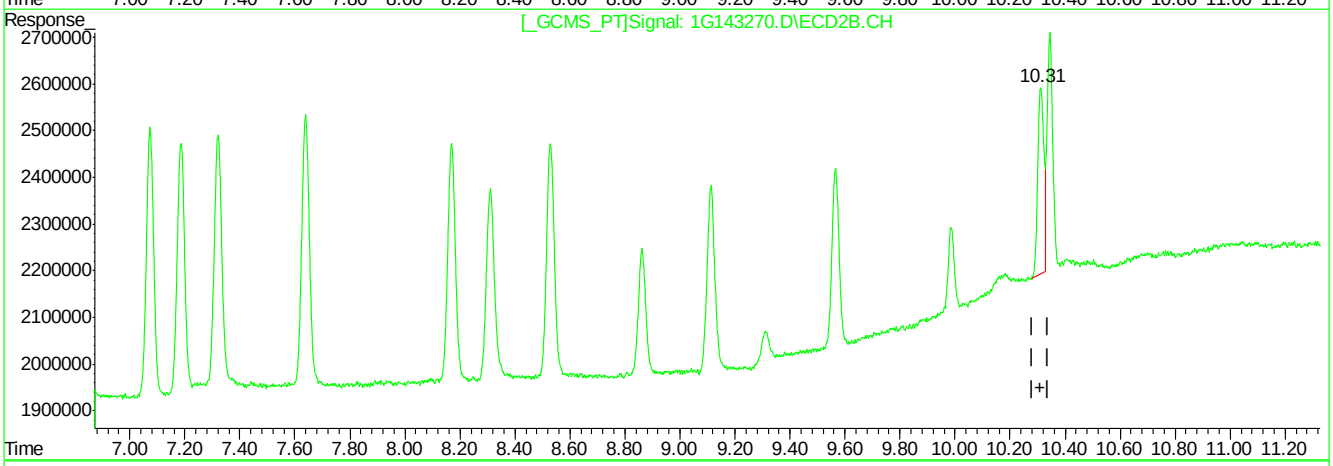
(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:42 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143270.D\ECD2B.CH
Acq On : 08 Feb 2018 11:19 am Operator: minam
Sample : ic4557-5 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 11:43 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 4.202PPB

response 40598826

(24) Mirex #2

10.31min 4.169PPB m

response 6063828

(+) = Expected Retention Time
1G143270.D 1PST4557.M Thu Feb 08 11:43:57 2018 RPT1

1G143271.D

Manual Integrations APPROVED (compounds with "m" flag)

Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.17	2.46	468.2E6	108.1E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.78	3.36	15926829	4213538	1.680	1.930
		Spiked Amount 40.000	Range 30 - 150		Recovery =		4.20%#	4.83%#
26)	SA	Decachlorobiphen	10.15	12.07	14765895	3070171	1.678	1.863
		Spiked Amount 40.000			Recovery =		4.20%	4.66%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	21444235	6150682	1.794	1.977
4)	A	alpha-BHC	3.28	4.08	19125440	5411523	1.548	1.820
5)	MA	gamma-BHC	3.59	4.55	19108397	4924900	1.549	1.819
6)	MA	Heptachlor	4.11	5.18	20244728	4554244	1.605	1.773
7)	B	beta-BHC	3.67	4.63	10532588	2273052	1.667	1.878
8)	B	delta-BHC	3.87	5.07	14213901	4560344	1.536	1.886
9)	MB	Aldrin	4.47	5.67	19288519	4966749	1.730	1.878
10)		Alachlor	4.59	5.42	3029760	733882	1.851m	2.161m
11)	B	Heptachlor Epoxi	5.20	6.54	20747885	4634933	1.955	1.907m
12)	B	gamma-Chlordane	5.38	6.84	12502805	4501457	1.498	1.887
13)	B	alpha-Chlordane	5.55	7.07	19145145	4377913	1.781	1.895
14)	A	Endosulfan I	5.74	7.19	19447512	4342244	1.877	1.947
15)	B	4,4'-DDE	5.65	7.32	19584767	4783368	2.109	2.071
16)	MA	Dieldrin	6.07	7.64	17817406	4691064	1.665	1.854
17)	MA	Endrin	6.41	8.17	15737534	4013915	1.618	1.806
18)	A	4,4'-DDD	6.52	8.31	12364620	3403754	1.586	1.810
19)	B	Endosulfan II	6.74	8.53	16835624	4074685	1.717	1.862
20)	MA	4,4'-DDT	6.94	8.86	10118360	1874591	1.541	1.385m
21)	B	Endrin Aldehyde	7.38	9.11	14346152	3299474	1.736	1.912
22)	B	Endosulfan Sulfa	8.07	9.56	12580487	2836561	1.509	1.690
23)	A	Methoxychlor	7.73	9.98	5870130	1045217	1.316m	1.445m
24)		Mirex	7.94	10.31	17042072	2641300	1.789	1.832m
25)	B	Endrin Ketone	8.53	10.34	13802059	2962106	1.600	1.557

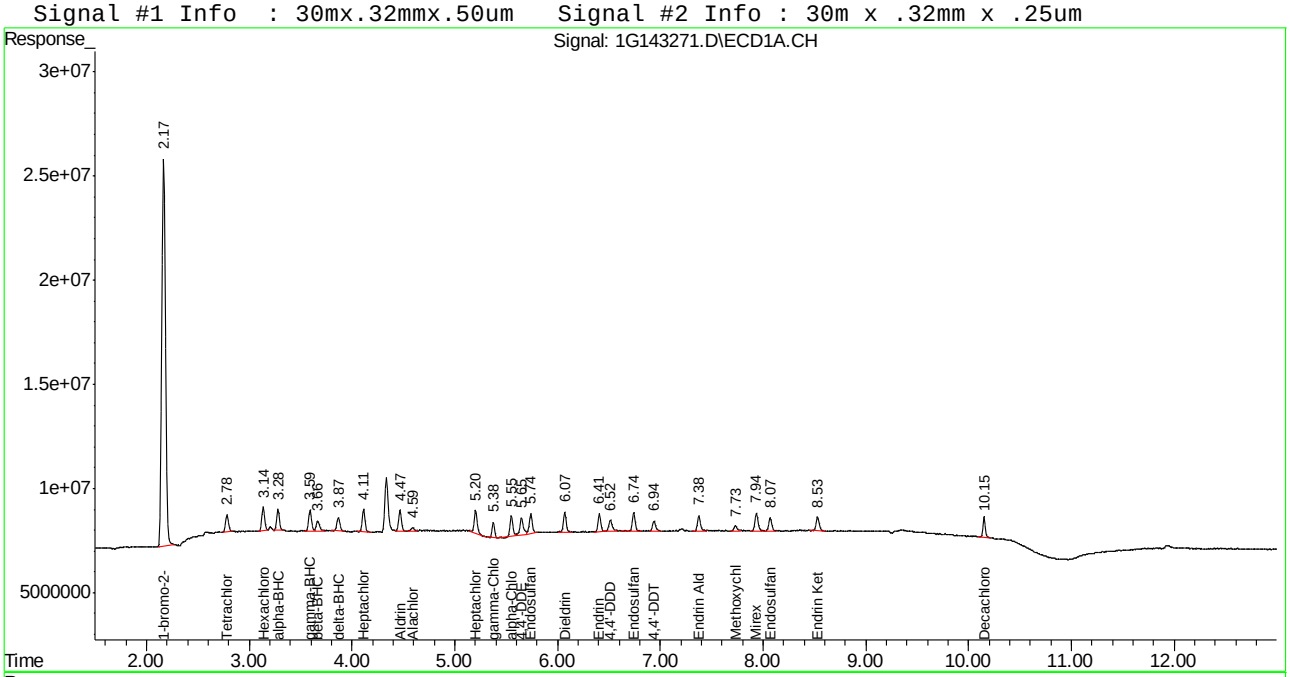
(f)=RT Delta > 1/2 Window (m)=manual int.

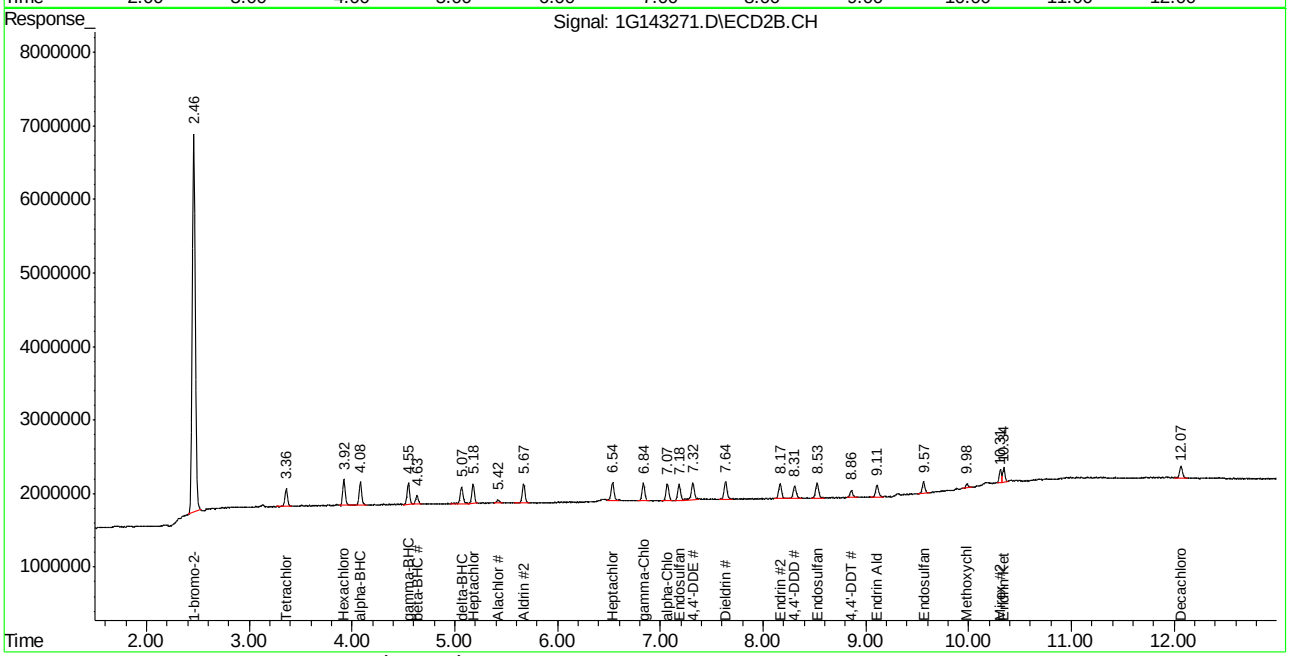
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

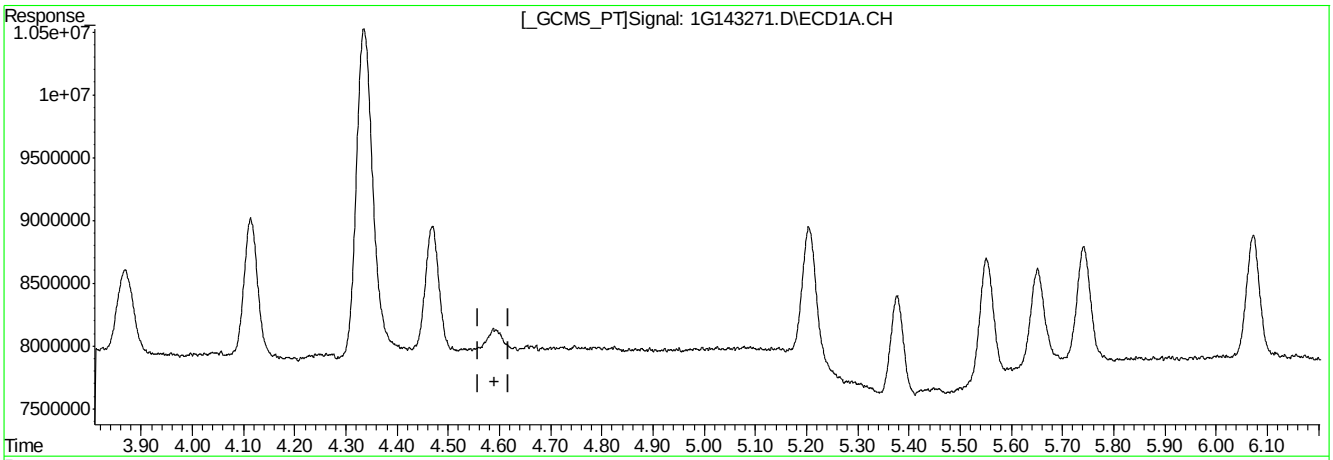
Sample Number: G1G4557-IC4557
Lab FileID: 1G143271.D
Injection Time: 02/08/18 11:37
Method: SW846 8081B
Analyst approved: 02/08/18 14:13 Kristen Drake
Supervisor approved: 02/09/18 10:15 Gwendolyn Burns

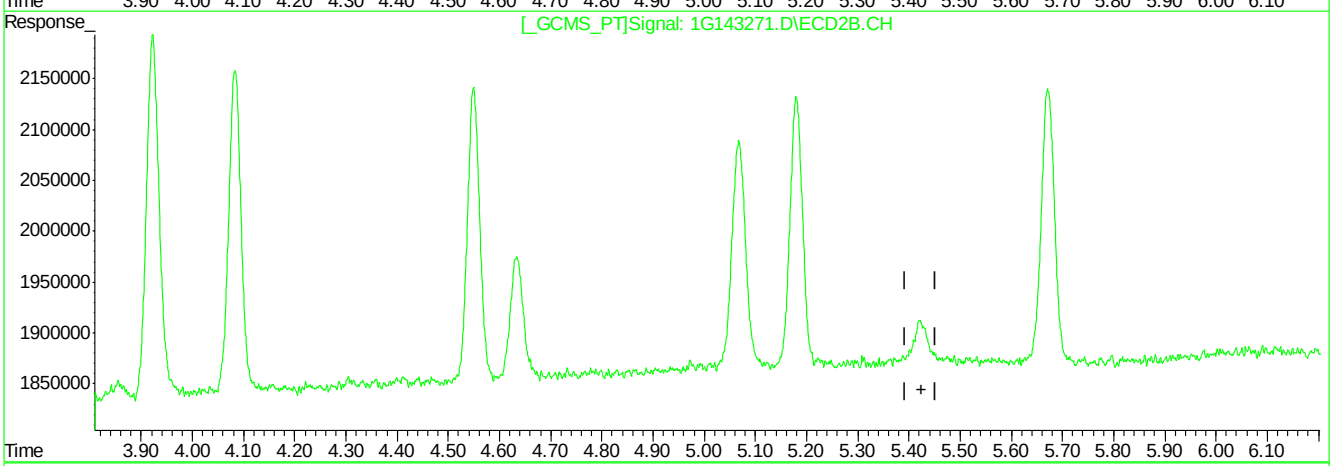
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	4.59	Poorly defined baseline
Alachlor	15972-60-8	2	5.42	Poorly defined baseline
Heptachlor epoxide	1024-57-3	2	6.54	Poorly defined baseline
Methoxychlor	72-43-5	1	7.73	Poorly defined baseline
4,4'-DDT	50-29-3	2	8.86	Poorly defined baseline
Methoxychlor	72-43-5	2	9.98	Poorly defined baseline
Mirex	2385-85-5	2	10.31	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

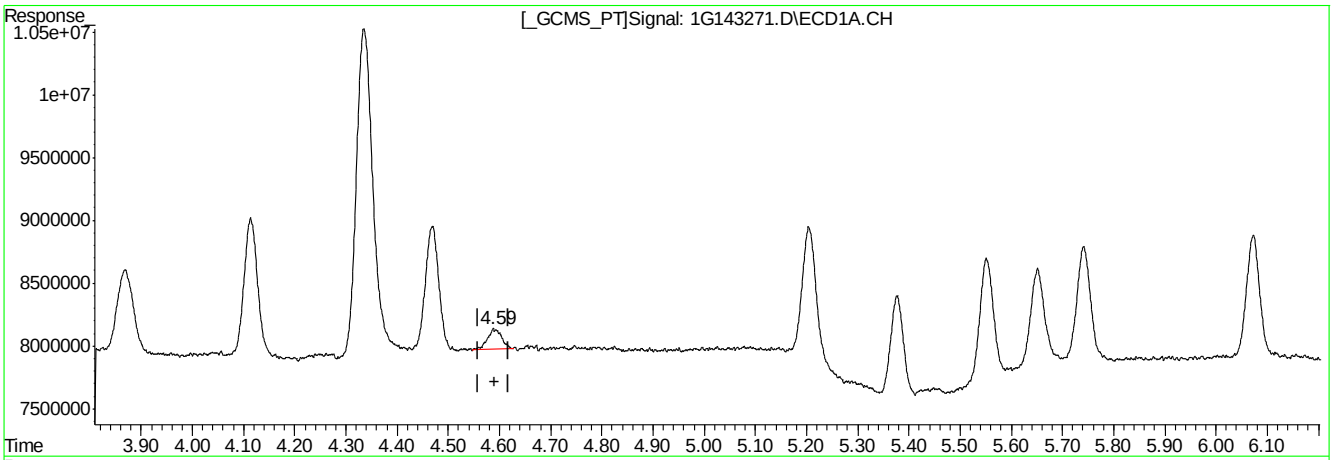
response 0

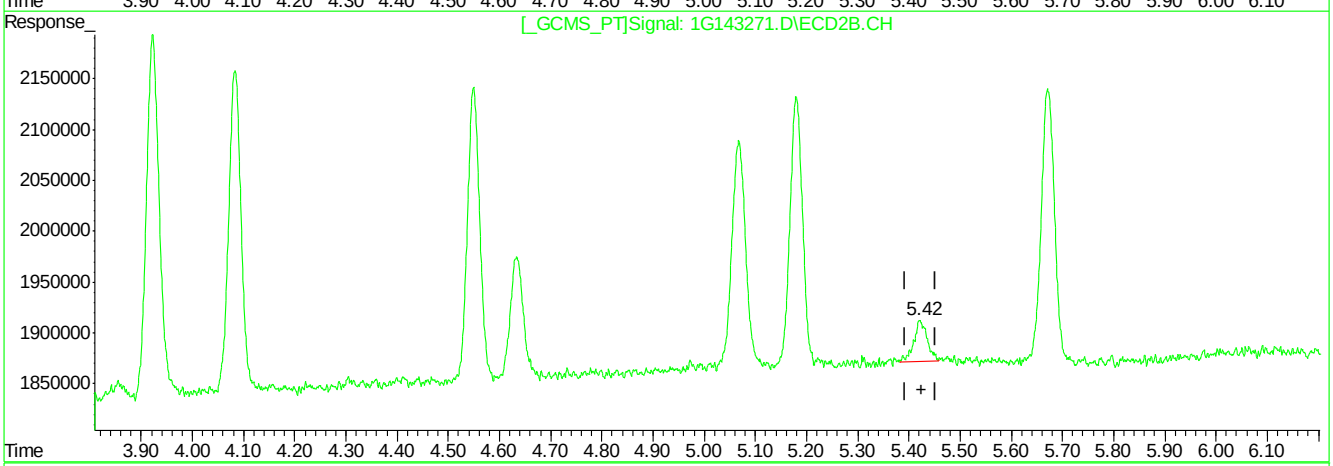
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:09:52 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.59min 1.851PPB m

response 3029760

(10) Alachlor #2

5.42min 2.161PPB m

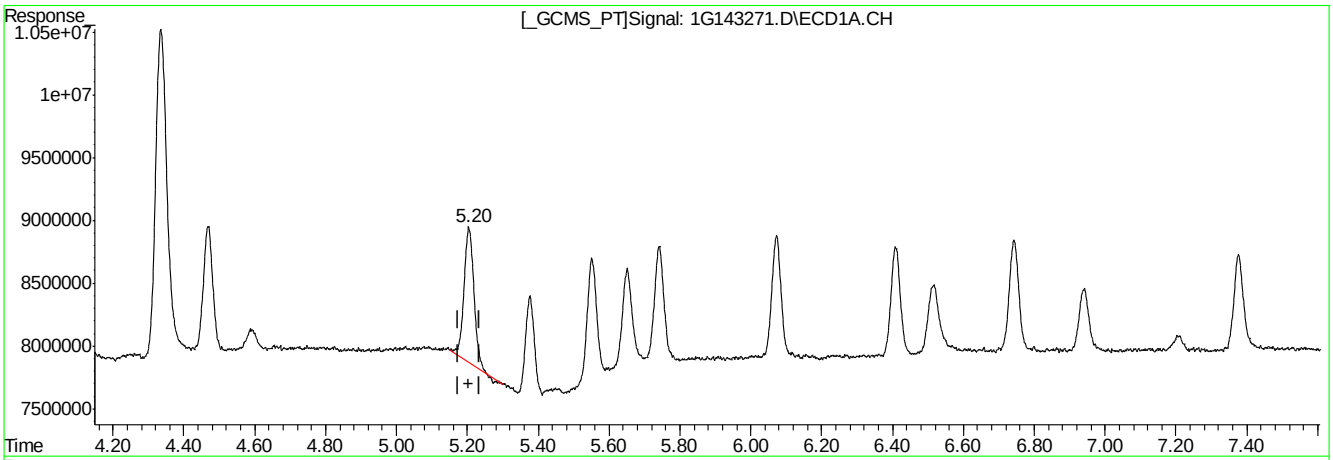
response 733882

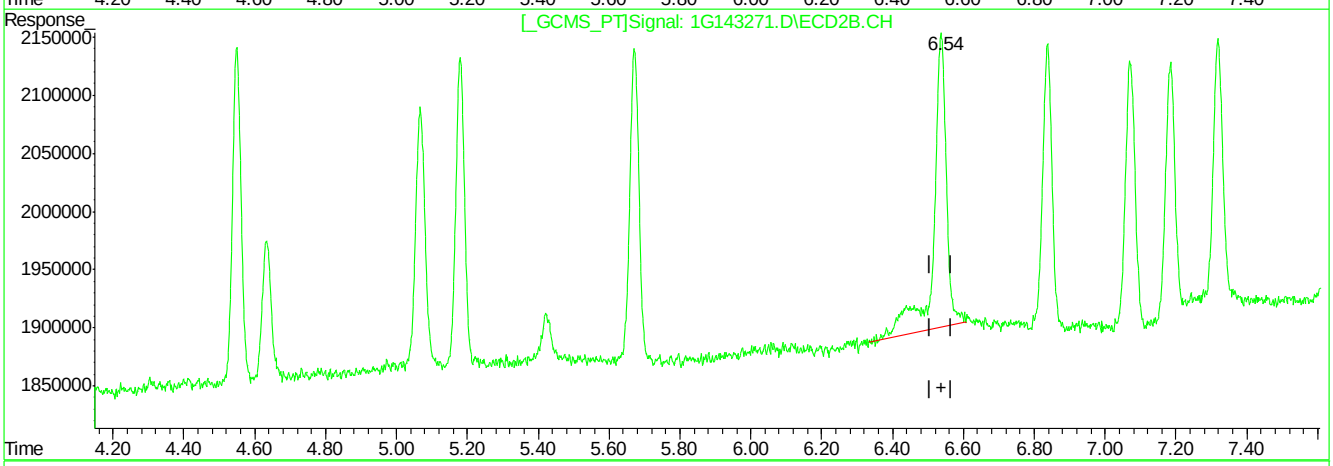
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:02 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 1.955PPB

response 20747885

(11) Heptachlor Epoxide #2 (B)

6.54min 2.606PPB

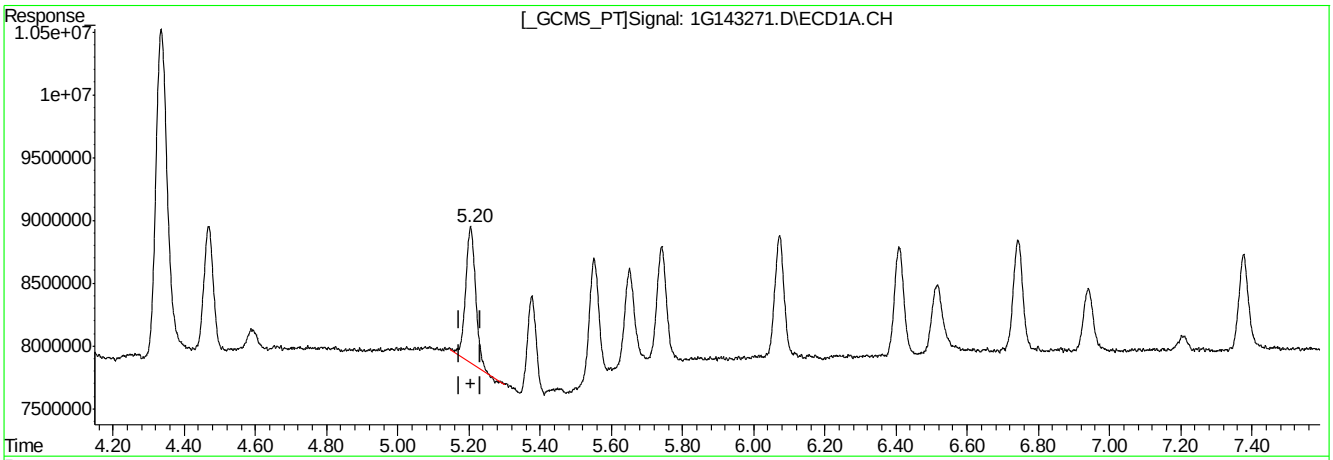
response 6335141

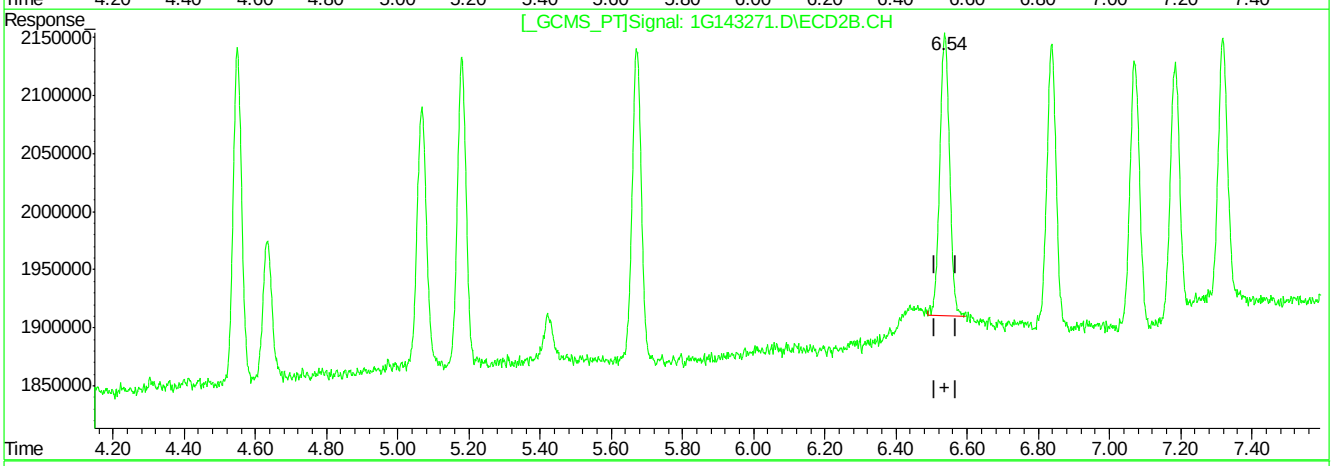
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:06 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 1.955PPB

response 20747885

(11) Heptachlor Epoxide #2 (B)

6.54min 1.907PPB m

response 4634933

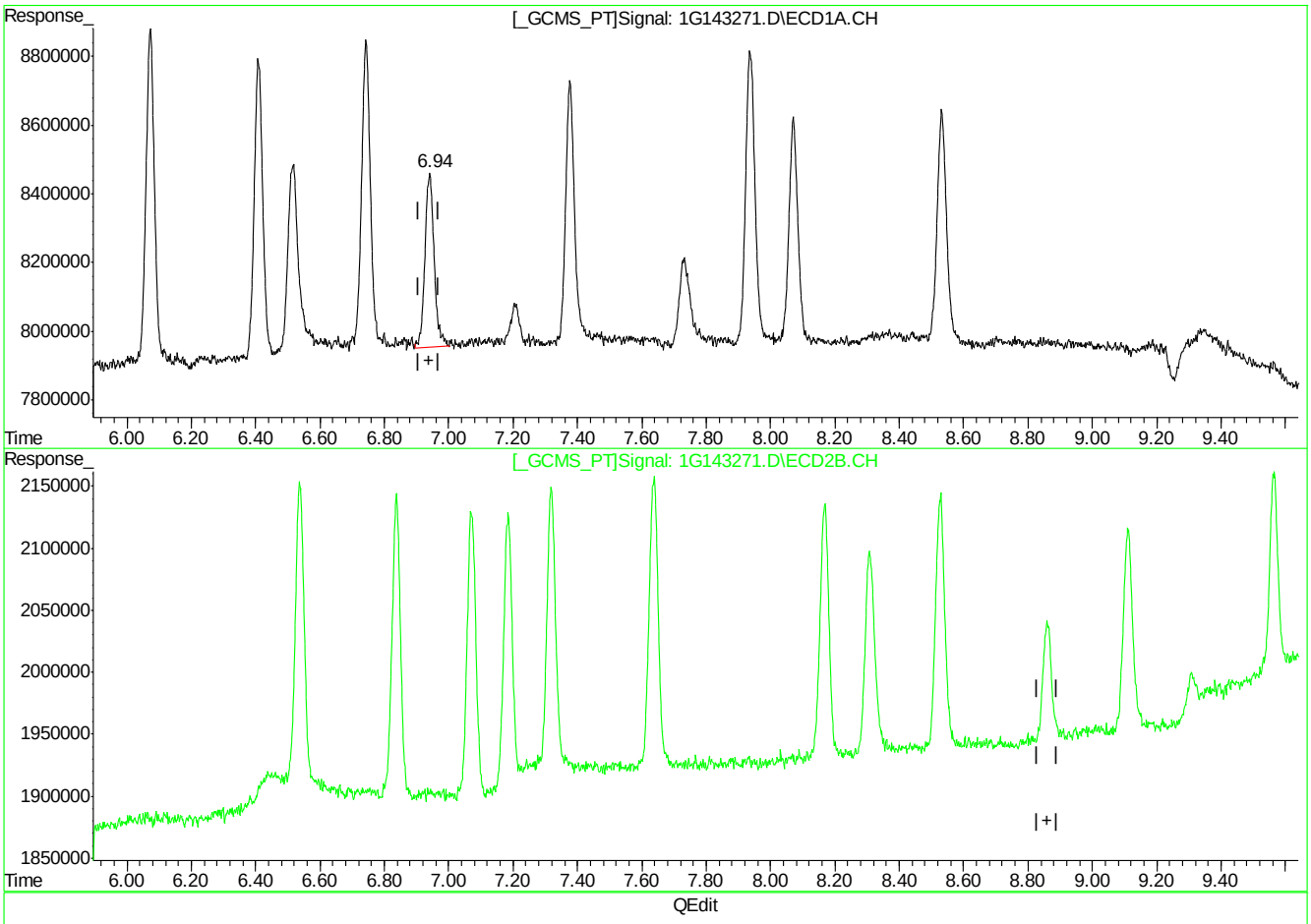
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:14 2018 RPT1

11.6.7.5 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration



(20) 4,4'-DDT (MA)

6.94min 1.541PPB

response 10118360

(20) 4,4'-DDT #2 (MA)

0.00min 0.000PPB

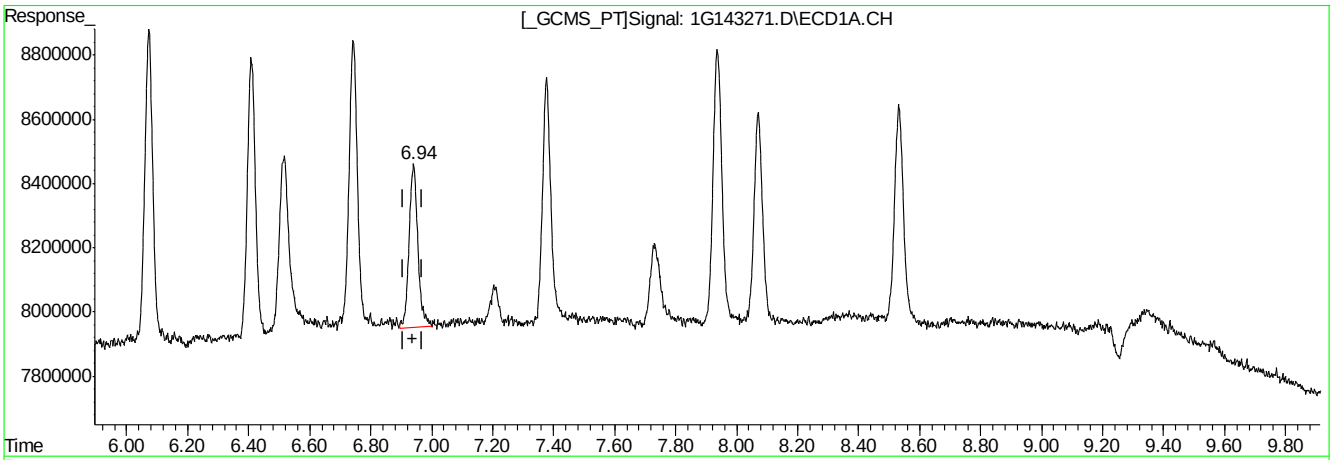
response 0

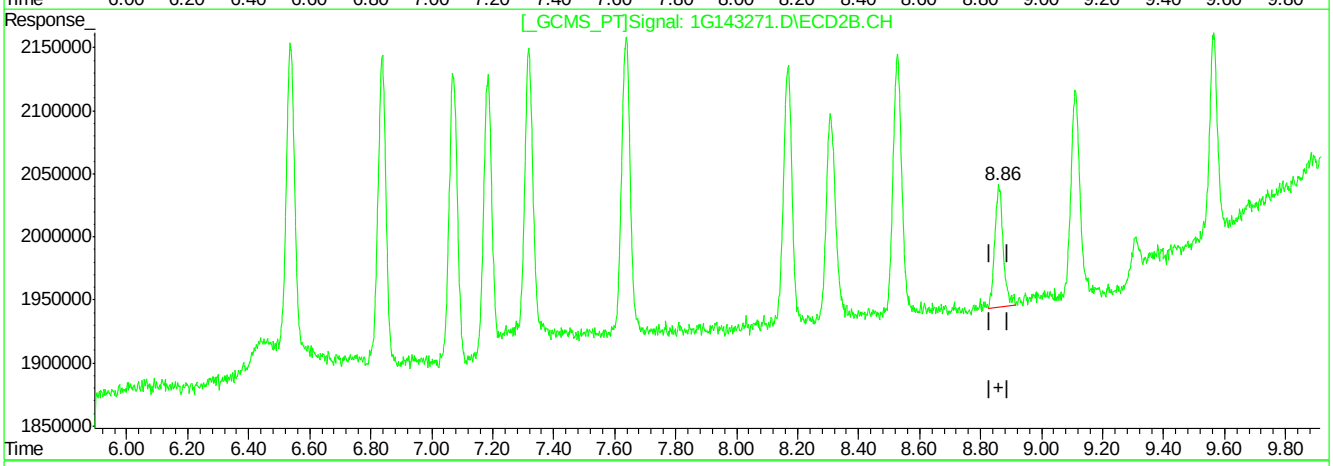
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:27 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.94min 1.541PPB

response 10118360

(20) 4,4'-DDT #2 (MA)

8.86min 1.385PPB m

response 1874591

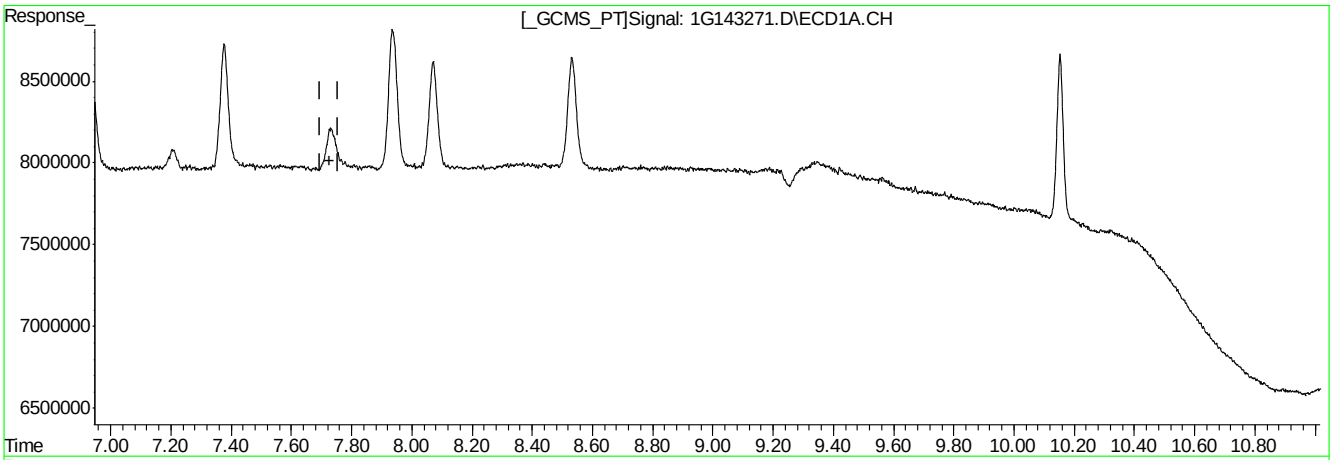
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:40 2018 RPT1

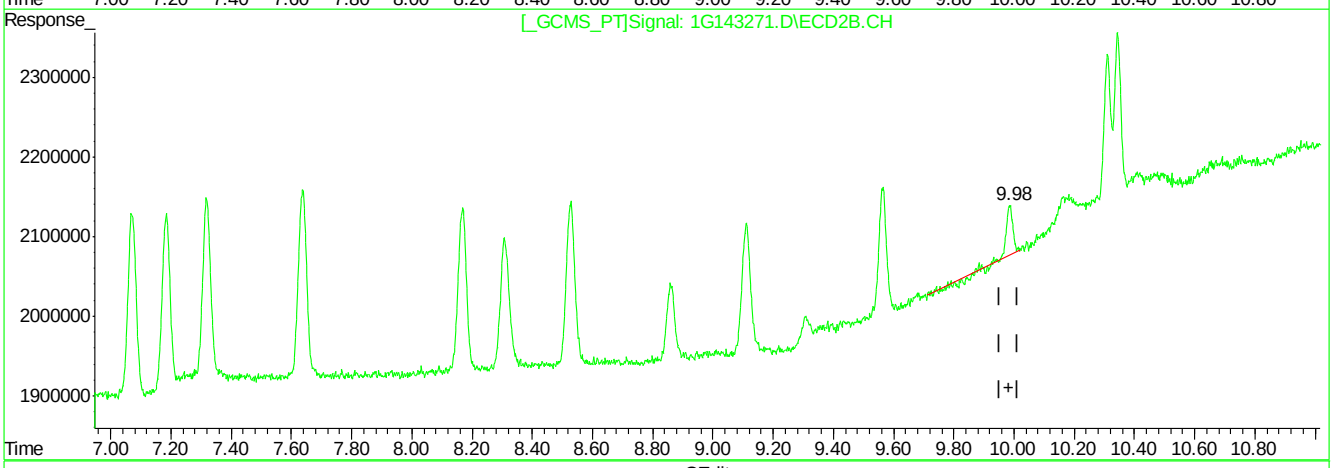
11.6.7.7 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

0.00min 0.000PPB

response 0

(23) Methoxychlor #2 (A)

9.99min 0.933PPB

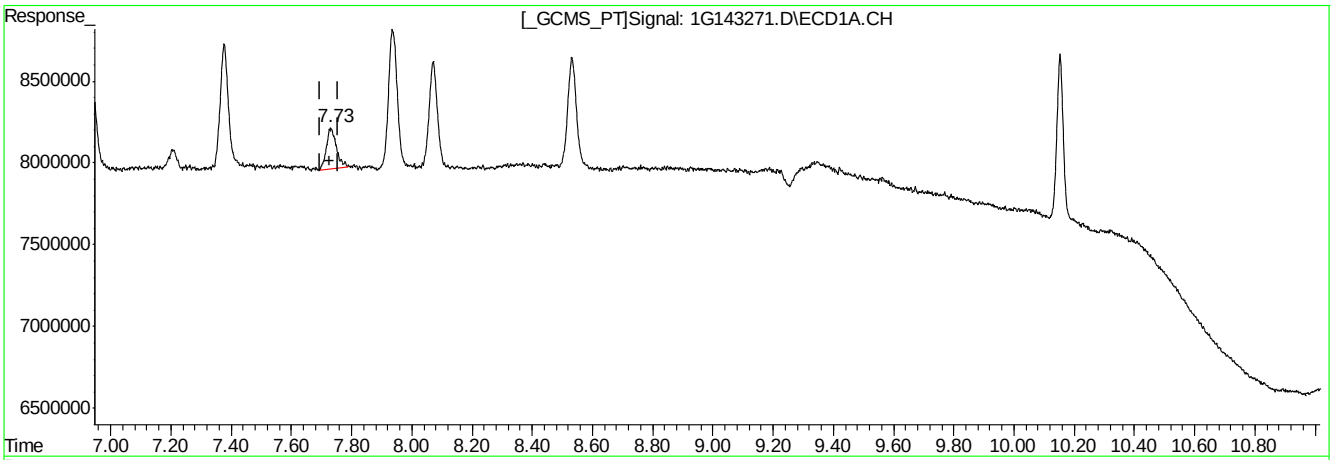
response 674920

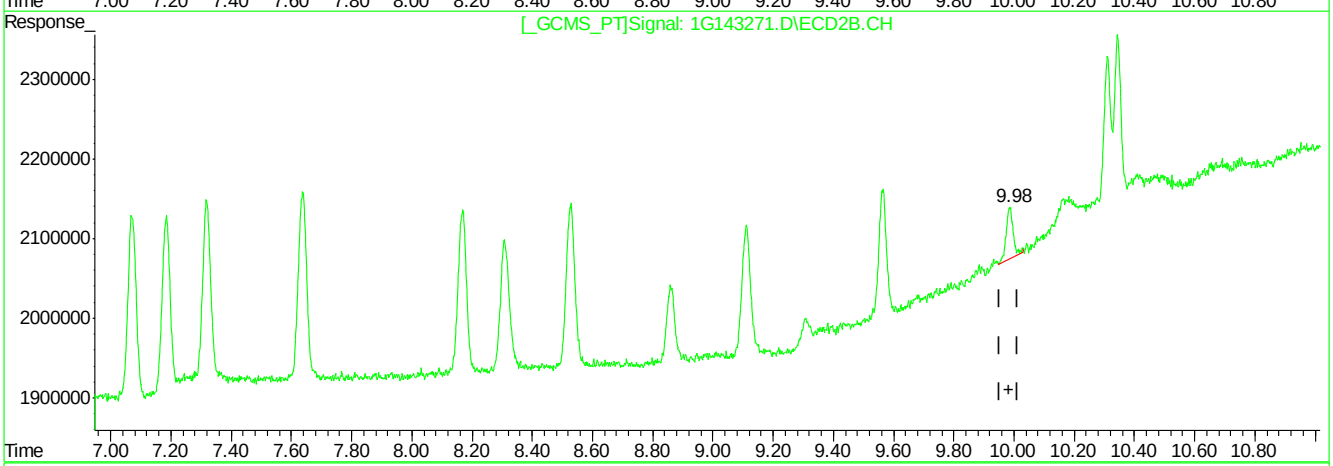
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:45 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 1.316PPB m

response 5870130

(23) Methoxychlor #2 (A)

9.98min 1.445PPB m

response 1045217

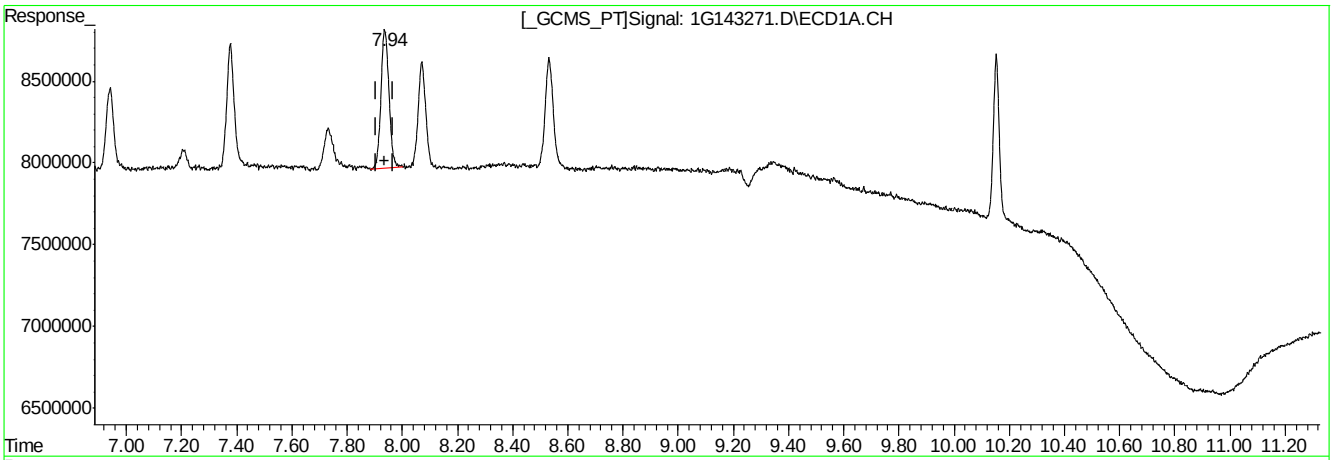
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:54 2018 RPT1

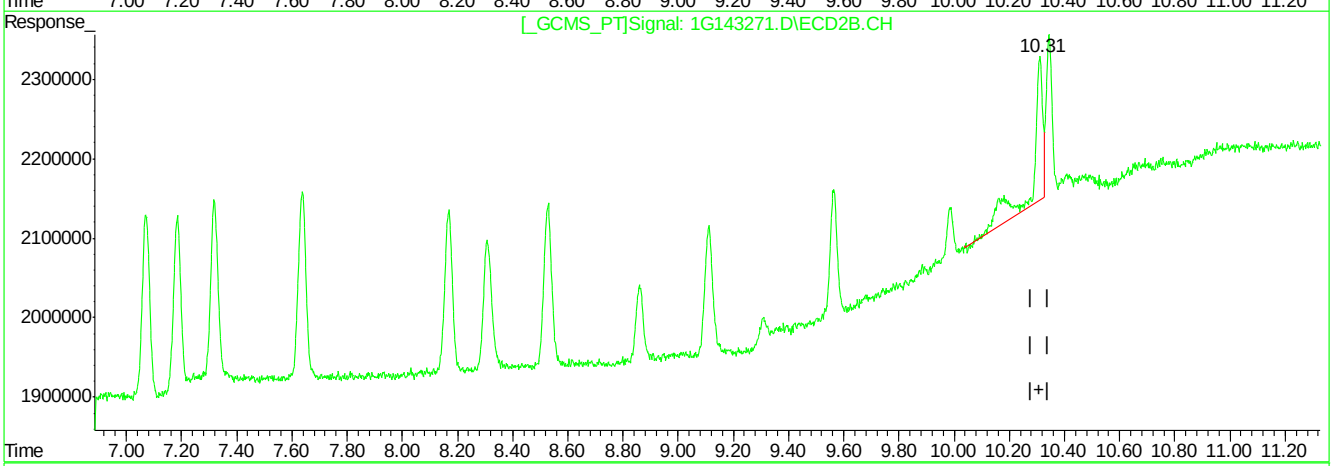
11.6.7.9 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 1.789PPB

response 17042072

(24) Mirex #2

10.31min 2.993PPB

response 4314501

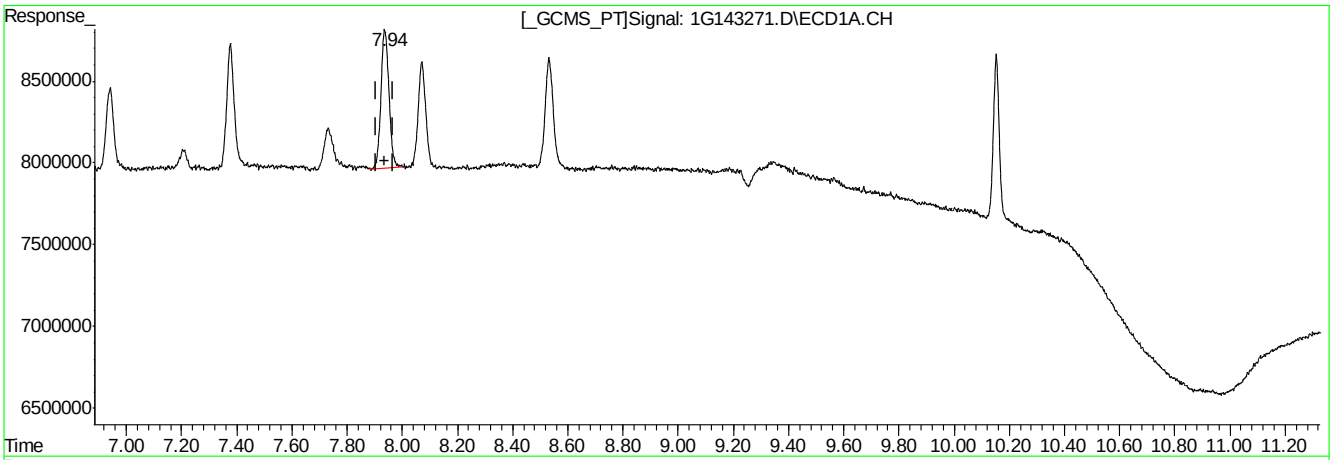
(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:10:57 2018 RPT1

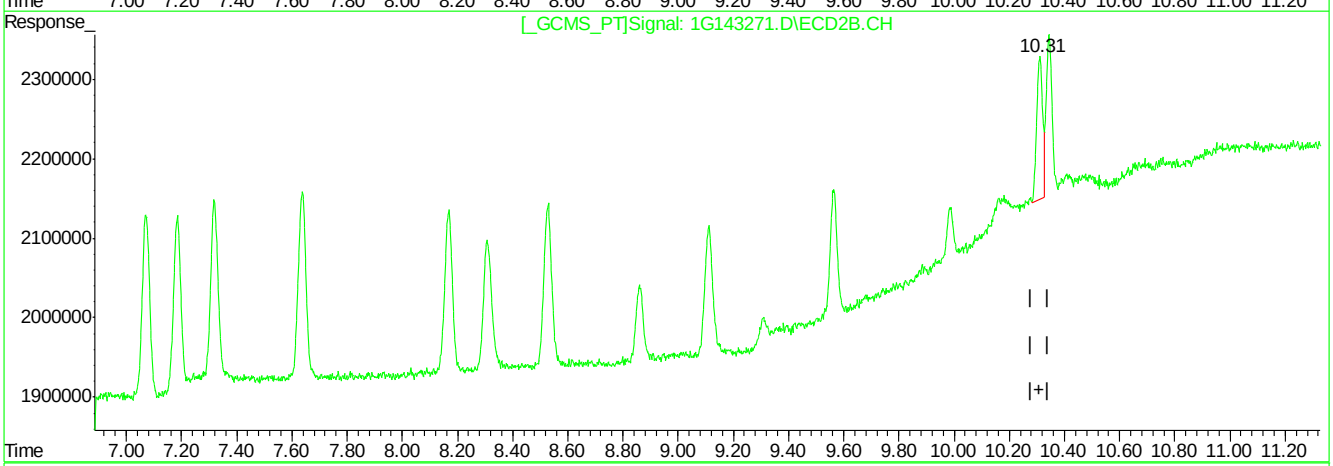
11.6.7.10 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143271.D\ECD2B.CH
Acq On : 08 Feb 2018 11:37 am Operator: minam
Sample : ic4557-2 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:09 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 1.789PPB

response 17042072

(24) Mirex #2

10.31min 1.832PPB m

response 2641300

(+) = Expected Retention Time
1G143271.D 1PST4557.M Thu Feb 08 12:11:08 2018 RPT1

11.6.7.11

11

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:22 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.17	2.46	473.2E6	108.0E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.79	3.36	7694499	1941736	0.803m	0.890
		Spiked Amount 40.000	Range 30 - 150		Recovery =		2.01%#	2.23%#
26)	SA	Decachlorobiphen	10.15	12.07	6379042	1408972	0.718	0.856m
		Spiked Amount 40.000			Recovery =		1.80%	2.14%
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	11132594	2984733	0.922	0.961
4)	A	alpha-BHC	3.28	4.08	8663679	2485205	0.694	0.836
5)	MA	gamma-BHC	3.59	4.55	8074183	2358989	0.647	0.872
6)	MA	Heptachlor	4.11	5.18	9704142	2159629	0.761	0.841
7)	B	beta-BHC	3.67	4.63	4588398	1115799	0.719m	0.923
8)	B	delta-BHC	3.87	5.07	7289625	2208607	0.780	0.914
9)	MB	Aldrin	4.47	5.67	8339021	2205679	0.740	0.835
10)		Alachlor	4.59	5.43	1745562	388410	1.055m	1.145m
11)	B	Heptachlor Epoxi	5.20	6.54	11063828	2124204	1.032	0.875m
12)	B	gamma-Chlordane	5.38	6.84	4486288	2096080	0.532	0.879
13)	B	alpha-Chlordane	5.55	7.07	8830583	2254046	0.813	0.976
14)	A	Endosulfan I	5.74	7.18	8910907	2058174	0.851	0.924
15)	B	4,4'-DDE	5.65	7.32	9178558	2424710	0.978	1.051
16)	MA	Dieldrin	6.07	7.64	7925481	2259755	0.733	0.894
17)	MA	Endrin	6.41	8.17	7311800	1914825	0.744	0.863
18)	A	4,4'-DDD	6.51	8.31	4508680	1747162	0.572	0.930
19)	B	Endosulfan II	6.74	8.53	7367442	2131096	0.744m	0.975
20)	MA	4,4'-DDT	6.94	8.86	4683571	794757	0.706m	0.588m
21)	B	Endrin Aldehyde	7.38	9.11	6088610	1643290	0.729	0.953
22)	B	Endosulfan Sulfa	8.07	9.56	5441846	1180375	0.646	0.704
23)	A	Methoxychlor	7.73	9.98	2253265	421861	0.500m	0.584
24)		Mirex	7.94	10.31	8021433	1235561	0.833	0.858m
25)	B	Endrin Ketone	8.53	10.35	5708723	1311496	0.655	0.690m

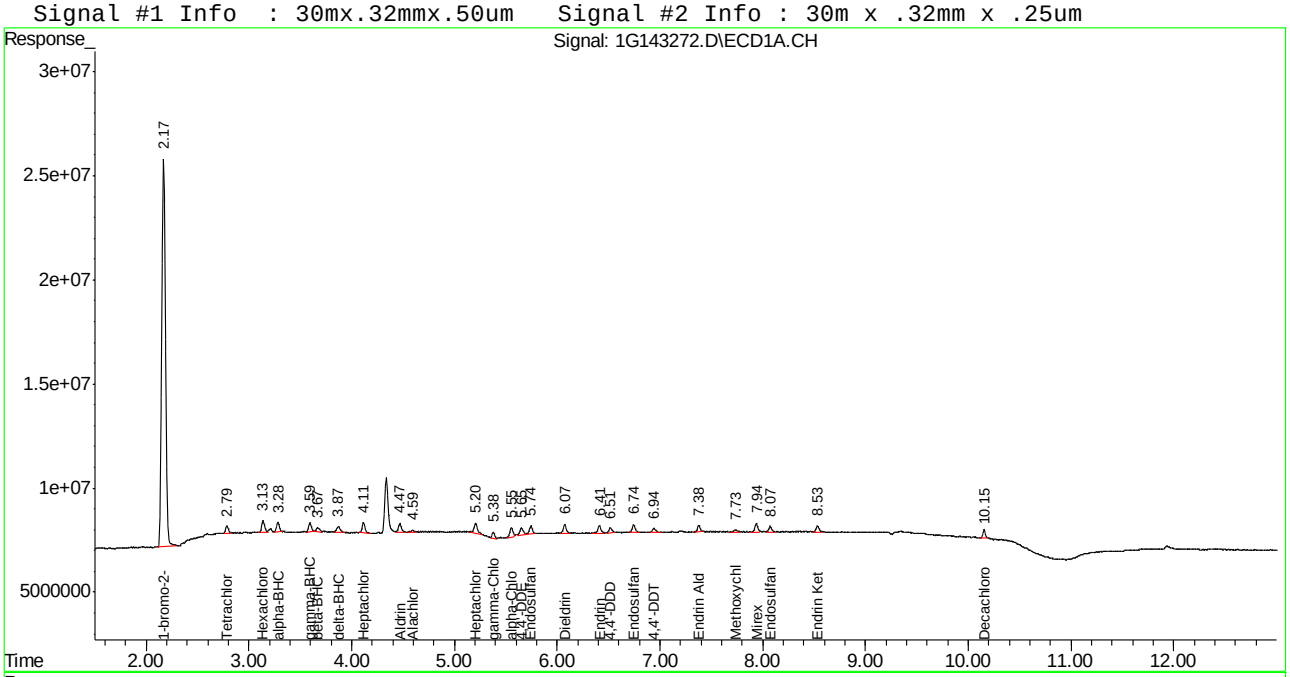
(f)=RT Delta > 1/2 Window (m)=manual int.

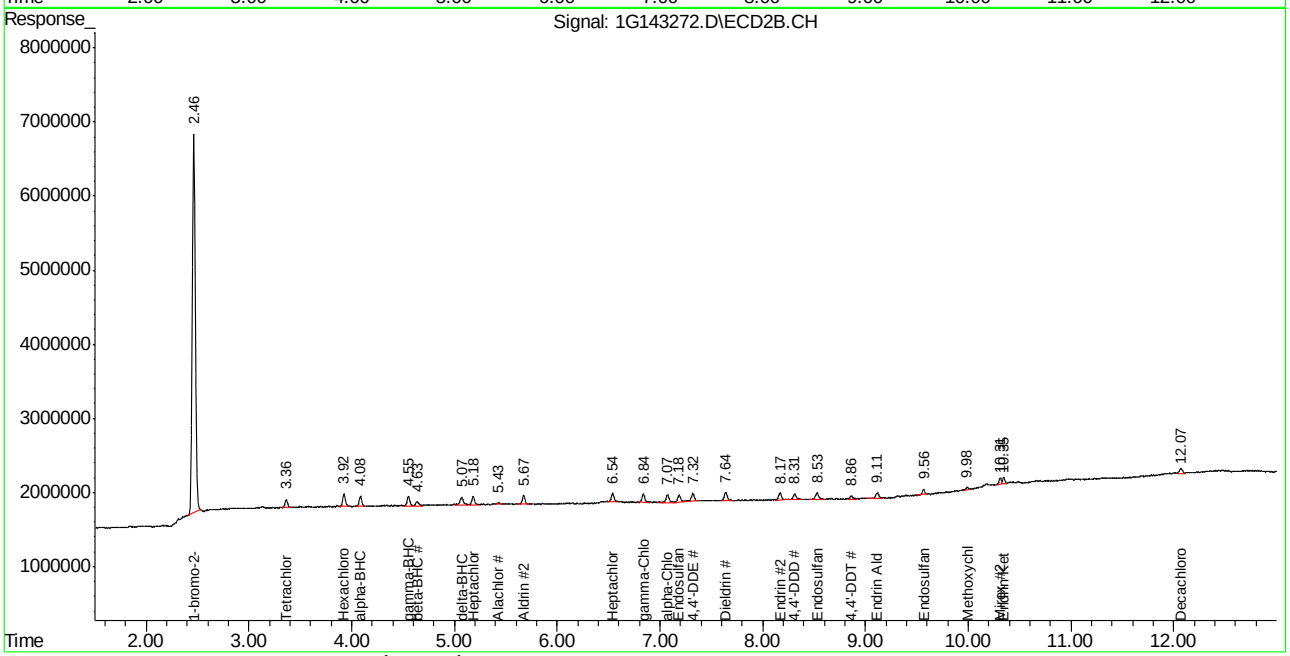
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:22 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

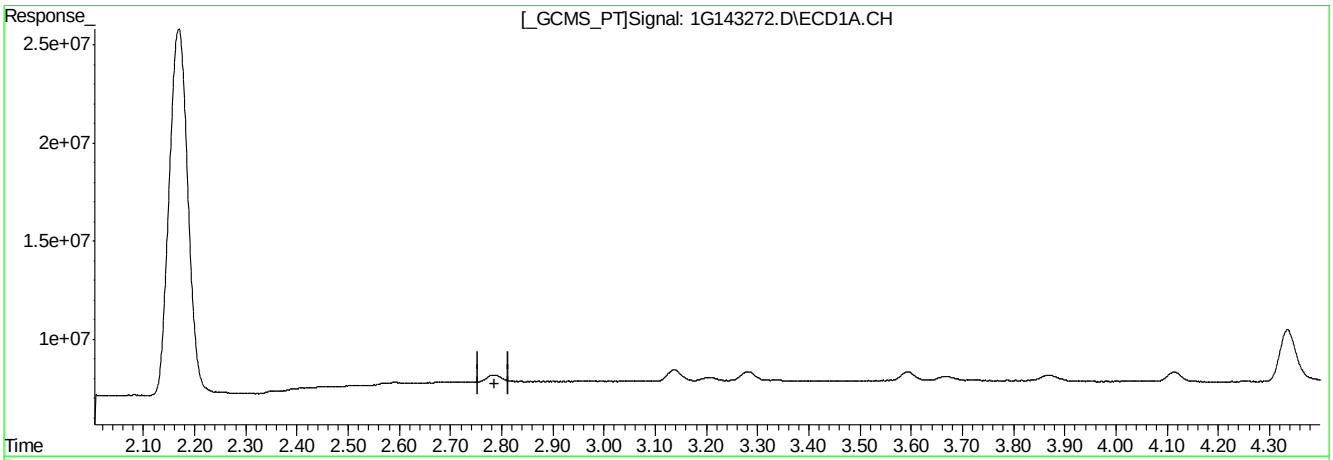
Sample Number: G1G4557-IC4557
Lab FileID: 1G143272.D
Injection Time: 02/08/18 11:54
Method: SW846 8081B
Analyst approved: 02/08/18 14:23 Kristen Drake
Supervisor approved: 02/09/18 10:15 Gwendolyn Burns

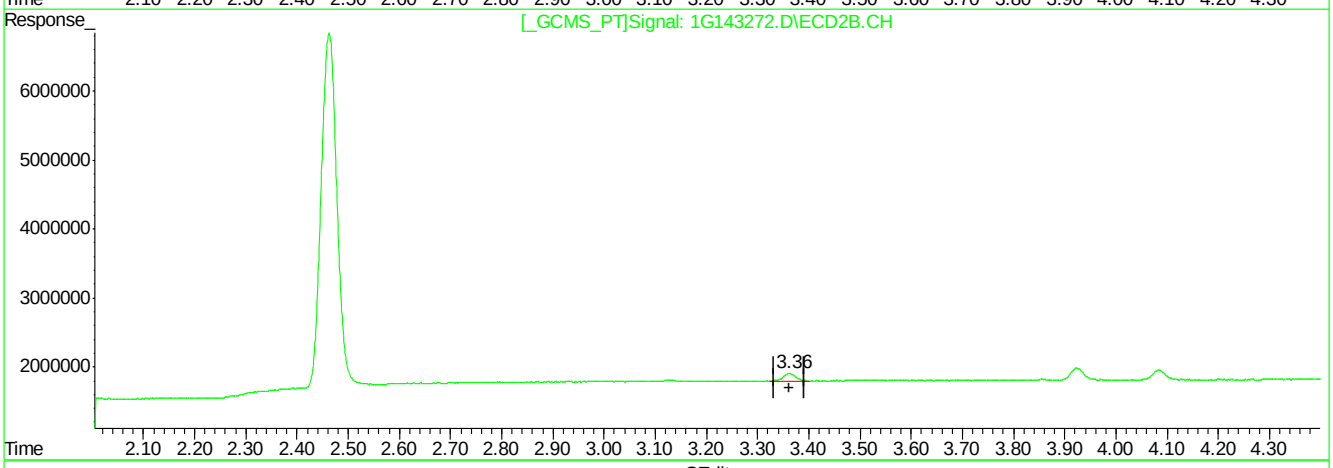
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.79	Poorly defined baseline
beta-BHC	319-85-7	1	3.67	Poorly defined baseline
Alachlor	15972-60-8	1	4.59	Poorly defined baseline
Alachlor	15972-60-8	2	5.43	Poorly defined baseline
Heptachlor epoxide	1024-57-3	2	6.54	Poorly defined baseline
Endosulfan-II	33213-65-9	1	6.74	Poorly defined baseline
4,4'-DDT	50-29-3	1	6.94	Poorly defined baseline
Methoxychlor	72-43-5	1	7.73	Poorly defined baseline
4,4'-DDT	50-29-3	2	8.86	Poorly defined baseline
Mirex	2385-85-5	2	10.31	Poorly defined baseline
Endrin ketone	53494-70-5	2	10.35	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	12.07	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(2) Tetrachloro-m-xylene (SAB)

0.00min 0.000PPB

response 0

(2) Tetrachloro-m-xylene #2 (SAB)

3.36min 0.890PPB

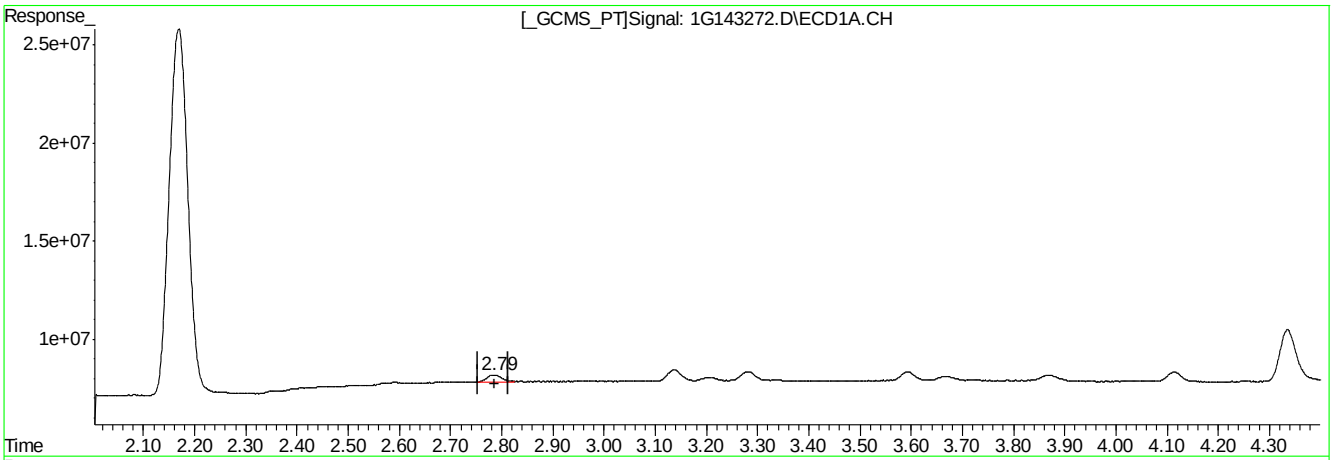
response 1941736

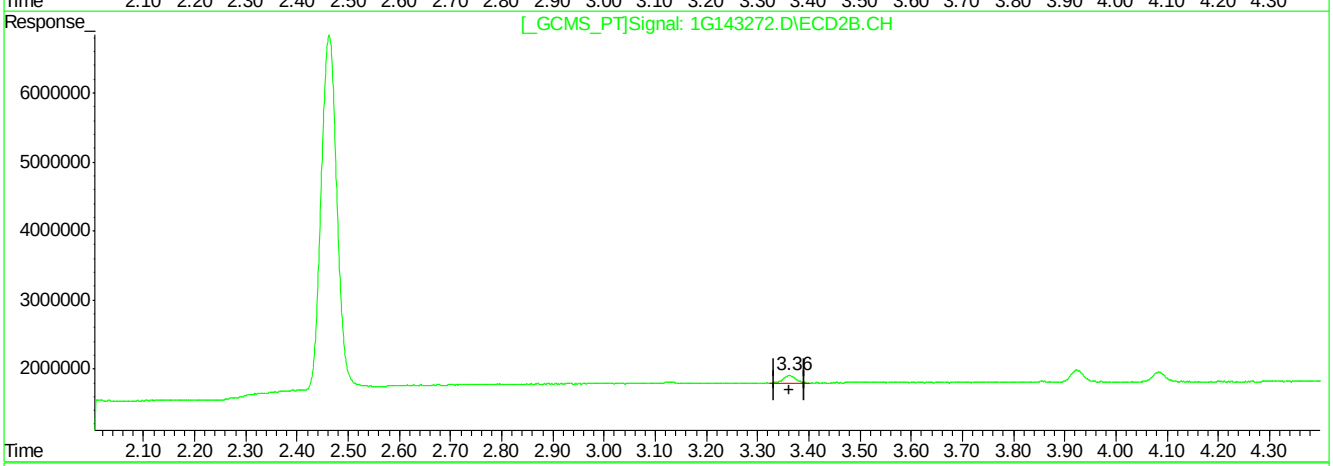
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:12:27 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(2) Tetrachloro-m-xylene (SAB)

2.79min 0.803PPB m

response 7694499

(2) Tetrachloro-m-xylene #2 (SAB)

3.36min 0.890PPB

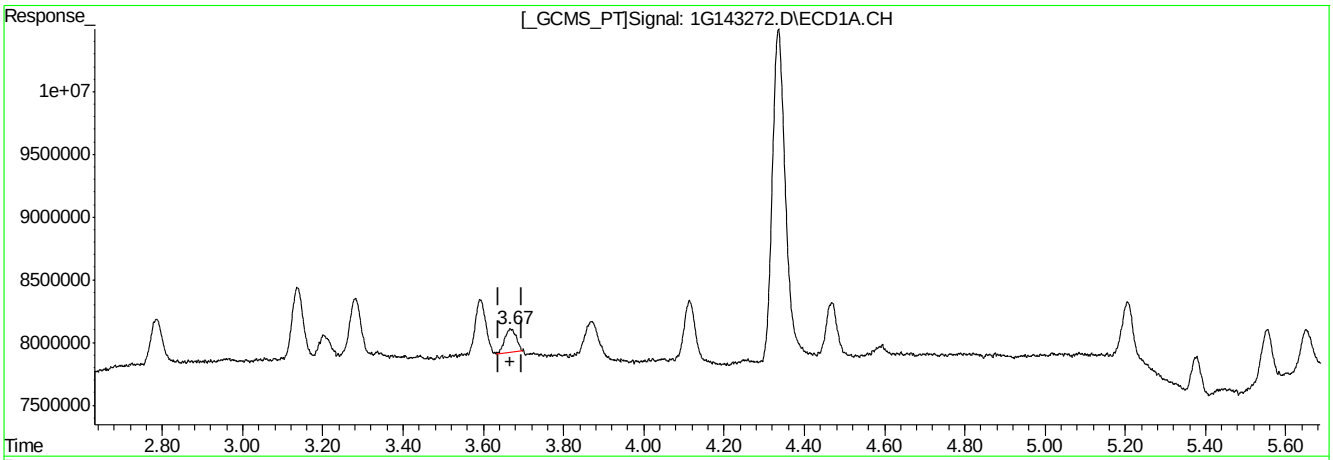
response 1941736

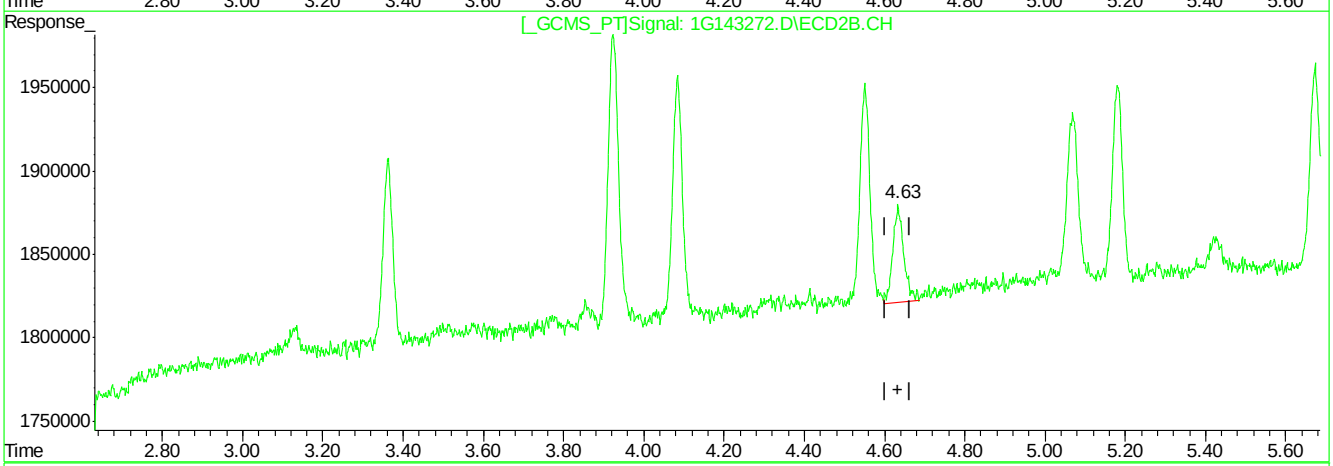
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:12:33 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(7) beta-BHC (B)

3.67min 0.579PPB

response 3695320

(7) beta-BHC #2 (B)

4.63min 0.923PPB

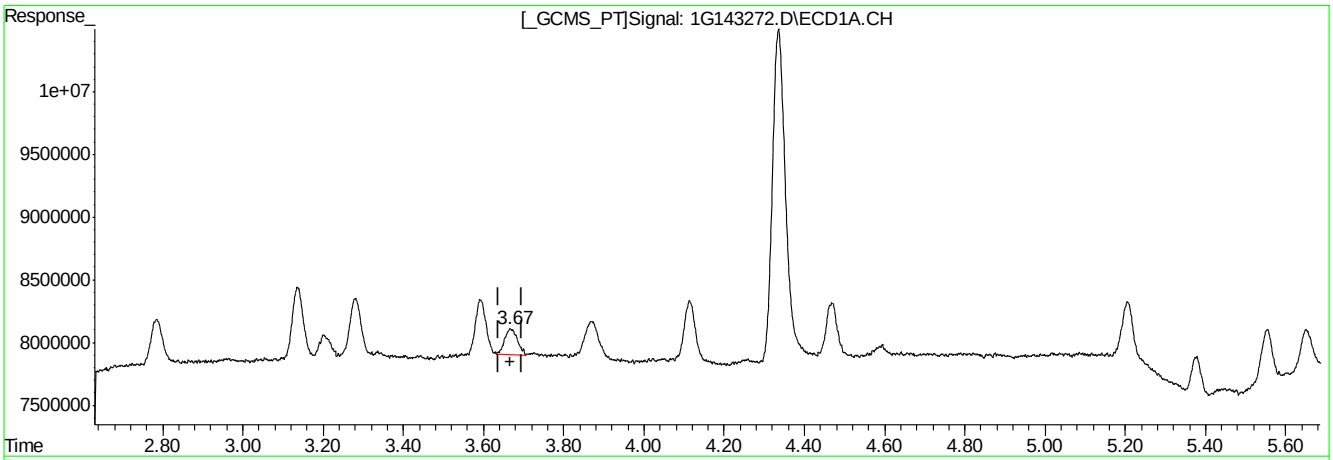
response 1115799

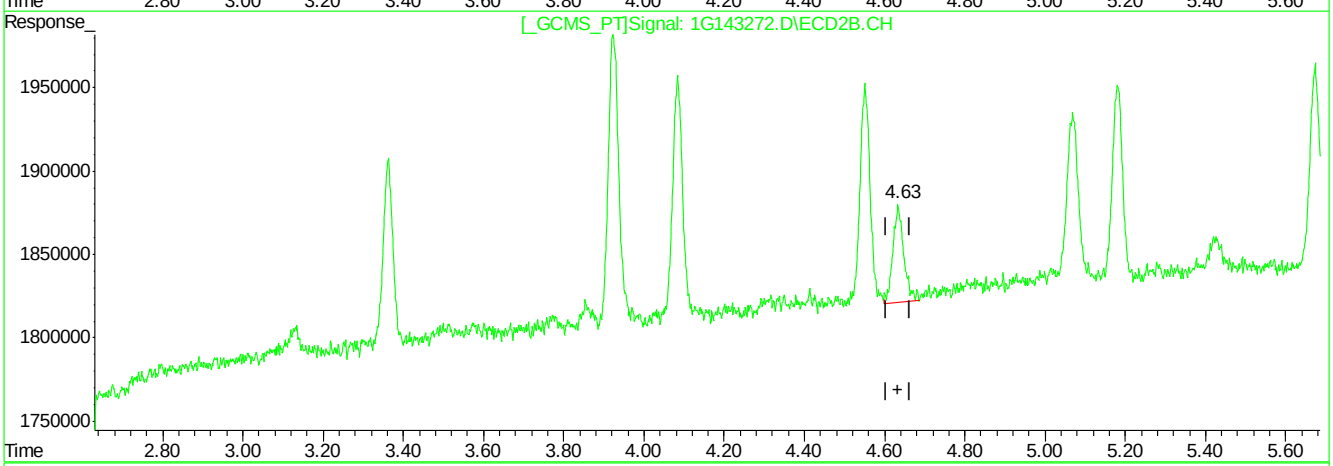
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:12:39 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(7) beta-BHC (B)

3.67min 0.719PPB m

response 4588398

(7) beta-BHC #2 (B)

4.63min 0.923PPB

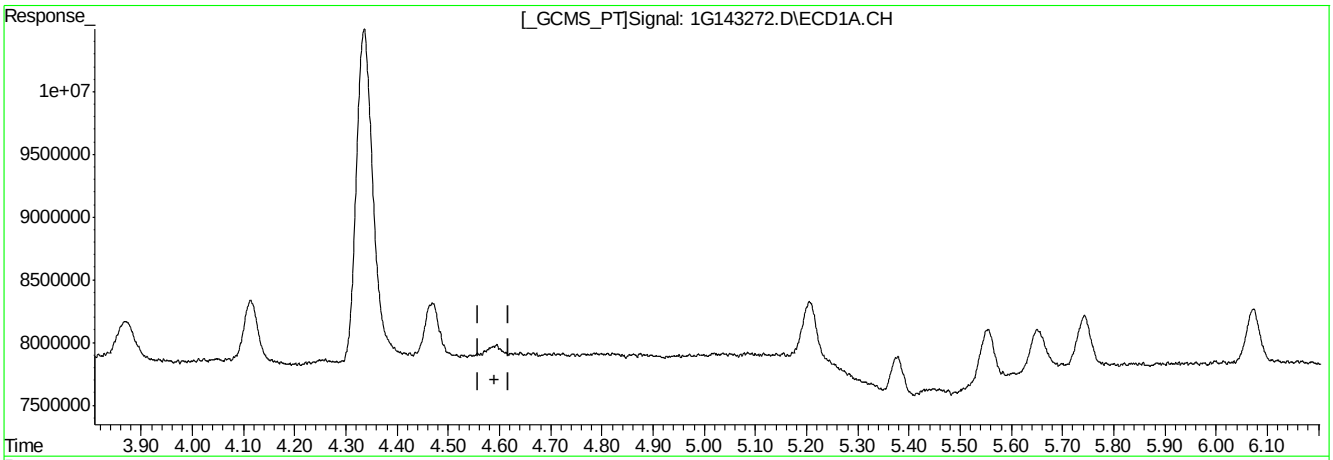
response 1115799

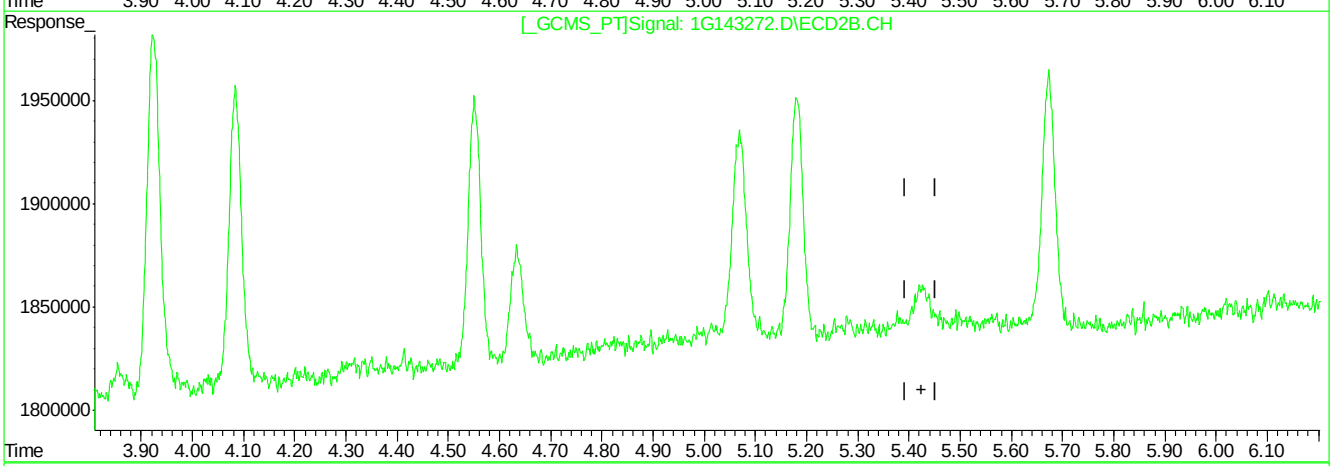
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:01 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

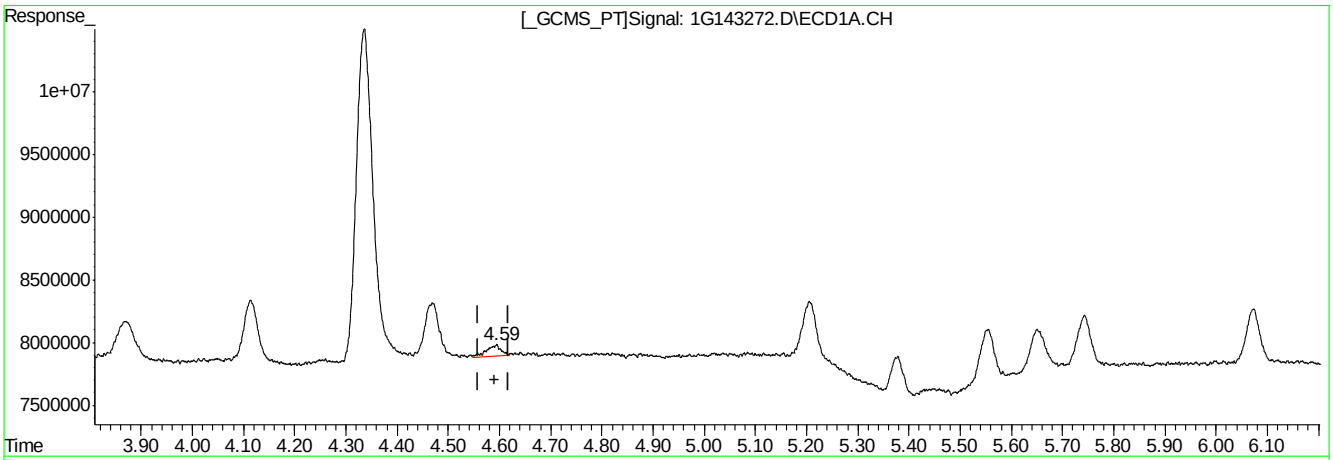
response 0

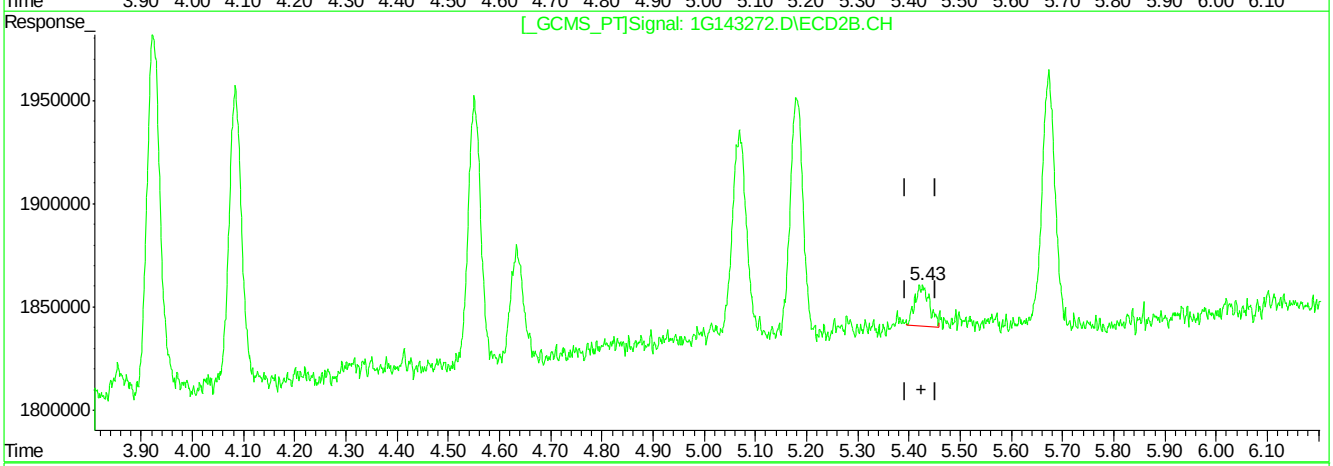
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:05 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.59min 1.055PPB m

response 1745562

(10) Alachlor #2

5.43min 1.145PPB m

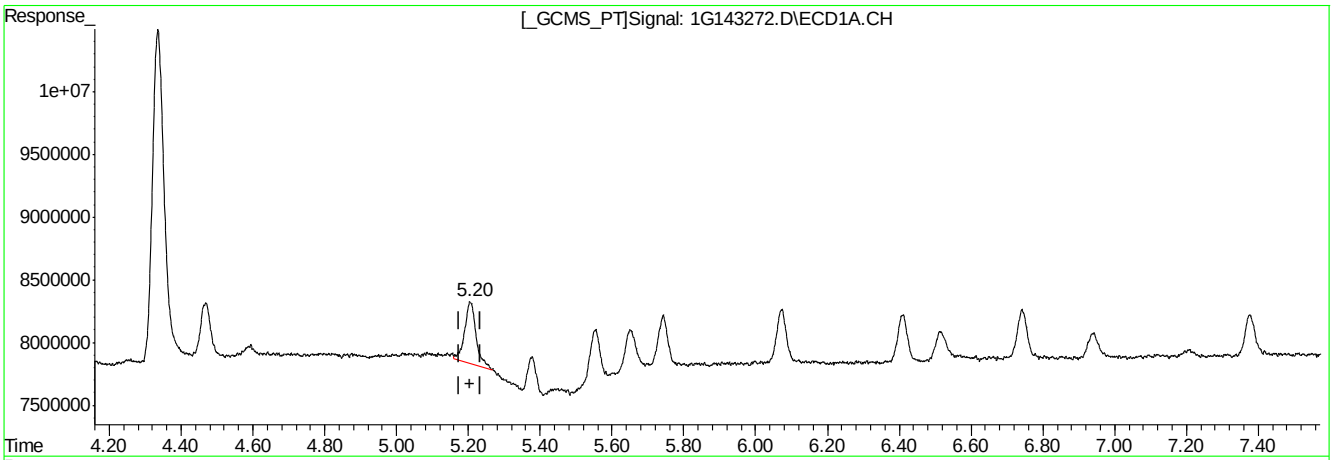
response 388410

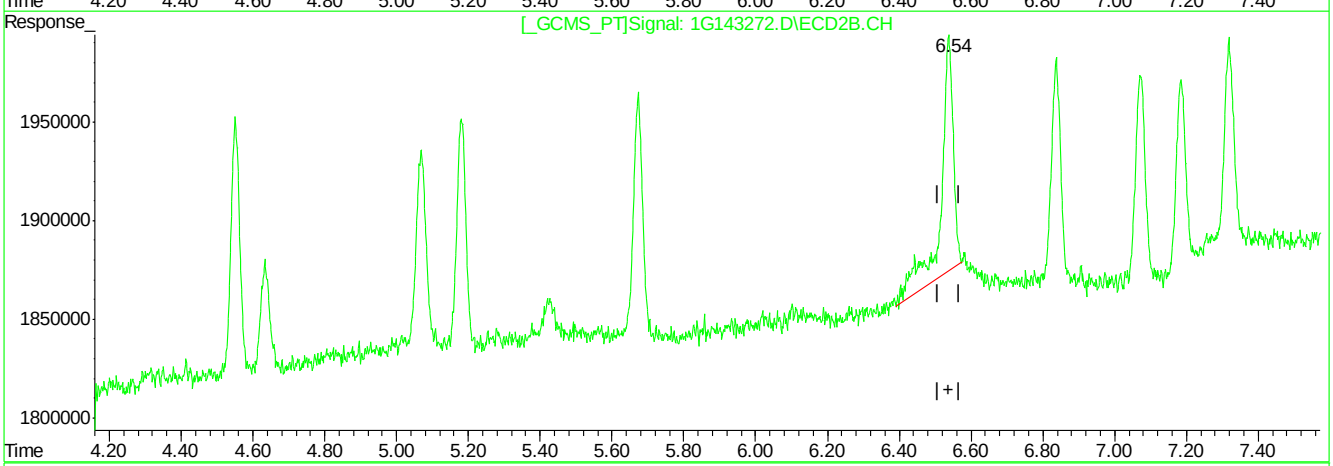
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:18 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 1.032PPB

response 11063828

(11) Heptachlor Epoxide #2 (B)

6.54min 1.173PPB

response 2848320

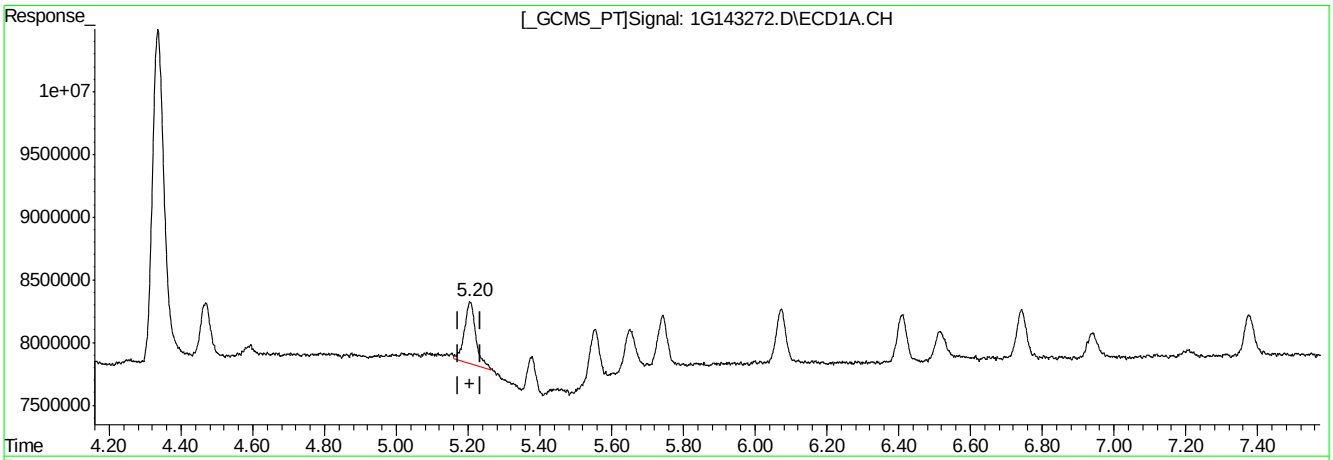
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:21 2018 RPT1

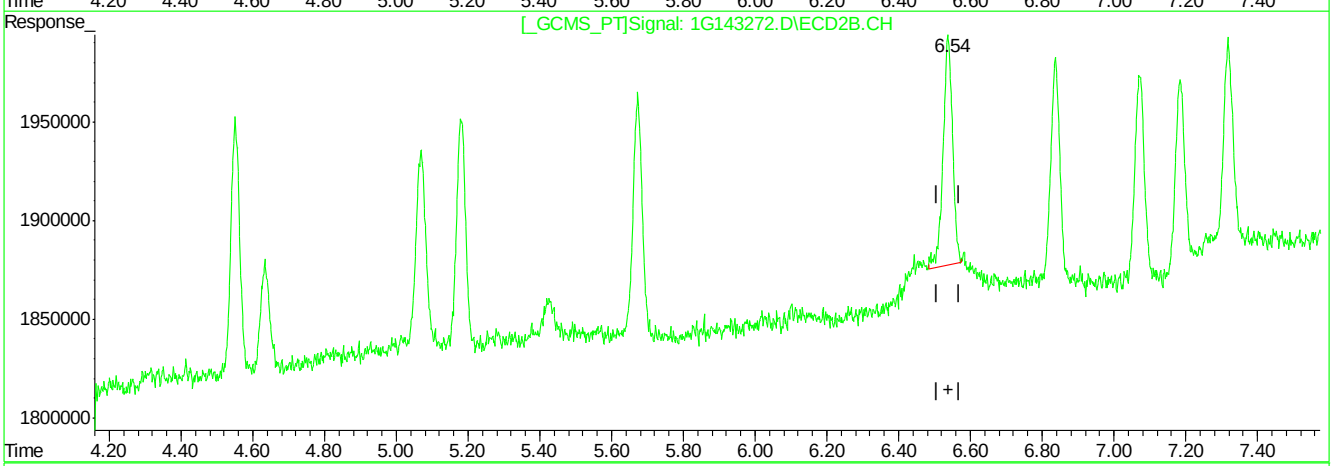
11.6.8.8 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(11) Heptachlor Epoxide (B)

5.20min 1.032PPB

response 11063828

(11) Heptachlor Epoxide #2 (B)

6.54min 0.875PPB m

response 2124204

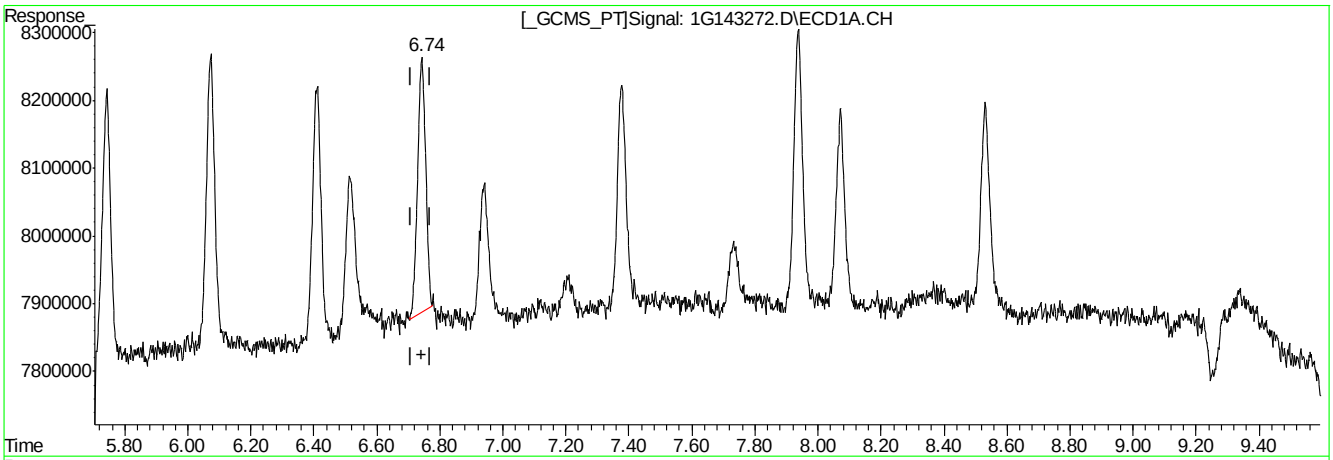
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:38 2018 RPT1

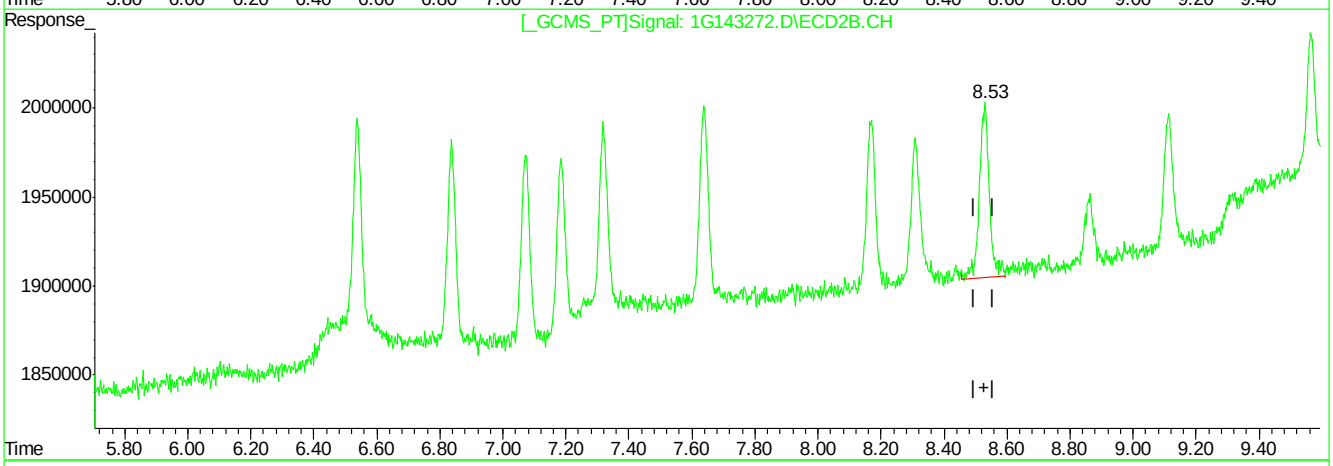
11.6.8.9 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(19) Endosulfan II (B)

6.74min 0.676PPB

response 6692916

(19) Endosulfan II #2 (B)

8.53min 0.975PPB

response 2131096

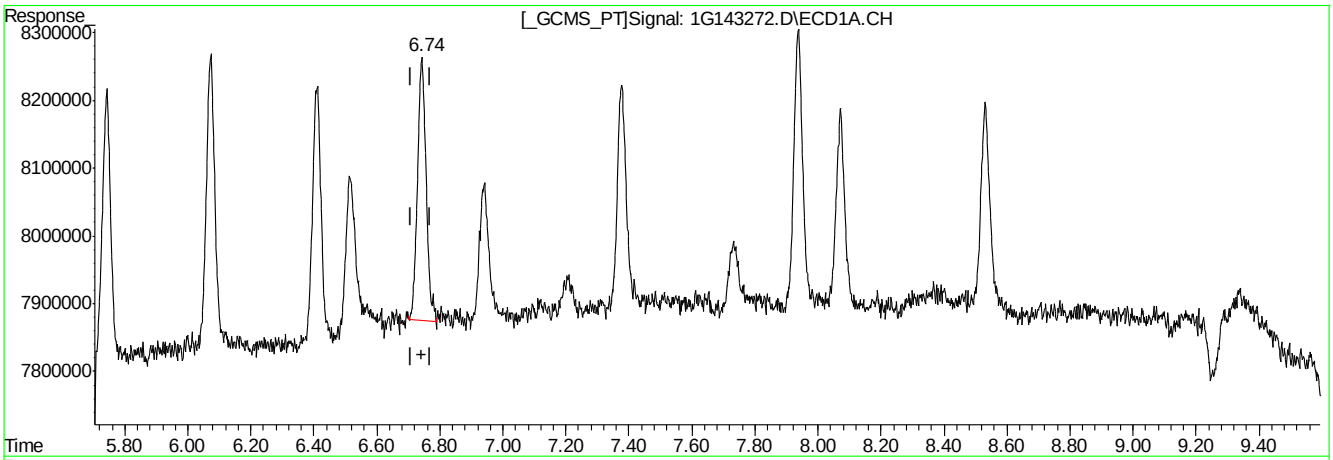
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:13:56 2018 RPT1

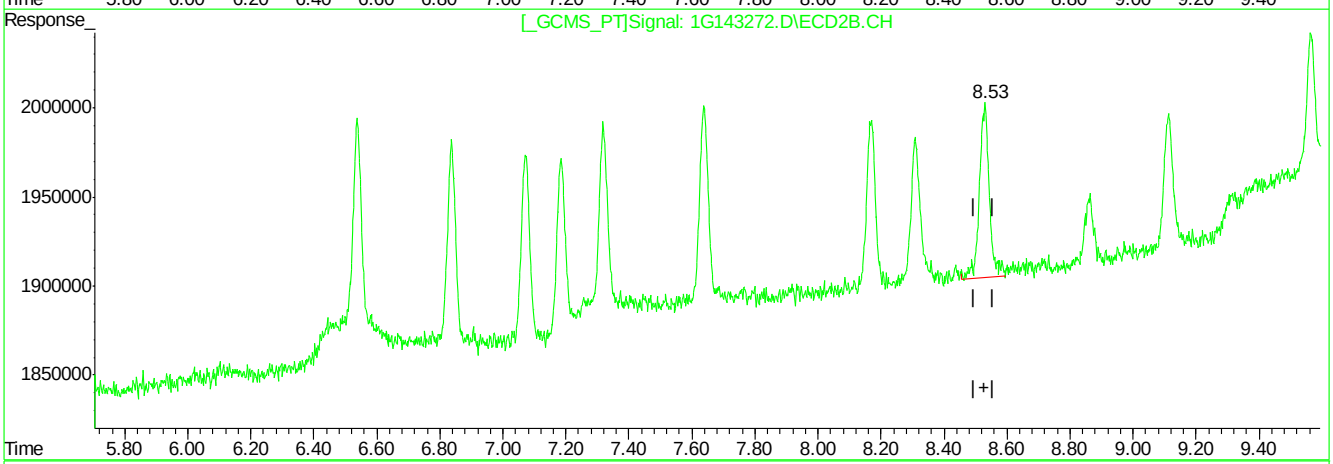
11.6.8.10 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(19) Endosulfan II (B)

6.74min 0.744PPB m

response 7367442

(19) Endosulfan II #2 (B)

8.53min 0.975PPB

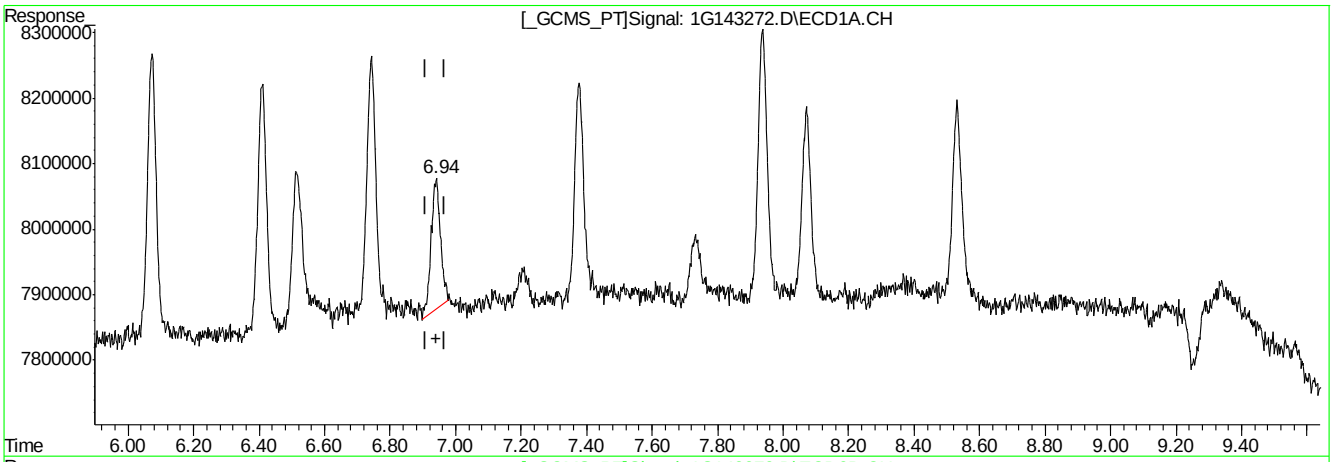
response 2131096

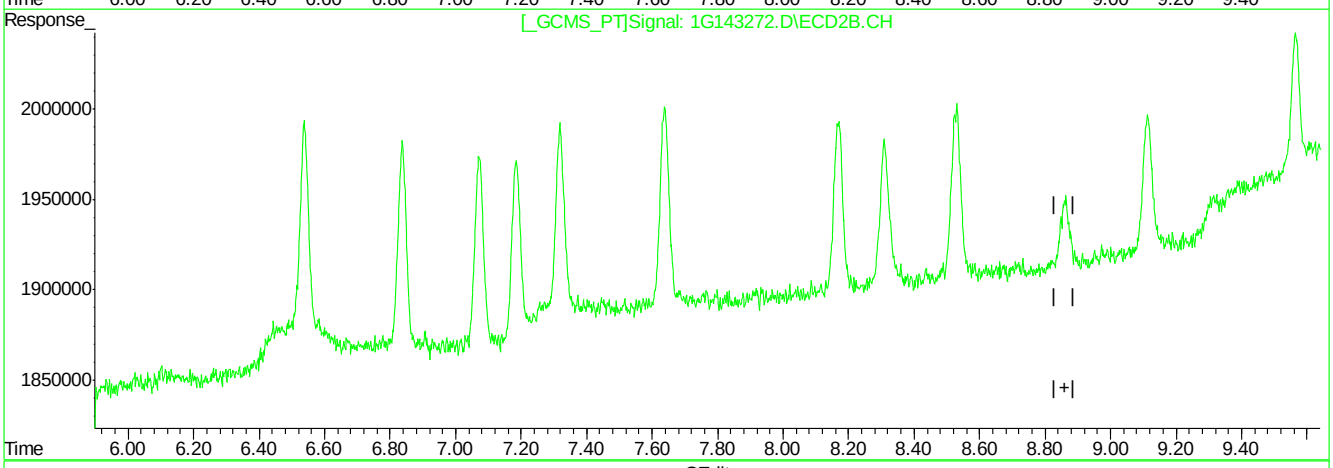
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:14:02 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.94min 0.598PPB

response 3968144

(20) 4,4'-DDT #2 (MA)

0.00min 0.000PPB

response 0

(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:14:04 2018 RPT1

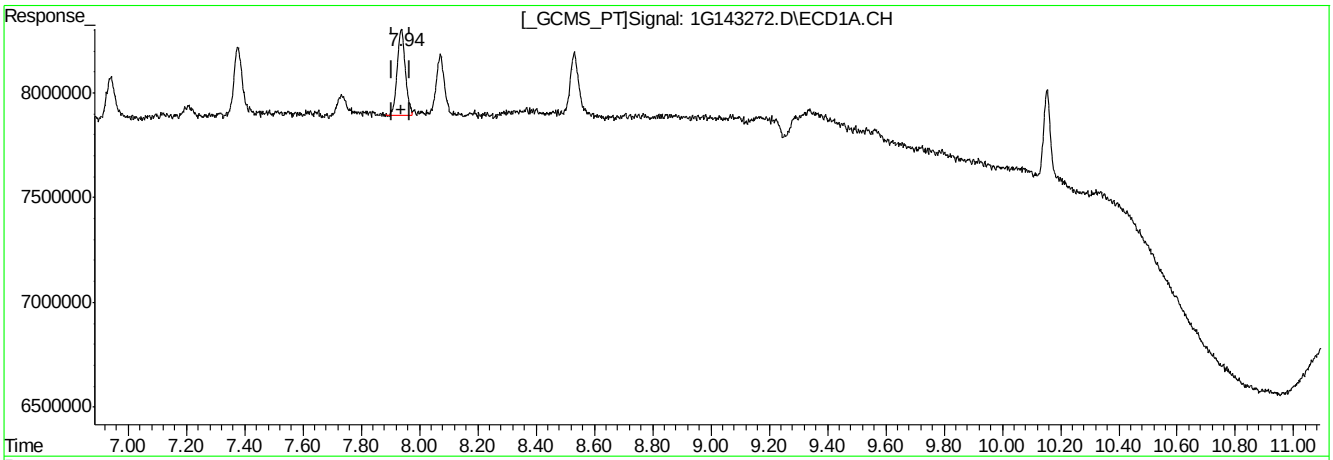
11.6.8.12

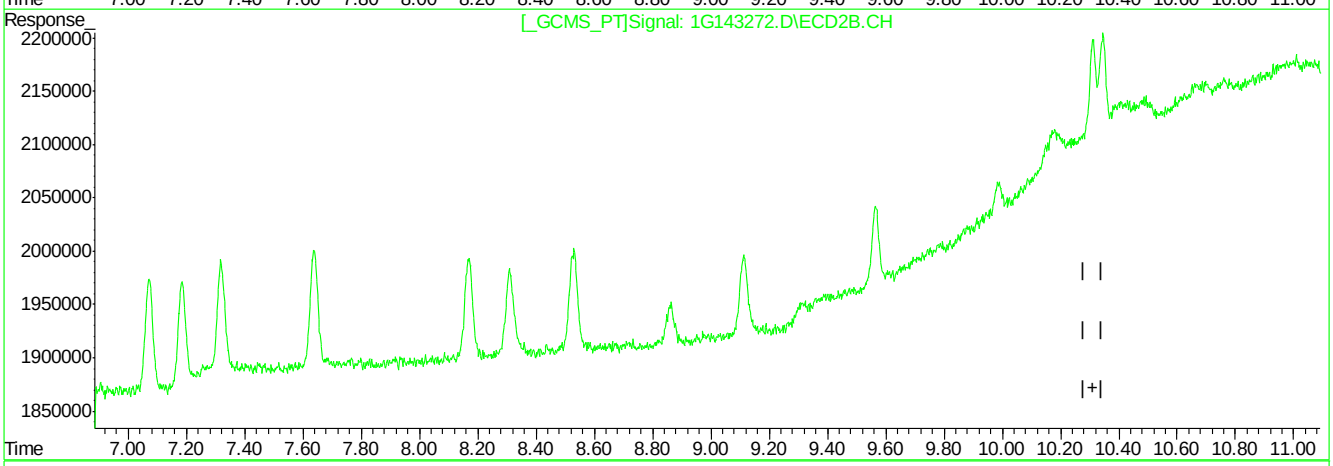
11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 0.833PPB

response 8021433

(24) Mirex #2

0.00min 0.000PPB

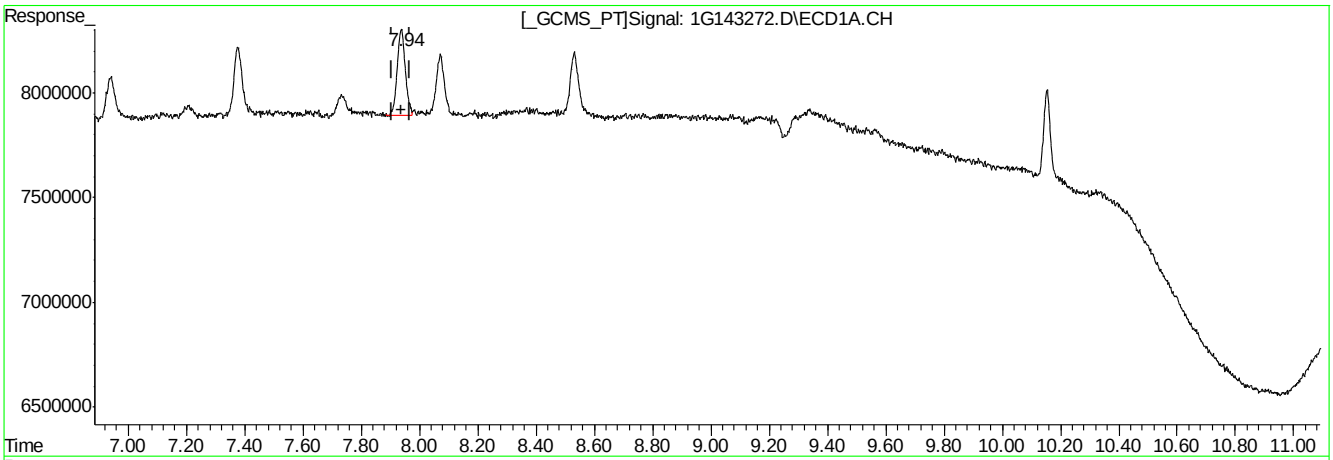
response 0

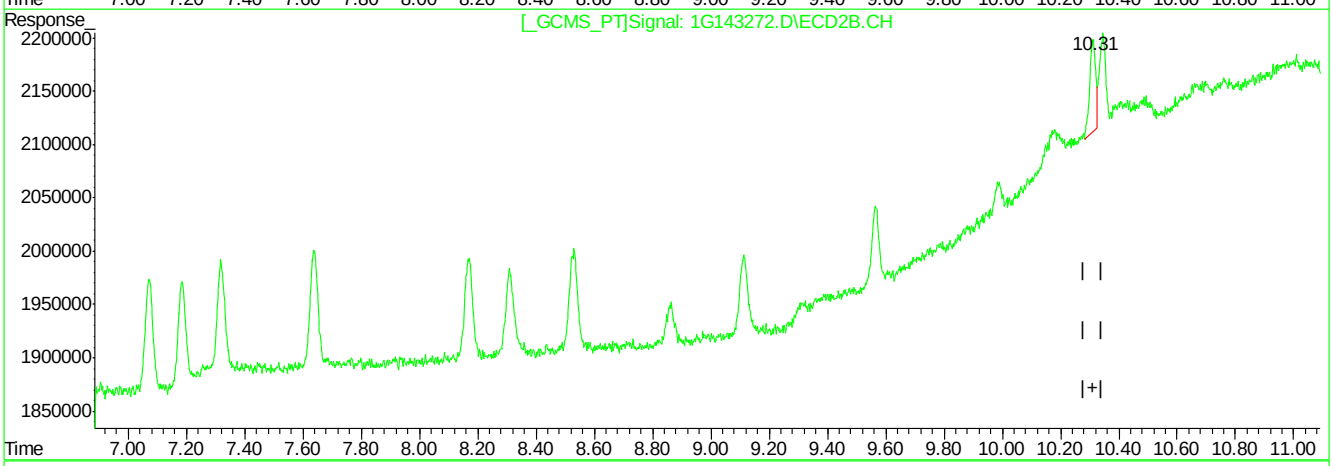
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:14:35 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(24) Mirex

7.94min 0.833PPB

response 8021433

(24) Mirex #2

10.31min 0.858PPB m

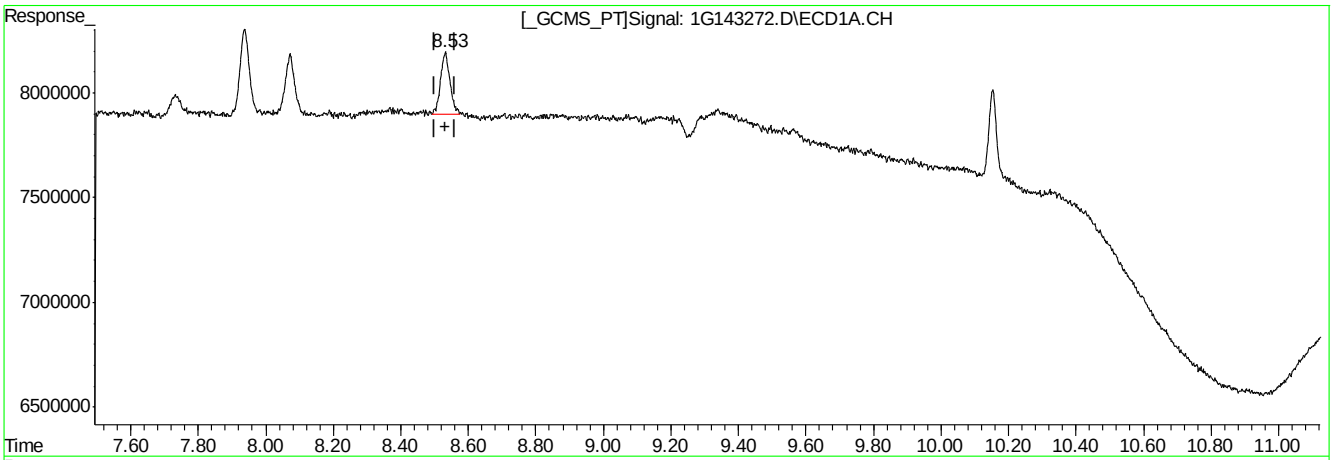
response 1235561

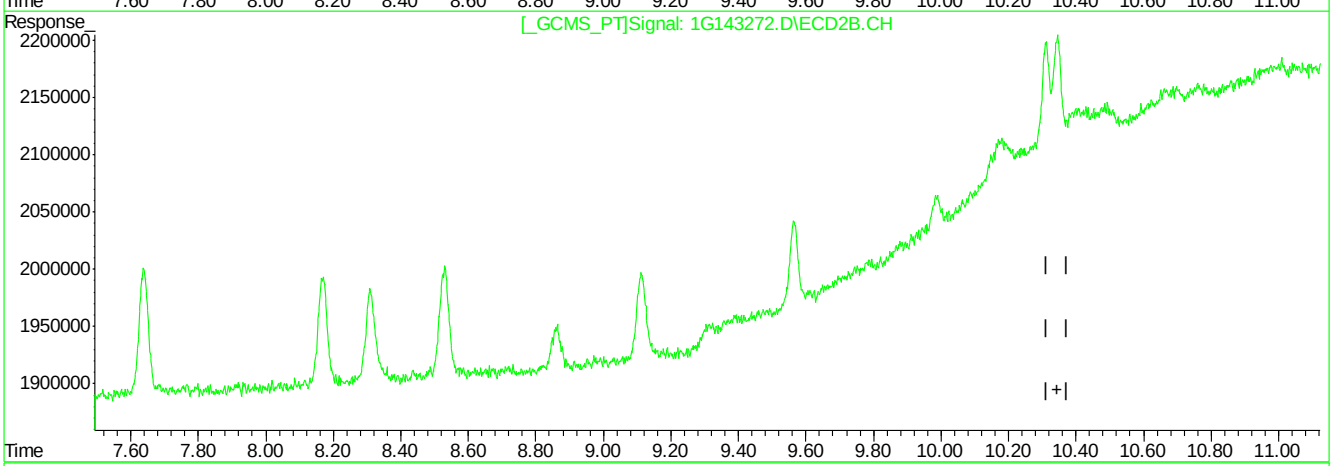
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:14:59 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

8.53min 0.655PPB

response 5708723

(25) Endrin Ketone #2 (B)

0.00min 0.000PPB

response 0

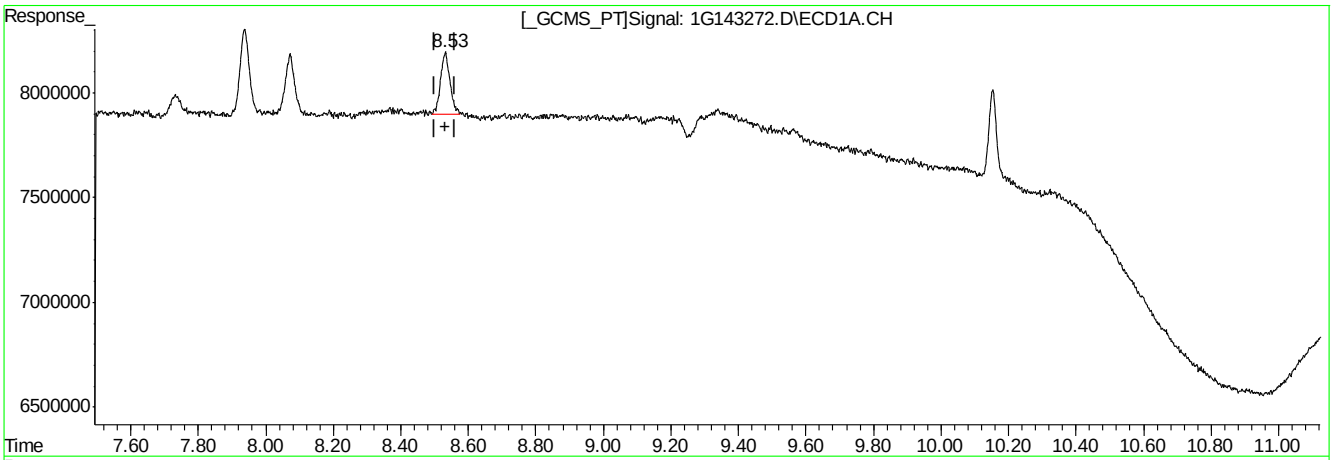
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:15:01 2018 RPT1

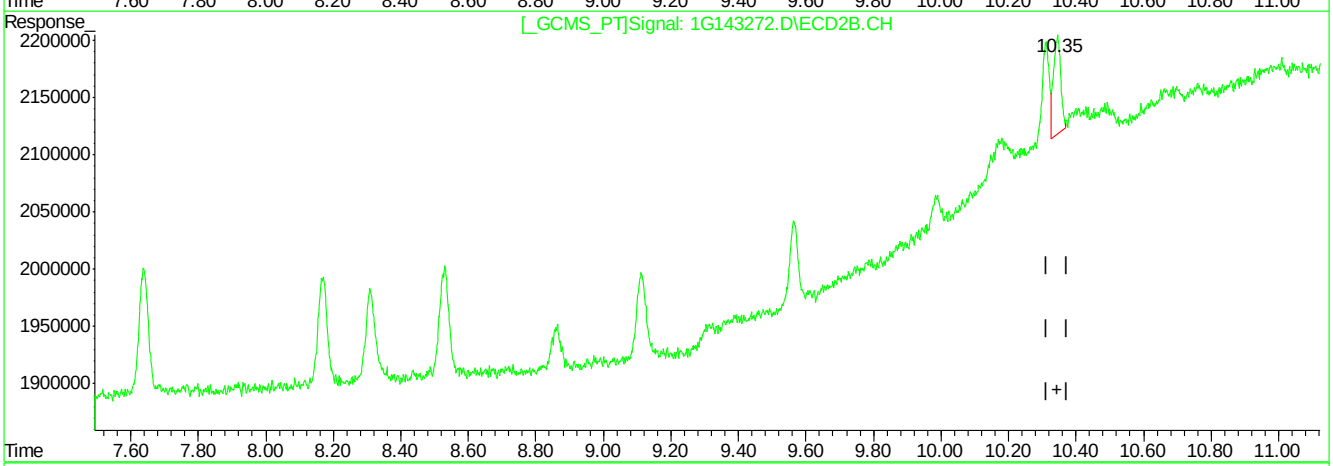
11.6.8.15 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(25) Endrin Ketone (B)

8.53min 0.655PPB

response 5708723

(25) Endrin Ketone #2 (B)

10.35min 0.690PPB m

response 1311496

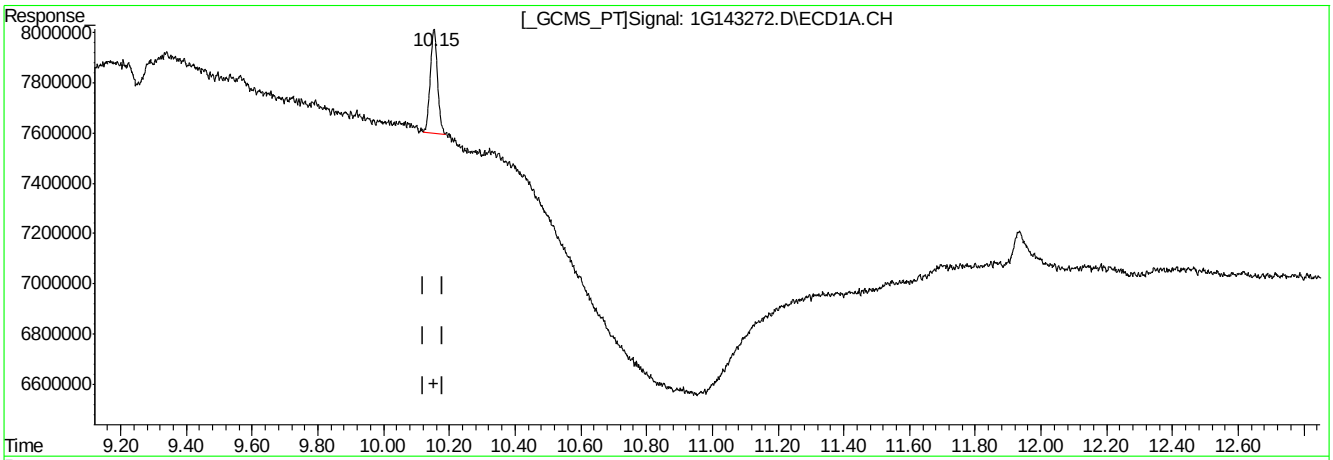
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:15:14 2018 RPT1

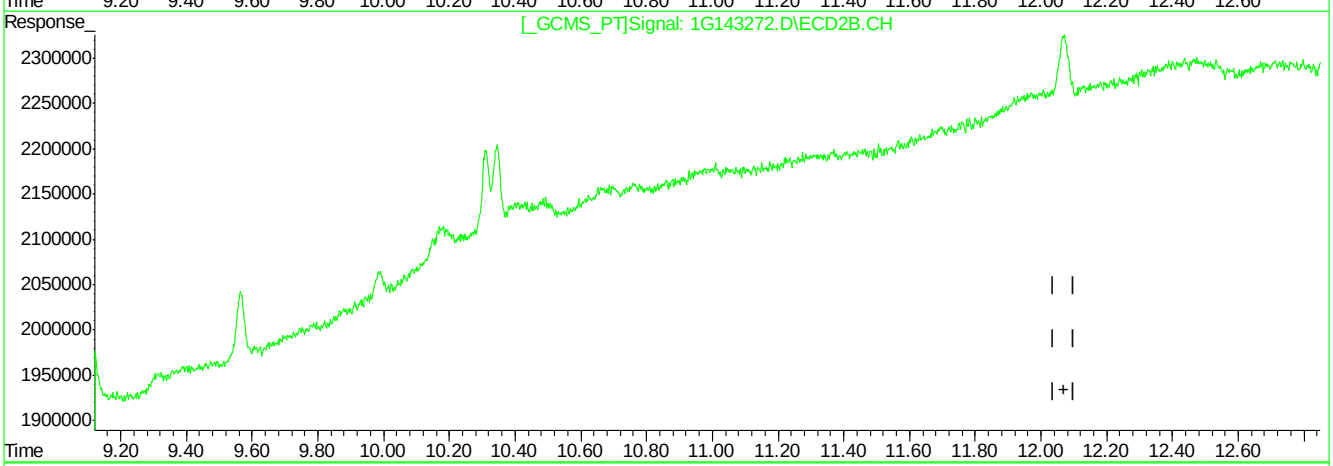
11.6.8.16 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.15min 0.718PPB

response 6379042

(26) Decachlorobiphenyl #2 (SA)

0.00min 0.000PPB

response 0

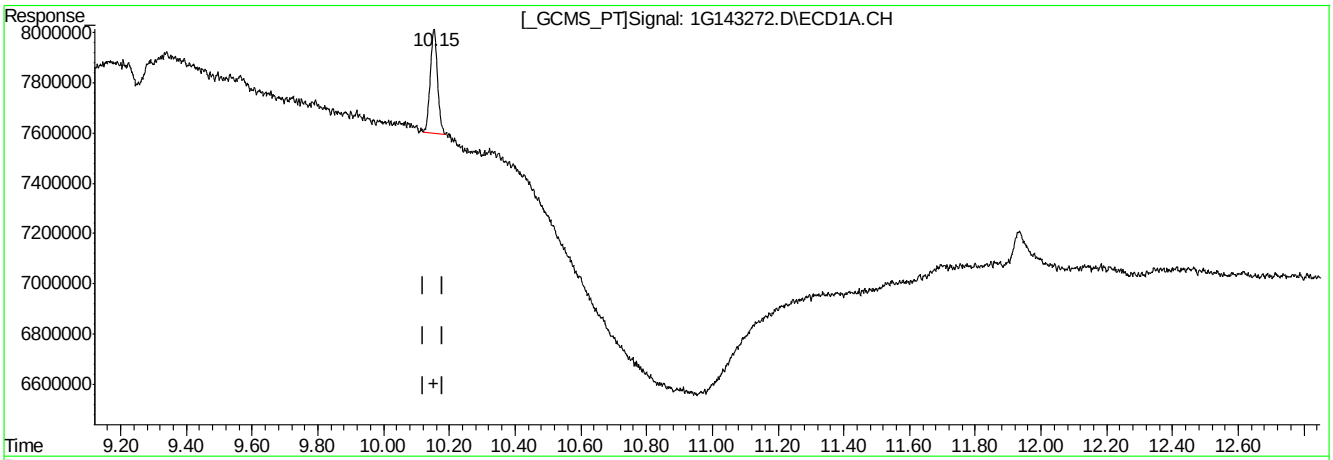
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:15:17 2018 RPT1

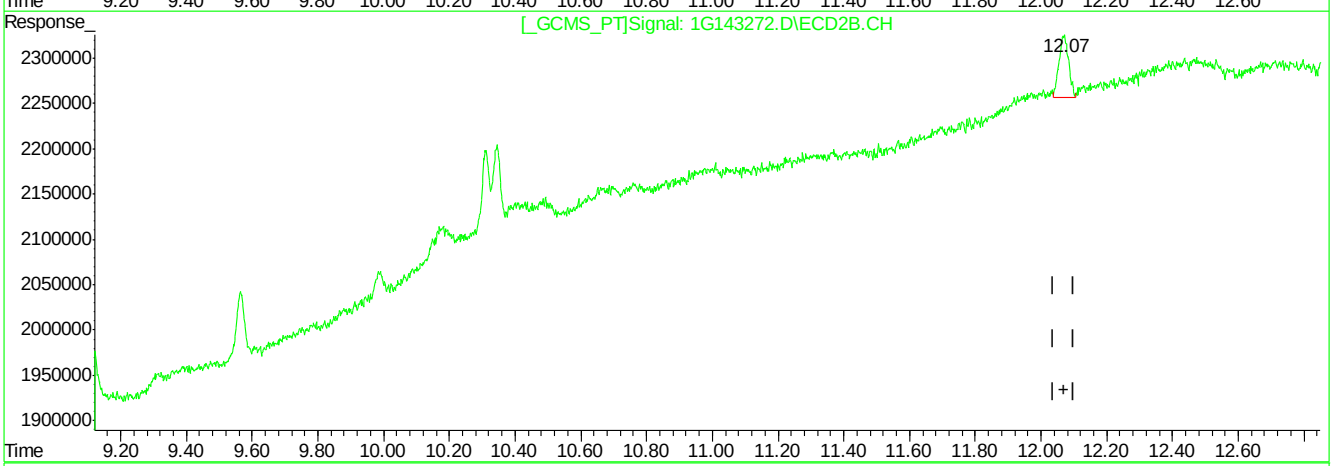
11.6.8.17 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 12:12 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(26) Decachlorobiphenyl (SA)

10.15min 0.718PPB

response 6379042

(26) Decachlorobiphenyl #2 (SA)

12.07min 0.856PPB m

response 1408972

(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 12:15:23 2018 RPT1

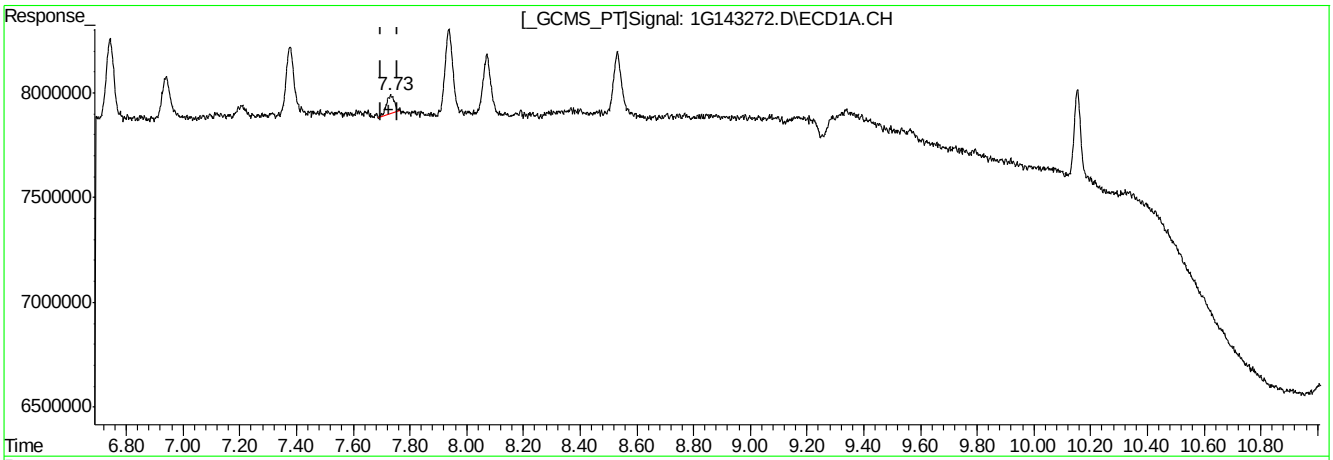
11.6.8.18

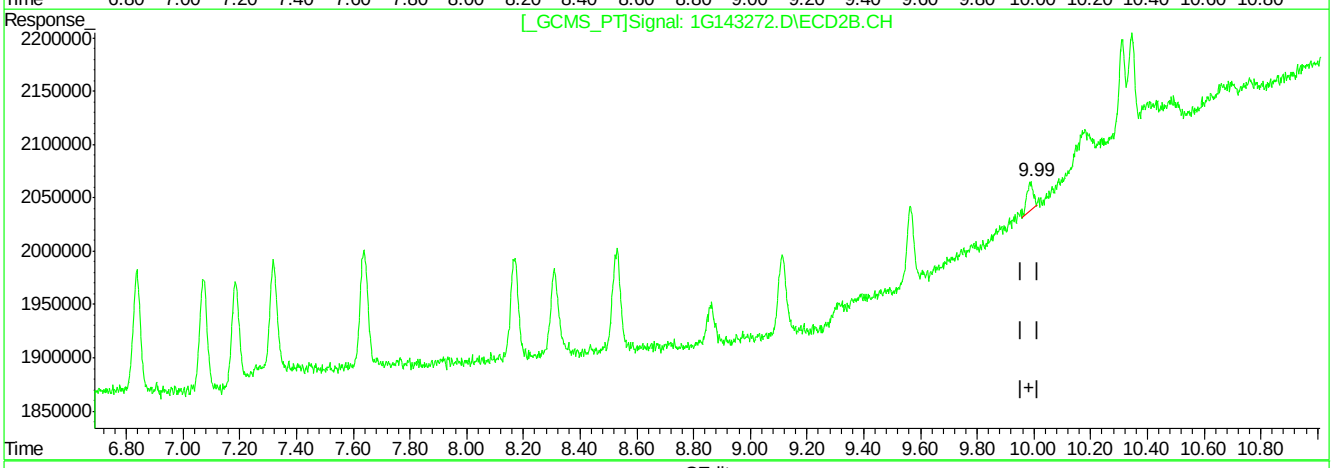
11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:20:07 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 0.368PPB

response 1658560

(23) Methoxychlor #2 (A)

9.98min 0.584PPB

response 421861

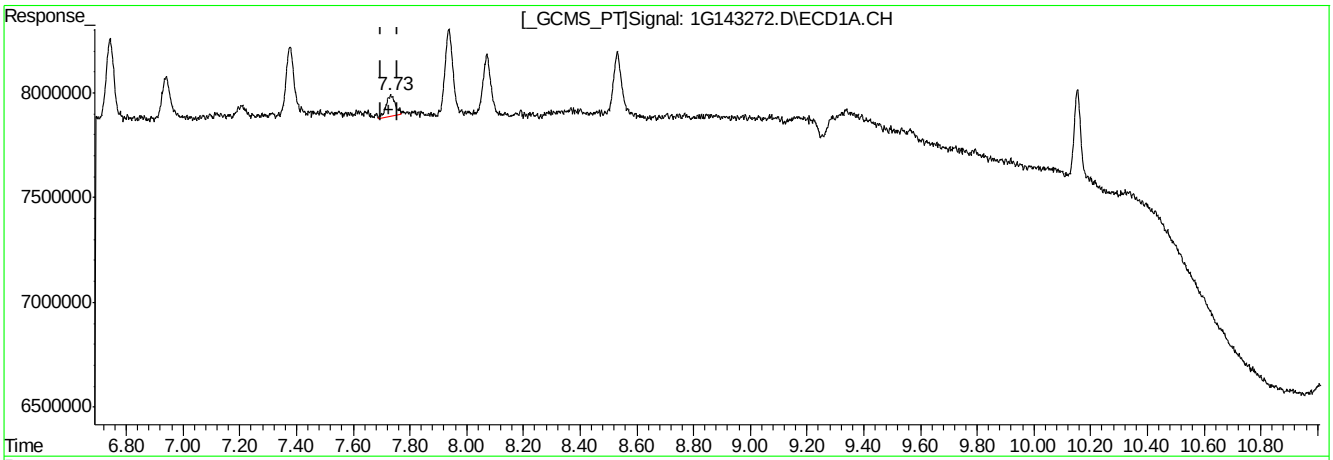
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 14:20:46 2018 RPT1

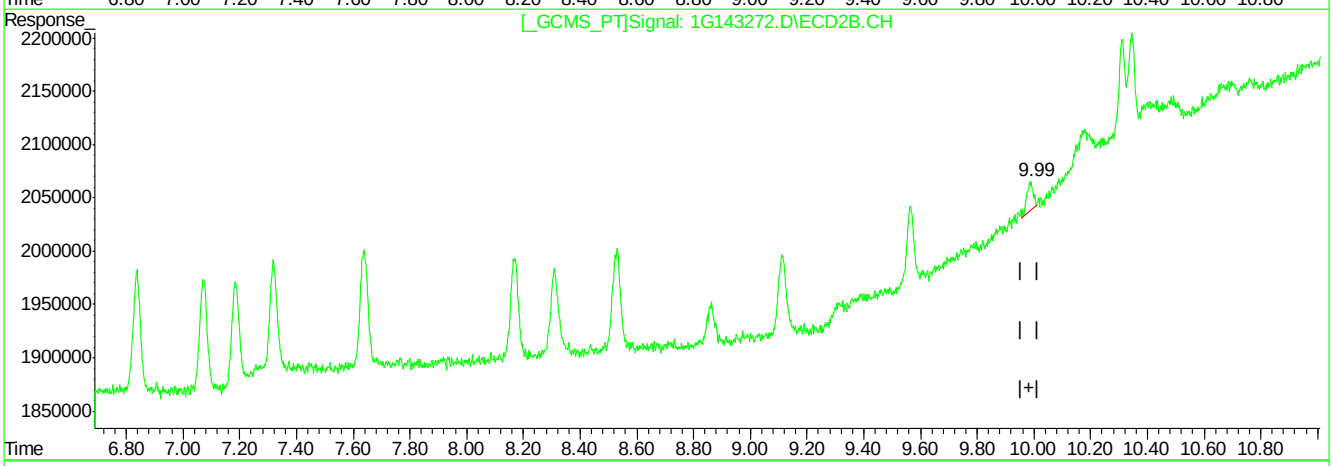
11.6.8.19 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:17 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:20:07 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 0.500PPB m

response 2253265

(23) Methoxychlor #2 (A)

9.98min 0.584PPB

response 421861

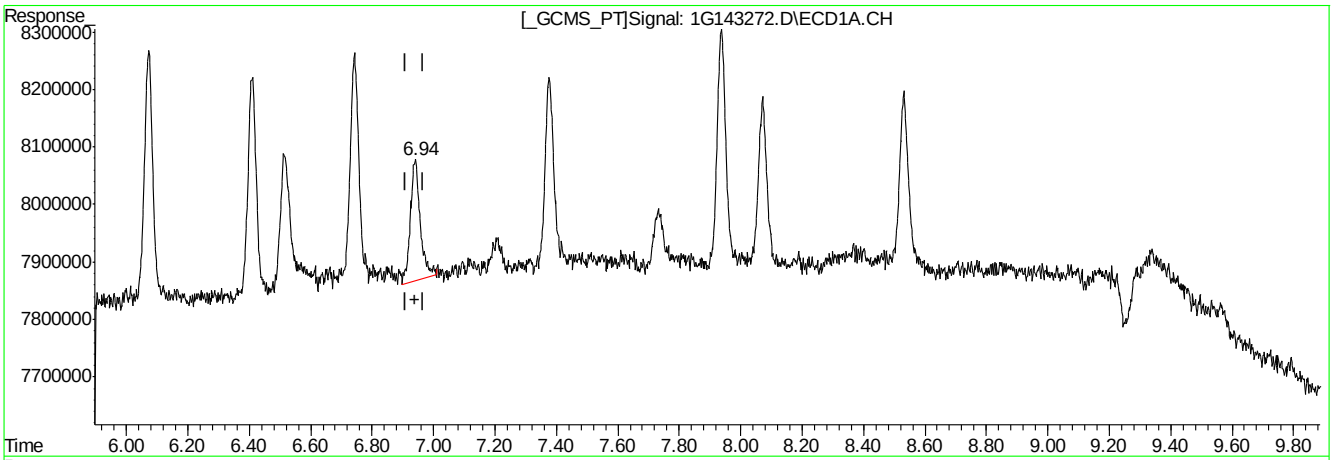
(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 14:20:57 2018 RPT1

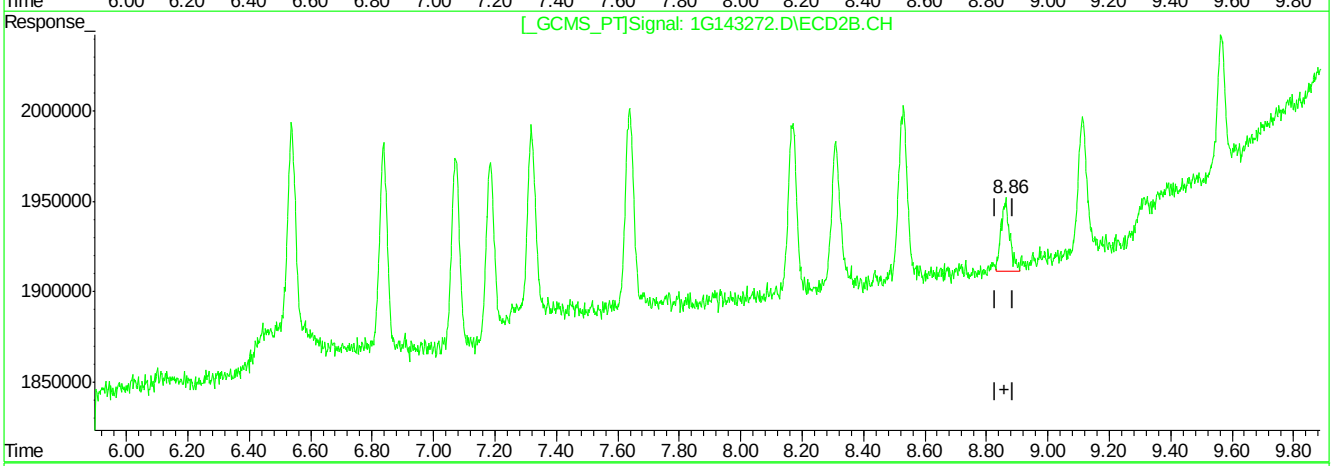
11.6.8.20 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143272.D\ECD2B.CH
Acq On : 08 Feb 2018 11:54 am Operator: minam
Sample : ic4557-1 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:20 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:21:24 2018
Response via : Multiple Level Calibration





QEdit

(20) 4,4'-DDT (MA)

6.94min 0.706PPB m

response 4683571

(20) 4,4'-DDT #2 (MA)

8.86min 0.588PPB m

response 794757

(+) = Expected Retention Time
1G143272.D 1PST4557.M Thu Feb 08 14:22:48 2018 RPT1

11.6.8.21
11

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD2B.CH
Acq On : 08 Feb 2018 12:11 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:18 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
33) I	1-bromo-2-nitrob	2.17	2.46	455.4E6	104.4E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
34)	Chlordane {A}	4.11	5.18	256.8E6	54748506	506.342	513.973
35)	Chlordane {B}	4.61	5.86	224.5E6	42141793	482.202	533.657
36)	Chlordane {C}	5.38	6.84	611.9E6	130.4E6	563.648	523.894
37)	Chlordane {D}	5.54	7.07	992.2E6	216.3E6	524.482	524.481m
38)	Chlordane {E}	6.65	8.61	177.6E6	35303774	518.748	488.800

11.6.9
11

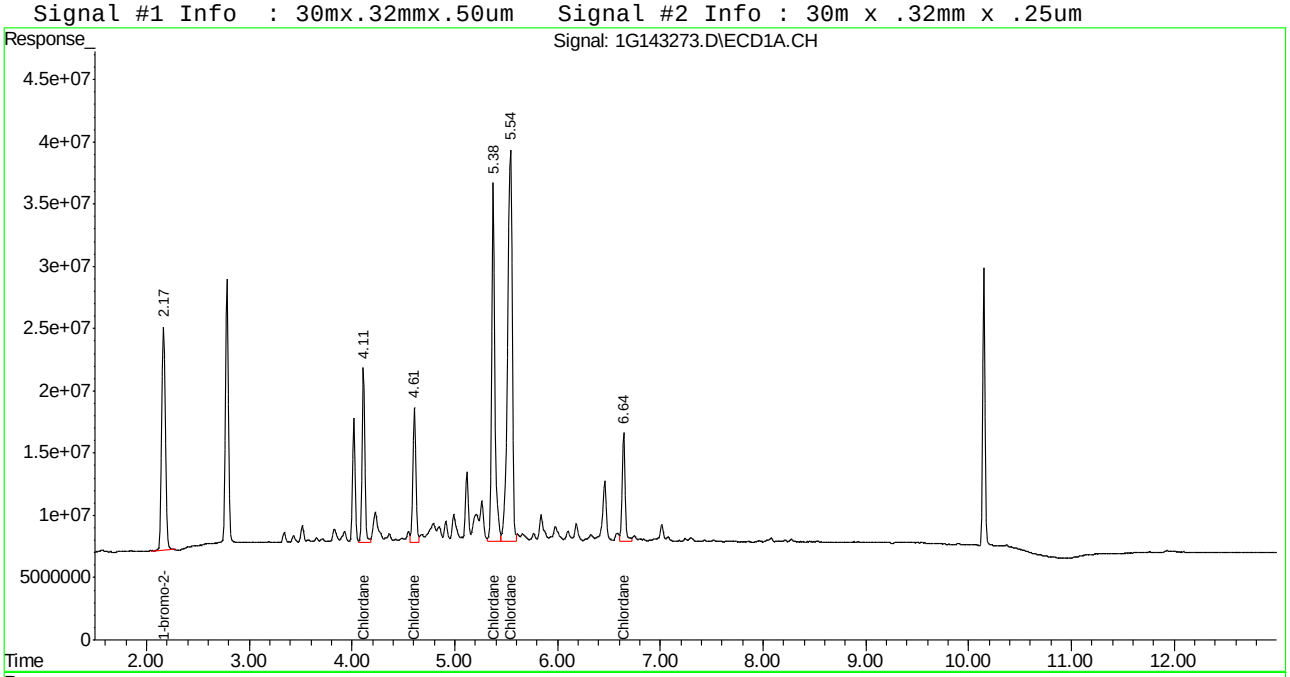
(f)=RT Delta > 1/2 Window (m)=manual int.
1G143273.D 1PST4557.M Thu Feb 08 14:18:11 2018 RPT1 Page 1

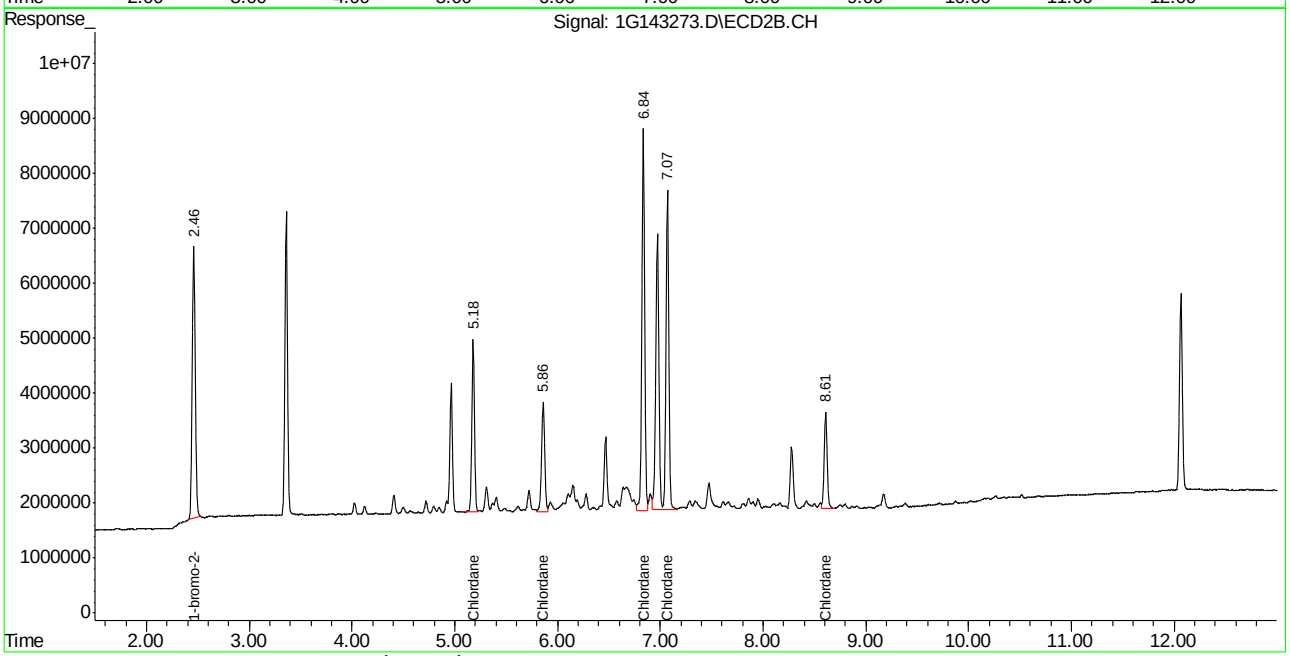
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD2B.CH
Acq On : 08 Feb 2018 12:11 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:18 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

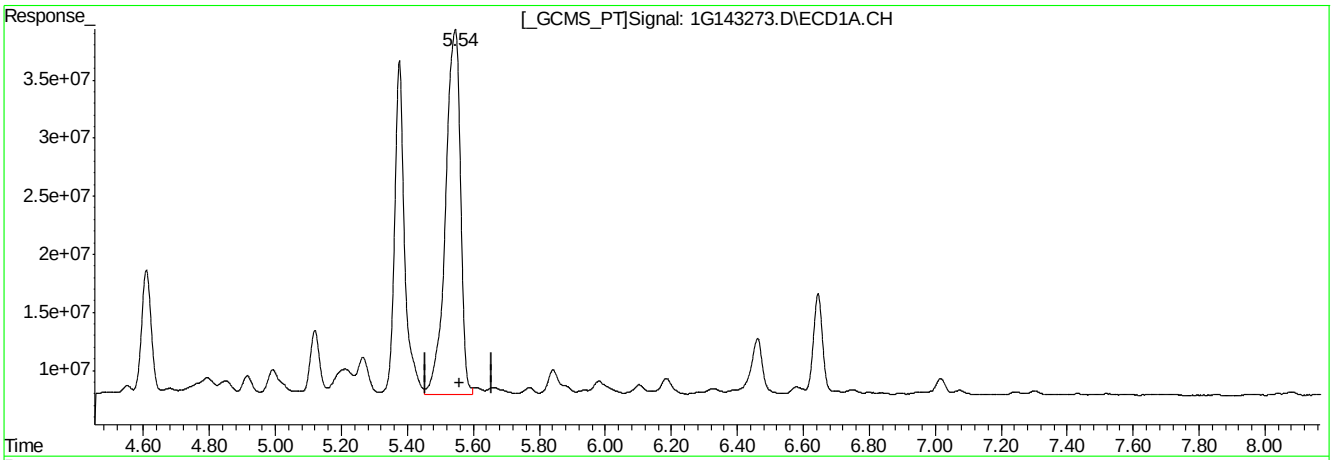
Sample Number:	G1G4557-IC4557	**Method:**	SW846 8081B
Lab FileID:	1G143273.D	**Analyst approved:**	02/08/18 14:13 Kristen Drake
Injection Time:	02/08/18 12:11	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

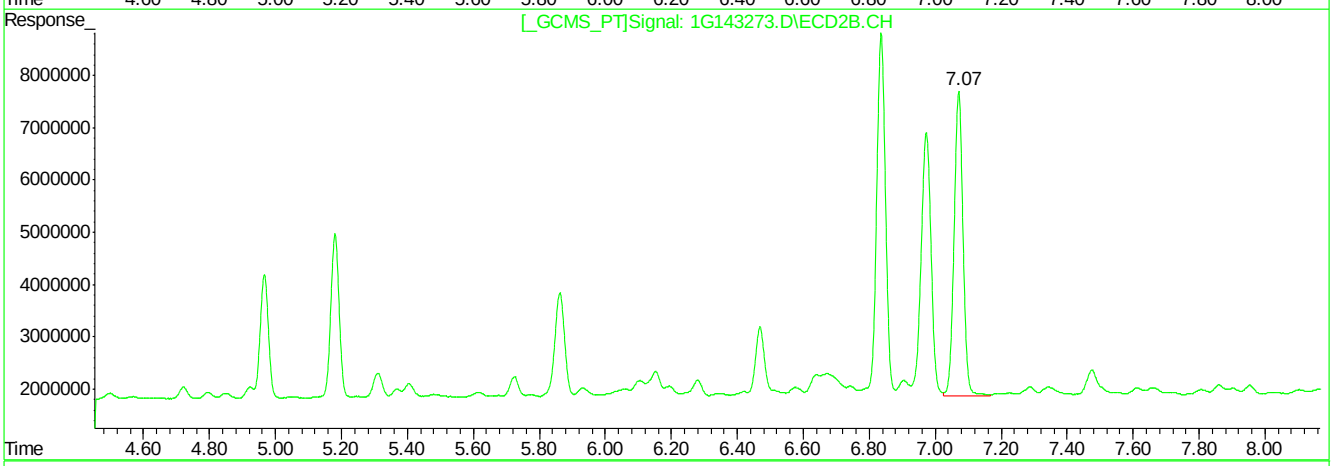
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	7.07	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD2B.CH
Acq On : 08 Feb 2018 12:11 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:08 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(37) Chlordane {D}

5.54min 524.482PPB

response 992242673

(37) Chlordane {D} #2

7.07min 267.051PPB

response 110149409

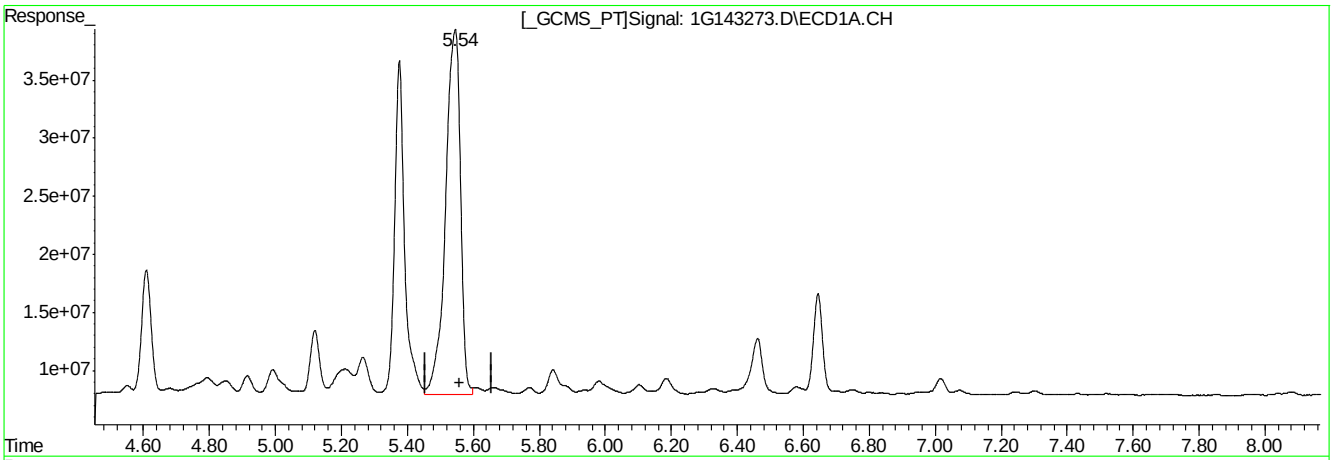
(+) = Expected Retention Time
1G143273.D 1PST4557.M Thu Feb 08 14:09:43 2018 RPT1

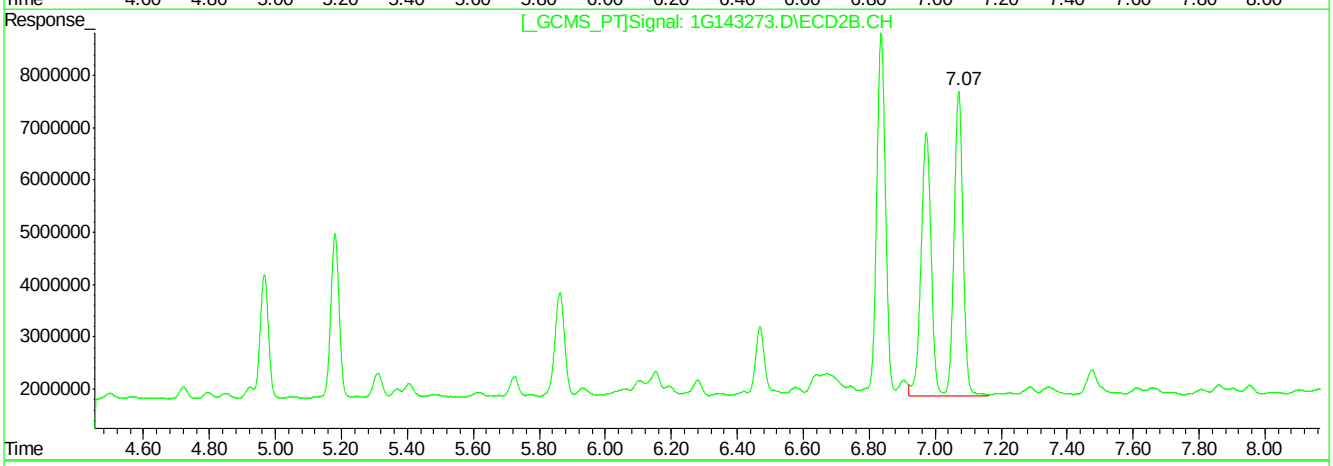
11.6.9.2 11

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143273.D\ECD2B.CH
Acq On : 08 Feb 2018 12:11 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:08 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(37) Chlordane {D}

5.54min 524.482PPB

response 992242673

(37) Chlordane {D} #2

7.07min 524.481PPB m

response 216330282

(+) = Expected Retention Time
1G143273.D 1PST4557.M Thu Feb 08 14:09:57 2018 RPT1

11.6.9.3 11

1G143273.D edits: Chlordane {D}

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD2B.CH
Acq On : 08 Feb 2018 12:28 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:18 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
27)	I	1-bromo-2-nitrob	2.17	2.46	463.6E6	106.1E6	50.000	50.000
		System Monitoring Compounds						
		Target Compounds						
28)	L8	Toxaphene{A}	6.08	7.59	83345273	20136592	443.614	485.323m
29)	L8	Toxaphene{B}	6.73	8.49	203.9E6	21504341	456.725	464.285
30)	L8	Toxaphene{C}	6.91	8.66	157.2E6	38884616	447.991m	455.997
31)	L8	Toxaphene{D}	7.25	9.10	117.5E6	21832420	445.421	430.790
32)	L8	Toxaphene{E}	7.92	9.94	137.7E6	17109359	463.514	411.675

11.6.10
11

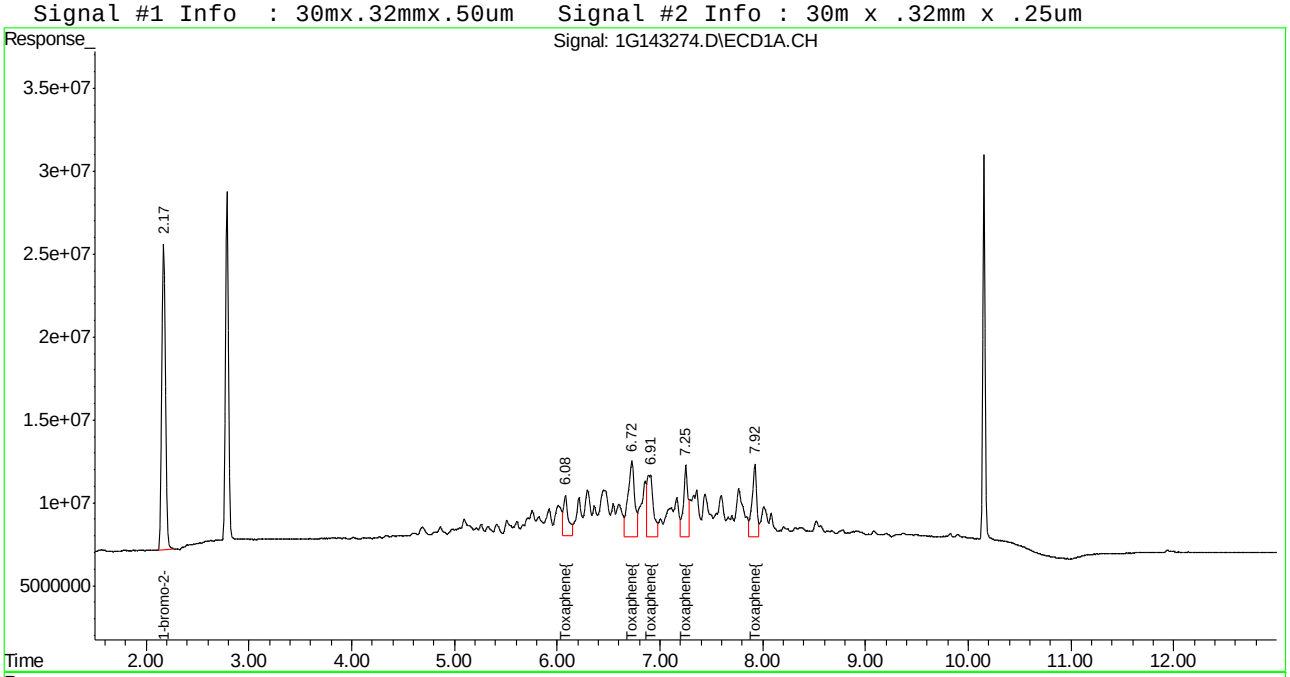
(f)=RT Delta > 1/2 Window (m)=manual int.

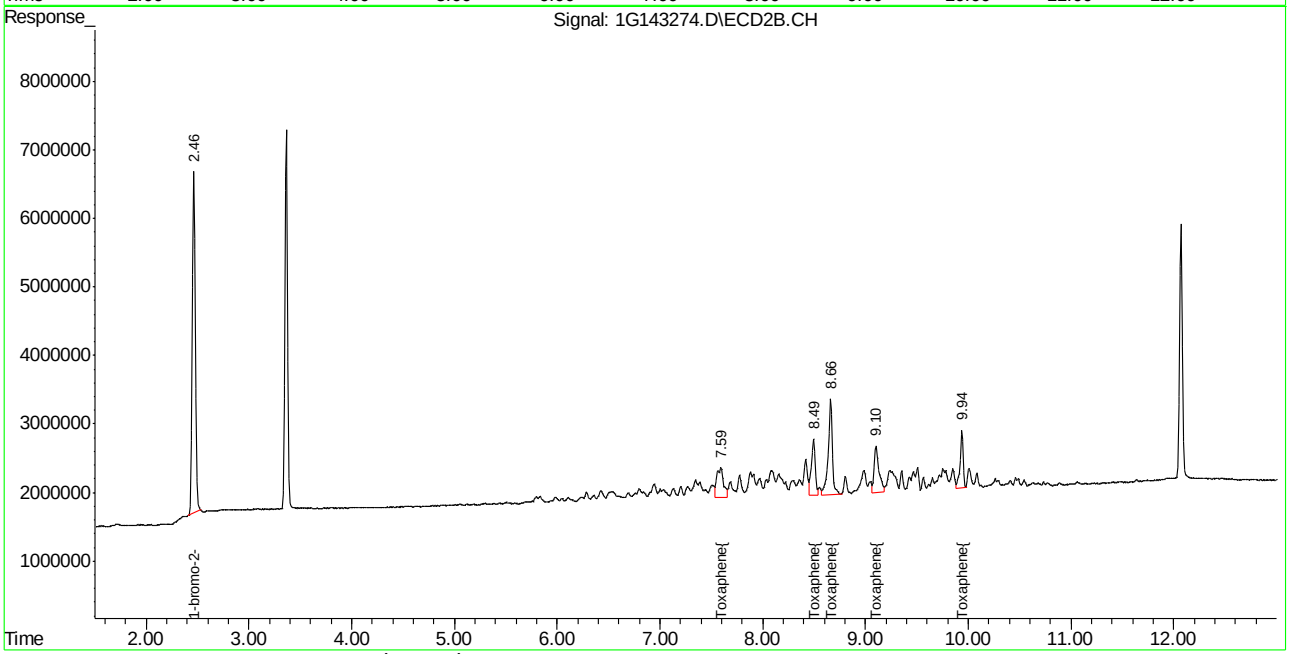
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD2B.CH
Acq On : 08 Feb 2018 12:28 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:18 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

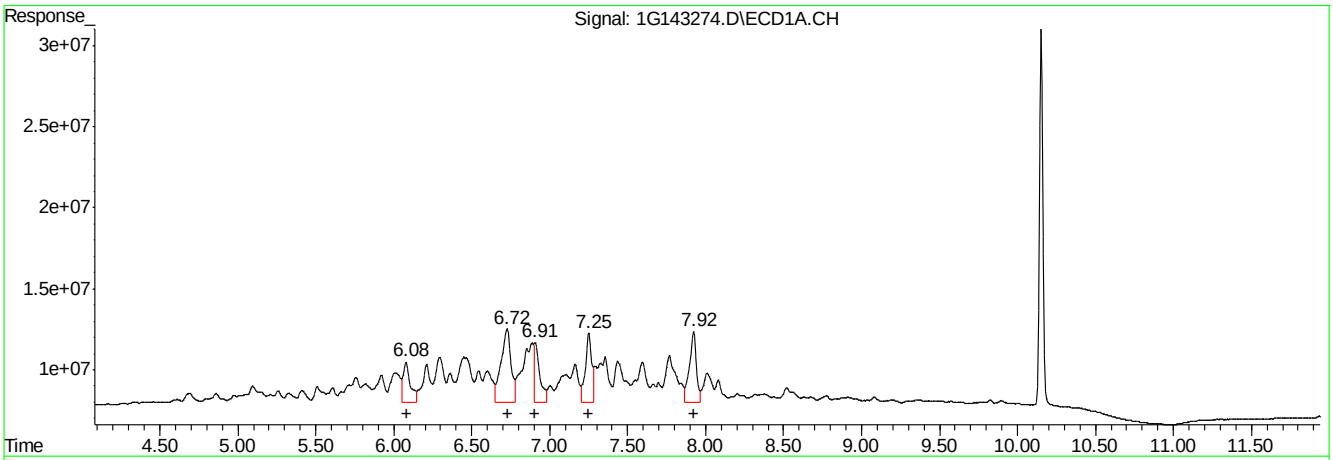
Sample Number:	G1G4557-IC4557	**Method:**	SW846 8081B
Lab FileID:	1G143274.D	**Analyst approved:**	02/08/18 14:13 Kristen Drake
Injection Time:	02/08/18 12:28	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

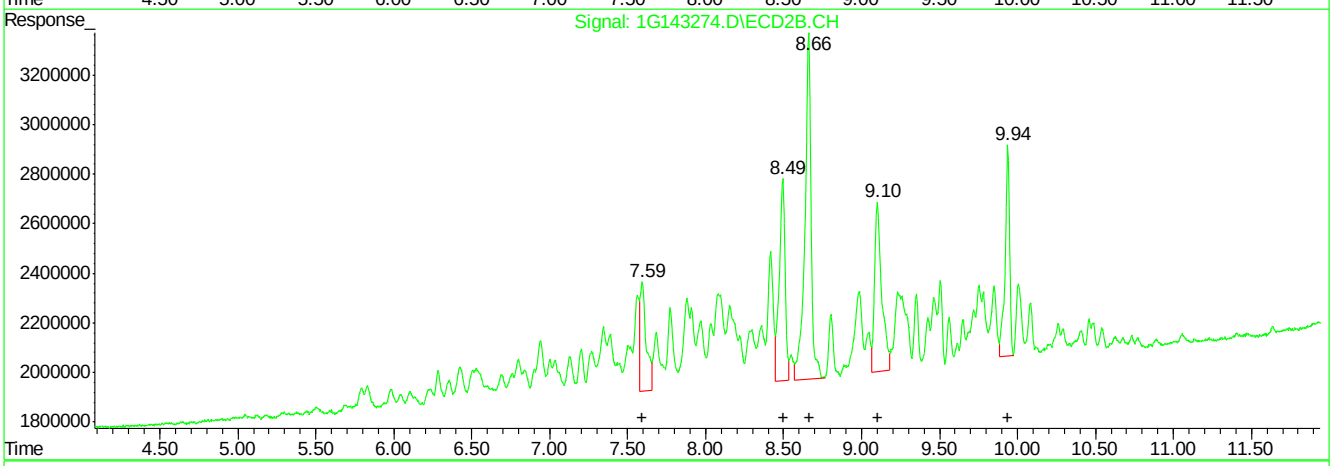
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-C		1	6.91	Split peak
Toxaphene-A		2	7.59	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD2B.CH
Acq On : 08 Feb 2018 12:28 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:11 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(28) Toxaphene{A} (L8)

R.T.	Response	Conc
6.08	83345273	443.61
6.73	203908137	456.73
6.91	97217820	277.10
7.25	117464735	445.42
7.92	137726036	463.51

(28) Toxaphene{A} #2 (L8)

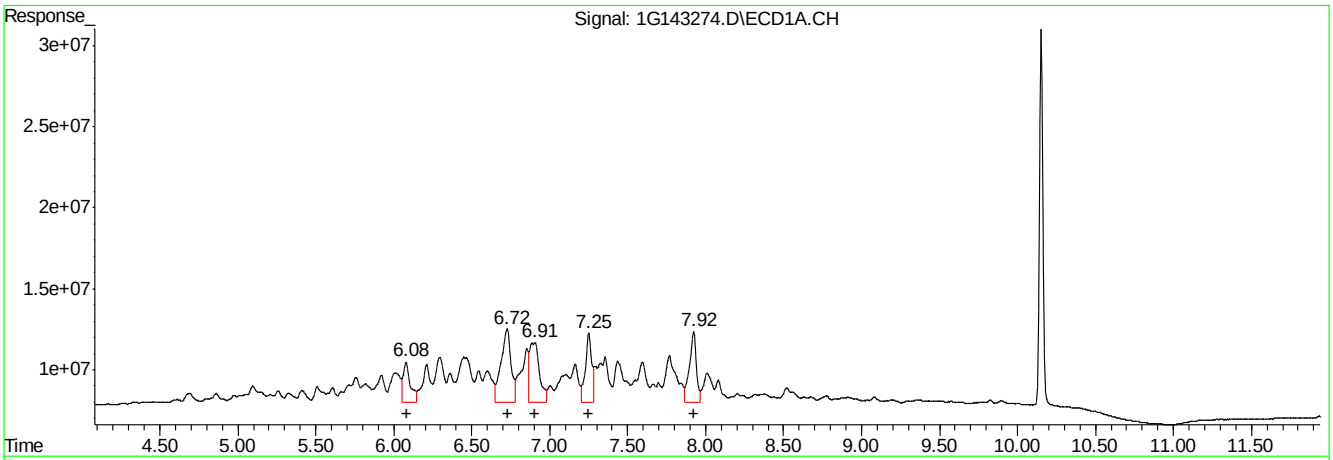
R.T.	Response	Conc
7.59	12491789	301.07
8.49	21504341	464.29
8.66	38884616	456.00
9.10	21832420	430.79
9.94	17109359	411.68

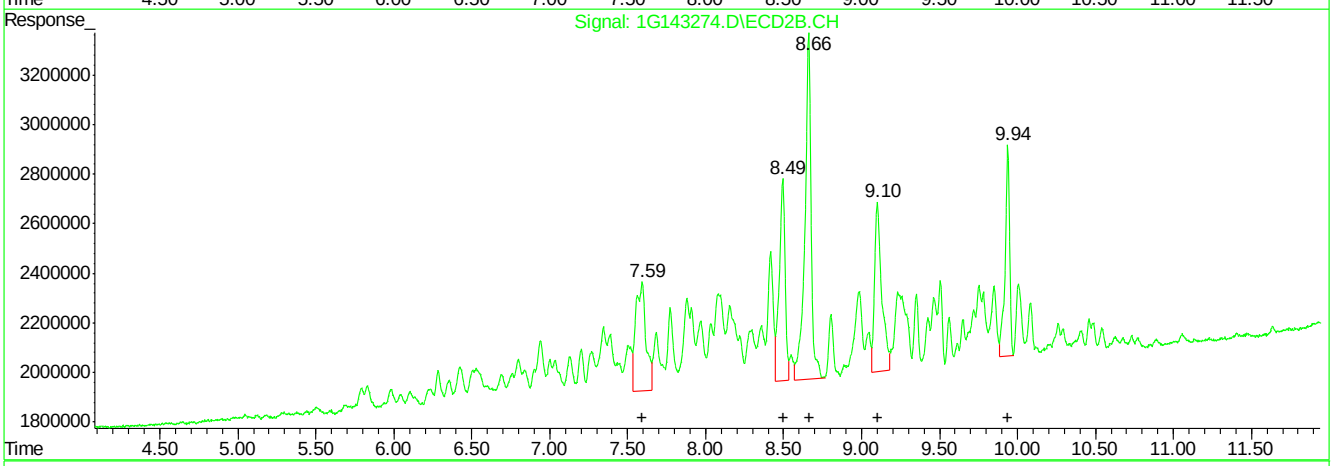
(+) = Expected Retention Time
1G143274.D 1PST4557.M Thu Feb 08 14:11:44 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143274.D\ECD2B.CH
Acq On : 08 Feb 2018 12:28 pm Operator: minam
Sample : ic4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:11 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 11:40:55 2018
Response via : Multiple Level Calibration





QEdit

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.08	83345273	443.61
6.73	203908137	456.73
6.91	157171206	447.99
7.25	117464735	445.42
7.92	137726036	463.51

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
7.59	20136592	485.32
8.49	21504341	464.29
8.66	38884616	456.00
9.10	21832420	430.79
9.94	17109359	411.68

(+) = Expected Retention Time
1G143274.D 1PST4557.M Thu Feb 08 14:12:07 2018 RPT1

11.6.10.3 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD2B.CH
Acq On : 2-8-18 01:03:14 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:43 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2-nitrob	2.17	2.46	469.8E6	108.4E6	50.000	50.000
27)	I 1-bromo-2-nitrob	2.17	2.46	469.8E6	108.4E6	50.000	50.000
33)	I 1-bromo-2-nitrob	2.17	2.46	469.8E6	108.4E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachloro-m-xy	2.78	3.36	385.1E6	86550040	46.306	43.993
	Spiked Amount 40.000	Range 30 - 150		Recovery =		115.76%	109.98%
26)	SA Decachlorobiphen	10.15	12.07	338.2E6	65135608	49.802	45.855
	Spiked Amount 40.000			Recovery =		124.51%	114.64%
	Target Compounds						
34)	Chlordane {A}	4.11	5.18	297.0E6	63282121	560.498	556.480
35)	Chlordane {B}	4.61	5.86	202.3E6	37023241	436.628	422.963
36)	Chlordane {C}	5.38	6.84	630.1E6	129.8E6	499.136	479.295
37)	Chlordane {D}	5.54	7.07	1007.7E6	214.0E6	492.260	476.287m
38)	Chlordane {E}	6.65	8.61	151.3E6	31131415	412.999	424.540

11.6.11
11

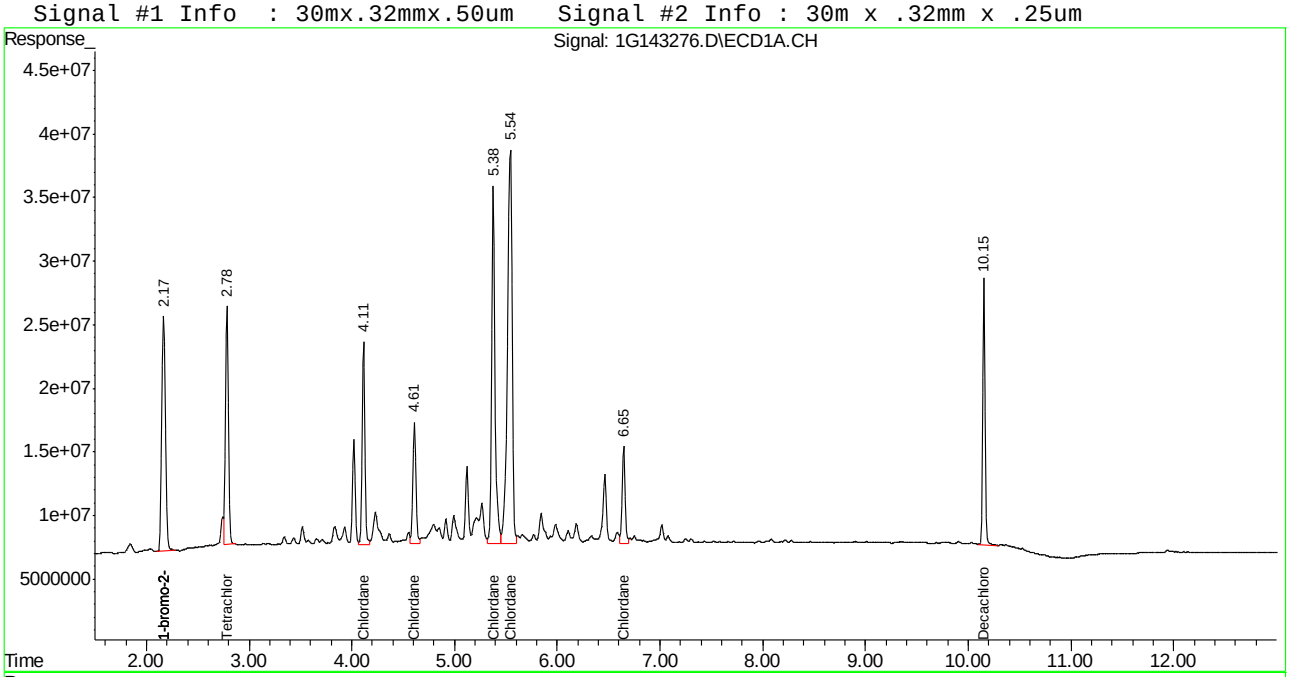
(f)=RT Delta > 1/2 Window (m)=manual int.
1G143276.D 1PST4557.M Thu Feb 08 14:43:26 2018 RPT1 Page 1

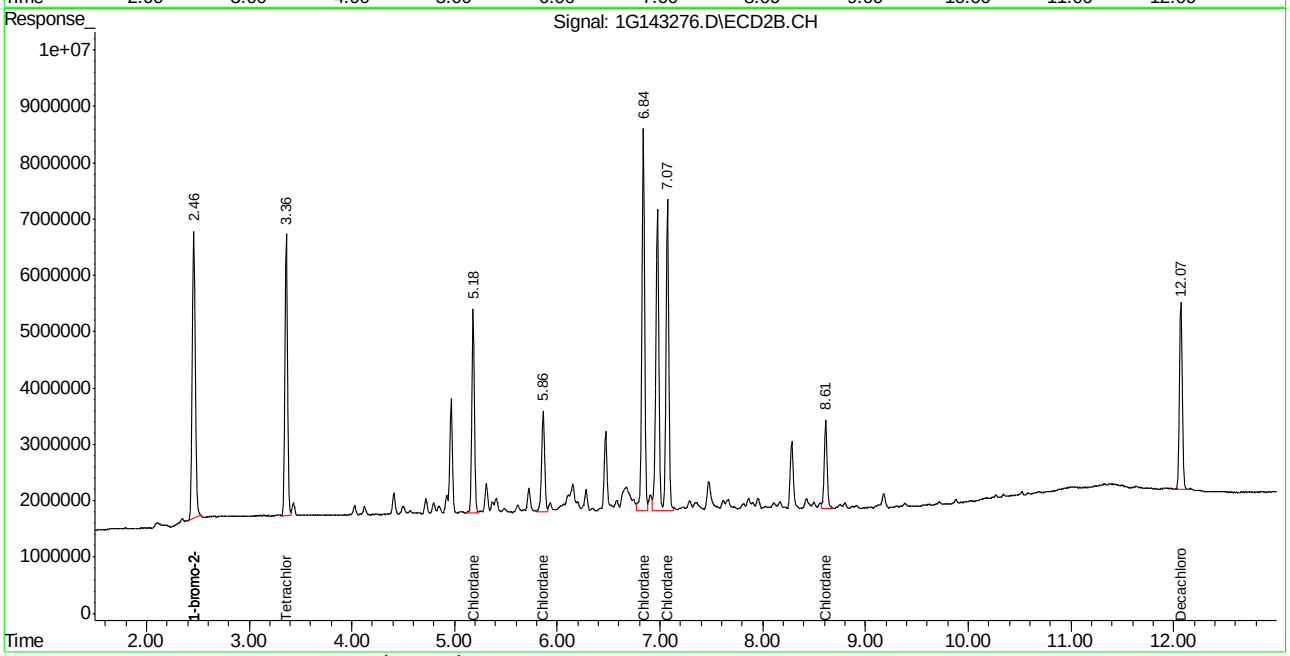
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD2B.CH
Acq On : 2-8-18 01:03:14 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:43 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

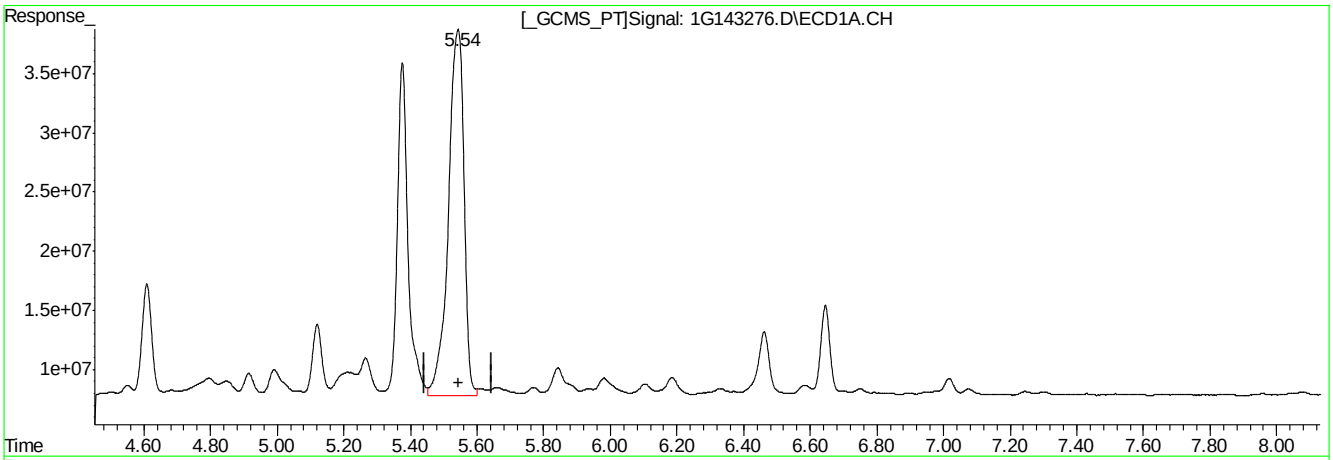
Sample Number:	G1G4557-ICV4557	**Method:**	SW846 8081B
Lab FileID:	1G143276.D	**Analyst approved:**	02/09/18 09:52 Gwendolyn Burns
Injection Time:	02/08/18 13:03	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

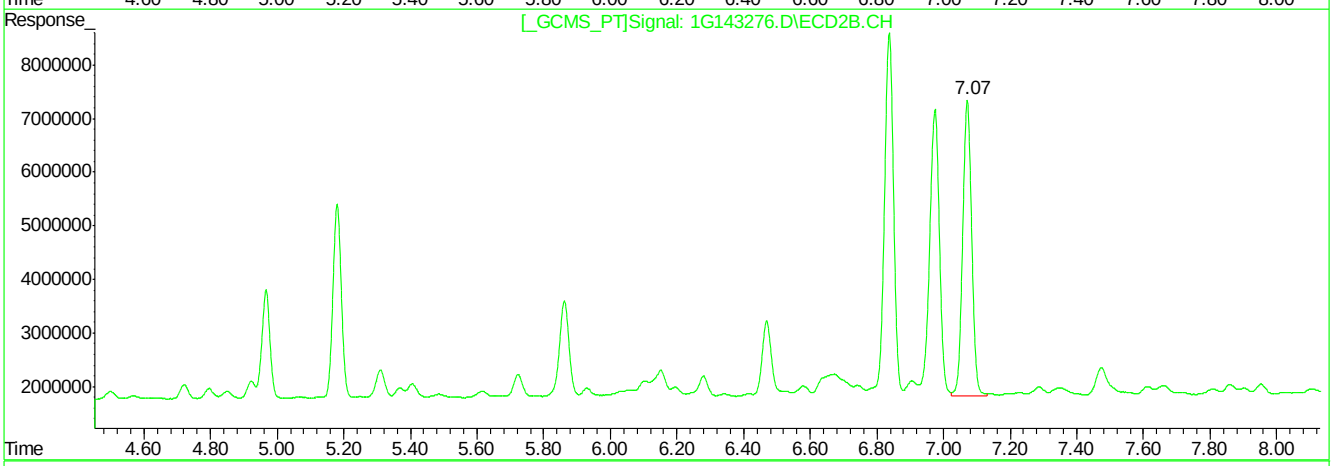
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	7.07	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD2B.CH
Acq On : 2-8-18 01:03:14 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:42 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(37) Chlordane {D}

5.54min 492.260PPB

response 1007697965

(37) Chlordane {D} #2

7.07min 230.687PPB

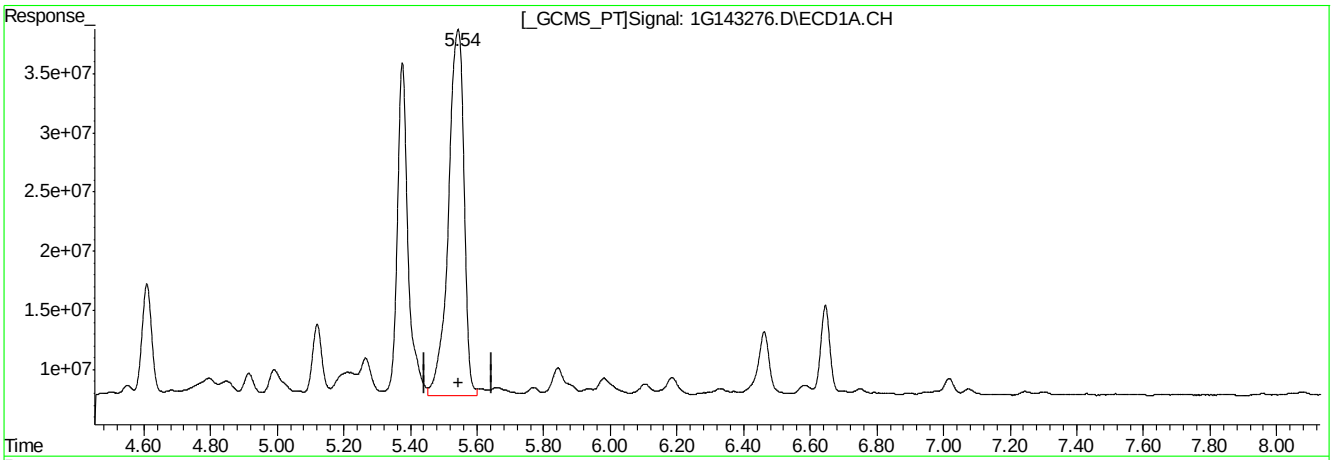
response 103657373

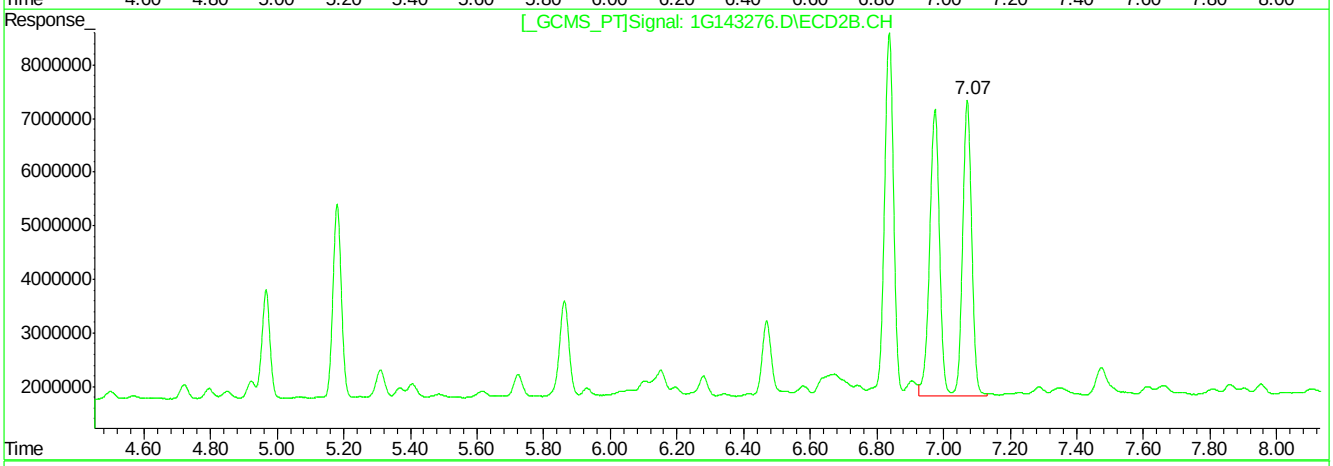
(+) = Expected Retention Time
1G143276.D 1PST4557.M Thu Feb 08 14:43:00 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143276.D\ECD2B.CH
Acq On : 2-8-18 01:03:14 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:42 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(37) Chlordane {D}

5.54min 492.260PPB

response 1007697965

(37) Chlordane {D} #2

7.07min 476.287PPB m

response 214015718

(+) = Expected Retention Time
1G143276.D 1PST4557.M Thu Feb 08 14:43:09 2018 RPT1

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD2B.CH
Acq On : 2-8-18 01:20:19 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:29 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2-nitrob	2.17	2.46	490.2E6	111.2E6	50.000	50.000
27)	I 1-bromo-2-nitrob	2.17	2.46	490.2E6	111.2E6	50.000	50.000
33)	I 1-bromo-2-nitrob	2.17	2.46	490.2E6	111.2E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachloro-m-xy	2.78	3.36	366.0E6	84277297	42.174	41.756
	Spiked Amount 40.000	Range 30 - 150		Recovery =		105.43%	104.39%
26)	SA Decachlorobiphen	10.15	12.07	327.0E6	64028595	46.137	43.938
	Spiked Amount 40.000			Recovery =		115.34%	109.85%
	Target Compounds						
28)	L8 Toxaphene{A}	6.08	7.59	89757131	18803696	509.201	445.730m
29)	L8 Toxaphene{B}	6.72	8.49	209.2E6	22018000	484.990	488.728
30)	L8 Toxaphene{C}	6.90	8.66	173.5E6	39539933	521.944m	485.370
31)	L8 Toxaphene{D}	7.25	9.10	148.5E6	22756115	597.634	497.521
32)	L8 Toxaphene{E}	7.92	9.94	138.2E6	17607362	474.288	491.220

11.6.12
11

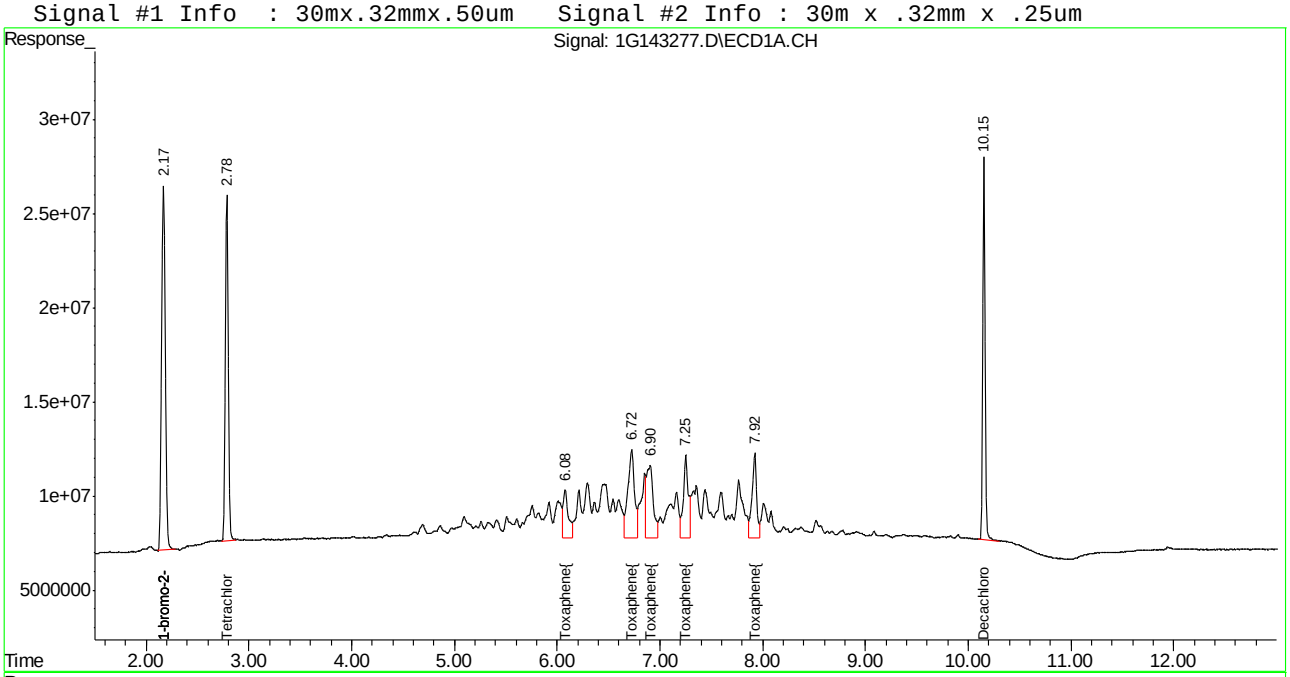
(f)=RT Delta > 1/2 Window (m)=manual int.
1G143277.D 1PST4557.M Thu Feb 08 14:29:34 2018 RPT1 Page 1

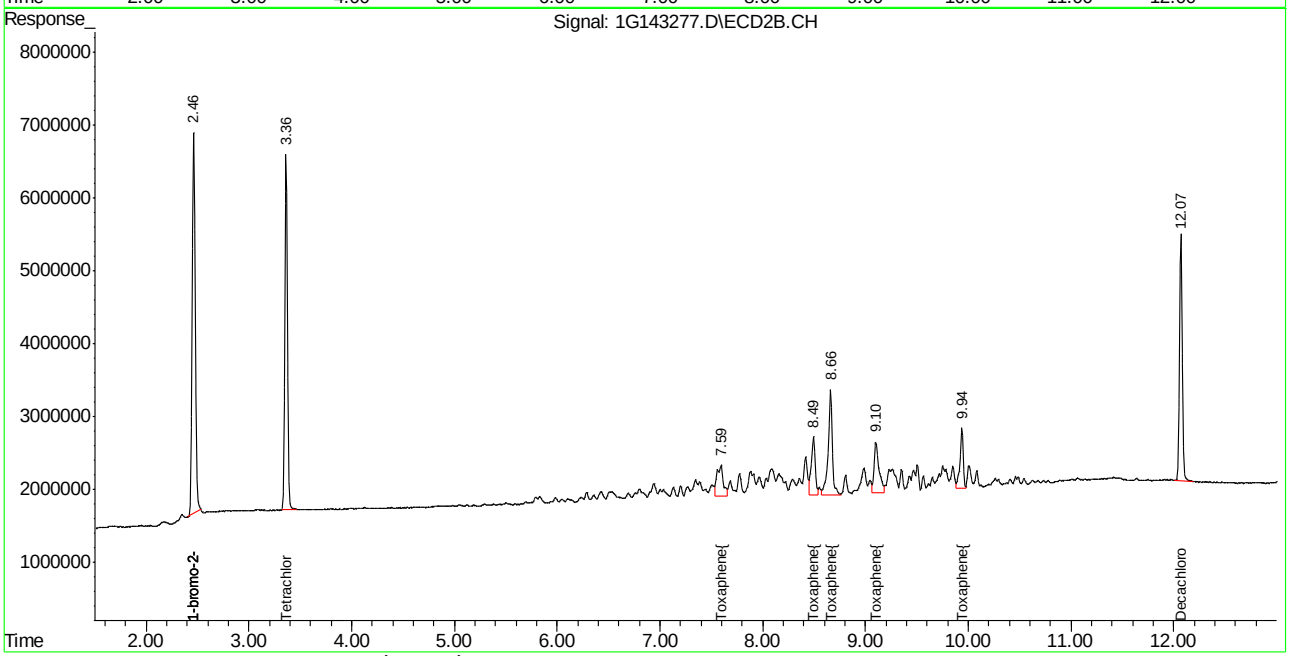
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD2B.CH
Acq On : 2-8-18 01:20:19 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:29 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

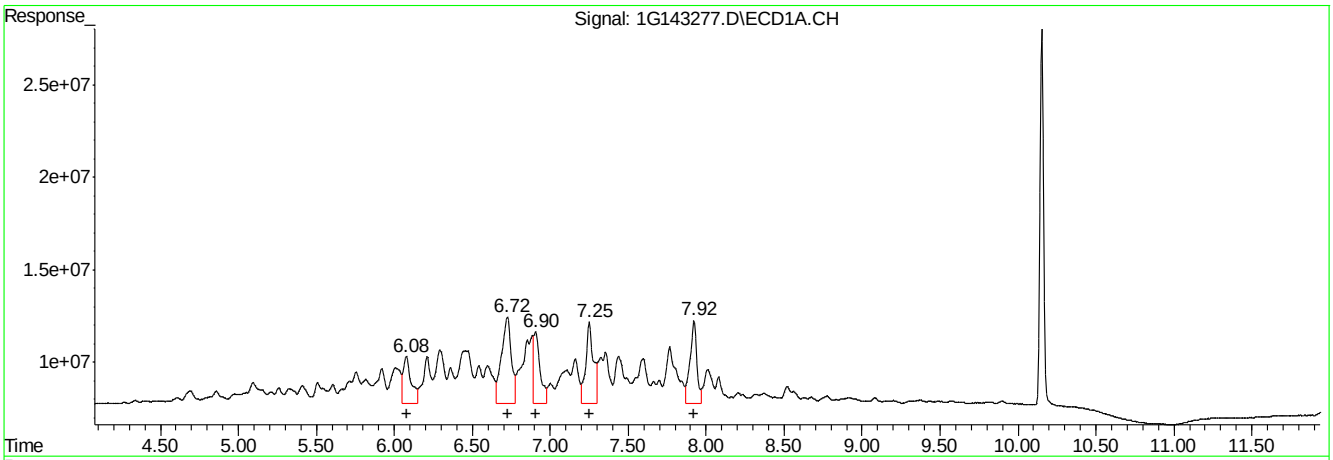
Sample Number:	G1G4557-ICV4557	**Method:**	SW846 8081B
Lab FileID:	1G143277.D	**Analyst approved:**	02/09/18 09:52 Gwendolyn Burns
Injection Time:	02/08/18 13:20	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

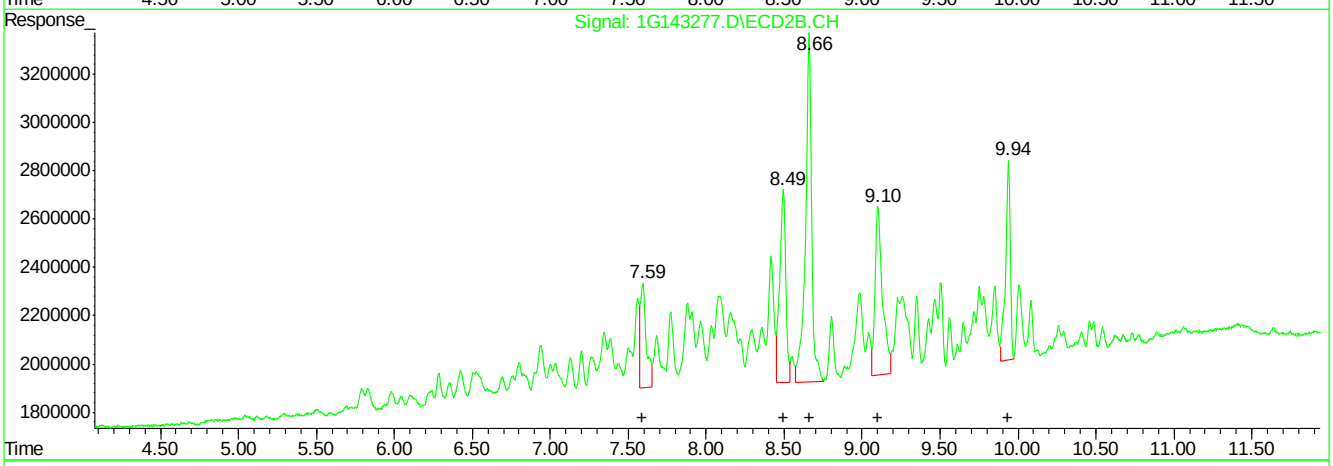
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-C		1	6.90	Poorly defined baseline
Toxaphene-A		2	7.59	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD2B.CH
Acq On : 2-8-18 01:20:19 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:28 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(28) Toxaphene{A} (L8)

R.T.	Response	Conc
6.08	89757131	509.20
6.72	209153691	484.99
6.91	107954967	324.77
7.25	148470830	597.63
7.92	138151878	474.29

(28) Toxaphene{A} #2 (L8)

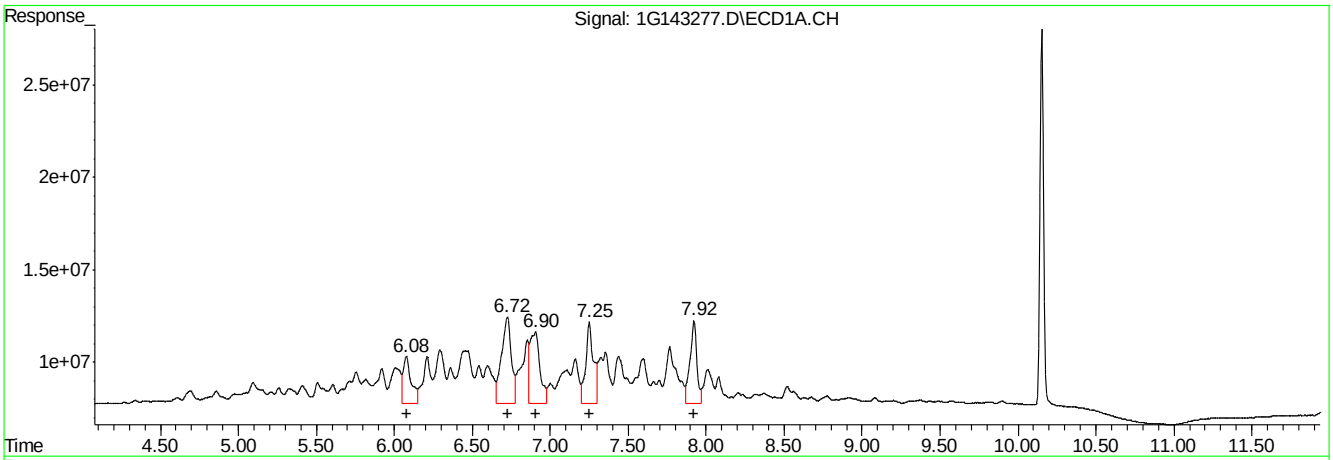
R.T.	Response	Conc
7.59	11508136	272.79
8.49	22018000	488.73
8.66	39539933	485.37
9.10	22756115	497.52
9.94	17607362	491.22

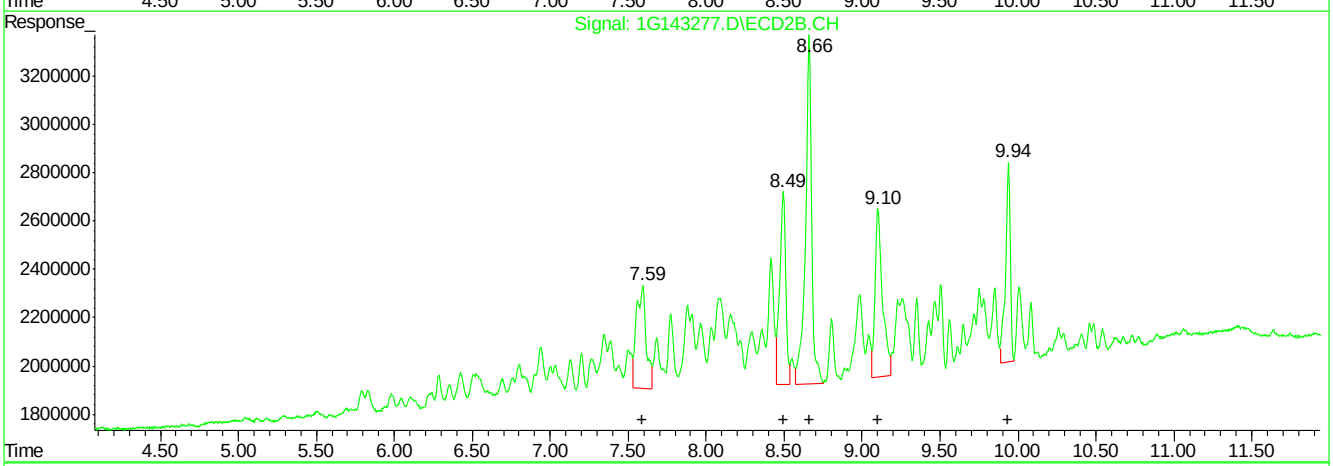
(+) = Expected Retention Time
1G143277.D 1PST4557.M Thu Feb 08 14:29:01 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143277.D\ECD2B.CH
Acq On : 2-8-18 01:20:19 PM Operator: minam
Sample : icv4557-500 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:28 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.08	89757131	509.20
6.72	209153691	484.99
6.90	173498298	521.94
7.25	148470830	597.63
7.92	138151878	474.29

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
7.59	18803696	445.73
8.49	22018000	488.73
8.66	39539933	485.37
9.10	22756115	497.52
9.94	17607362	491.22

(+) = Expected Retention Time
1G143277.D 1PST4557.M Thu Feb 08 14:29:27 2018 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD2B.CH
Acq On : 2-8-18 01:37:39 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:31 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.17	2.46	503.1E6	114.1E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.17	2.46	503.1E6	114.1E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.17	2.46	503.1E6	114.1E6	50.000	50.000
		System Monitoring Compounds						
		Target Compounds						
10)		Alachlor	4.59	5.43	72849632	15826460	50.920	50.383

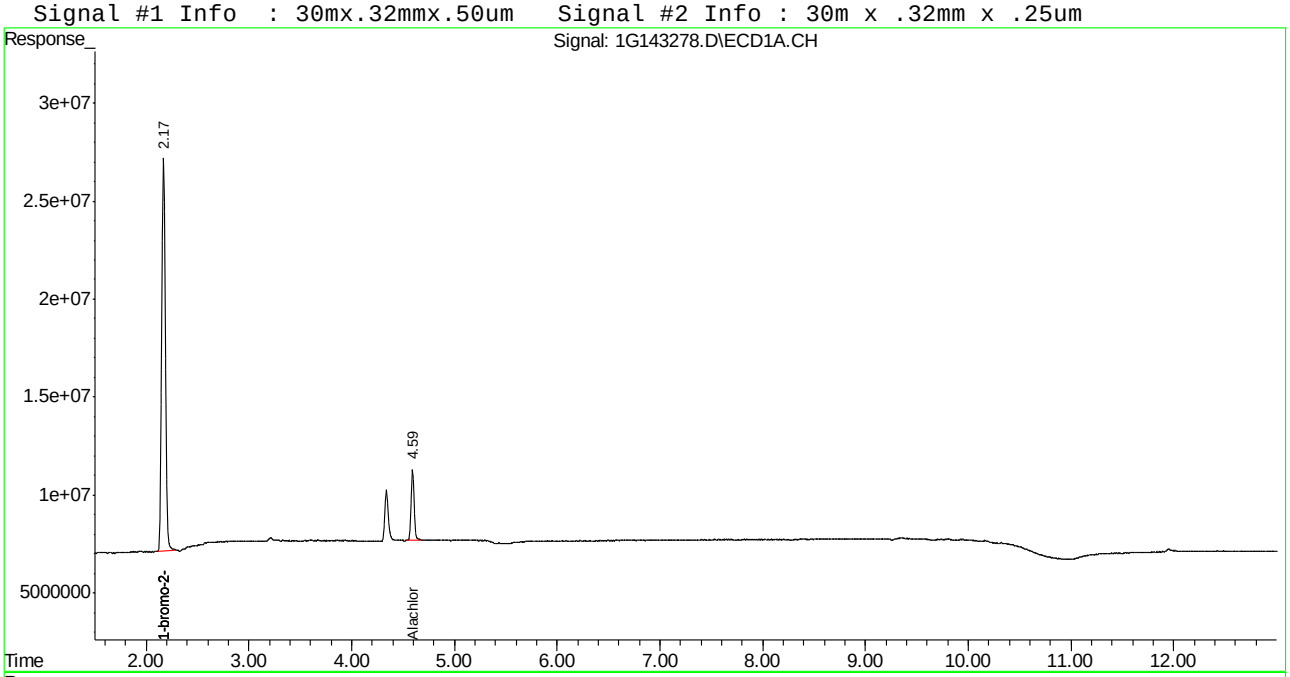
(f)=RT Delta > 1/2 Window (m)=manual int.

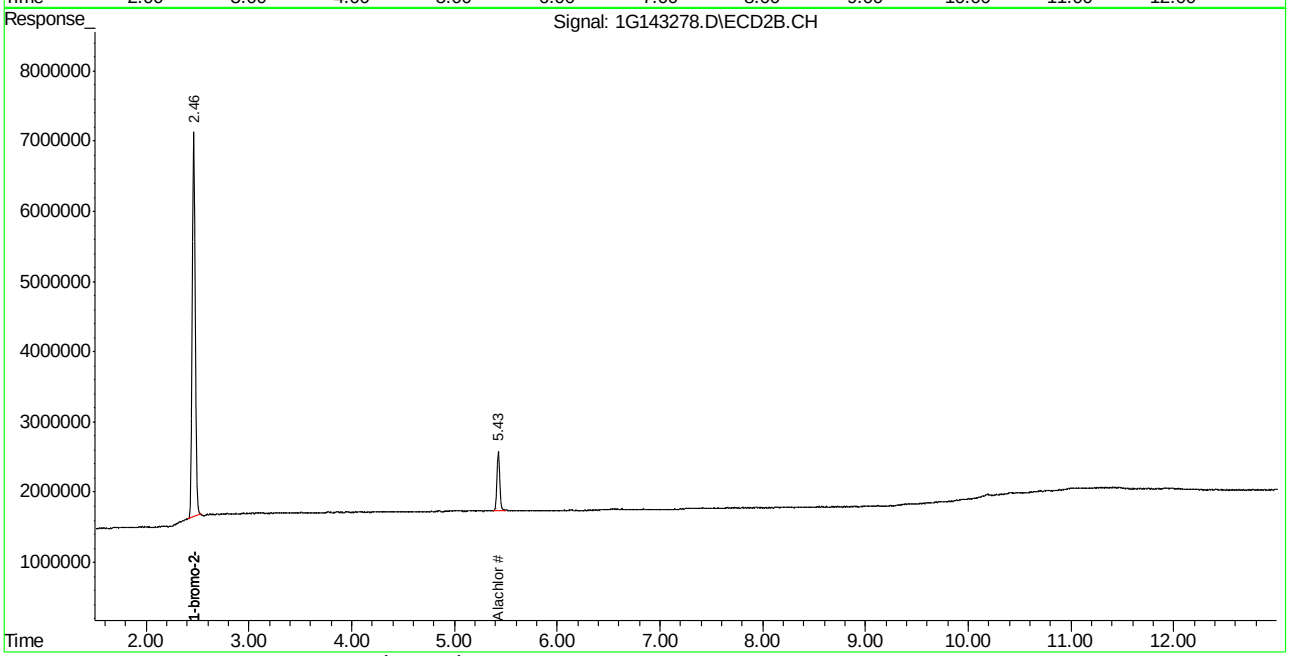
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143278.D\ECD2B.CH
Acq On : 2-8-18 01:37:39 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:31 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD2B.CH
Acq On : 2-8-18 01:54:52 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:32 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

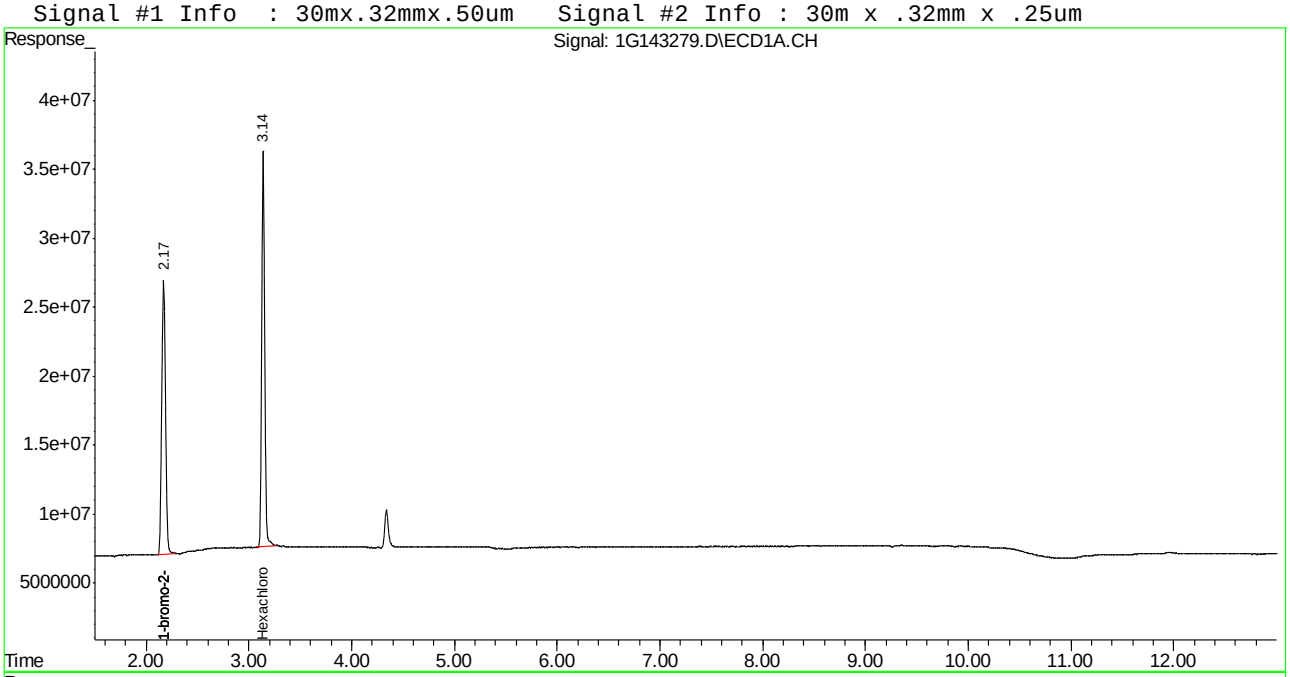
		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.17	2.46	505.9E6	115.8E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.17	2.46	505.9E6	115.8E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.17	2.46	505.9E6	115.8E6	50.000	50.000
		System Monitoring Compounds						
		Target Compounds						
3)		Hexachlorobenzen	3.14	3.92	573.7E6	144.8E6	50.816	48.764

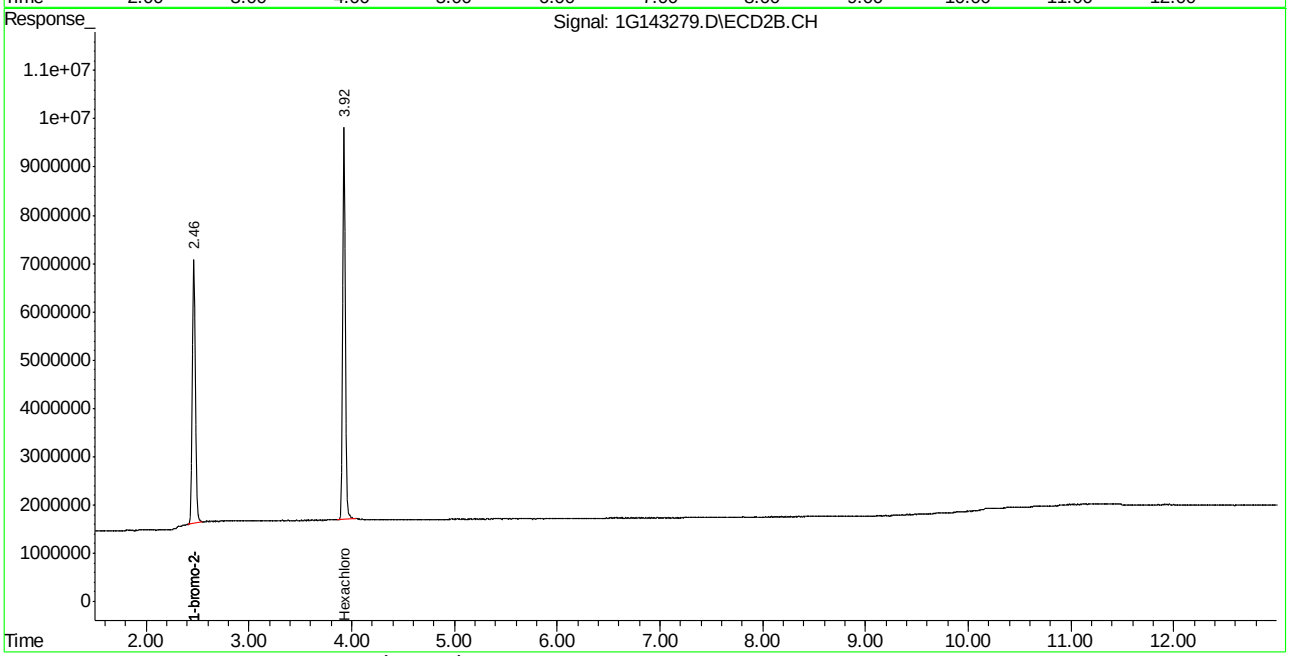
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G4557\1G143279.D\ECD2B.CH
Acq On : 2-8-18 01:54:52 PM Operator: minam
Sample : icv4557-50 Inst : GC1G
Misc : op9836,g1g4557,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 14:32 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/09/18 10:15

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:06 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2-nitrob	2.18	2.47	440.7E6	105.1E6	50.000	50.000
27)	I 1-bromo-2-nitrob	2.18	2.47	440.7E6	105.1E6	50.000	50.000
33)	I 1-bromo-2-nitrob	2.18	2.47	440.7E6	105.1E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachloro-m-xy	2.79	3.37	181.7E6	42267096	23.293m	22.151
	Spiked Amount 40.000	Range 30 - 150		Recovery =		58.23%	55.38%
26)	SA Decachlorobiphen	10.15	12.07	182.5E6	34767479	28.646	25.235
	Spiked Amount 40.000			Recovery =		71.62%	63.09%
	Target Compounds						
4)	A alpha-BHC	3.29	4.09	244.2E6	63193342	25.039	24.569
5)	MA gamma-BHC	3.60	4.55	236.3E6	56306229	25.614	24.153
6)	MA Heptachlor	4.12	5.18	244.4E6	54776661	25.448	25.048
7)	B beta-BHC	3.67	4.64	92973791	22950463	20.200	22.480
8)	B delta-BHC	3.87	5.07	170.5E6	50179075	22.317	23.832
9)	MB Aldrin	4.47	5.67	216.2E6	53000164	24.617	23.829
11)	B Heptachlor Epoxi	5.21	6.54	180.9E6	49203373	20.171	23.552
12)	B gamma-Chlordane	5.38	6.84	185.6E6	48259883	27.087m	23.852
13)	B alpha-Chlordane	5.55	7.07	206.7E6	46734840	24.584	23.448
14)	A Endosulfan I	5.74	7.18	197.1E6	50820764	23.909	26.376
15)	B 4,4'-DDE	5.65	7.32	189.1E6	49613196	23.947	23.586
16)	MA Dieldrin	6.07	7.64	206.6E6	50823744	24.750	23.763
17)	MA Endrin	6.41	8.17	193.1E6	46108940	25.198	24.510
18)	A 4,4'-DDD	6.51	8.31	157.2E6	40223356	26.802	24.791
19)	B Endosulfan II	6.74	8.53	186.2E6	44080513	24.342	23.550
20)	MA 4,4'-DDT	6.94	8.86	149.5E6	30854223	27.689	28.180
21)	B Endrin Aldehyde	7.38	9.11	158.5E6	34464815	24.729	23.390
22)	B Endosulfan Sulfa	8.07	9.56	154.7E6	33206381	25.843	25.488
23)	A Methoxychlor	7.72	9.98	89024302	15999744	29.370m	27.855
24)	Mirex	7.94	10.31	171.4E6	27469465	23.777	23.958
25)	B Endrin Ketone	8.53	10.34	178.9E6	42052977	27.977	28.388

(f)=RT Delta > 1/2 Window (m)=manual int.
1G143283.D 1PST4557.M Thu Feb 08 17:06:40 2018 RPT1 Page 1

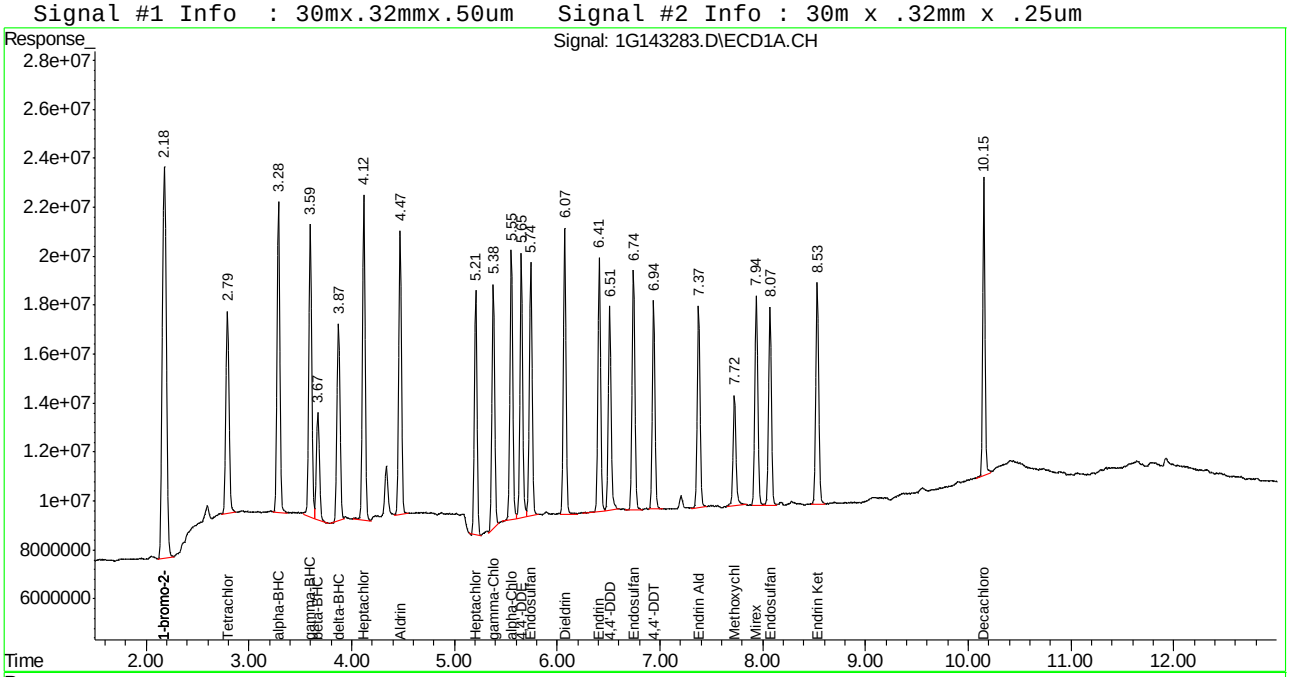
11.6.15 11

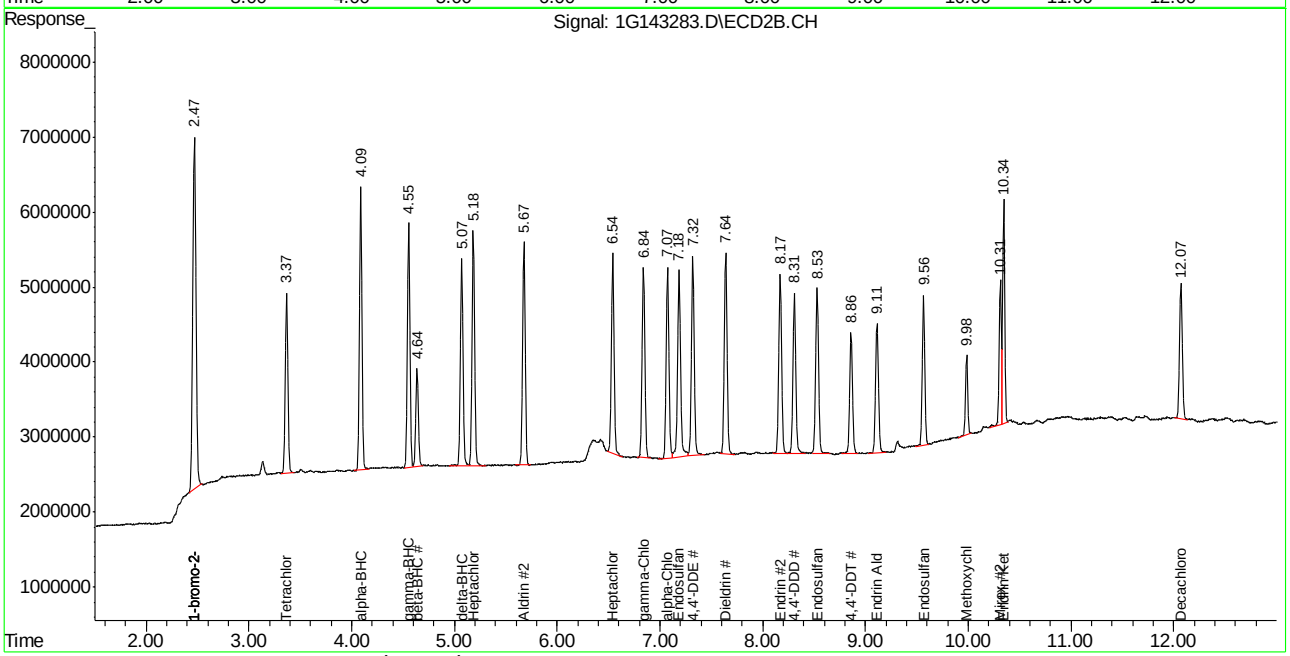
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:06 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

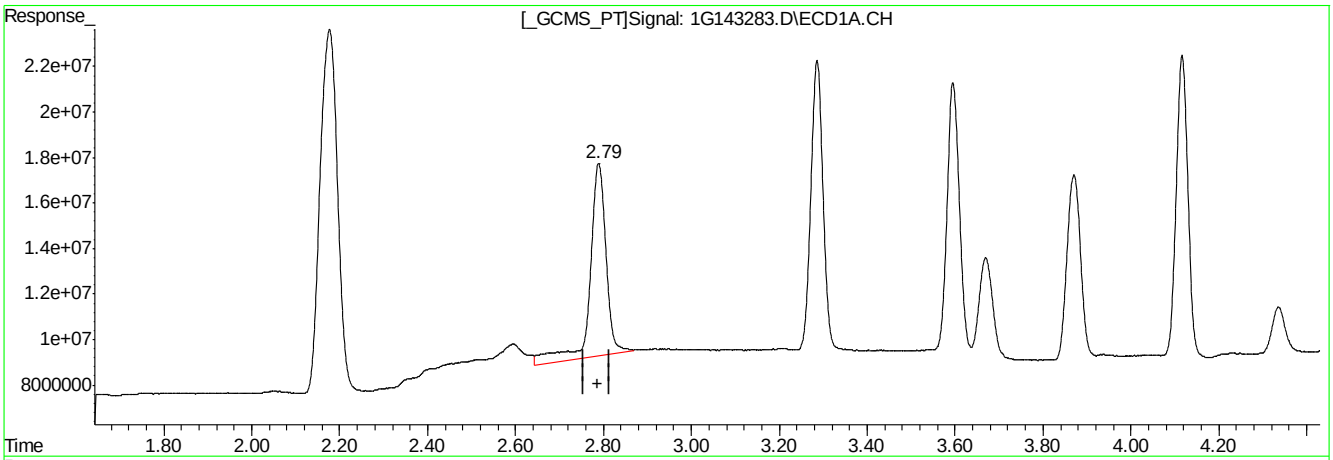
Sample Number:	G1G4558-ICV4557	**Method:**	SW846 8081B
Lab FileID:	1G143283.D	**Analyst approved:**	02/08/18 17:09 Rebecca Krug
Injection Time:	02/08/18 16:50	**Supervisor approved:**	02/09/18 10:15 Gwendolyn Burns

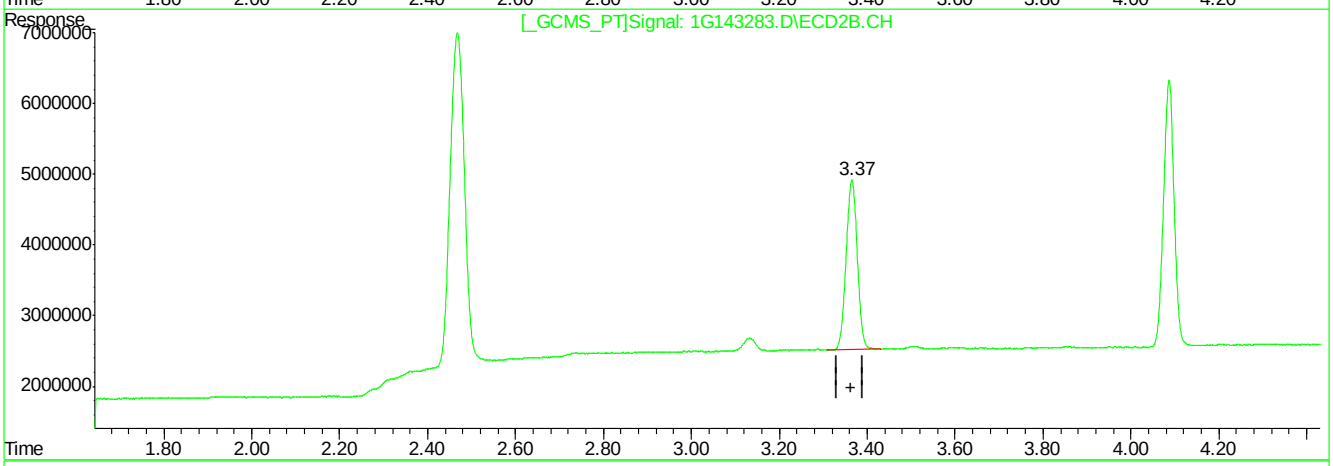
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.79	Poorly defined baseline
gamma-Chlordane	5103-74-2	1	5.38	Poorly defined baseline
Methoxychlor	72-43-5	1	7.72	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(2) Tetrachloro-m-xylene (SAB)

2.79min 27.786PPB

response 216784569

(2) Tetrachloro-m-xylene #2 (SAB)

3.37min 22.151PPB

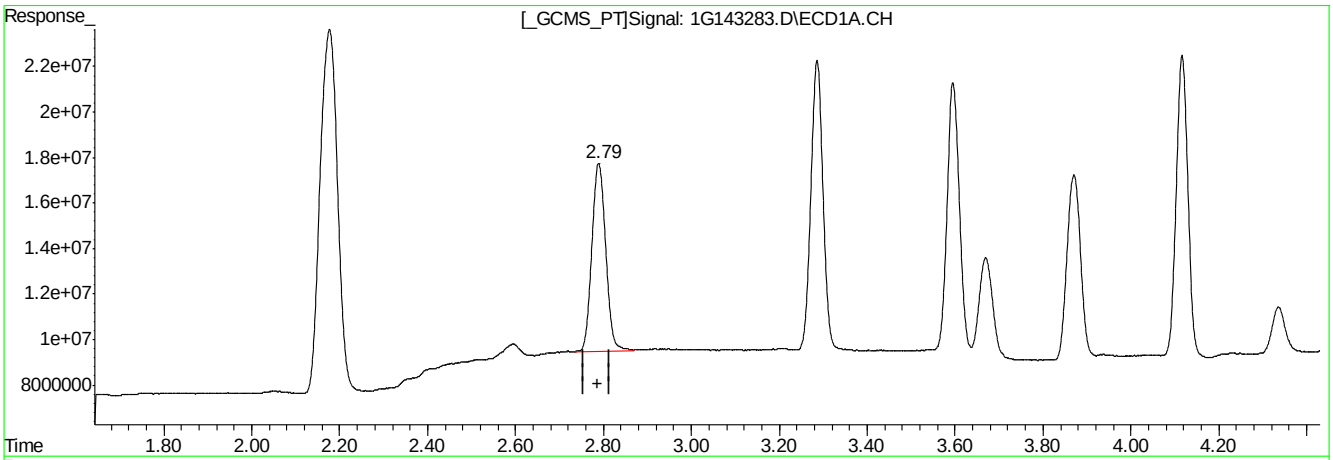
response 42267096

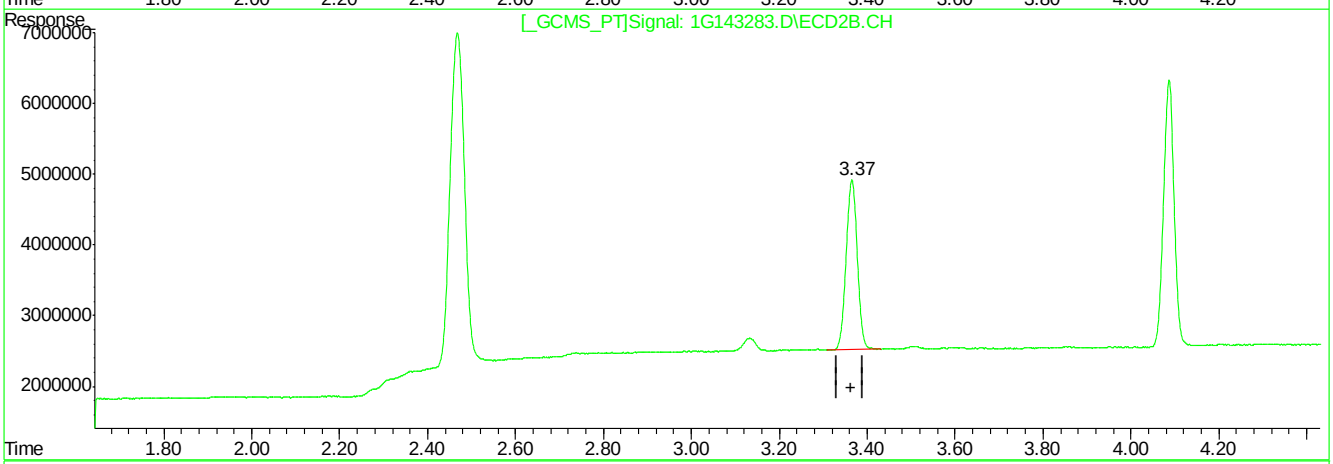
(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:05:52 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(2) Tetrachloro-m-xylene (SAB)

2.79min 23.293PPB m

response 181728047

(2) Tetrachloro-m-xylene #2 (SAB)

3.37min 22.151PPB

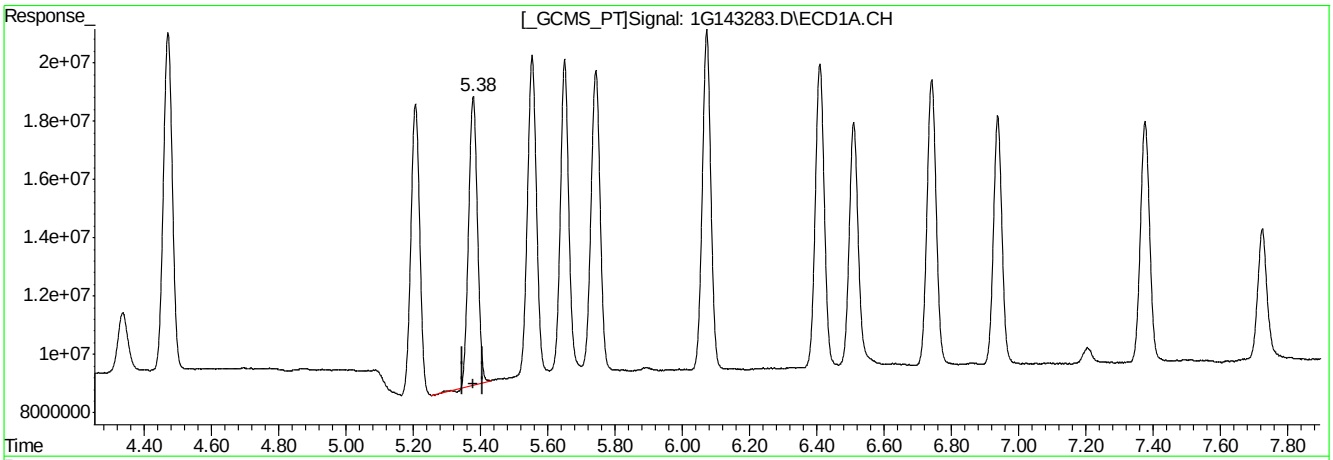
response 42267096

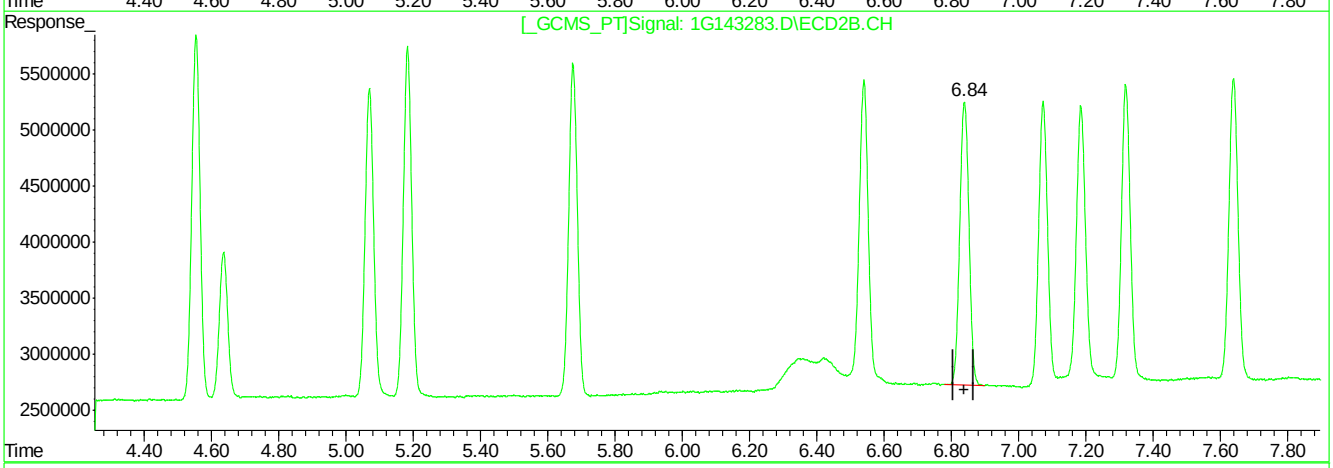
(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:05:56 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(12) gamma-Chlordane (B)

5.38min 26.277PPB

response 180030096

(12) gamma-Chlordane #2 (B)

6.84min 23.852PPB

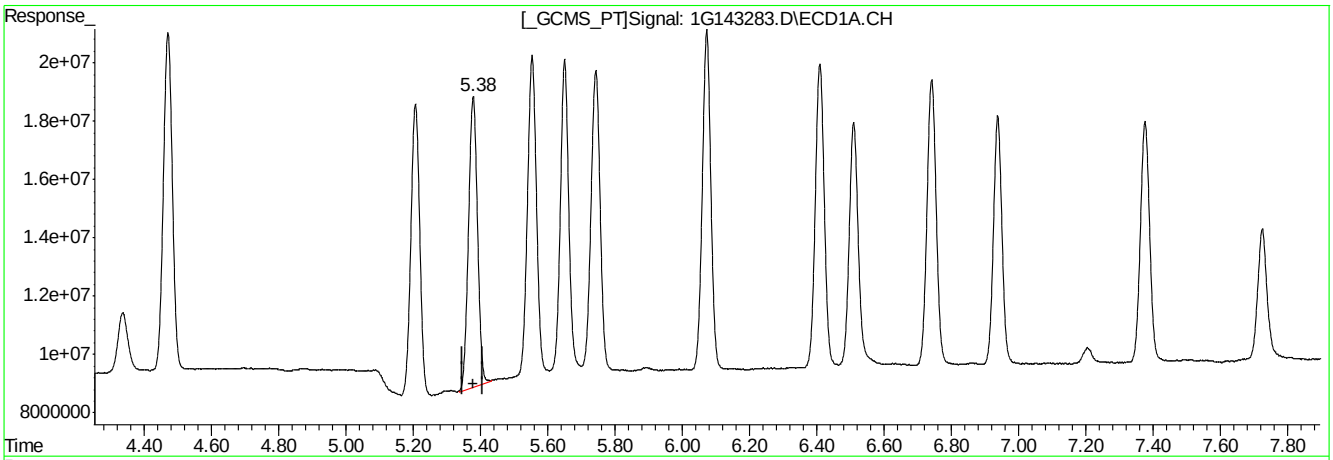
response 48259883

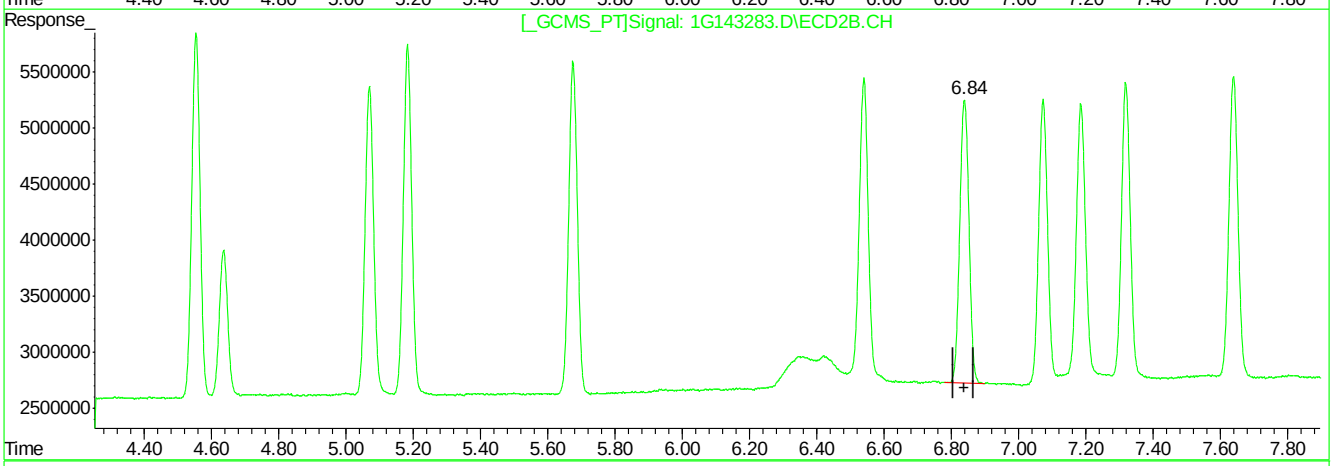
(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:06:09 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(12) gamma-Chlordane (B)

5.38min 27.087PPB m

response 185582607

(12) gamma-Chlordane #2 (B)

6.84min 23.852PPB

response 48259883

(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:06:13 2018 RPT1

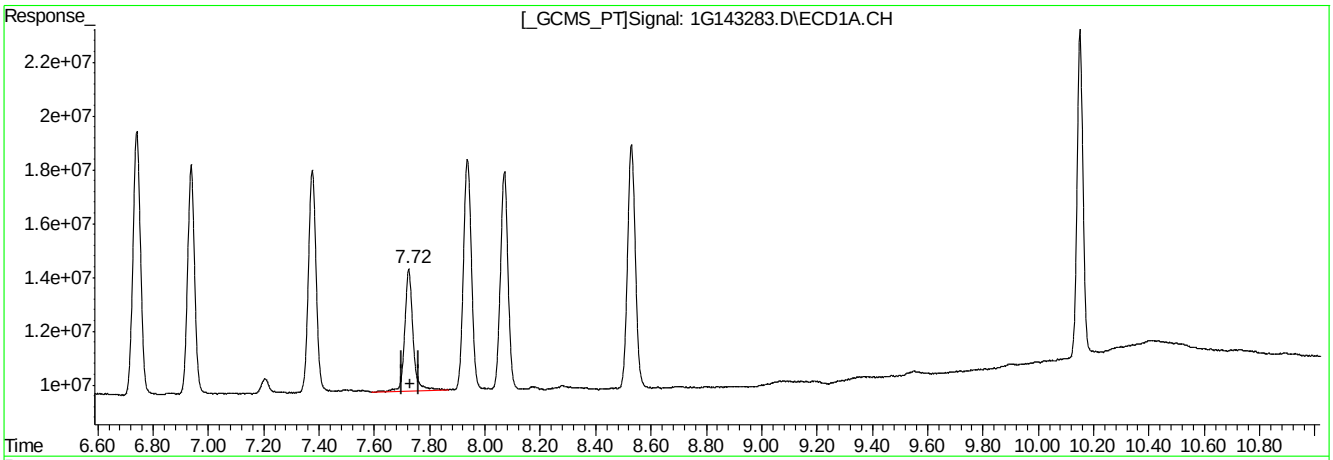
11.6.15.5 11

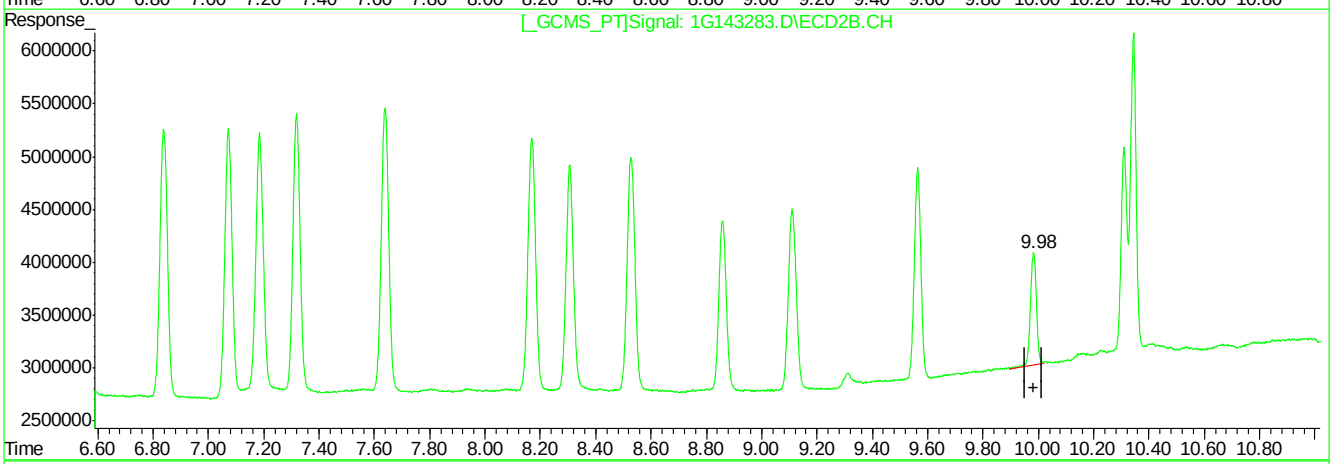
1G143283.D edits: gamma-Chlordane

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.72min 31.301PPB

response 94877240

(23) Methoxychlor #2 (A)

9.98min 27.855PPB

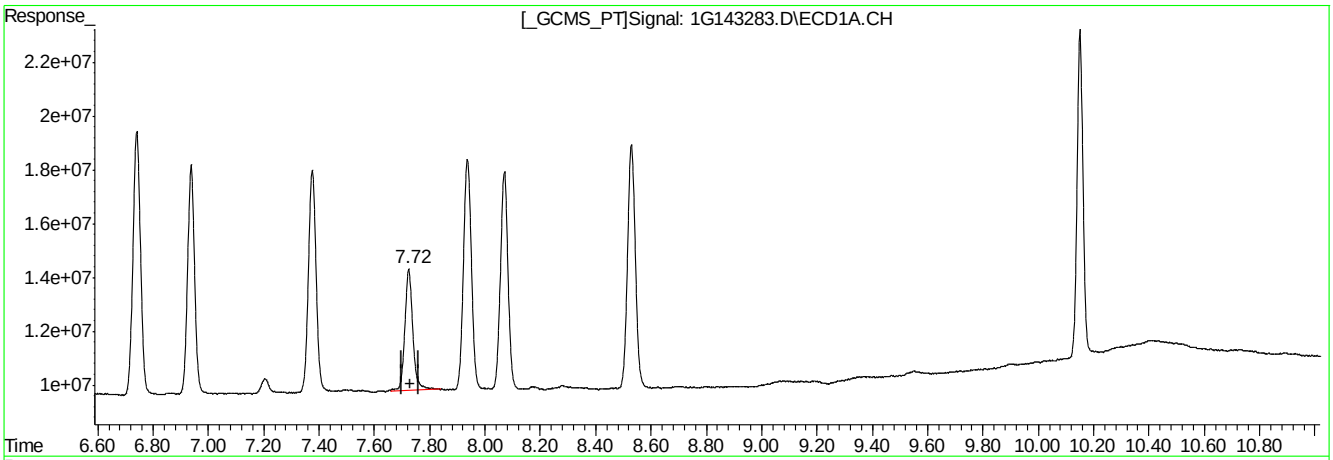
response 15999744

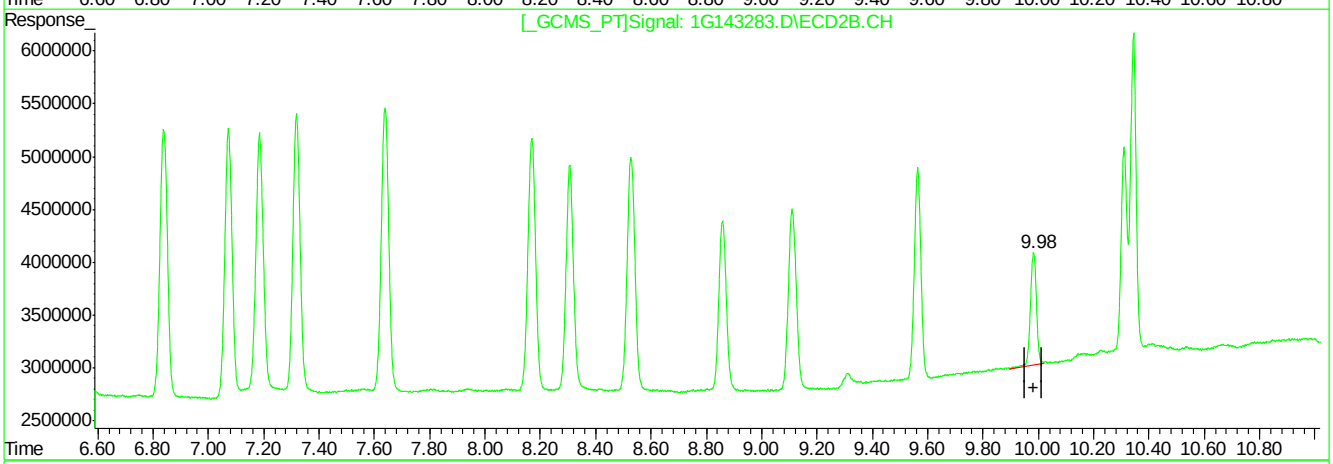
(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:06:23 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4558\1G143283.D\ECD2B.CH
Acq On : 2-8-18 04:50:35 PM Operator: kristen
Sample : icv4557-25 Inst : GC1G
Misc : op9836,g1g4558,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Feb 8 17:05 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Thu Feb 08 14:25:15 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.72min 29.370PPB m

response 89024302

(23) Methoxychlor #2 (A)

9.98min 27.855PPB

response 15999744

(+) = Expected Retention Time
1G143283.D 1PST4557.M Thu Feb 08 17:06:33 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 09:21

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:04 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.16	2.45	495.3E6	111.6E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.45	495.3E6	111.6E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.45	495.3E6	111.6E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.77	3.35	223.0E6	50596604	25.429	24.983
		Spiked Amount 40.000	Range 30 - 150		Recovery =		63.57%	62.46%
26)	SA	Decachlorobiphen	10.13	12.03	176.2E6	31572043	24.612	21.591
		Spiked Amount 40.000			Recovery =		61.53%	53.98%
		Target Compounds						
3)		Hexachlorobenzen	3.12	3.91	365.6E6	68545660	33.075	23.962
4)	A	alpha-BHC	3.27	4.06	287.0E6	69939096	26.180	25.620
5)	MA	gamma-BHC	3.58	4.53	267.6E6	61962827	25.809	25.043
6)	MA	Heptachlor	4.09	5.15	291.3E6	63034334	26.986	27.157
7)	B	beta-BHC	3.66	4.62	111.1E6	22582665	21.482	20.841
8)	B	delta-BHC	3.87	5.05	205.7E6	52317557	23.961	23.411
9)	MB	Aldrin	4.45	5.64	260.8E6	61527479	26.419	26.063
10)		Alachlor	4.57	5.39	31195297	7013428	22.146m	22.823m
11)	B	Heptachlor Epoxi	5.18	6.50	259.5E6	54569219	25.755	24.610
12)	B	gamma-Chlordane	5.35	6.80	220.8E6	54396012	28.675	25.330
13)	B	alpha-Chlordane	5.53	7.03	242.8E6	53546354	25.702	25.312
14)	A	Endosulfan I	5.71	7.15	271.3E6	50231464	29.293	24.563
15)	B	4,4'-DDE	5.64	7.29	238.7E6	50662929	26.904	22.693
16)	MA	Dieldrin	6.04	7.60	251.0E6	57121877	26.751	25.164
17)	MA	Endrin	6.38	8.13	229.3E6	50926997	26.624	25.506
18)	A	4,4'-DDD	6.52	8.29	136.4E6	34534949	20.691	20.054
19)	B	Endosulfan II	6.71	8.49	217.4E6	47195480	25.285	23.756
20)	MA	4,4'-DDT	6.92	8.83	141.6E6	30452856	23.340	26.206
21)	B	Endrin Aldehyde	7.35	9.07	166.3E6	36311251	23.082	23.219
22)	B	Endosulfan Sulfa	8.04	9.53	161.9E6	36124120	24.066	26.125
23)	A	Methoxychlor	7.73	9.96	63689405	12500644	18.695	20.505m
24)		Mirex	7.90	10.28	191.9E6	32418723	23.690	26.639
25)	B	Endrin Ketone	8.50	10.32	196.0E6	40632629	27.278	25.844

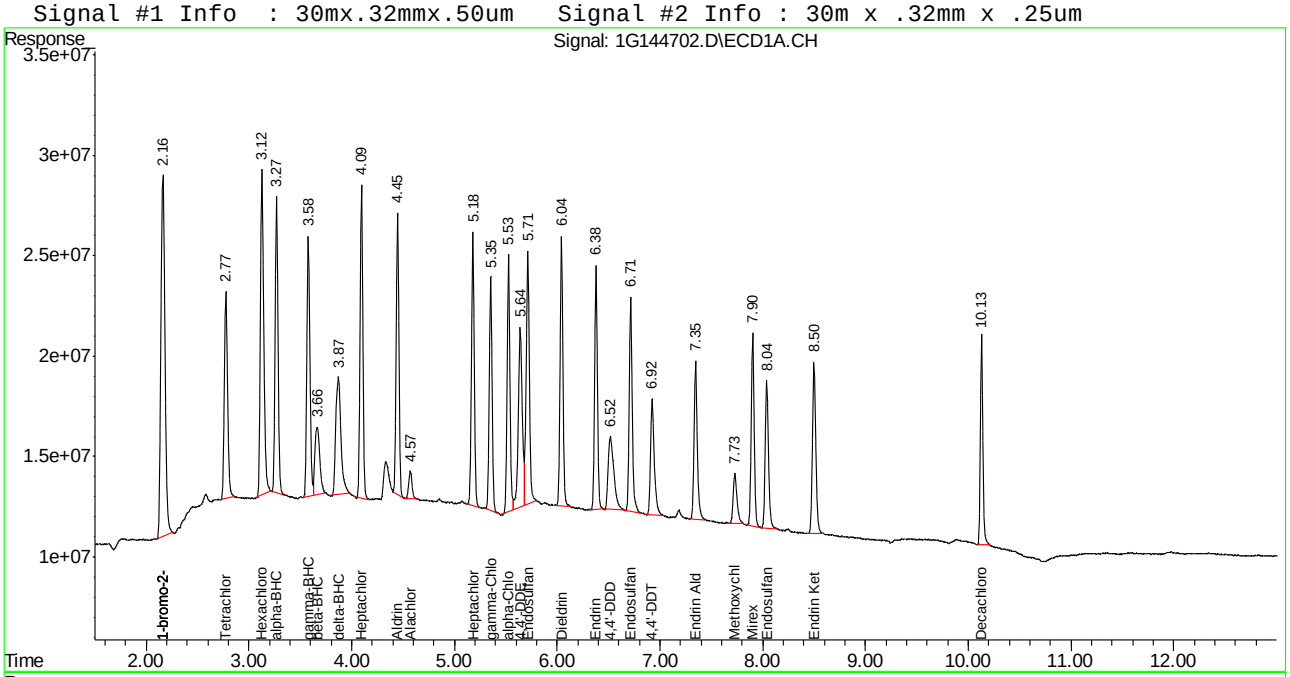
(f)=RT Delta > 1/2 Window (m)=manual int.

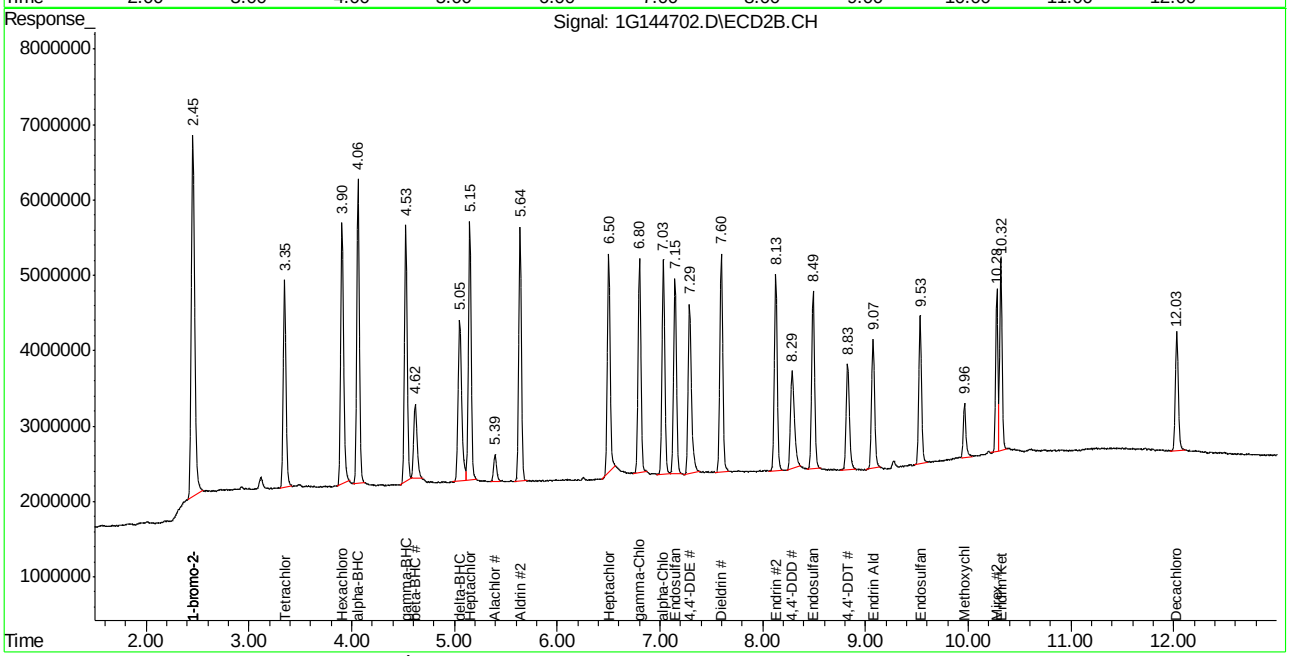
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:04 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

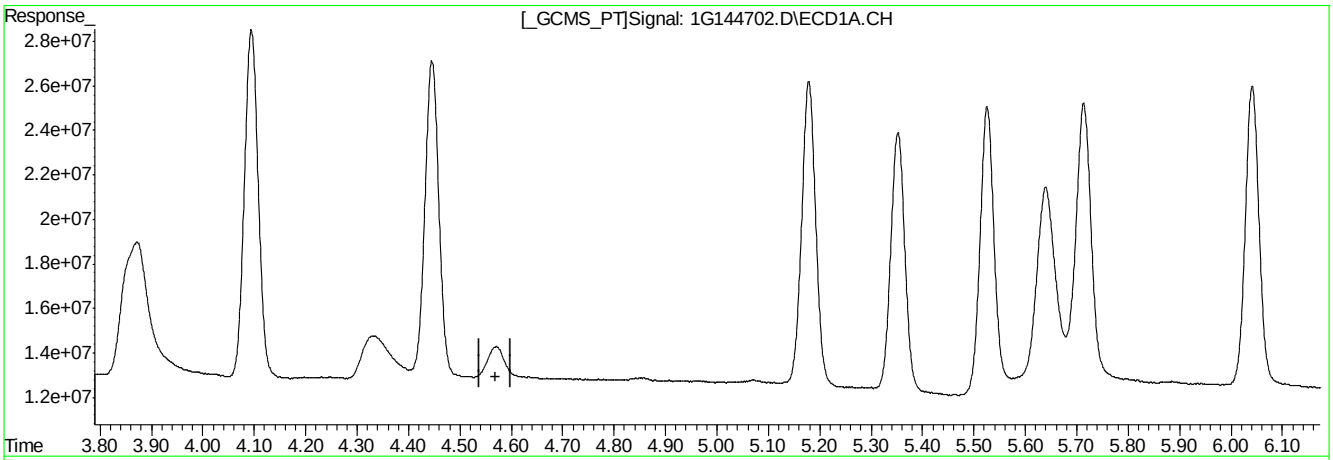
Sample Number: G1G4598-CC4557 **Method:** SW846 8081B
Lab FileID: 1G144702.D **Analyst approved:** 03/28/18 09:29 Dharmistha Mehta
Injection Time: 03/28/18 00:47 **Supervisor approved:** 03/29/18 09:21 Gwendolyn Burns

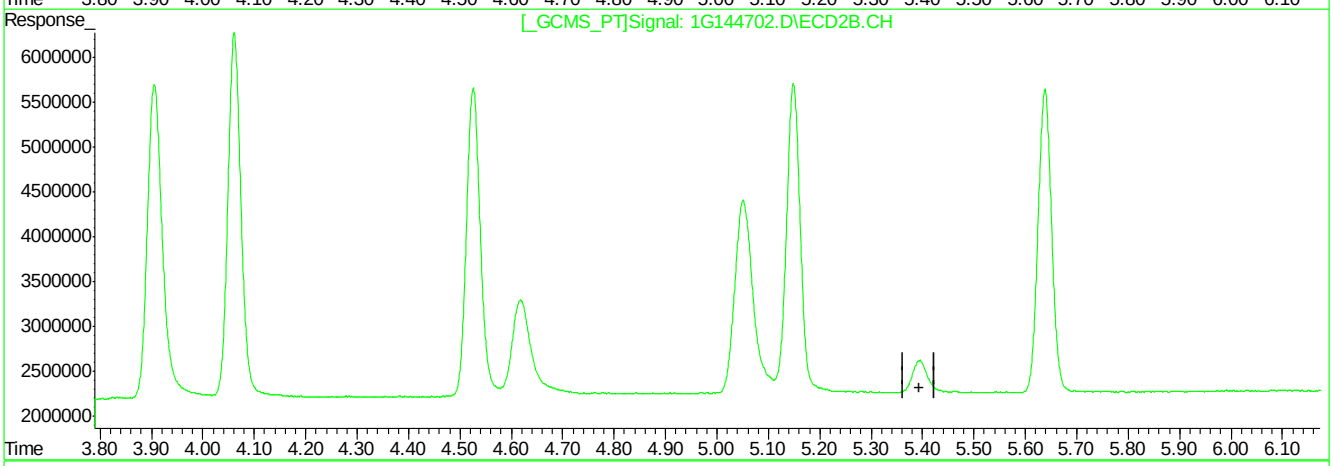
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	4.57	Poorly defined baseline
Alachlor	15972-60-8	2	5.39	Poorly defined baseline
Methoxychlor	72-43-5	2	9.96	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

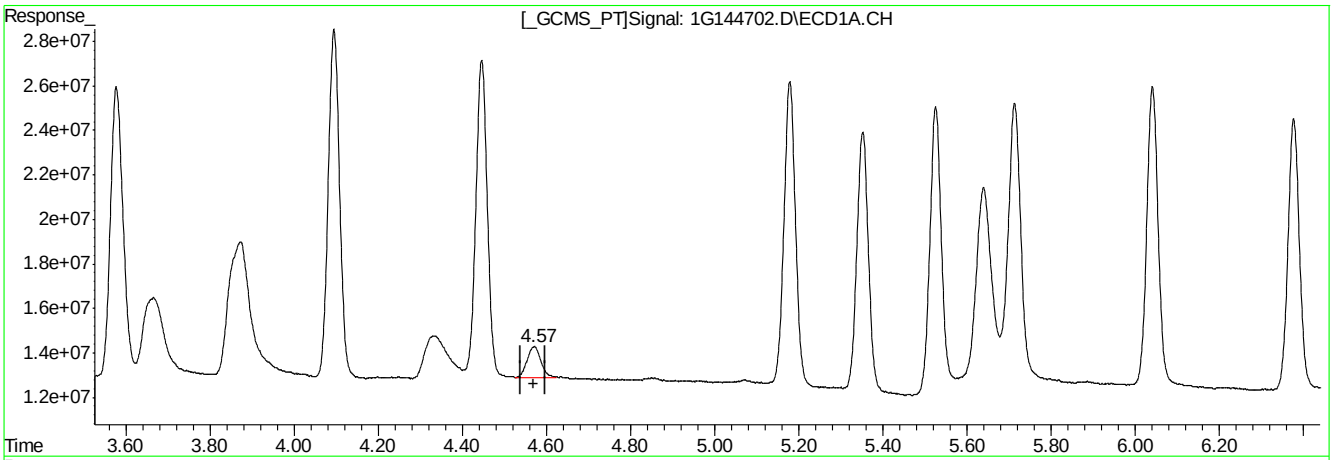
response 0

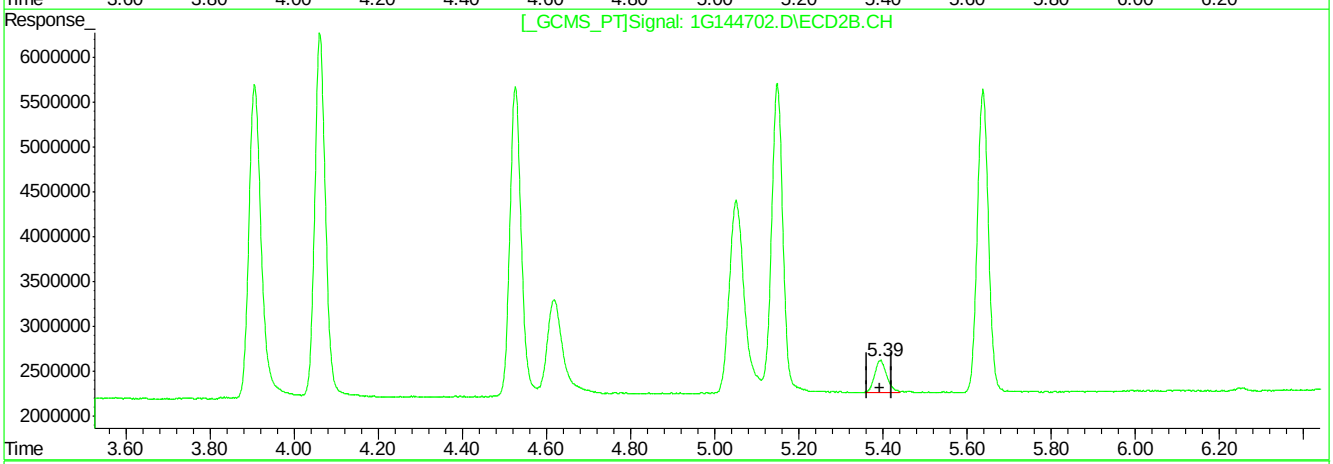
(+) = Expected Retention Time
1G144702.D 1PST4557.M Wed Mar 28 01:03:07 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.57min 22.146PPB m

response 31195297

(10) Alachlor #2

5.39min 22.823PPB m

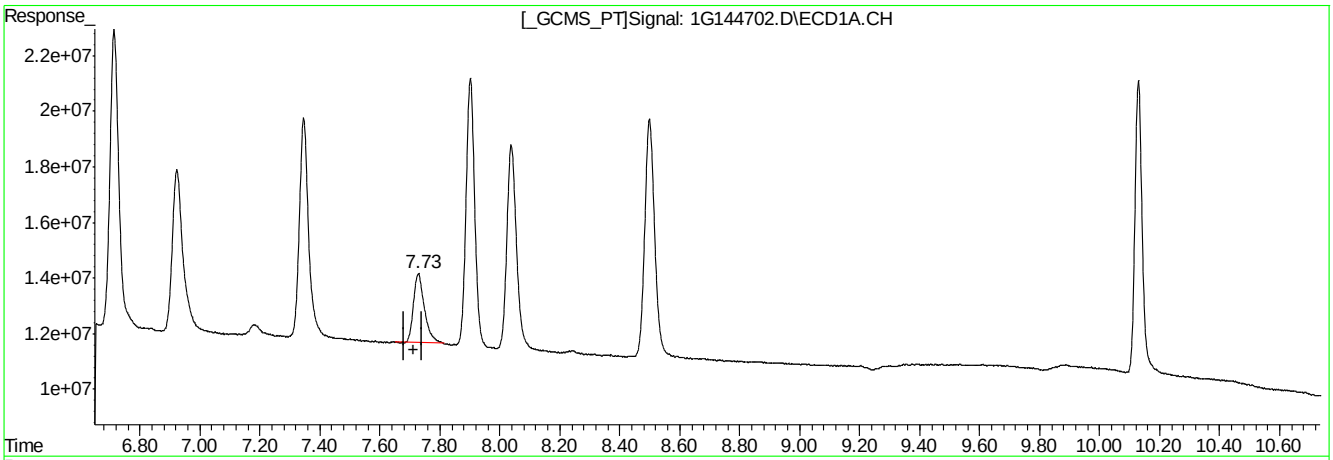
response 7013428

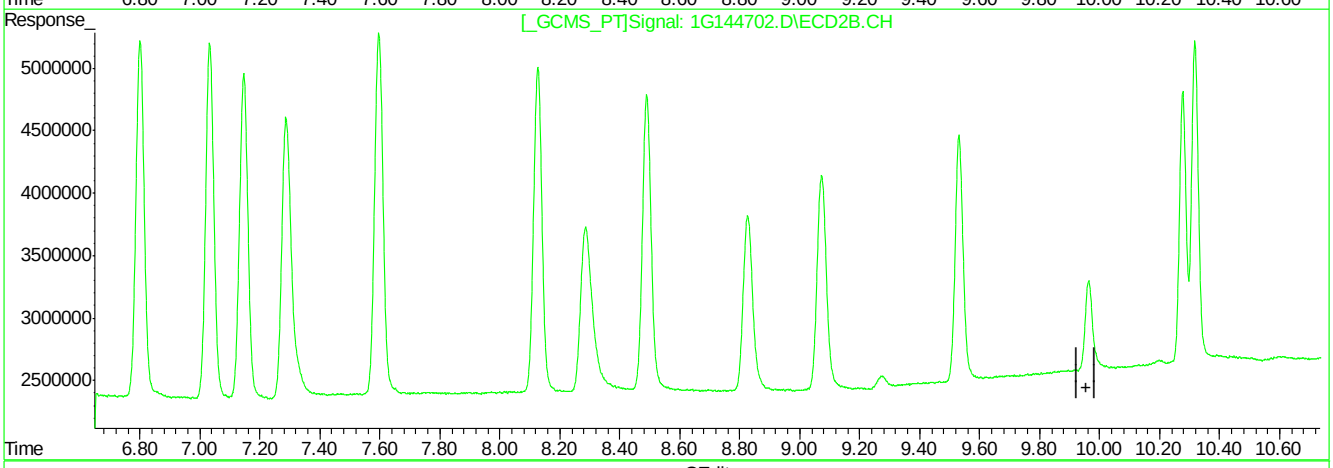
(+) = Expected Retention Time
1G144702.D 1PST4557.M Wed Mar 28 01:03:31 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 18.695PPB

response 63689405

(23) Methoxychlor #2 (A)

0.00min 0.000PPB

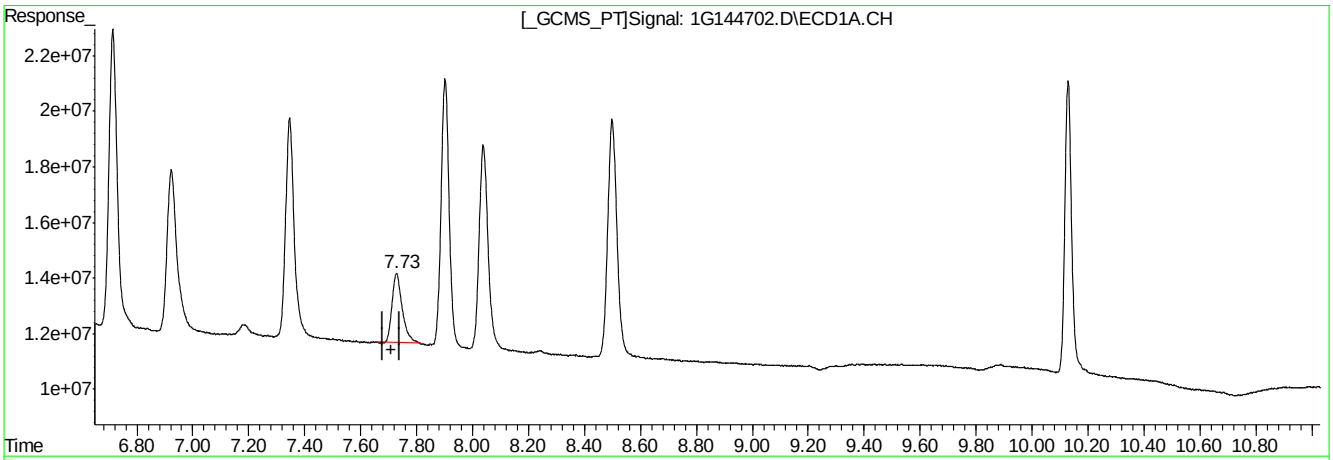
response 0

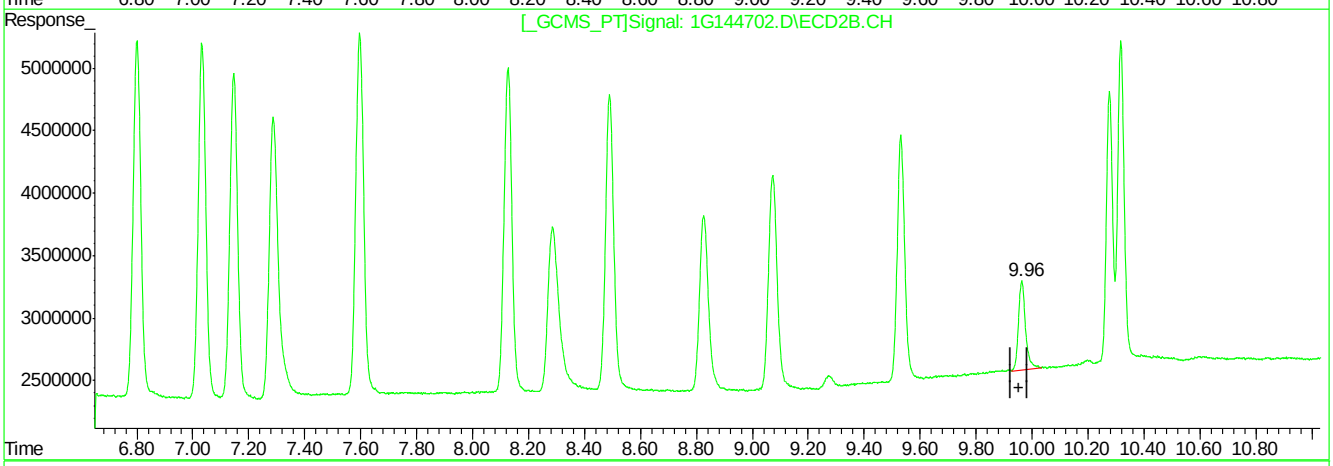
(+) = Expected Retention Time
1G144702.D 1PST4557.M Wed Mar 28 01:04:03 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144702.D\ECD2B.CH
Acq On : 28 Mar 2018 12:47 am Operator: christp
Sample : cc4557-25 Inst : GC1G
Misc : op10855,g1g4598,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 1:02 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

7.73min 18.695PPB

response 63689405

(23) Methoxychlor #2 (A)

9.96min 20.505PPB m

response 12500644

(+) = Expected Retention Time
1G144702.D 1PST4557.M Wed Mar 28 01:04:16 2018 RPT1

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 09:21

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:23 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2-nitrob	2.16	2.45	528.6E6	115.6E6	50.000	50.000
27)	I	1-bromo-2-nitrob	2.16	2.45	528.6E6	115.6E6	50.000	50.000
33)	I	1-bromo-2-nitrob	2.16	2.45	528.6E6	115.6E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	2.77	3.34	505.0E6	110.0E6	53.970	52.416
		Spiked Amount 40.000	Range 30 - 150		Recovery =		134.93%	131.04%
26)	SA	Decachlorobiphen	10.13	12.03	415.0E6	65345280	54.311	43.144
		Spiked Amount 40.000			Recovery =		135.78%	107.86%
		Target Compounds						
3)		Hexachlorobenzen	3.12	3.90	804.7E6	145.4E6	68.225	49.080
4)	A	alpha-BHC	3.27	4.06	694.0E6	152.2E6	59.332	53.845
5)	MA	gamma-BHC	3.58	4.52	611.7E6	139.4E6	55.280	54.396
6)	MA	Heptachlor	4.09	5.15	646.0E6	139.9E6	56.083	58.172
7)	B	beta-BHC	3.65	4.62	251.1E6	59208387	45.485	52.754
8)	B	delta-BHC	3.86	5.05	455.8E6	114.2E6	49.746	49.320
9)	MB	Aldrin	4.45	5.64	644.4E6	137.1E6	61.185	56.084
10)		Alachlor	4.57	5.40	61726133	16706059	41.065m	52.488m
11)	B	Heptachlor Epoxi	5.18	6.50	594.2E6	124.0E6	55.265	54.009
12)	B	gamma-Chlordane	5.35	6.80	604.5E6	123.7E6	73.571	55.593
13)	B	alpha-Chlordane	5.53	7.03	592.3E6	119.6E6	58.745	54.570
14)	A	Endosulfan I	5.71	7.15	774.2E6	113.9E6	78.331	53.765
15)	B	4,4'-DDE	5.66	7.30	266.2E6	104.6E6	28.114	45.252
16)	MA	Dieldrin	6.04	7.60	609.1E6	128.9E6	60.840	54.832
17)	MA	Endrin	6.38	8.13	524.3E6	106.6E6	57.046	51.560
18)	A	4,4'-DDD	6.56f	8.31f	285.8E6	74251670	40.640m	41.629m
19)	B	Endosulfan II	6.72	8.49	554.5E6	106.4E6	60.437	51.704
20)	MA	4,4'-DDT	6.94	8.83	312.3E6	63445466	48.225	52.712
21)	B	Endrin Aldehyde	7.35	9.07	413.7E6	86468784	53.807	53.381
22)	B	Endosulfan Sulfa	8.04	9.53	413.6E6	84906614	57.617	59.283
23)	A	Methoxychlor	7.74	9.97	136.8E6	26236785	37.638m	41.550
24)		Mirex	7.90	10.28	468.4E6	72619892	54.180	57.613
25)	B	Endrin Ketone	8.50	10.32	503.9E6	96779560	65.714	59.429

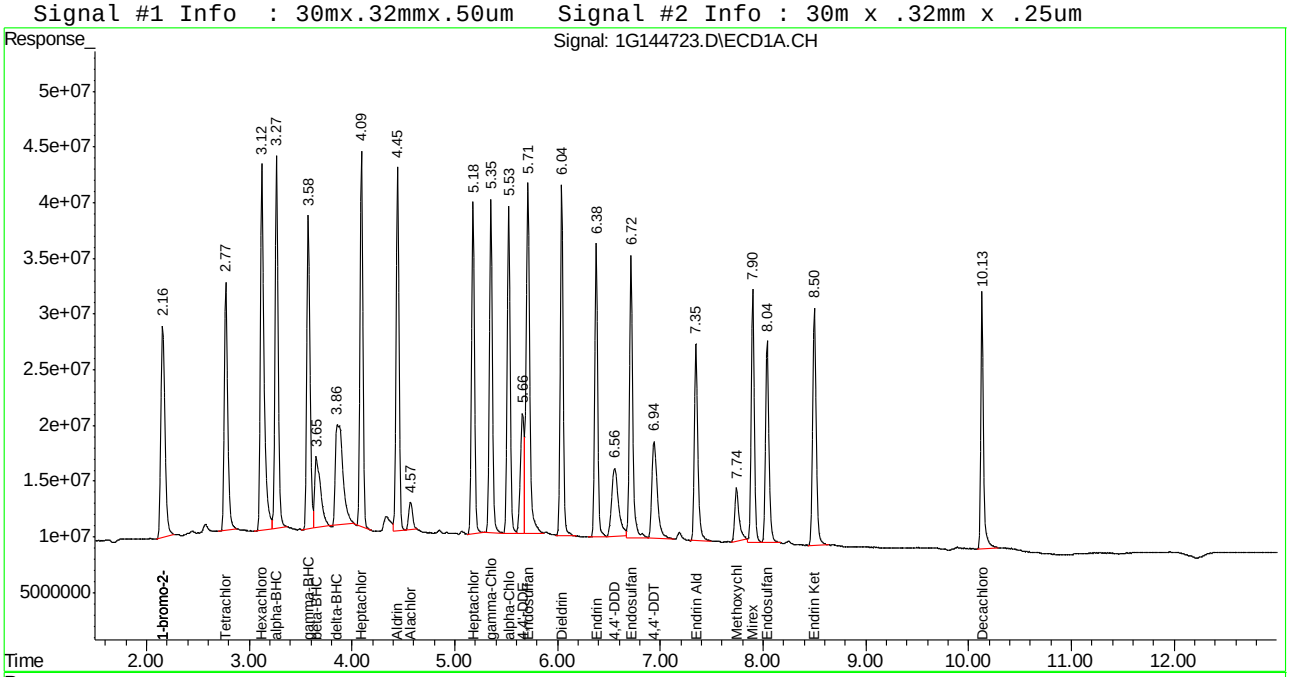
(f)=RT Delta > 1/2 Window (m)=manual int.

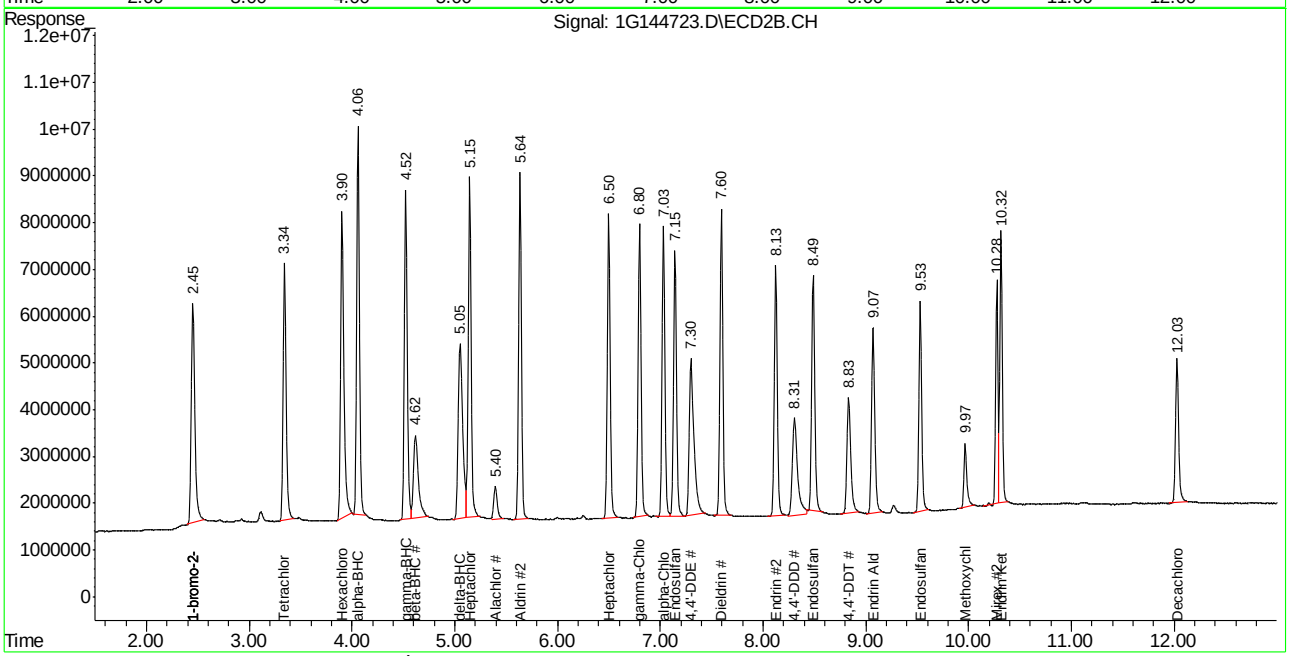
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 9:23 2018 Quant Results File: 1PST4557.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4557.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





JC62879

11.6.17 11

Manual Integration Approval Summary

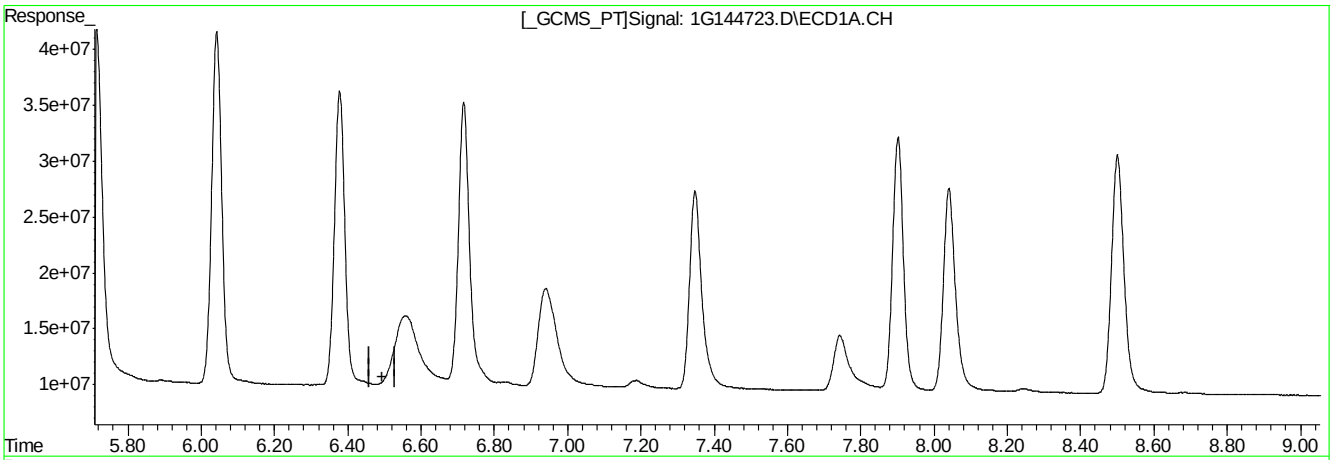
Sample Number:	G1G4598-CC4557	**Method:**	SW846 8081B
Lab FileID:	1G144723.D	**Analyst approved:**	03/28/18 09:30 Dharmistha Mehta
Injection Time:	03/28/18 06:53	**Supervisor approved:**	03/29/18 09:21 Gwendolyn Burns

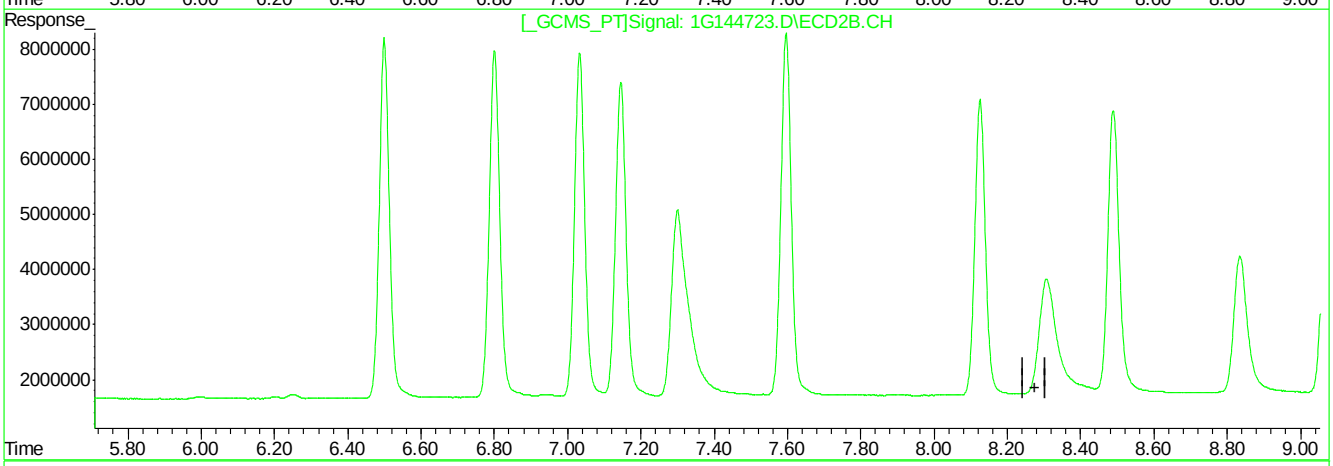
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	4.57	Poorly defined baseline
Alachlor	15972-60-8	2	5.40	Poorly defined baseline
4,4'-DDD	72-54-8	1	6.56	Poorly defined baseline
Methoxychlor	72-43-5	1	7.74	Poorly defined baseline
4,4'-DDD	72-54-8	2	8.31	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:22 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

0.00min 0.000PPB

response 0

(18) 4,4'-DDD #2 (A)

0.00min 0.000PPB

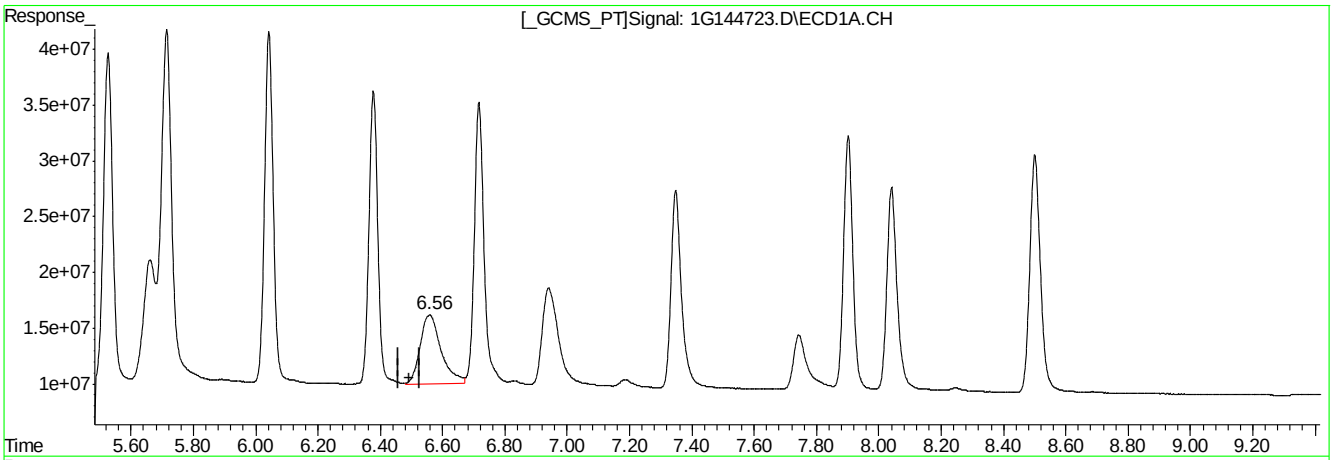
response 0

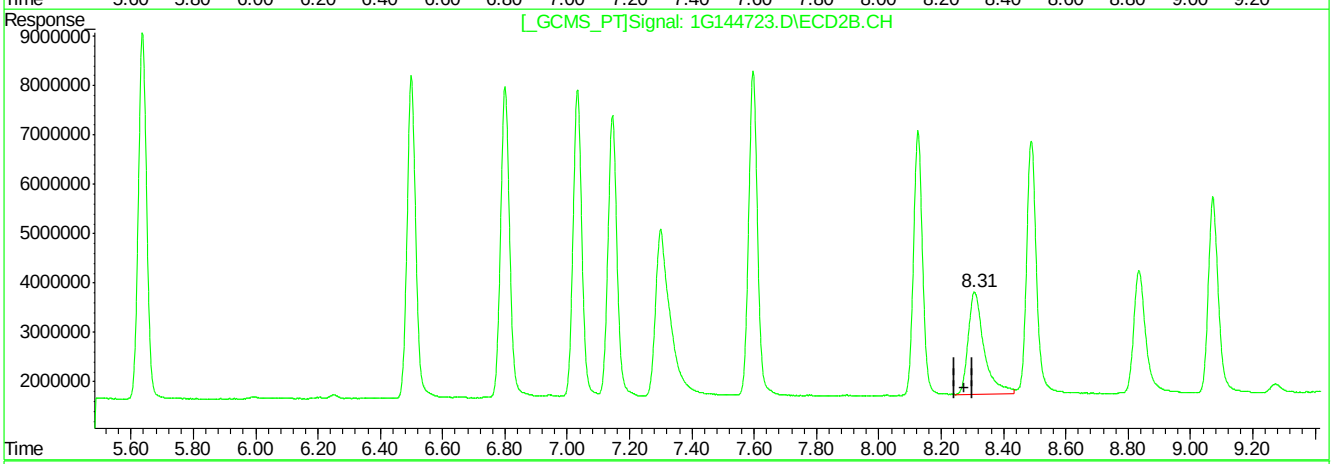
(+) = Expected Retention Time
1G144723.D 1PST4557.M Wed Mar 28 08:23:17 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:22 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(18) 4,4'-DDD (A)

6.56min 40.640PPB m

response 285821272

(18) 4,4'-DDD #2 (A)

8.31min 41.629PPB m

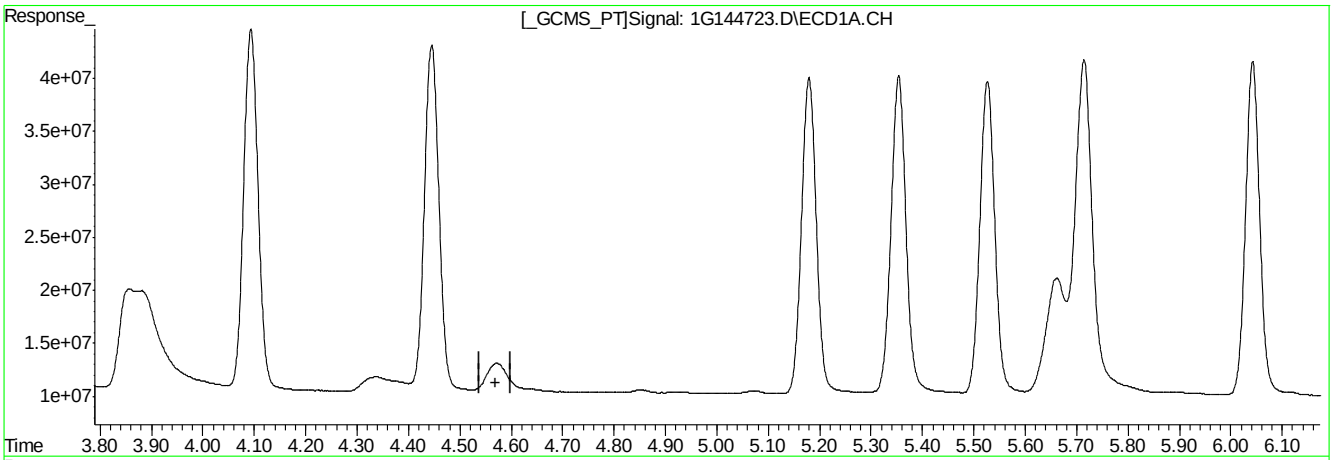
response 74251670

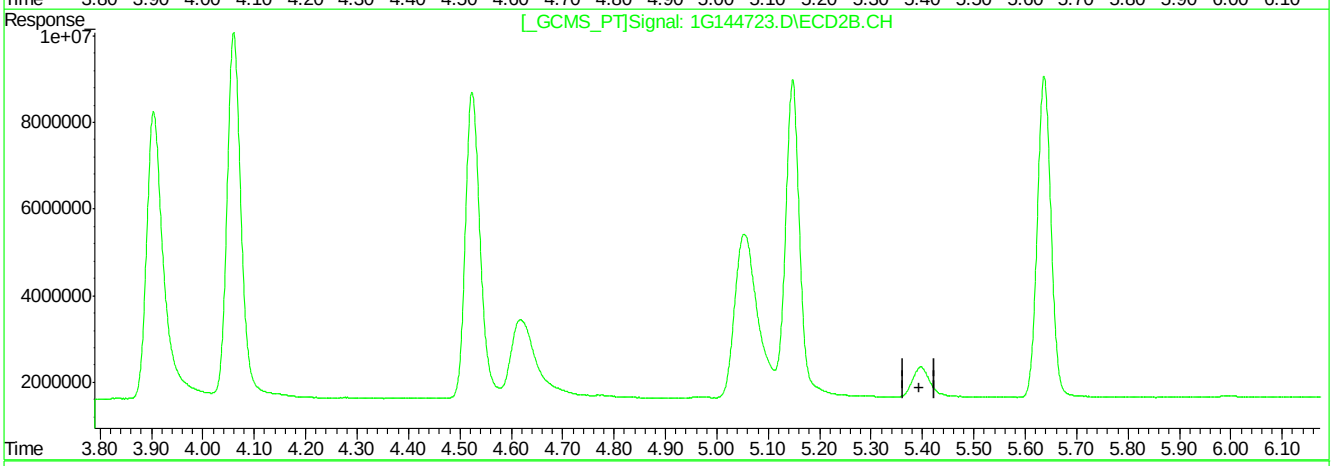
(+) = Expected Retention Time
1G144723.D 1PST4557.M Wed Mar 28 08:24:07 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:22 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

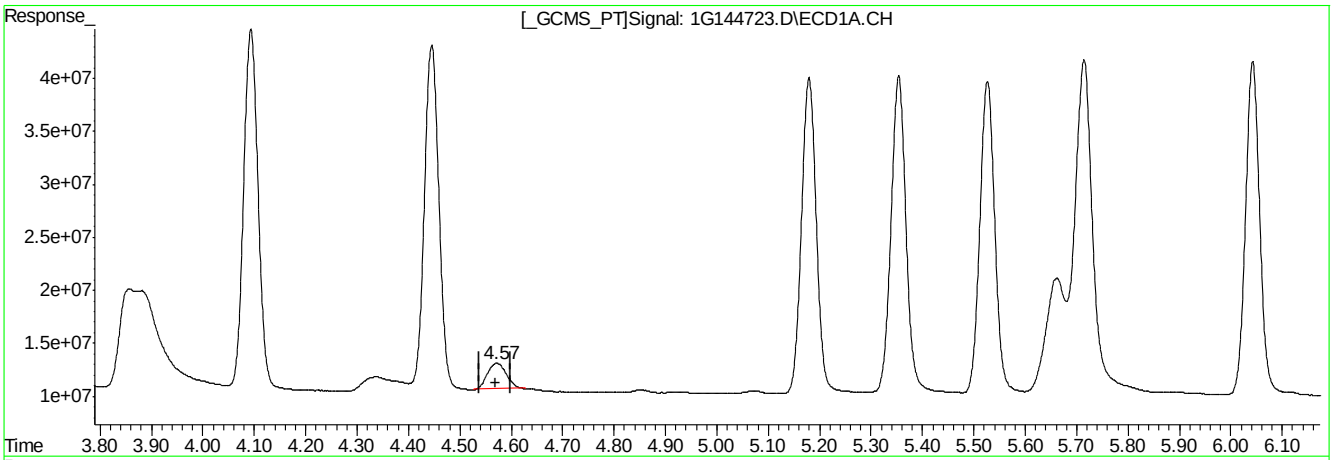
response 0

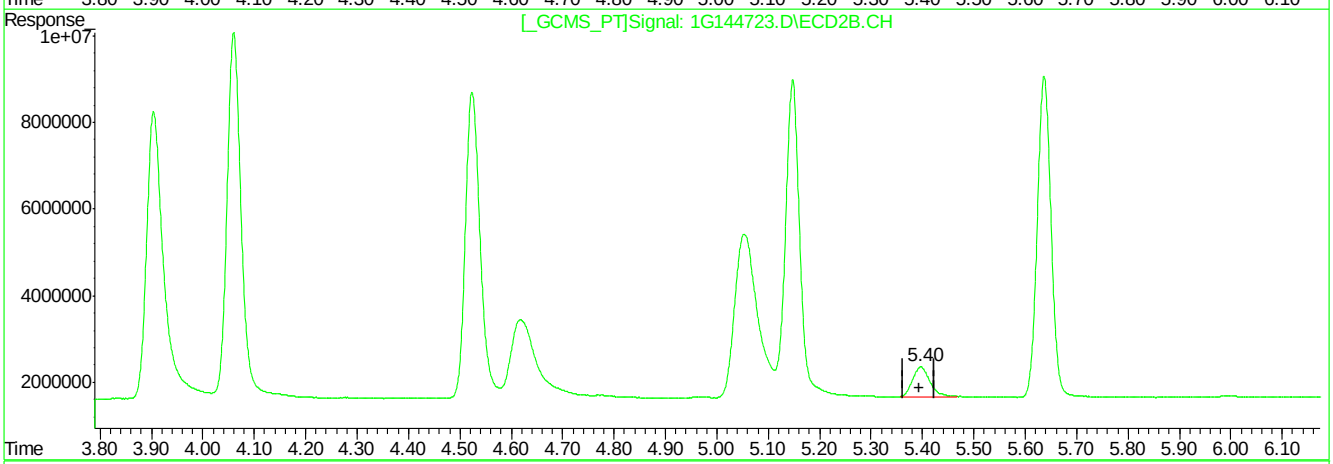
(+) = Expected Retention Time
1G144723.D 1PST4557.M Wed Mar 28 08:24:12 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:22 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

4.57min 41.065PPB m

response 61726133

(10) Alachlor #2

5.40min 52.488PPB m

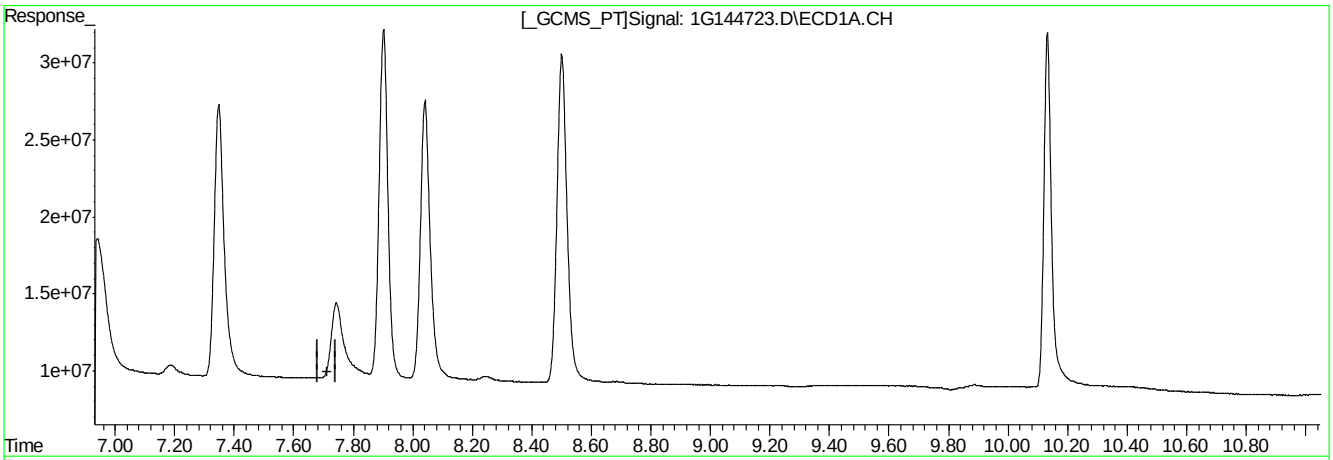
response 16706059

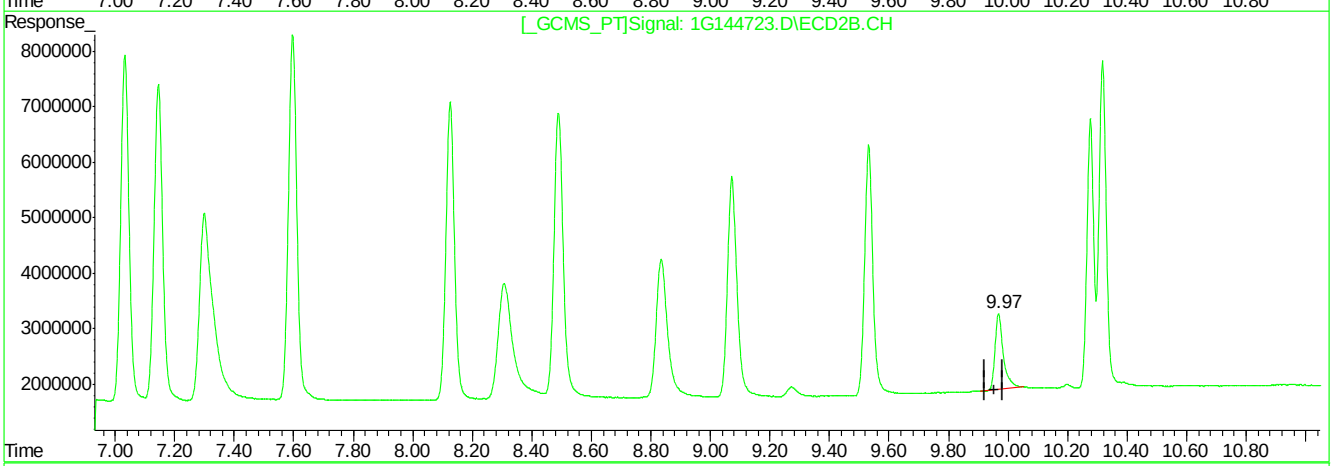
(+) = Expected Retention Time
1G144723.D 1PST4557.M Wed Mar 28 08:24:32 2018 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4598\1G144723.D\ECD2B.CH
Acq On : 3-28-18 06:53:19 AM Operator: christp
Sample : cc4557-50 Inst : GC1G
Misc : op10885,g1g4598,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Mar 28 8:24 2018 Quant Results File: 1PST4557.RES

Method : C:\MSDCHEM\1\METHODS\1PST4557.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Mar 27 15:37:12 2018
Response via : Multiple Level Calibration





QEdit

(23) Methoxychlor (A)

0.00min 0.000PPB

response 0

(23) Methoxychlor #2 (A)

9.97min 41.550PPB

response 26236785

(+) = Expected Retention Time
1G144723.D 1PST4557.M Wed Mar 28 09:23:42 2018 RPT1

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90002.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:34 pm
Operator : kristend
Sample : ic2366-100
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:46:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.500	1.921	1335.0E6	275.5E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.116	2.811	2485.7E6	510.6E6	122.724	107.216
		Spiked Amount	40.000	Range	30 - 150	Recovery	= 306.81%#	268.04%#
26)	SA	Decachlor...	9.409	11.903	2188.8E6	391.0E6	103.083	94.153
		Spiked Amount	40.000		Recovery	=	257.71%	235.38%
		Target Compounds						
3)		hexachlor...	2.451	3.353	3443.1E6	710.1E6	92.729	101.544
4)	A	alpha-BHC	2.592	3.515	3203.2E6	711.9E6	106.497	113.499
5)	MA	gamma-BHC	2.886	3.964	2827.8E6	632.7E6	102.795	108.786
6)	MA	Heptachlor	3.377	4.563	2842.2E6	635.5E6	109.035	113.848
7)	B	beta-BHC	2.962	4.054	1157.7E6	259.7E6	93.345	96.901
8)	B	delta-BHC	3.144	4.466	2458.0E6	548.4E6	95.190	100.901
9)	MB	Aldrin	3.706	5.030	2652.2E6	586.9E6	104.974	108.091
10)		alachlor	3.850	4.830	268.7E6	68230556	79.227	92.042
11)	B	Heptachlo...	4.404	5.875	2258.3E6	525.8E6	94.022m	102.788
12)	B	gamma-Chl...	4.568	6.164	2273.0E6	527.3E6	94.095	103.226
13)	B	alpha-Chl...	4.737	6.394	2214.4E6	511.4E6	95.148	102.272
14)	A	Endosulfan I	4.908	6.493	2159.5E6	483.8E6	97.462	101.633
15)	B	4,4'-DDE	4.854	6.656	2400.9E6	534.6E6	100.695	107.339
16)	MA	Dieldrin	5.226	6.935	2479.8E6	533.9E6	102.535	103.946
17)	MA	Endrin	5.543	7.446	2369.5E6	512.4E6	120.299	121.677
18)	A	4,4'-DDD	5.676	7.618	1994.0E6	431.1E6	101.682	103.616
19)	B	Endosulfa...	5.862	7.801	2124.7E6	462.5E6	100.452	99.714
20)	MA	4,4'-DDT	6.089	8.157	2012.6E6	431.1E6	116.868	116.831
21)	B	Endrin Al...	6.476	8.378	1722.9E6	364.0E6	100.344	94.561
22)	B	Endosulfa...	7.150	8.851	1667.9E6	347.0E6	95.468	88.949
23)	A	Methoxychlor	6.881	9.405	1053.6E6	226.0E6	116.728	110.557
24)		Mirex	7.009	9.754	1572.4E6	331.2E6	96.747	90.381
25)	B	Endrin Ke...	7.588	9.822	2044.4E6	444.0E6	94.256	90.235

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

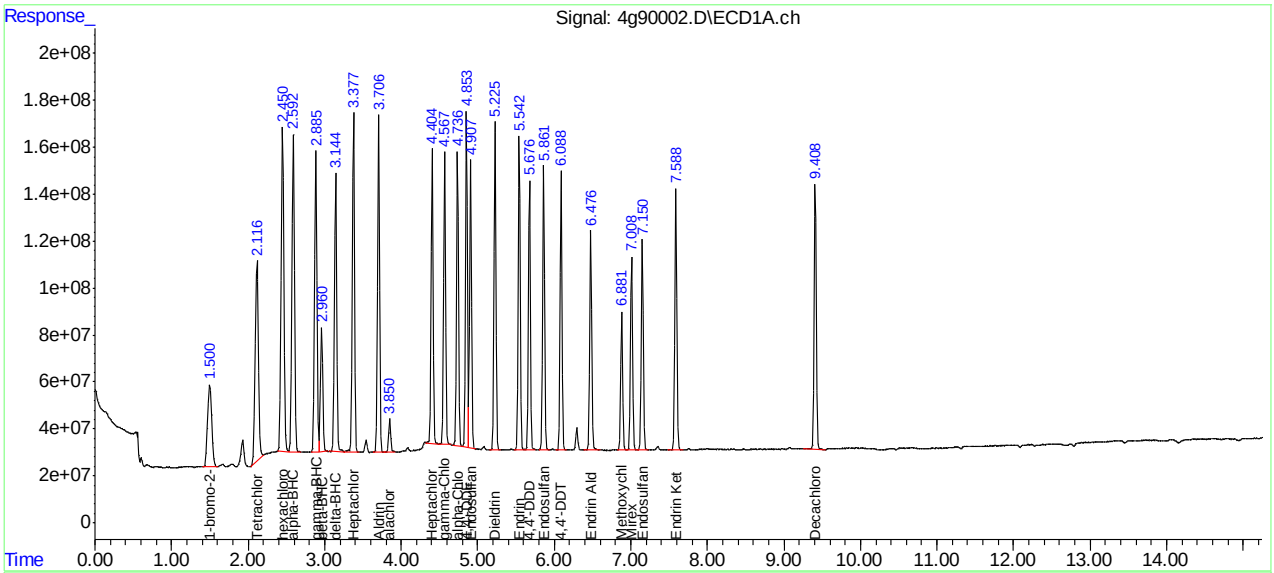
11.6.18 11

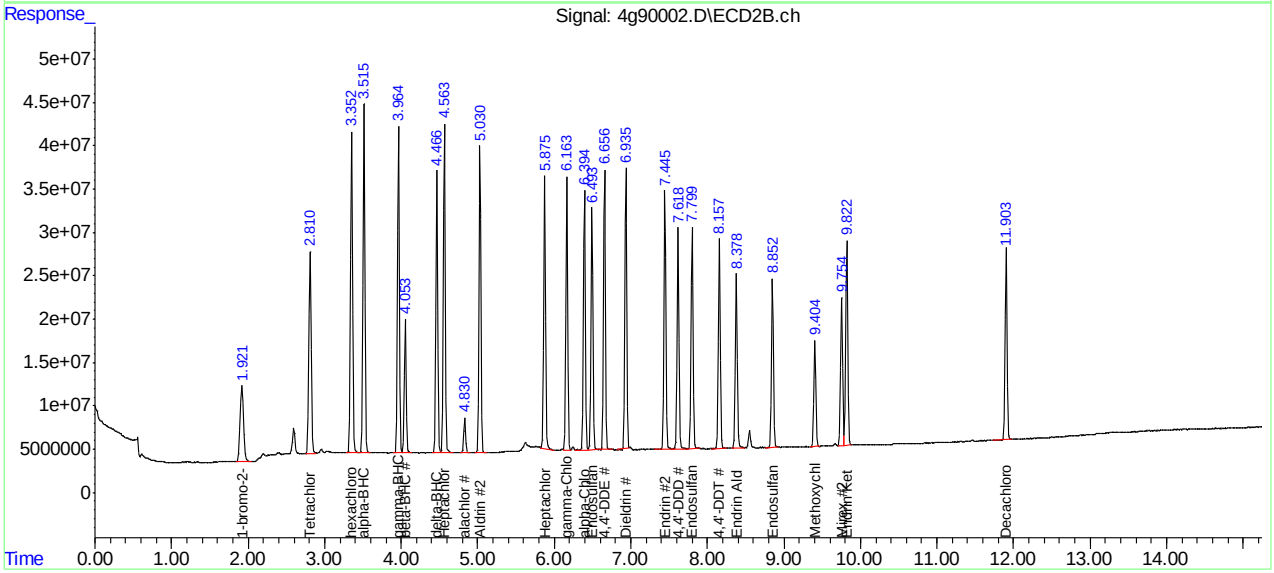
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90002.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:34 pm
Operator : kristend
Sample : ic2366-100
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:46:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

Sample Number:	G4G2366-IC2366	**Method:**	SW846 8081B
Lab FileID:	4G90002.D	**Analyst approved:**	02/19/18 09:31 Kristen Drake
Injection Time:	02/16/18 16:34	**Supervisor approved:**	02/20/18 07:32 Gwendolyn Burns

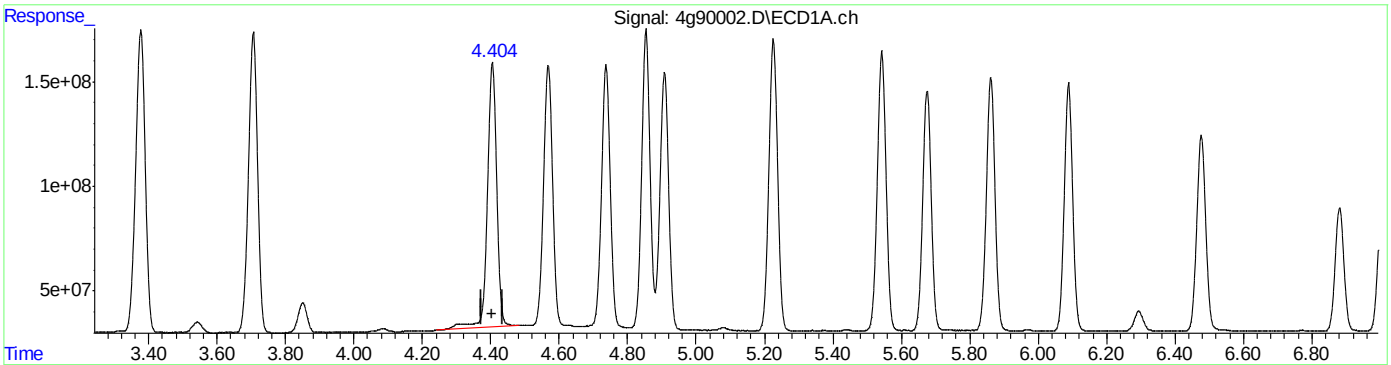
Parameter	CAS	Sig#	R.T. (min.)	Reason
Heptachlor epoxide	1024-57-3	1	4.40	Poorly defined baseline

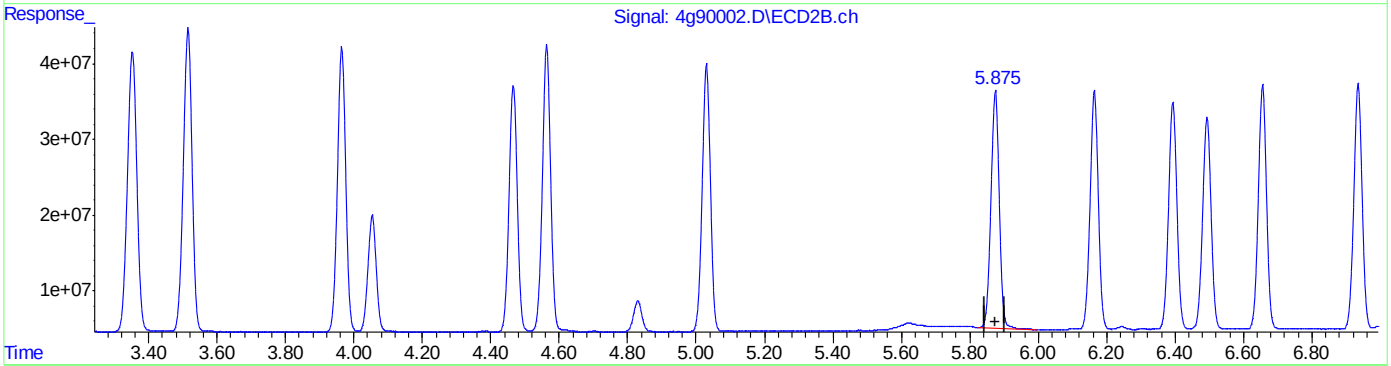
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90002.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:34 pm
Operator : kristend
Sample : ic2366-100
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:03:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(11) Heptachlor Epoxide (B)
4.405min 100.261 PPB
response 2408102117

(11) Heptachlor Epoxide #2 (B)
5.875min 102.788 PPB
response 525782438

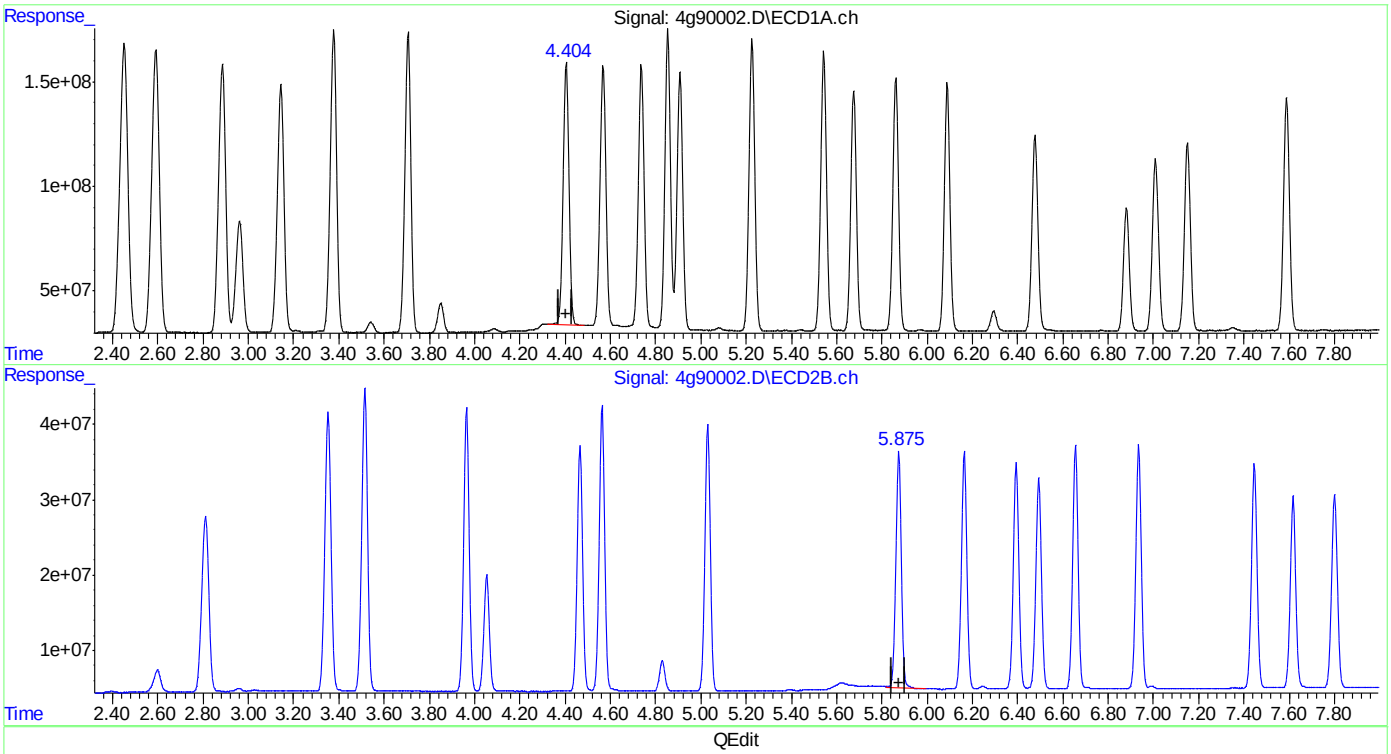
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90002.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:34 pm
Operator : kristend
Sample : ic2366-100
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:03:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(11) Heptachlor Epoxide (B)
4.404min 94.022 PPB m
response 2258257840

(11) Heptachlor Epoxide #2 (B)
5.875min 102.788 PPB
response 525782438

(+) = Expected Retention Time

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90003.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:51 pm
Operator : kristend
Sample : ic2366-75
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:47:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.501	1.920	1312.1E6	275.3E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.117	2.812	1848.8E6	374.2E6	92.873	78.655
		Spiked Amount	40.000	Range	30 - 150	Recovery	= 232.18%#	196.64%#
26)	SA	Decachlor...	9.410	11.904	1661.0E6	296.4E6	79.593	71.446
		Spiked Amount	40.000			Recovery	= 198.98%	178.61%
		Target Compounds						
3)		hexachlor...	2.452	3.353	2583.5E6	527.1E6	70.796	75.449
4)	A	alpha-BHC	2.592	3.515	2383.7E6	520.4E6	80.637	83.051
5)	MA	gamma-BHC	2.887	3.965	2130.0E6	466.0E6	78.782	80.206
6)	MA	Heptachlor	3.377	4.563	2139.1E6	468.4E6	83.496	83.992
7)	B	beta-BHC	2.962	4.054	883.5E6	196.1E6	72.486	73.225
8)	B	delta-BHC	3.145	4.466	1846.3E6	400.8E6	74.798	76.324
9)	MB	Aldrin	3.706	5.031	2031.4E6	433.0E6	81.807	79.824
10)		alachlor	3.851	4.830	206.7E6	51666606	62.007	69.763
11)	B	Heptachlo...	4.405	5.875	1750.2E6	389.8E6	74.143m	76.283
12)	B	gamma-Chl...	4.568	6.165	1736.0E6	388.9E6	73.122	76.203
13)	B	alpha-Chl...	4.737	6.394	1694.8E6	380.5E6	74.098	76.169
14)	A	Endosulfan I	4.909	6.494	1649.0E6	360.1E6	75.725	75.715
15)	B	4,4'-DDE	4.854	6.656	1831.2E6	396.1E6	78.144	79.601
16)	MA	Dieldrin	5.227	6.936	1894.5E6	396.8E6	79.707	77.324
17)	MA	Endrin	5.543	7.446	1810.6E6	376.2E6	93.533	89.414
18)	A	4,4'-DDD	5.676	7.617	1519.6E6	318.4E6	78.847	76.597
19)	B	Endosulfa...	5.862	7.802	1628.5E6	344.4E6	78.337	74.318
20)	MA	4,4'-DDT	6.088	8.158	1523.3E6	317.0E6	90.003	85.995
21)	B	Endrin Al...	6.478	8.379	1312.8E6	270.8E6	77.802	70.422
22)	B	Endosulfa...	7.151	8.852	1253.1E6	254.6E6	72.985	65.309
23)	A	Methoxychlor	6.882	9.405	824.6E6	169.6E6	92.957	83.032
24)		Mirex	7.011	9.755	1211.6E6	249.8E6	75.855	68.237
25)	B	Endrin Ke...	7.590	9.822	1543.9E6	328.5E6	72.429	66.830

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

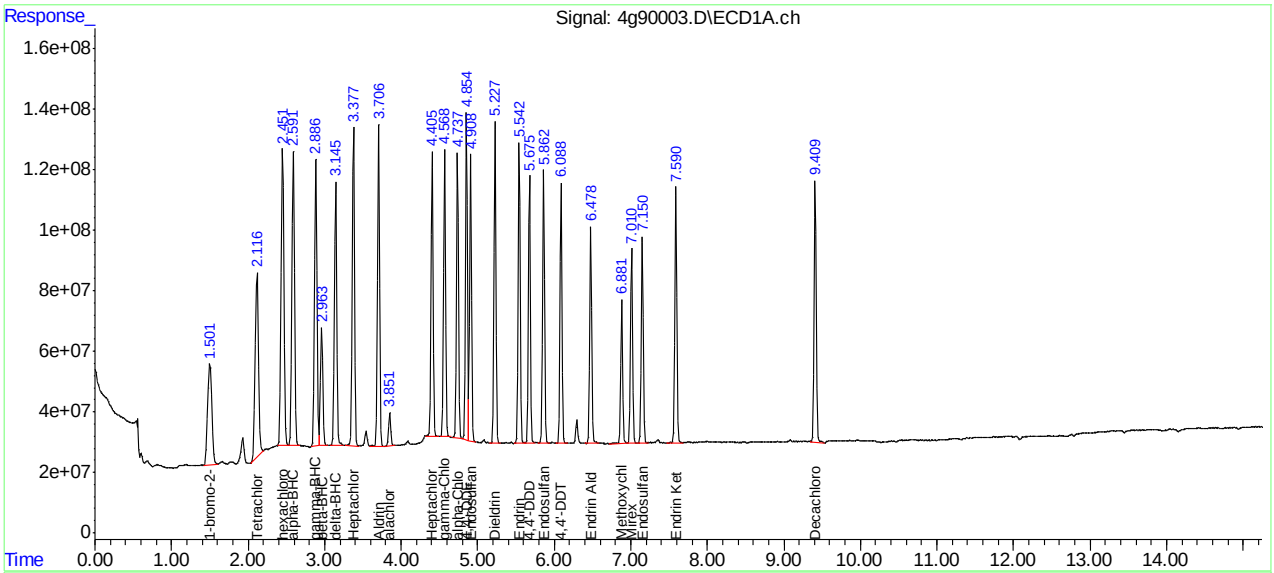
11.6.19
11

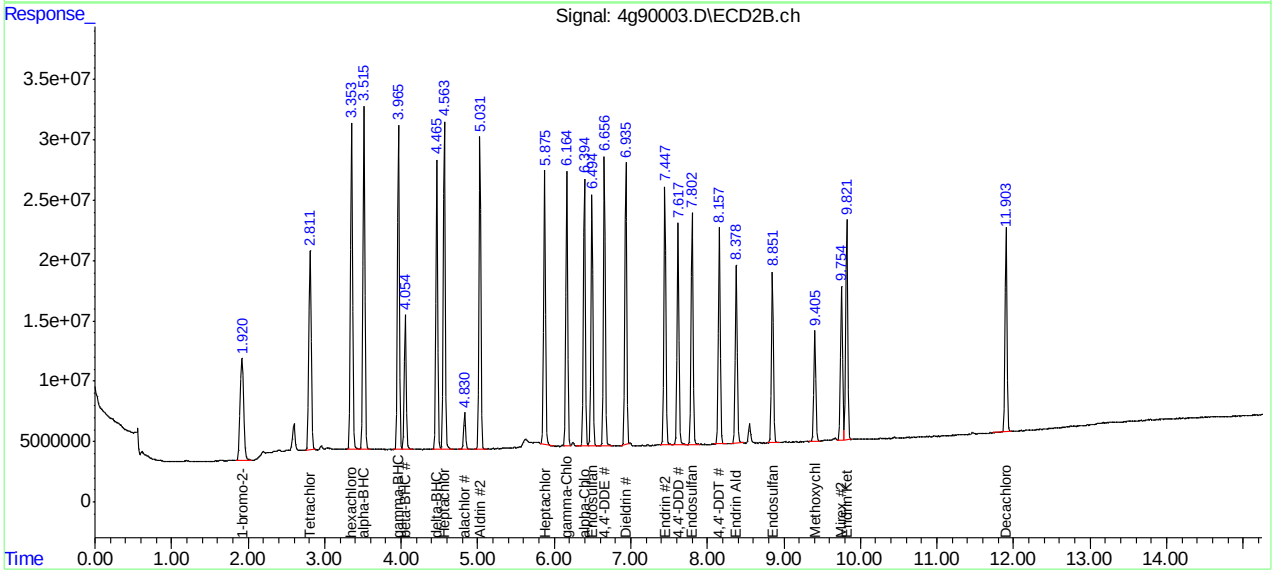
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90003.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:51 pm
Operator : kristend
Sample : ic2366-75
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:47:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





11.6.19 11
1768 of 2538
JC62879

Manual Integration Approval Summary

Sample Number:	G4G2366-IC2366	**Method:**	SW846 8081B
Lab FileID:	4G90003.D	**Analyst approved:**	02/19/18 09:31 Kristen Drake
Injection Time:	02/16/18 16:51	**Supervisor approved:**	02/20/18 07:32 Gwendolyn Burns

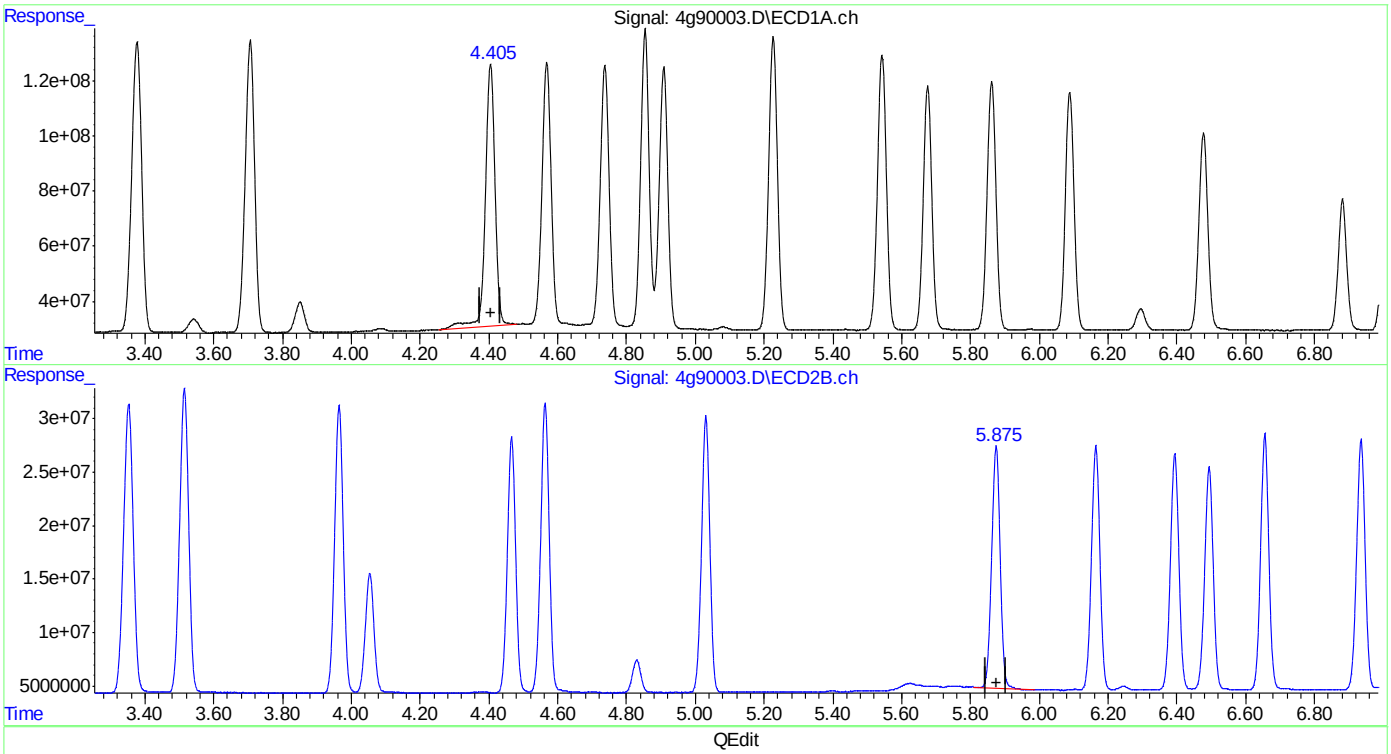
Parameter	CAS	Sig#	R.T. (min.)	Reason
Heptachlor epoxide	1024-57-3	1	4.41	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90003.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:51 pm
Operator : kristend
Sample : ic2366-75
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:04:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(11) Heptachlor Epoxide (B)
4.405min 78.661 PPB
response 1856823512

(11) Heptachlor Epoxide #2 (B)
5.875min 76.283 PPB
response 389840474

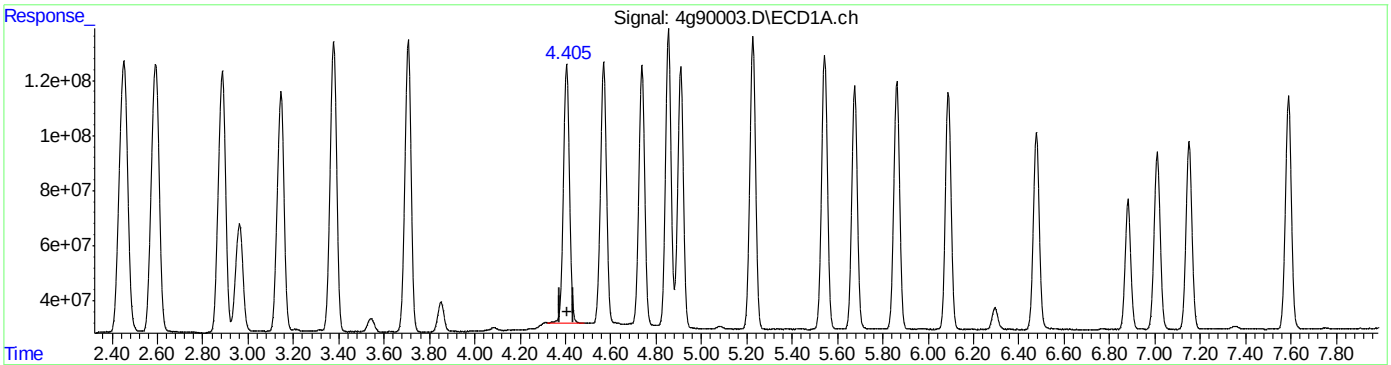
(+) = Expected Retention Time

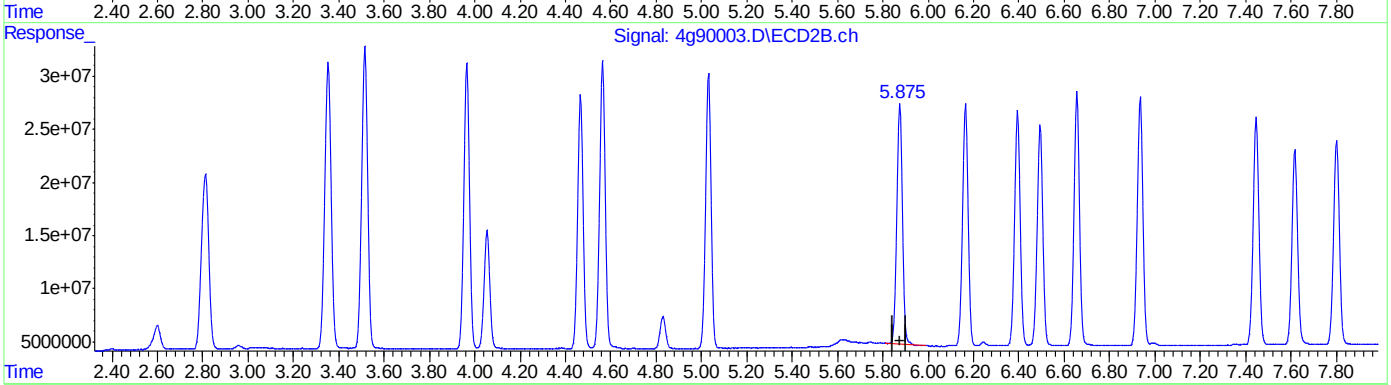
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90003.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 4:51 pm
Operator : kristend
Sample : ic2366-75
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:04:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(11) Heptachlor Epoxide (B)
4.405min 74.143 PPB m
response 1750180113

(11) Heptachlor Epoxide #2 (B)
5.875min 76.283 PPB
response 389840474

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90004.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:08 pm
Operator : kristend
Sample : ic2366-50
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:47:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.499	1.918	1296.3E6	278.0E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.115	2.811	1239.4E6	250.7E6	63.020	52.178
		Spiked Amount	40.000	Range	30 - 150	Recovery	= 157.55%#	130.44%
26)	SA	Decachlor...	9.410	11.903	1147.9E6	200.8E6	55.679	47.925
		Spiked Amount	40.000			Recovery	= 139.20%	119.81%
		Target Compounds						
3)		hexachlor...	2.451	3.352	1807.5E6	357.8E6	50.133	50.703
4)	A	alpha-BHC	2.591	3.514	1622.9E6	343.9E6	55.570	54.337
5)	MA	gamma-BHC	2.886	3.964	1465.1E6	308.9E6	54.850	52.631
6)	MA	Heptachlor	3.378	4.563	1445.8E6	310.9E6	57.121	55.204
7)	B	beta-BHC	2.962	4.053	614.4E6	131.8E6	51.017	48.717
8)	B	delta-BHC	3.145	4.466	1230.2E6	260.6E6	52.064	50.891
9)	MB	Aldrin	3.706	5.031	1404.6E6	286.6E6	57.253	52.307
10)		alachlor	3.851	4.829	146.6E6	36100506	44.501	48.264
11)	B	Heptachlo...	4.404	5.874	1217.4E6	261.7E6	52.200m	50.706
12)	B	gamma-Chl...	4.569	6.164	1190.2E6	260.6E6	50.741	50.569
13)	B	alpha-Chl...	4.737	6.393	1157.3E6	252.5E6	51.212	50.049
14)	A	Endosulfan I	4.909	6.493	1120.6E6	240.4E6	52.087	50.052
15)	B	4,4'-DDE	4.854	6.655	1244.9E6	262.7E6	53.770	52.269
16)	MA	Dieldrin	5.227	6.935	1281.4E6	263.1E6	54.565	50.775
17)	MA	Endrin	5.544	7.447	1232.0E6	248.5E6	64.417	58.488
18)	A	4,4'-DDD	5.676	7.617	1023.7E6	210.3E6	53.766	50.092
19)	B	Endosulfa...	5.862	7.801	1101.5E6	230.4E6	53.634	49.227
20)	MA	4,4'-DDT	6.089	8.157	1014.1E6	209.1E6	60.647	56.154
21)	B	Endrin Al...	6.478	8.379	878.4E6	182.2E6	52.692	46.908
22)	B	Endosulfa...	7.151	8.851	833.7E6	169.3E6	49.146	43.001
23)	A	Methoxychlor	6.882	9.405	552.9E6	114.0E6	63.084	55.253
24)		Mirex	7.010	9.754	824.7E6	170.0E6	52.262	45.978
25)	B	Endrin Ke...	7.590	9.822	1039.2E6	218.1E6	49.343	43.926

SemiQuant Compounds - Not Calibrated on this Instrument

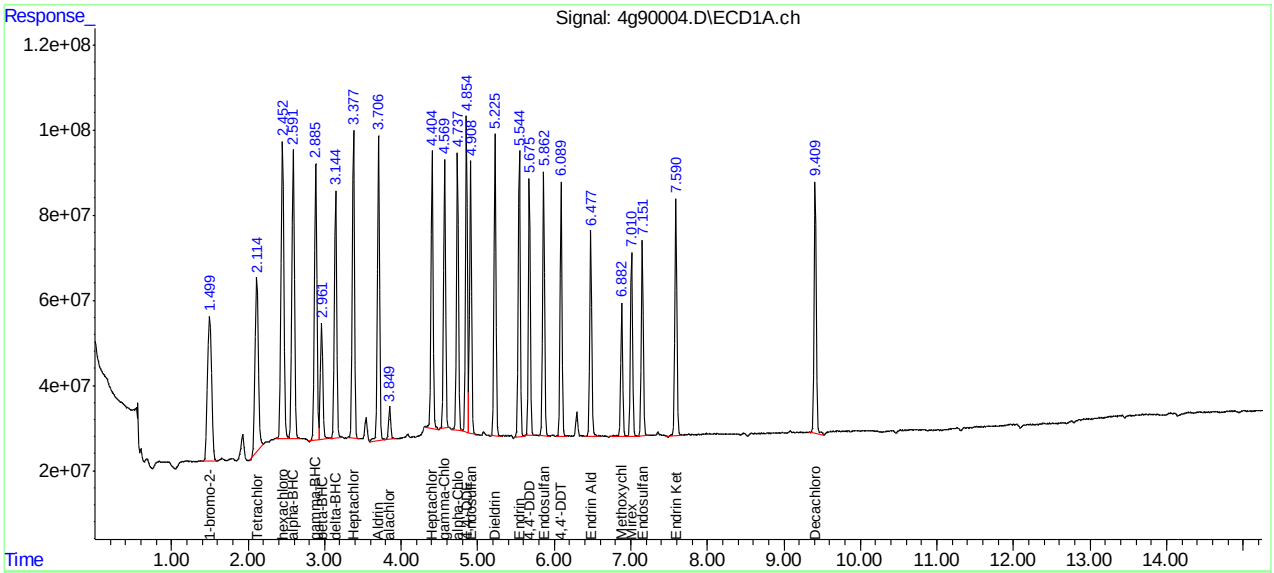
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

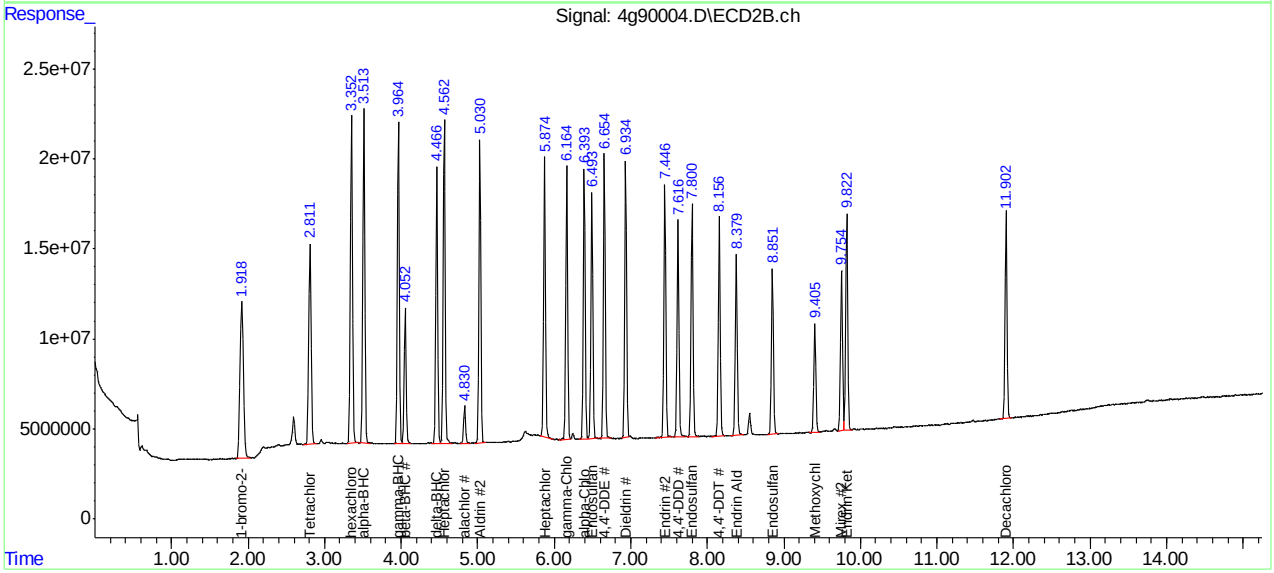
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90004.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:08 pm
Operator : kristend
Sample : ic2366-50
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:47:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





JC62879

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Manual Integration Approval Summary

Sample Number:	G4G2366-IC2366	**Method:**	SW846 8081B
Lab FileID:	4G90004.D	**Analyst approved:**	02/19/18 09:31 Kristen Drake
Injection Time:	02/16/18 17:08	**Supervisor approved:**	02/20/18 07:32 Gwendolyn Burns

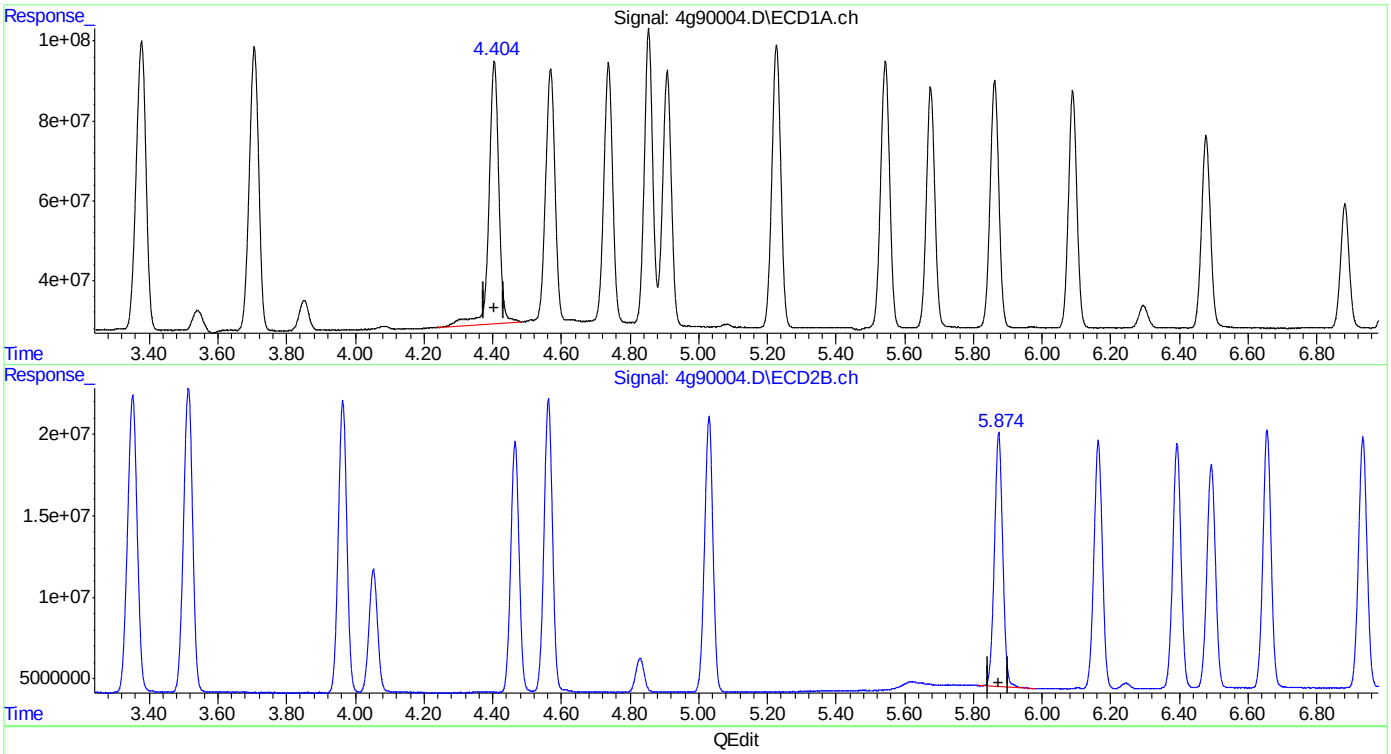
Parameter	CAS	Sig#	R.T. (min.)	Reason
Heptachlor epoxide	1024-57-3	1	4.40	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90004.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:08 pm
Operator : kristend
Sample : ic2366-50
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:05:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(11) Heptachlor Epoxide (B)
4.405min 56.670 PPB
response 1321628175

(11) Heptachlor Epoxide #2 (B)
5.874min 50.706 PPB
response 261709228

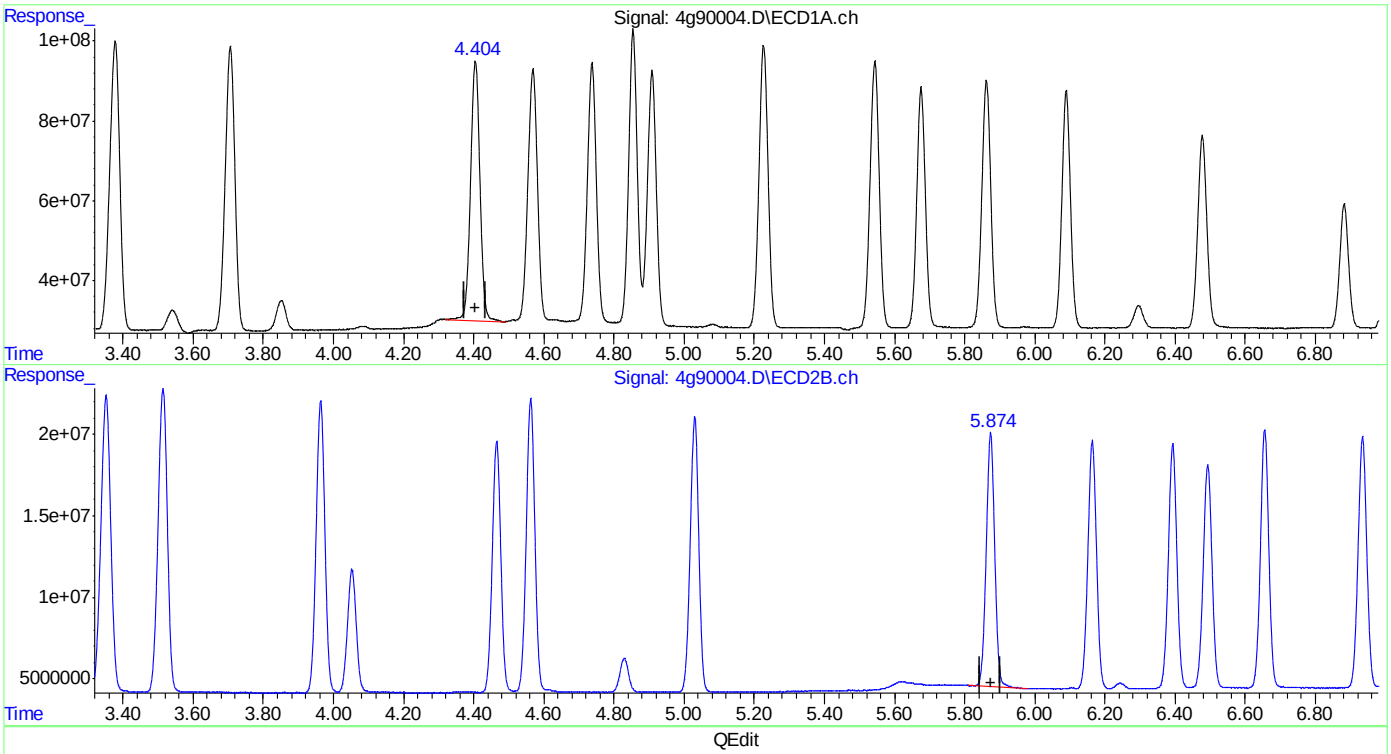
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:05:46 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90004.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:08 pm
Operator : kristend
Sample : ic2366-50
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:05:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(11) Heptachlor Epoxide (B)
4.404min 52.200 PPB m
response 1217382913

(11) Heptachlor Epoxide #2 (B)
5.874min 50.706 PPB
response 261709228

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90005.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:25 pm
Operator : kristend
Sample : icc2366-25
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:47:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.502	1.920	1363.7E6	273.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.119	2.813	685.5E6	126.3E6	33.130	26.751
	Spiked Amount 40.000	Range 30 - 150		Recovery =		82.83%	66.88%
26) SA	Decachlor...	9.410	11.903	568.5E6	102.7E6	26.208	24.943
	Spiked Amount 40.000			Recovery =		65.52%	62.36%
	Target Compounds						
3)	hexachlor...	2.453	3.353	922.7E6	179.6E6	24.328	25.904
4) A	alpha-BHC	2.593	3.515	804.4E6	165.2E6	26.180	26.560
5) MA	gamma-BHC	2.888	3.965	725.5E6	149.5E6	25.818	25.931
6) MA	Heptachlor	3.379	4.564	720.8E6	150.2E6	27.069	27.132
7) B	beta-BHC	2.963	4.055	308.1E6	65884061	24.321	24.794
8) B	delta-BHC	3.146	4.467	603.5E6	125.1E6	25.188	25.680
9) MB	Aldrin	3.707	5.031	686.9E6	140.8E6	26.615	26.163
10)	alachlor	3.853	4.831	72126033	18702051	20.818	25.447
11) B	Heptachlo...	4.406	5.875	603.5E6	130.1E6	24.597	25.650
12) B	gamma-Chl...	4.570	6.165	594.7E6	129.0E6	24.101	25.474
13) B	alpha-Chl...	4.738	6.394	586.1E6	126.0E6	24.654	25.427
14) A	Endosulfan I	4.909	6.494	567.4E6	118.9E6	25.066	25.188
15) B	4,4'-DDE	4.855	6.656	631.4E6	128.9E6	25.924	26.113
16) MA	Dieldrin	5.227	6.936	642.2E6	129.2E6	25.995	25.369
17) MA	Endrin	5.544	7.447	613.8E6	121.6E6	30.508	29.116
18) A	4,4'-DDD	5.677	7.618	511.9E6	103.3E6	25.553	25.052
19) B	Endosulfa...	5.862	7.802	553.9E6	114.7E6	25.635	24.948
20) MA	4,4'-DDT	6.090	8.157	487.5E6	99488457	27.714	27.195
21) B	Endrin Al...	6.478	8.380	449.7E6	91583085	25.642	23.998
22) B	Endosulfa...	7.152	8.852	410.3E6	82625092	22.993	21.362
23) A	Methoxychlor	6.883	9.405	269.1E6	56495695	29.188	27.876
24)	Mirex	7.011	9.754	422.6E6	86690056	25.454	23.859
25) B	Endrin Ke...	7.590	9.822	520.2E6	106.6E6	23.480	21.852

SemiQuant Compounds - Not Calibrated on this Instrument

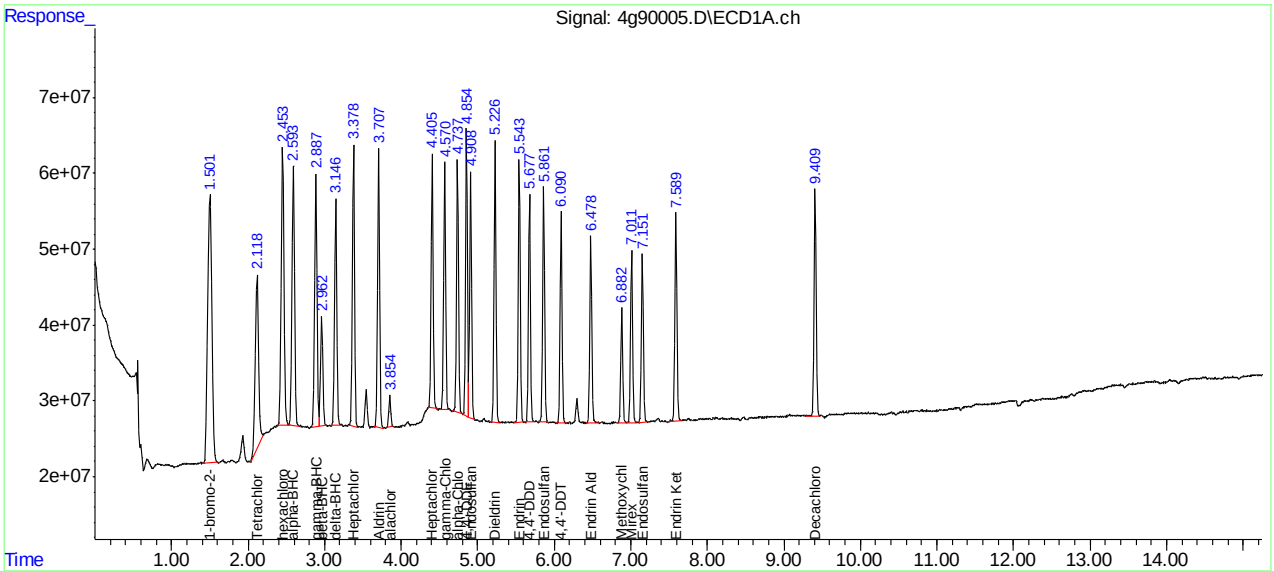
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90005.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:25 pm
Operator : kristend
Sample : icc2366-25
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:47:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



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Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90006.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:42 pm
Operator : kristend
Sample : ic2366-10
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:47:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.494	1.912	1245.4E6	247.0E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.109	2.805	288.0E6	51452713	15.243	12.050
		Spiked Amount 40.000	Range	30 - 150	Recovery	=	38.11%	30.13%
26)	SA	Decachlor...	9.410	11.904	236.9E6	42948075	11.961	11.535
		Spiked Amount 40.000			Recovery	=	29.90%	28.84%
		Target Compounds						
3)		hexachlor...	2.446	3.349	391.3E6	73553057	11.296	11.731
4)	A	alpha-BHC	2.587	3.511	322.8E6	65306619	11.504	11.612
5)	MA	gamma-BHC	2.881	3.961	291.6E6	59713060	11.363	11.451
6)	MA	Heptachlor	3.373	4.561	291.5E6	60258465	11.987	12.039
7)	B	beta-BHC	2.958	4.051	127.8E6	27320246	11.045	11.368
8)	B	delta-BHC	3.141	4.464	249.0E6	50697035	11.544	11.598
9)	MB	Aldrin	3.702	5.027	276.3E6	57148425	11.722	11.738
10)		alachlor	3.847	4.828	37448491	7708140	11.836m	11.597
11)	B	Heptachlo...	4.402	5.872	248.8E6	54084190	11.102	11.792
12)	B	gamma-Chl...	4.566	6.163	241.2E6	52034037	10.702	11.361
13)	B	alpha-Chl...	4.734	6.392	242.7E6	52125901	11.179	11.627
14)	A	Endosulfan I	4.906	6.492	230.6E6	48660068	11.154	11.400
15)	B	4,4'-DDE	4.852	6.655	259.6E6	52122263	11.671	11.673
16)	MA	Dieldrin	5.224	6.934	260.7E6	52102682	11.555	11.313
17)	MA	Endrin	5.541	7.446	248.3E6	49188060	13.514	13.027
18)	A	4,4'-DDD	5.675	7.617	207.6E6	41912053	11.349	11.235
19)	B	Endosulfa...	5.861	7.801	227.9E6	47035906	11.548	11.310
20)	MA	4,4'-DDT	6.089	8.157	191.6E6	39577397	11.926	11.962
21)	B	Endrin Al...	6.477	8.378	182.4E6	37701870	11.388	10.923
22)	B	Endosulfa...	7.150	8.851	169.4E6	34293304	10.392	9.803
23)	A	Methoxychlor	6.882	9.405	108.4E6	22818590	12.874	12.449
24)		Mirex	7.010	9.754	175.9E6	35910806	11.602	10.928
25)	B	Endrin Ke...	7.589	9.823	218.2E6	43461044	10.782	9.852

SemiQuant Compounds - Not Calibrated on this Instrument

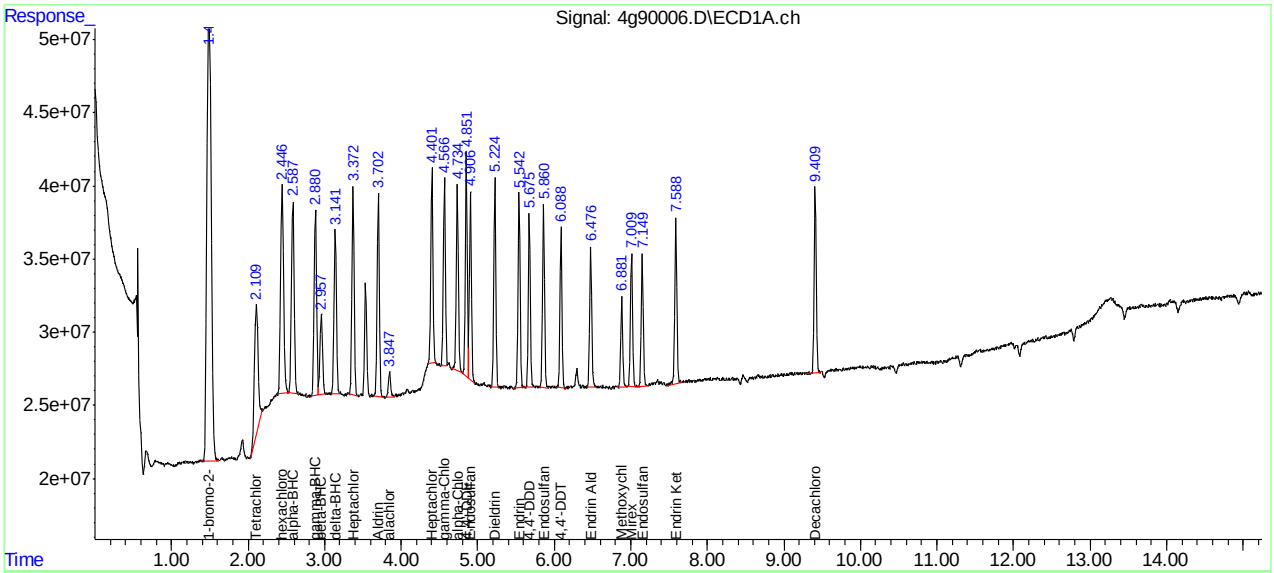
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

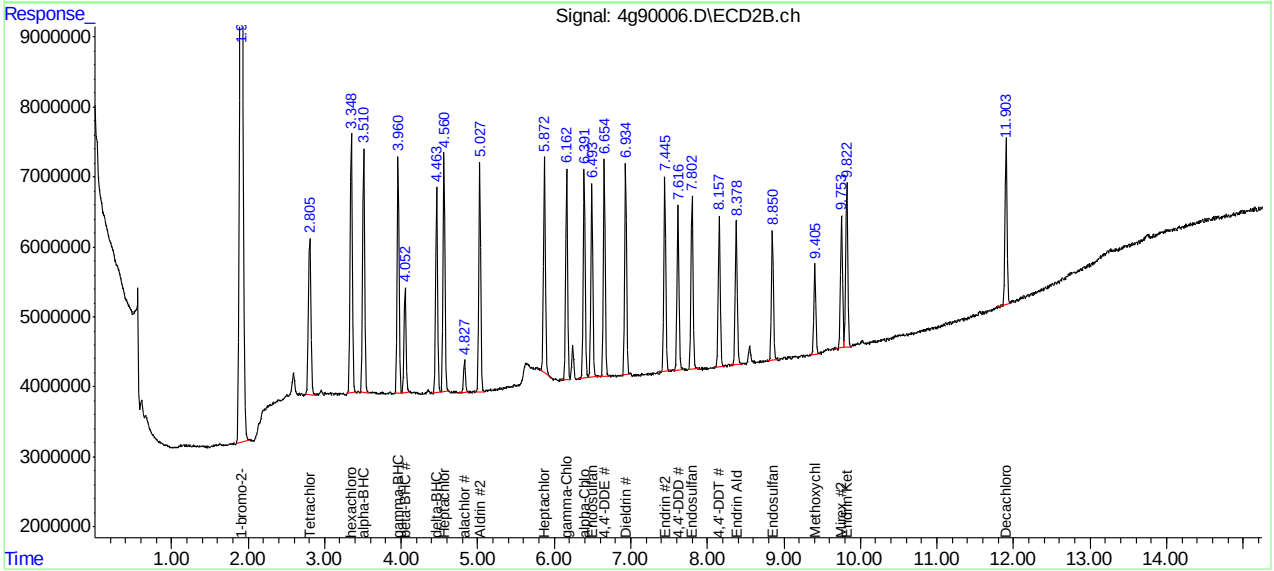
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90006.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:42 pm
Operator : kristend
Sample : ic2366-10
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:47:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





JC62879

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Manual Integration Approval Summary

Sample Number:	G4G2366-IC2366	**Method:**	SW846 8081B
Lab FileID:	4G90006.D	**Analyst approved:**	02/19/18 09:31 Kristen Drake
Injection Time:	02/16/18 17:42	**Supervisor approved:**	02/20/18 07:32 Gwendolyn Burns

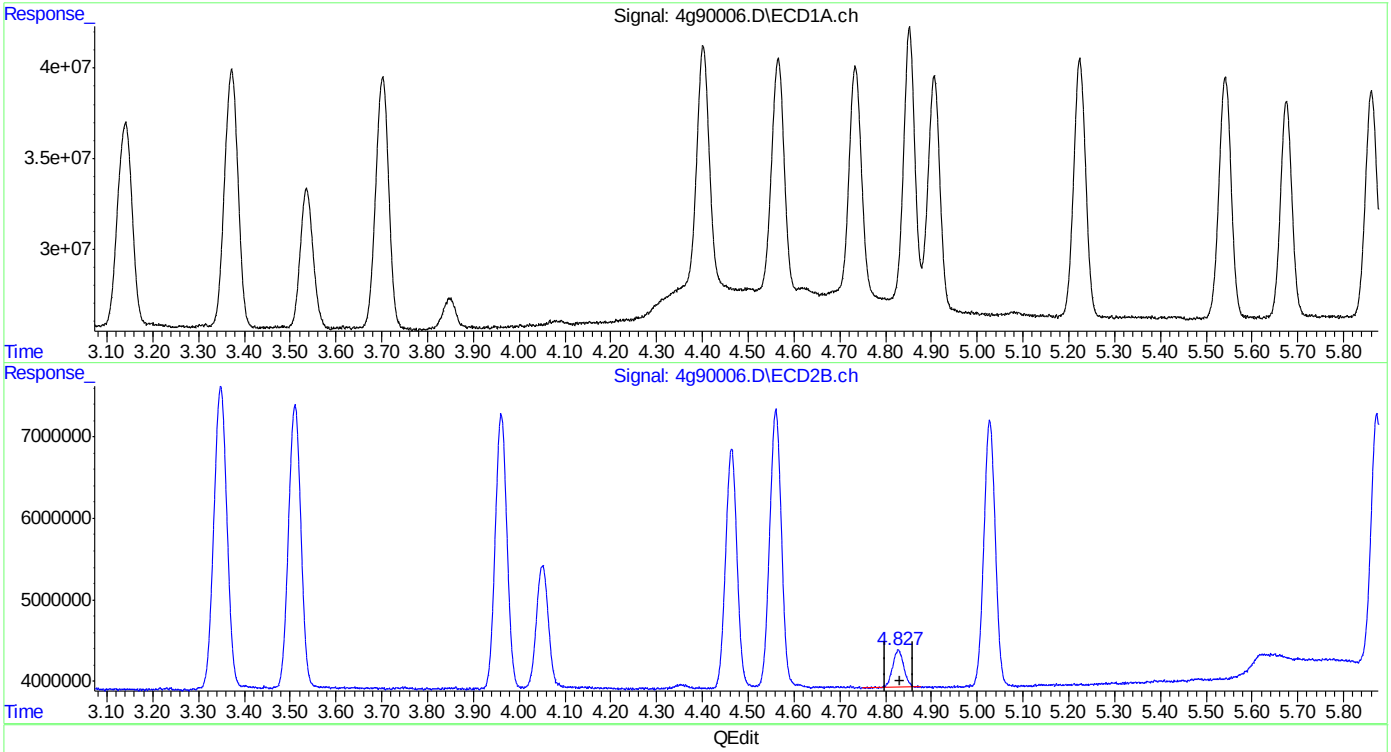
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	3.85	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90006.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:42 pm
Operator : kristend
Sample : ic2366-10
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:07:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(10) alachlor
0.000min 0.000 PPB
response 0

(10) alachlor #2
4.828min 11.597 PPB
response 7708140

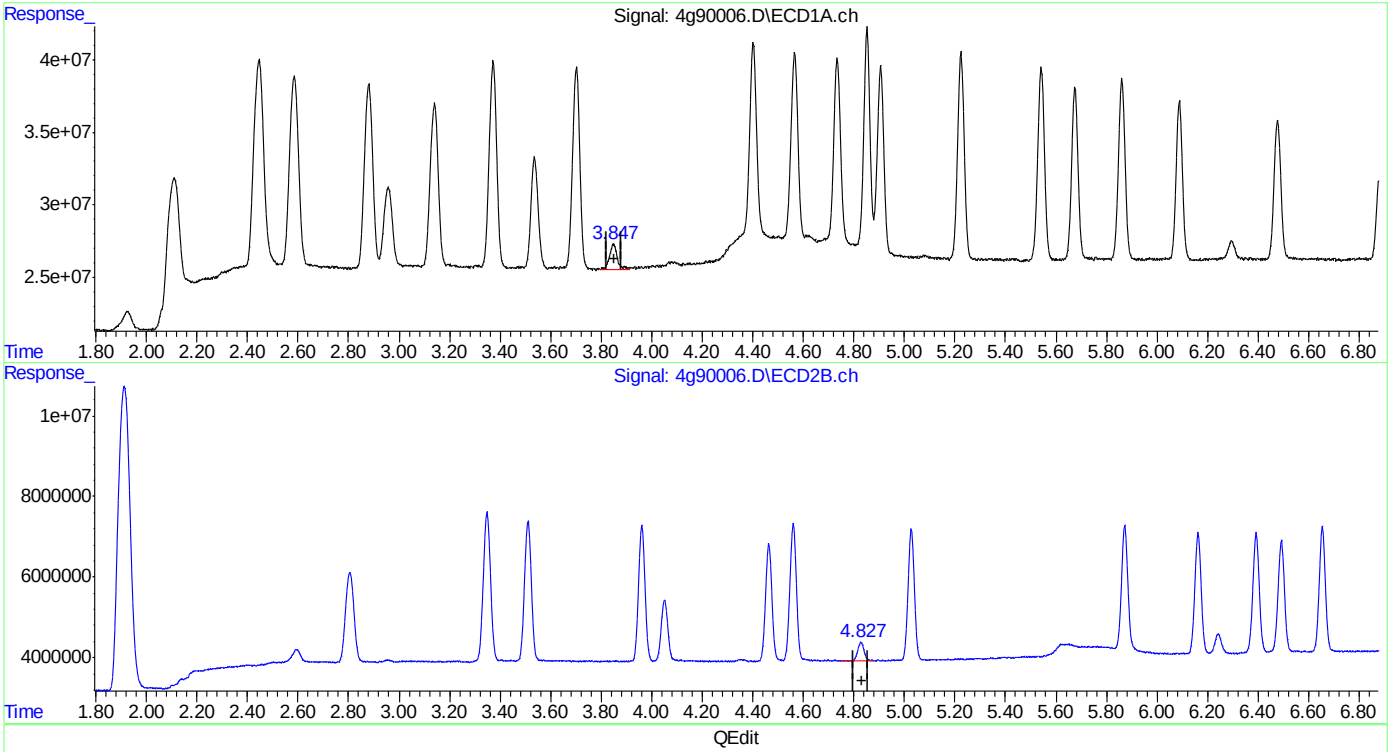
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90006.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:42 pm
Operator : kristend
Sample : ic2366-10
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:07:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(10) alachlor
3.847min 11.836 PPB m
response 37448491

(10) alachlor #2
4.828min 11.597 PPB
response 7708140

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90007.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:59 pm
Operator : kristend
Sample : ic2366-5
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:48:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.493	1.913	1384.2E6	277.7E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.111	2.805	126.3E6	25655085	6.012	5.346
		Spiked Amount	40.000	Range	30 - 150	Recovery	= 15.03%#	13.36%#
26)	SA	Decachlor...	9.410	11.904	117.9E6	21518591	5.357	5.142
		Spiked Amount	40.000			Recovery	= 13.39%	12.86%
		Target Compounds						
3)		hexachlor...	2.447	3.350	202.5E6	36080071	5.260	5.120
4)	A	alpha-BHC	2.586	3.511	159.5E6	31837997	5.115	5.037
5)	MA	gamma-BHC	2.881	3.960	152.2E6	29296856	5.336	4.999
6)	MA	Heptachlor	3.372	4.560	142.9E6	29892581	5.287	5.314
7)	B	beta-BHC	2.957	4.051	71216608	13725624	5.538	5.082
8)	B	delta-BHC	3.140	4.463	120.5E6	24643591	5.002	4.900
9)	MB	Aldrin	3.703	5.028	136.5E6	28267213	5.211	5.166
10)		alachlor	3.845	4.828	16665854	3979589	4.739m	5.327m
11)	B	Heptachlo...	4.402	5.872	126.6E6	27475720	5.083m	5.330
12)	B	gamma-Chl...	4.565	6.163	120.3E6	26014458	4.802	5.054
13)	B	alpha-Chl...	4.735	6.392	126.3E6	25757775	5.234	5.112
14)	A	Endosulfan I	4.905	6.491	115.4E6	23953722	5.022	4.993
15)	B	4,4'-DDE	4.851	6.654	128.9E6	26034498	5.215	5.187
16)	MA	Dieldrin	5.224	6.934	128.4E6	25847303	5.121	4.994
17)	MA	Endrin	5.541	7.445	119.4E6	23973851	5.844	5.649
18)	A	4,4'-DDD	5.675	7.618	100.2E6	20450990	4.929	4.878
19)	B	Endosulfa...	5.860	7.800	112.5E6	23060510	5.131	4.933
20)	MA	4,4'-DDT	6.088	8.156	89465942	18198831	5.011	4.894
21)	B	Endrin Al...	6.477	8.377	89573540	18218650	5.032	4.696
22)	B	Endosulfa...	7.151	8.851	82643111	16727023	4.562	4.254
23)	A	Methoxychlor	6.881	9.404	51736579	10583696	5.528	5.137
24)		Mirex	7.010	9.754	87200255	17654244	5.175	4.780
25)	B	Endrin Ke...	7.590	9.822	102.6E6	21206444	4.560	4.277

SemiQuant Compounds - Not Calibrated on this Instrument

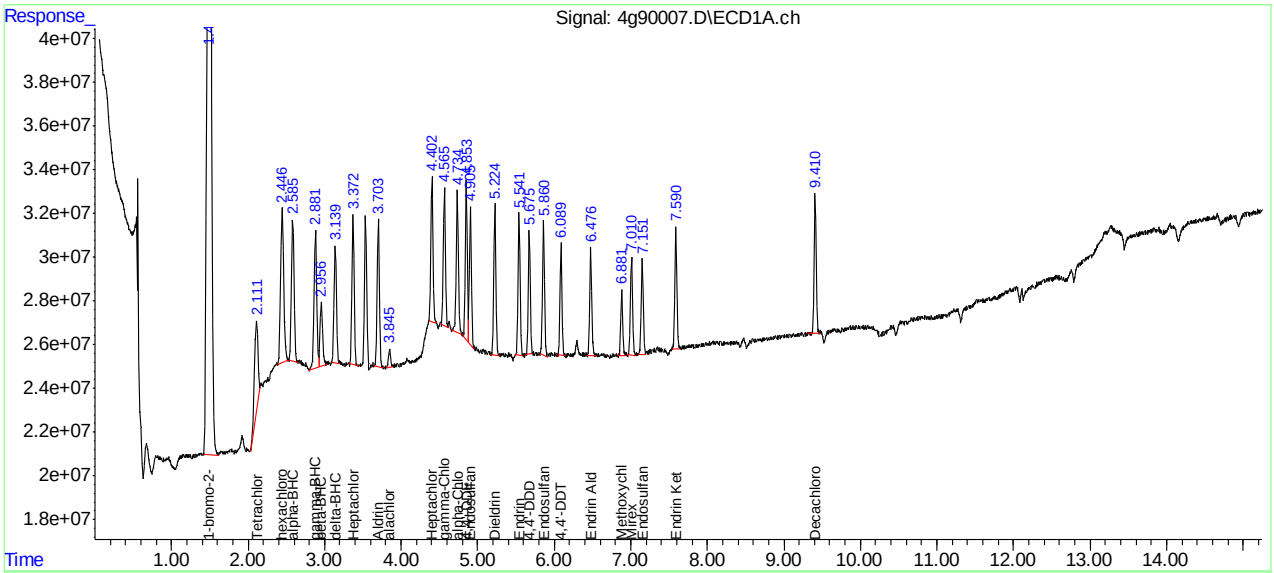
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

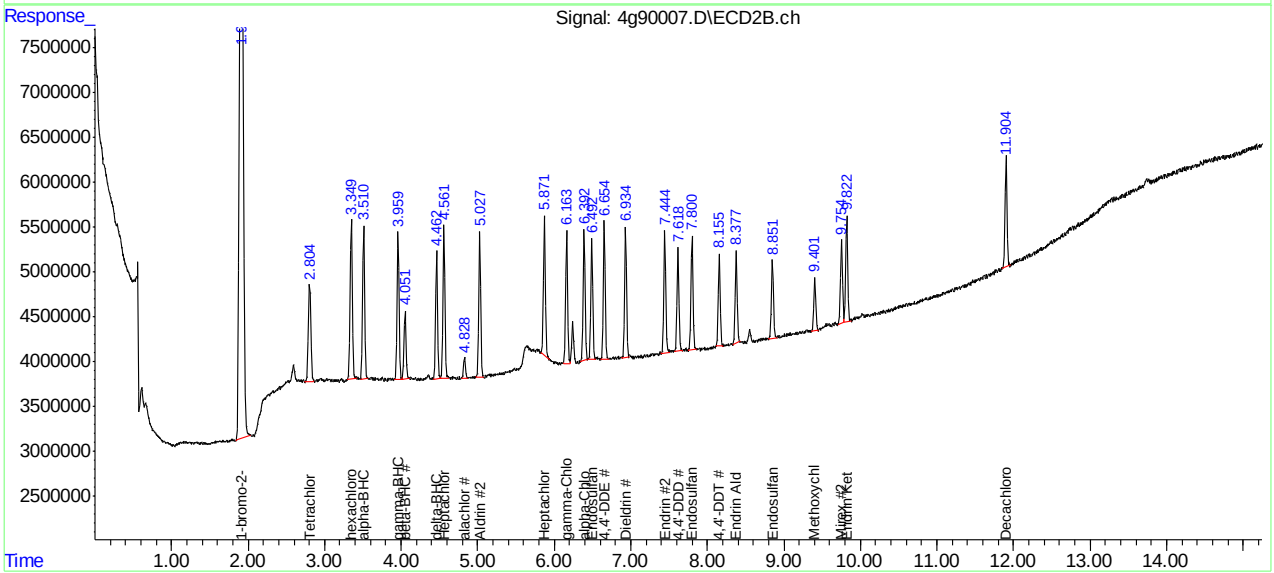
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90007.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:59 pm
Operator : kristend
Sample : ic2366-5
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:48:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





JC62879

11.6.23 11

Manual Integration Approval Summary

Sample Number:	G4G2366-IC2366	**Method:**	SW846 8081B
Lab FileID:	4G90007.D	**Analyst approved:**	02/19/18 09:31 Kristen Drake
Injection Time:	02/16/18 17:59	**Supervisor approved:**	02/20/18 07:32 Gwendolyn Burns

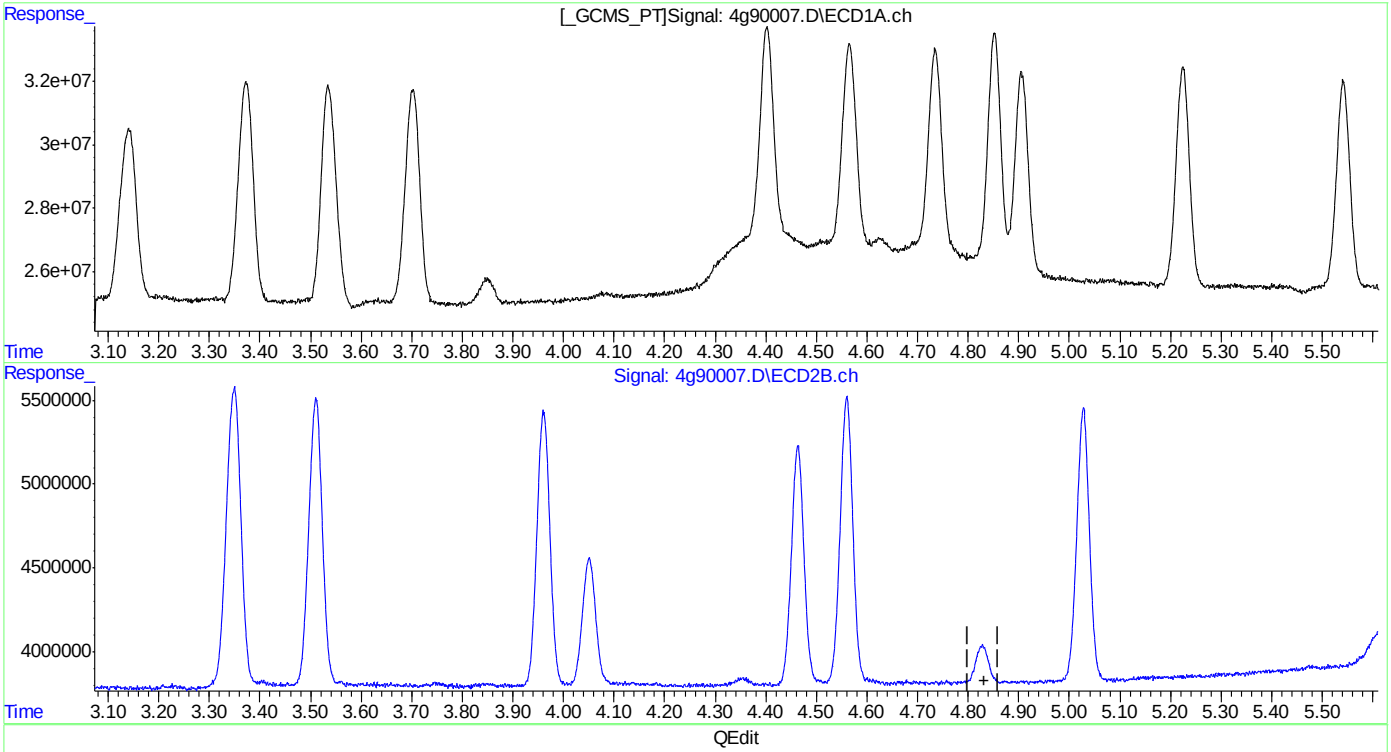
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	3.85	Poorly defined baseline
Heptachlor epoxide	1024-57-3	1	4.40	Poorly defined baseline
Alachlor	15972-60-8	2	4.83	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90007.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:59 pm
Operator : kristend
Sample : ic2366-5
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:09:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(10) alachlor
0.000min 0.000 PPB
response 0

(10) alachlor #2
0.000min 0.000 PPB
response 0

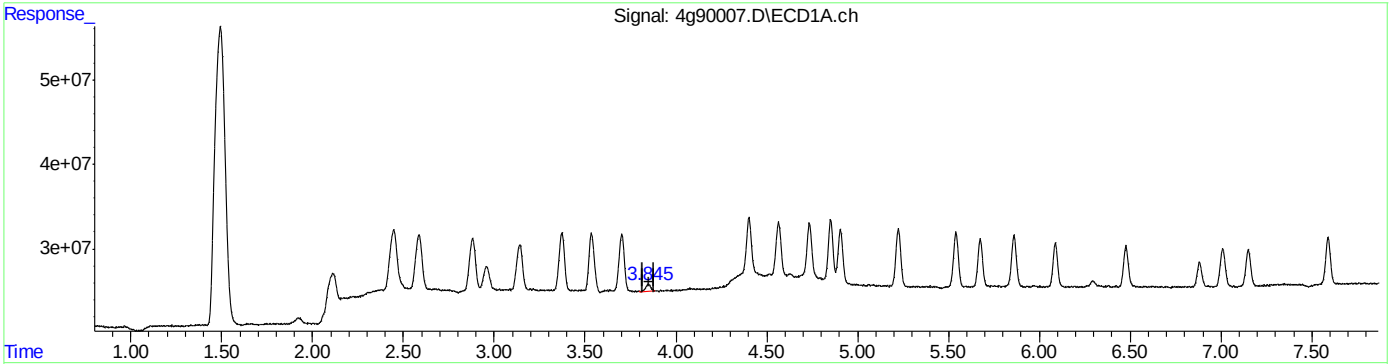
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:09:37 2018 RPT1 Page: 1

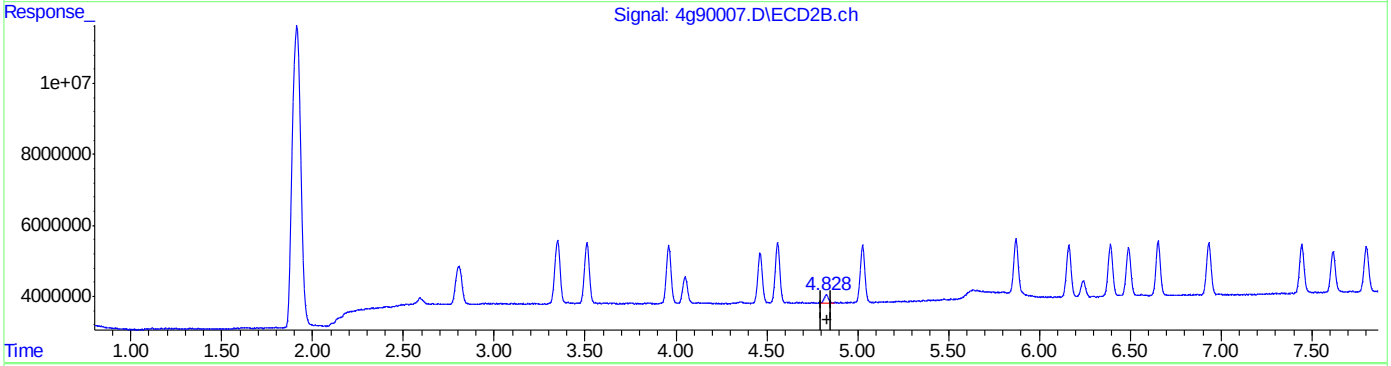
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90007.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:59 pm
Operator : kristend
Sample : ic2366-5
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:09:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(10) alachlor
3.845min 4.739 PPB m
response 16665854

(10) alachlor #2
4.828min 5.327 PPB m
response 3979589

(+) = Expected Retention Time

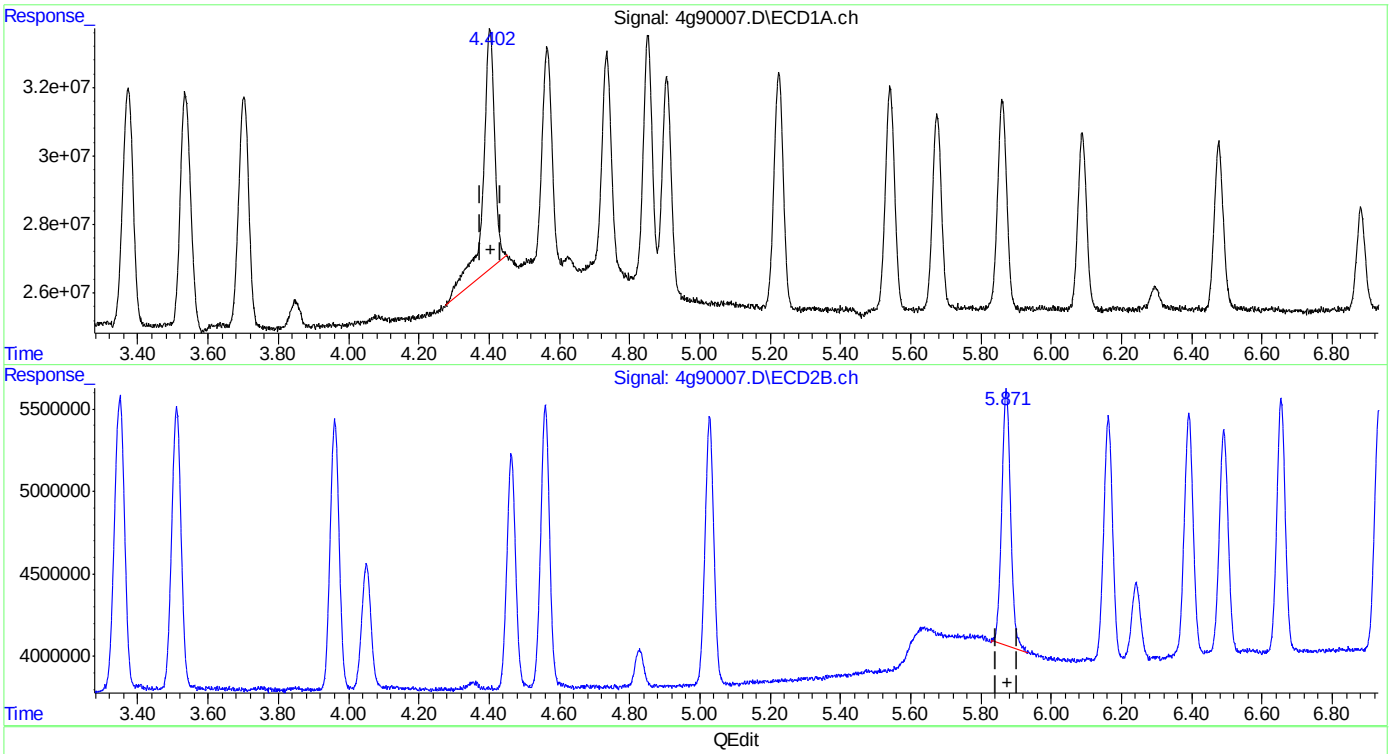
11.6.23.3 11

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90007.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:59 pm
Operator : kristend
Sample : ic2366-5
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:09:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(11) Heptachlor Epoxide (B)
4.403min 6.594 PPB
response 164220181

(11) Heptachlor Epoxide #2 (B)
5.872min 5.330 PPB
response 27475720

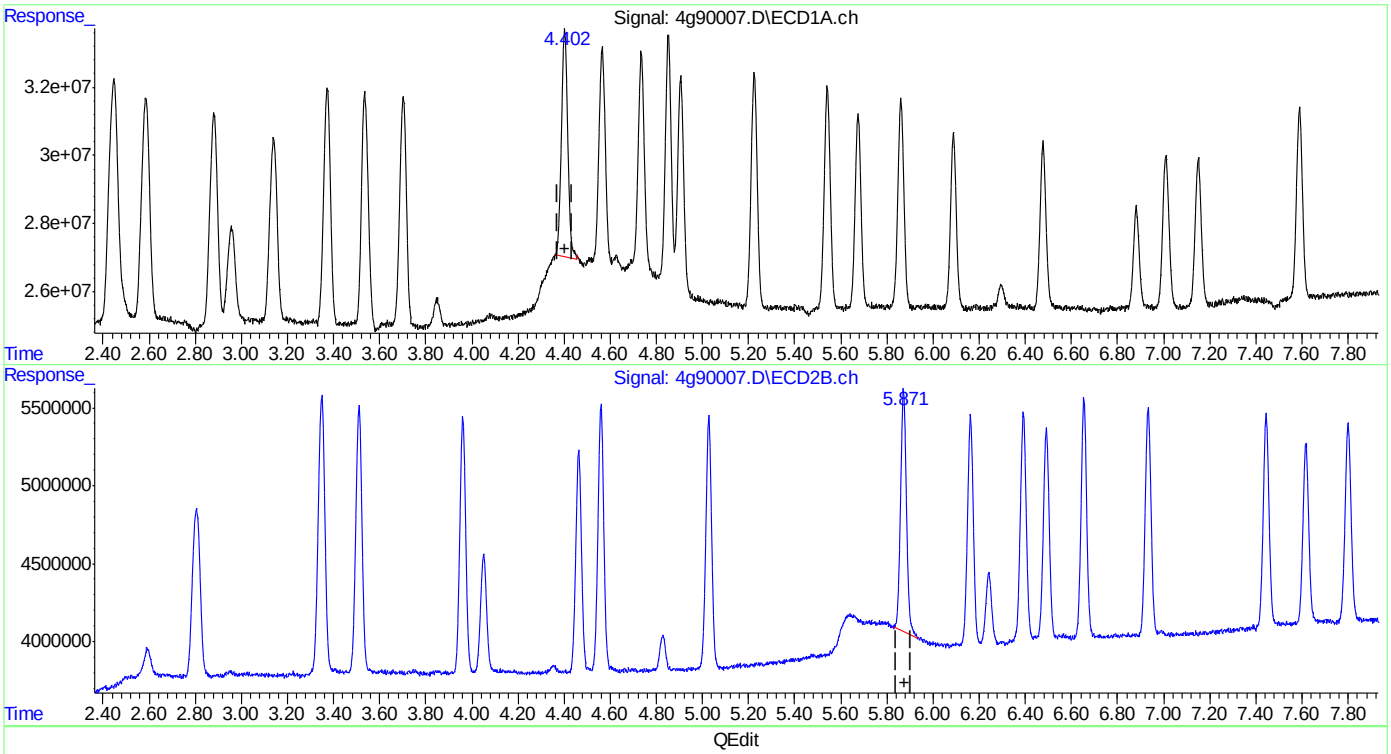
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90007.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 5:59 pm
Operator : kristend
Sample : ic2366-5
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:09:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(11) Heptachlor Epoxide (B)
4.402min 5.083 PPB m
response 126590255

(11) Heptachlor Epoxide #2 (B)
5.872min 5.330 PPB
response 27475720

(+) = Expected Retention Time

4G90008.D

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:48:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.489	1.912	1258.9E6	266.3E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.119	2.804	35147804	10055423	1.840m	2.184
		Spiked Amount	40.000	Range	30 - 150	Recovery =	4.60%#	5.46%#
26)	SA	Decachlor...	9.410	11.903	49190198	8936666	2.457	2.226
		Spiked Amount	40.000			Recovery =	6.14%	5.56%
		Target Compounds						
3)		hexachlor...	2.447	3.348	91522343	15450137	2.614m	2.286
4)	A	alpha-BHC	2.585	3.511	64062979	12494718	2.259m	2.061
5)	MA	gamma-BHC	2.880	3.963	56626148	11671583	2.183m	2.076
6)	MA	Heptachlor	3.372	4.560	56319353	11850188	2.291	2.196
7)	B	beta-BHC	2.958	4.050	29597630	5865703	2.531m	2.264m
8)	B	delta-BHC	3.139	4.462	47339510	9746689	2.093	1.854
9)	MB	Aldrin	3.705	5.028	54003196	11597315	2.267m	2.209
10)		alachlor	3.855	4.828	6585109	1863352	2.059m	2.600m#
11)	B	Heptachlo...	4.403	5.872	56294807	11111957	2.486m	2.247
12)	B	gamma-Chl...	4.565	6.162	50224082	10433825	2.205m	2.113
13)	B	alpha-Chl...	4.735	6.393	52564433	10281222	2.395	2.127
14)	A	Endosulfan I	4.906	6.490	43834762	9539975	2.098	2.073
15)	B	4,4'-DDE	4.852	6.653	53076560	10367566	2.361	2.154
16)	MA	Dieldrin	5.225	6.935	52448504	10244481	2.300	2.063
17)	MA	Endrin	5.539	7.446	48972527	9561795	2.637m	2.349
18)	A	4,4'-DDD	5.675	7.619	42528801	7953440	2.300	1.978
19)	B	Endosulfa...	5.861	7.800	43523494	9319849	2.182	2.079
20)	MA	4,4'-DDT	6.089	8.154	33503844	7359912	2.063	2.063m
21)	B	Endrin Al...	6.479	8.380	26636594	7837896	1.645m	2.106m#
22)	B	Endosulfa...	7.150	8.851	32834190	6520281	1.993	1.729m
23)	A	Methoxychlor	6.883	9.405	19601084	4062809	2.303m	2.056m
24)		Mirex	7.010	9.752	35189445	7188948	2.296	2.029m
25)	B	Endrin Ke...	7.589	9.823	41236337	8450837	2.016m	1.777

SemiQuant Compounds - Not Calibrated on this Instrument

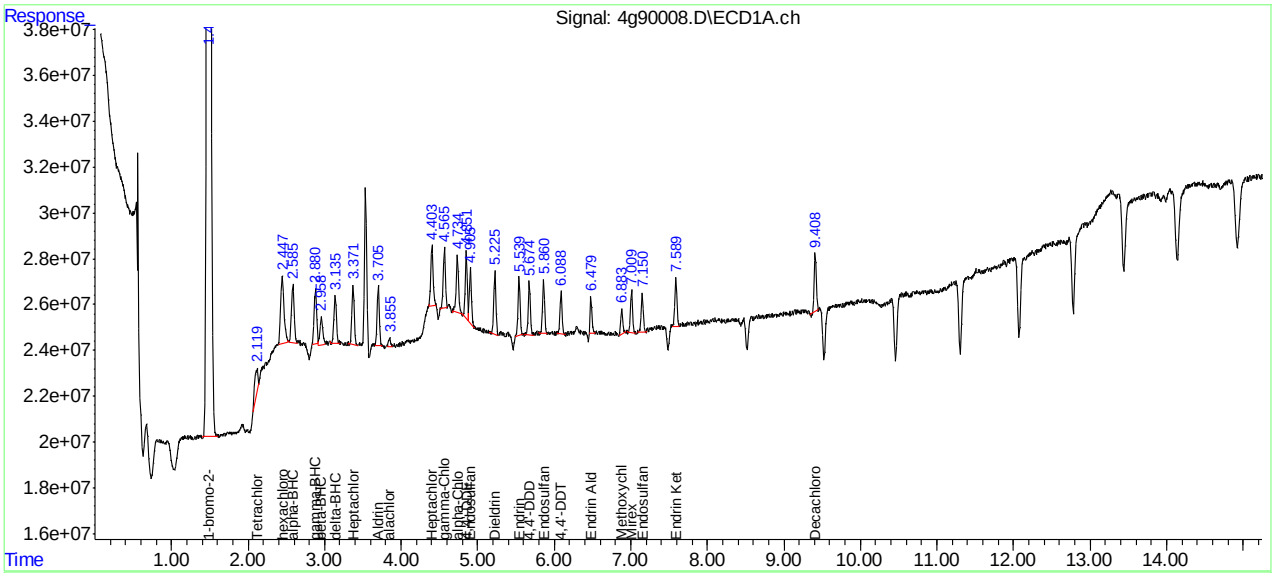
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

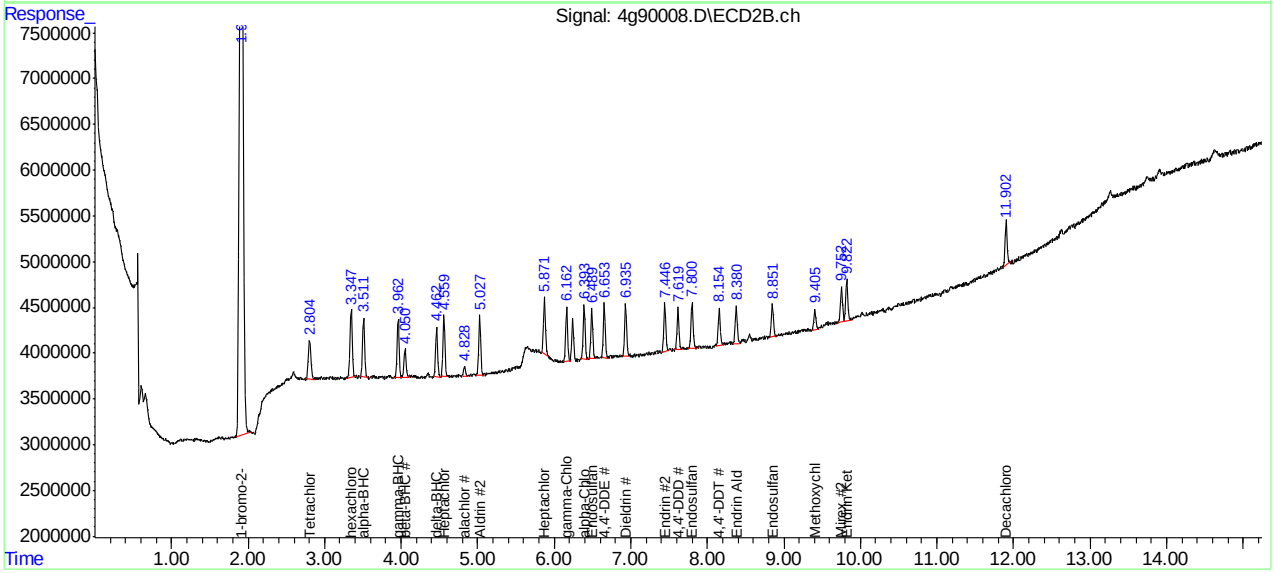
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:48:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





11.6.24 11

Manual Integration Approval Summary

Sample Number: G4G2366-IC2366
Lab FileID: 4G90008.D
Injection Time: 02/16/18 18:16
Method: SW846 8081B
Analyst approved: 02/19/18 09:31 Kristen Drake
Supervisor approved: 02/20/18 07:32 Gwendolyn Burns

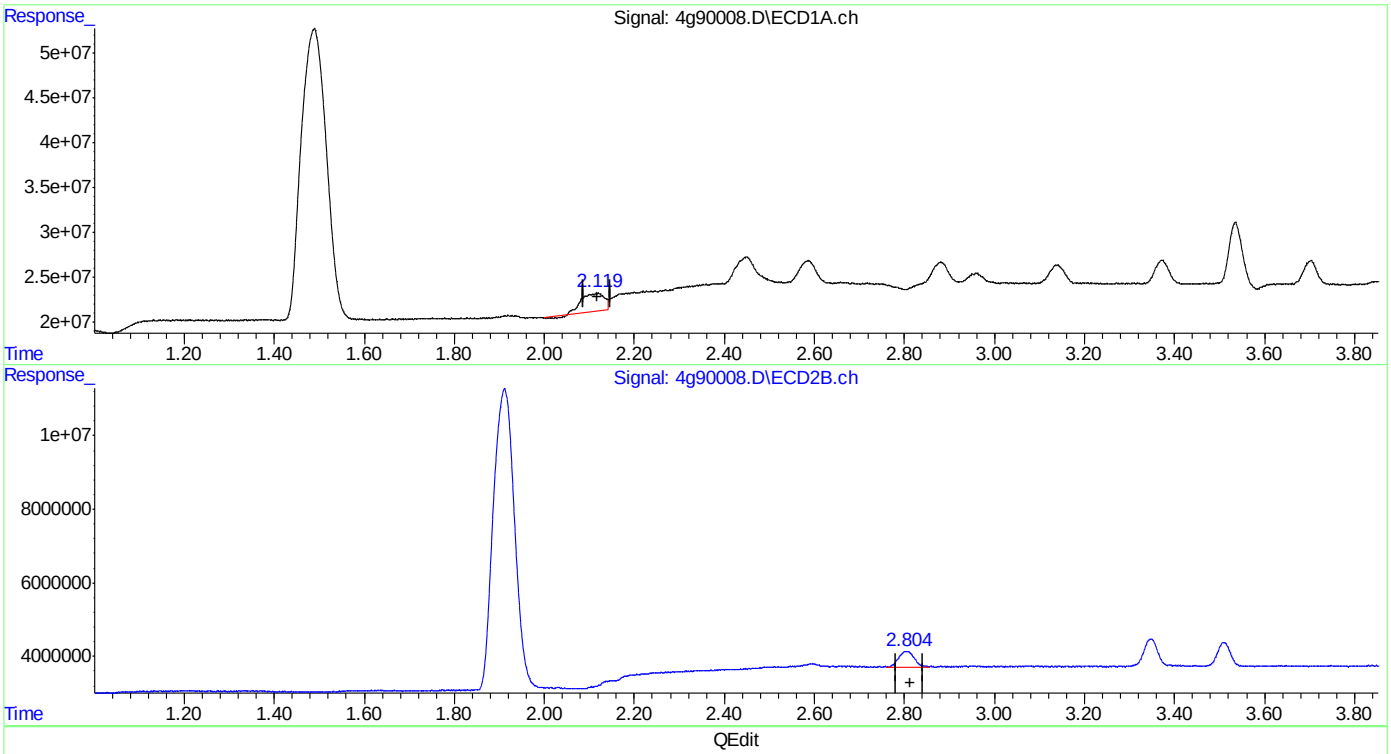
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.12	Poorly defined baseline
Hexachlorobenzene	118-74-1	1	2.45	Poorly defined baseline
alpha-BHC	319-84-6	1	2.59	Poorly defined baseline
gamma-BHC (Lindane)	58-89-9	1	2.88	Poorly defined baseline
beta-BHC	319-85-7	1	2.96	Poorly defined baseline
Aldrin	309-00-2	1	3.70	Poorly defined baseline
Alachlor	15972-60-8	1	3.86	Poorly defined baseline
beta-BHC	319-85-7	2	4.05	Poorly defined baseline
Heptachlor epoxide	1024-57-3	1	4.40	Poorly defined baseline
gamma-Chlordane	5103-74-2	1	4.57	Poorly defined baseline
Alachlor	15972-60-8	2	4.83	Poorly defined baseline
Endrin	72-20-8	1	5.54	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.48	Poorly defined baseline
Methoxychlor	72-43-5	1	6.88	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.59	Poorly defined baseline
4,4'-DDT	50-29-3	2	8.15	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	8.38	Poorly defined baseline
Endosulfan sulfate	1031-07-8	2	8.85	Poorly defined baseline
Methoxychlor	72-43-5	2	9.40	Poorly defined baseline
Mirex	2385-85-5	2	9.75	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(2) Tetrachloro-m-xylene (SAB)
2.119min 3.857 PPB
response 73662130

(2) Tetrachloro-m-xylene #2 (SAB)
2.804min 2.184 PPB
response 10055423

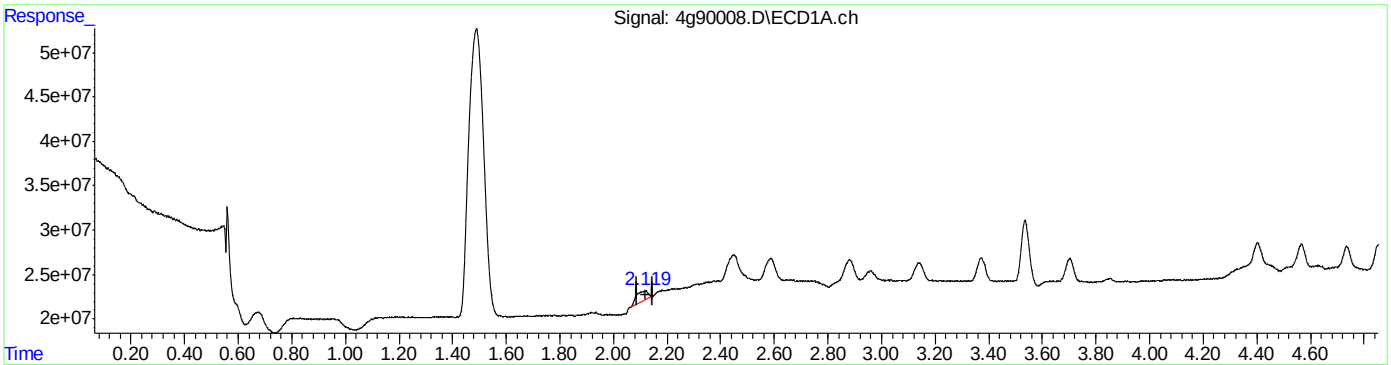
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:10:53 2018 RPT1 Page: 1

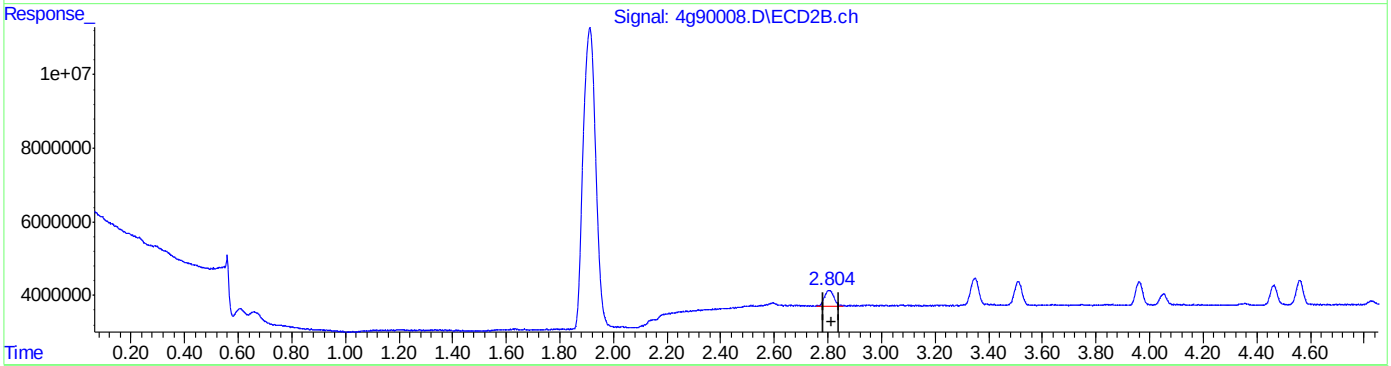
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(2) Tetrachloro-m-xylene (SAB)
2.119min 1.840 PPB m
response 35147804

(2) Tetrachloro-m-xylene #2 (SAB)
2.804min 2.184 PPB
response 10055423

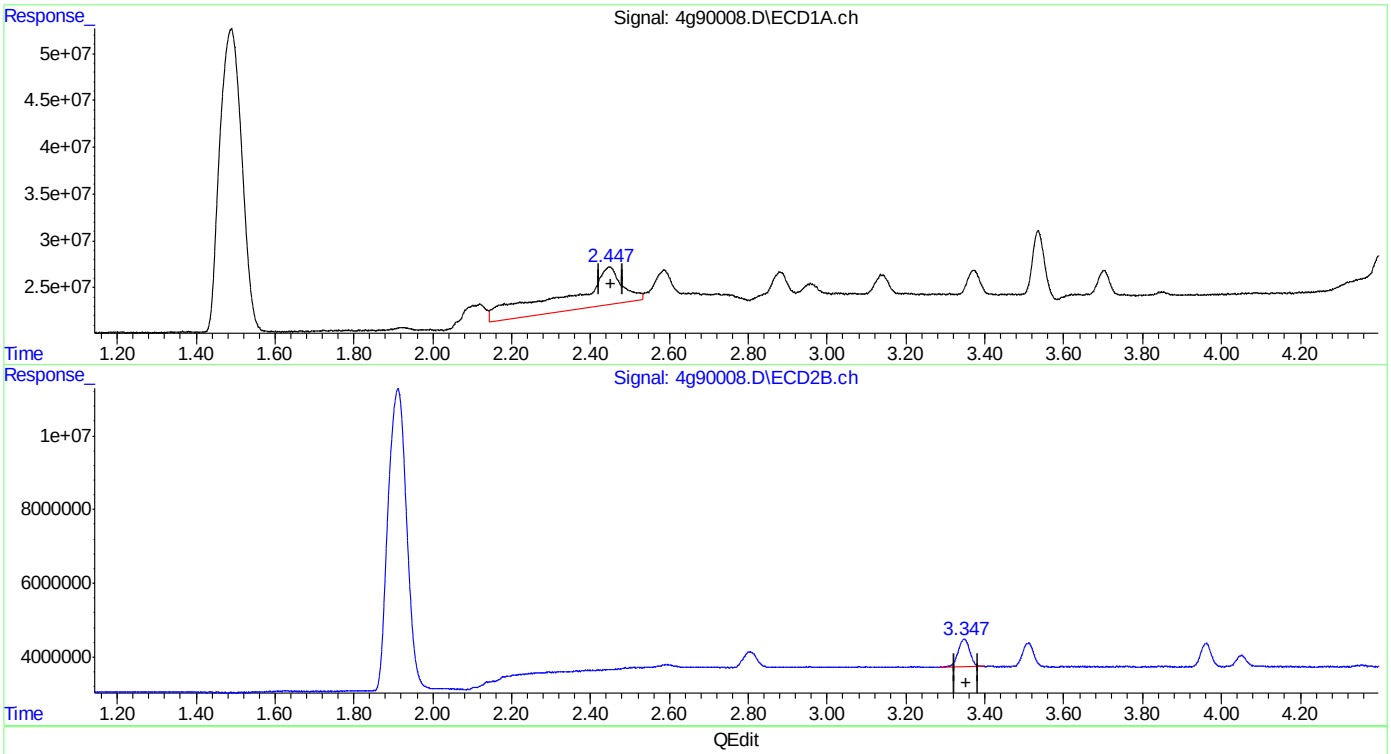
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:11:06 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(3) hexachlorobenzene
2.448min 11.672 PPB
response 408650406

(3) hexachlorobenzene #2
3.348min 2.286 PPB
response 15450137

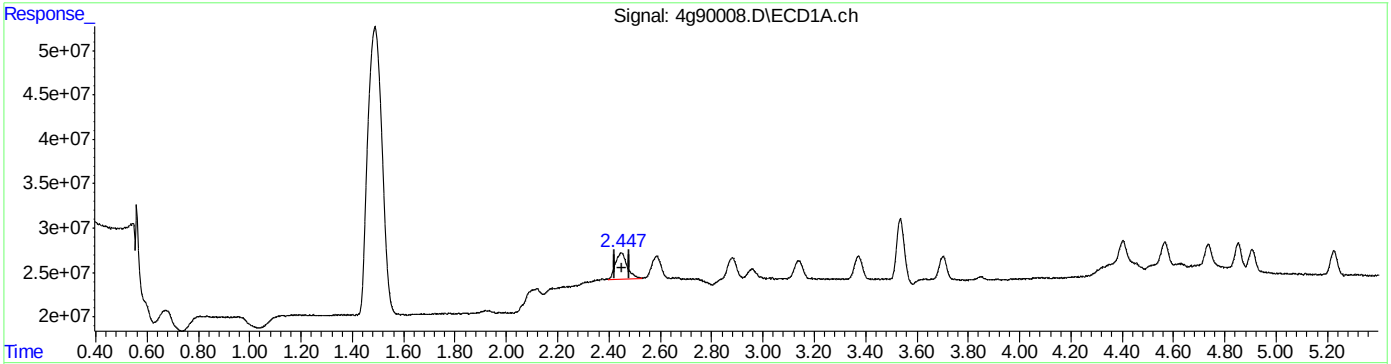
(+) = Expected Retention Time

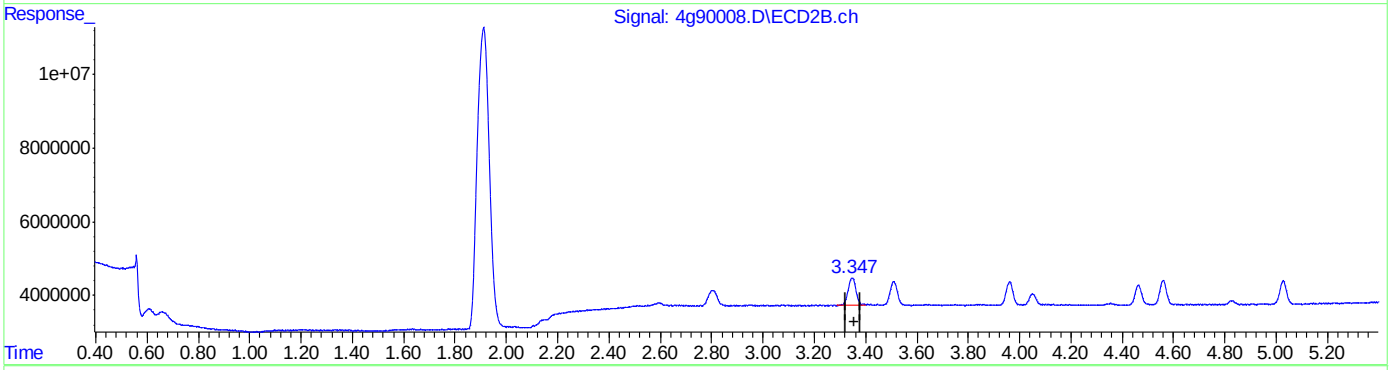
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(3) hexachlorobenzene
2.447min 2.614 PPB m
response 91522343

(3) hexachlorobenzene #2
3.348min 2.286 PPB
response 15450137

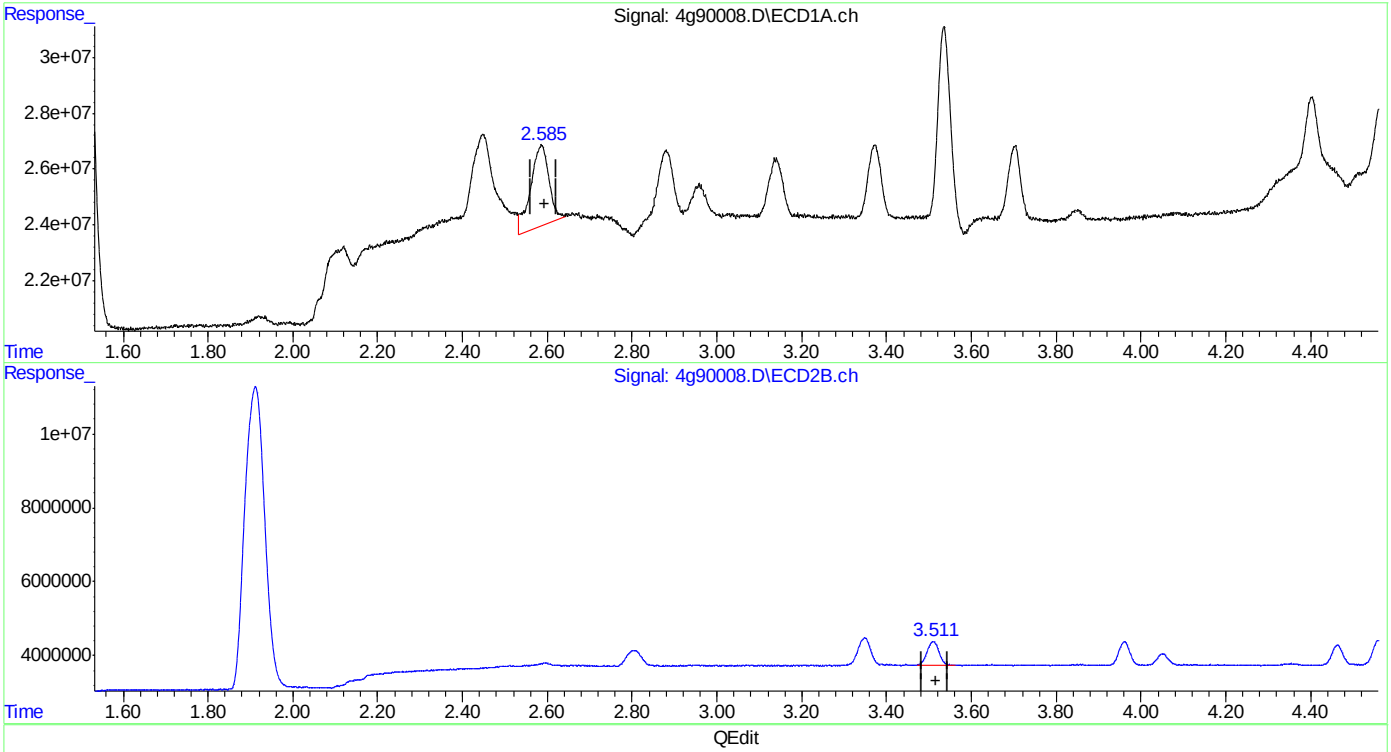
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(4) alpha-BHC (A)
2.586min 3.041 PPB
response 86260017

(4) alpha-BHC #2 (A)
3.511min 2.061 PPB
response 12494718

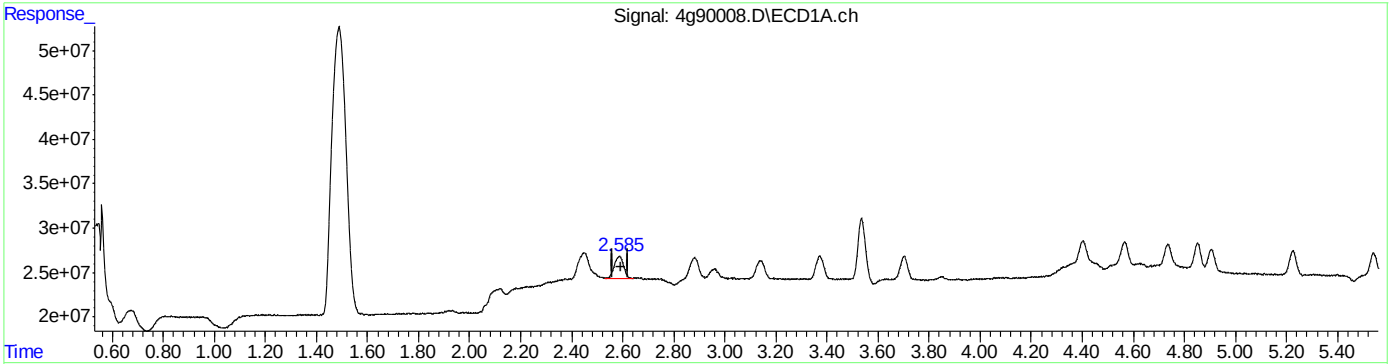
(+) = Expected Retention Time

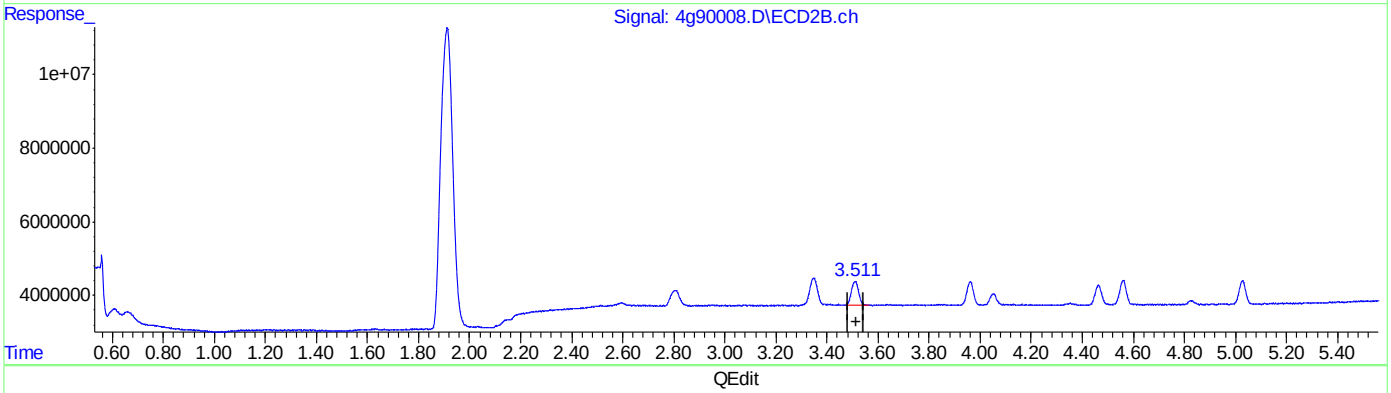
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(4) alpha-BHC (A)
2.585min 2.259 PPB m
response 64062979

(4) alpha-BHC #2 (A)
3.511min 2.061 PPB
response 12494718

(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:11:22 2018 RPT1

11.6.24.7 11

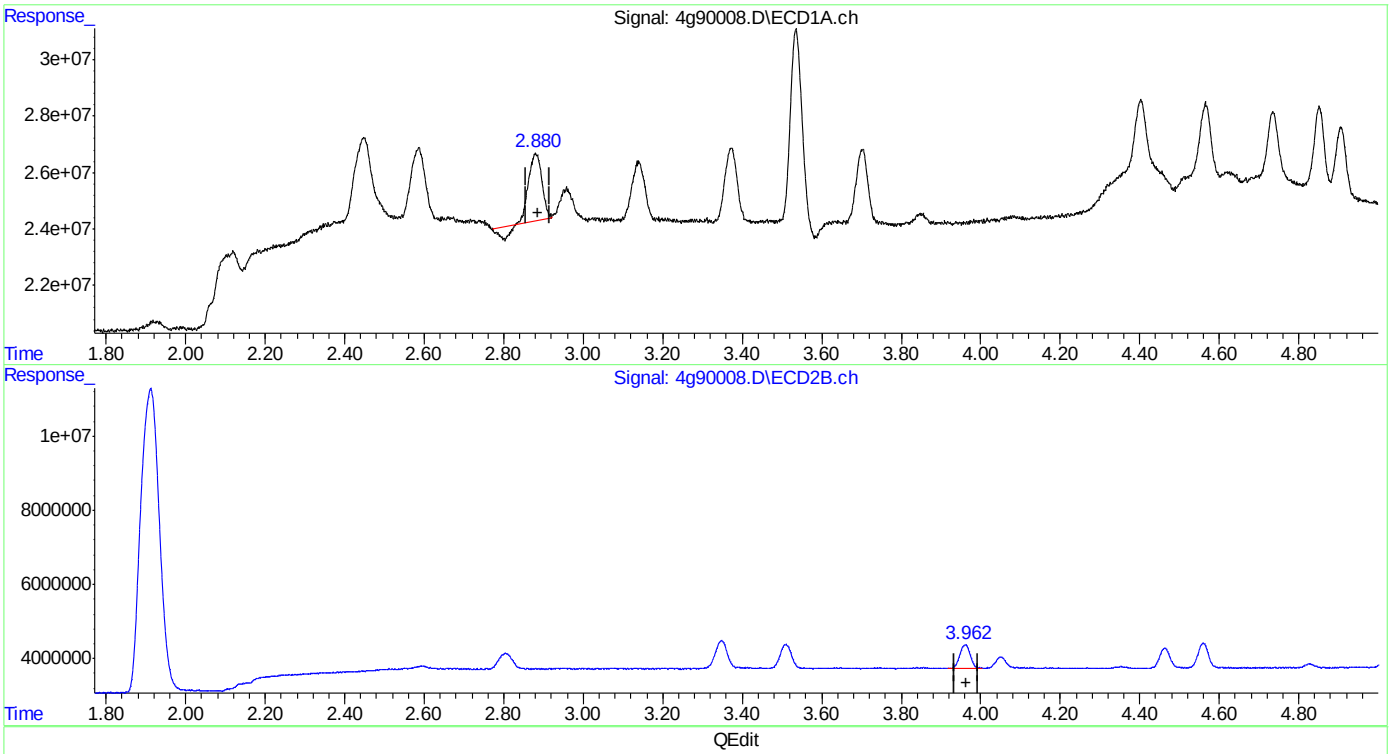
SGS JC62879

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(5) gamma-BHC (MA)
2.881min 1.901 PPB
response 49315516

(5) gamma-BHC #2 (MA)
3.963min 2.076 PPB
response 11671583

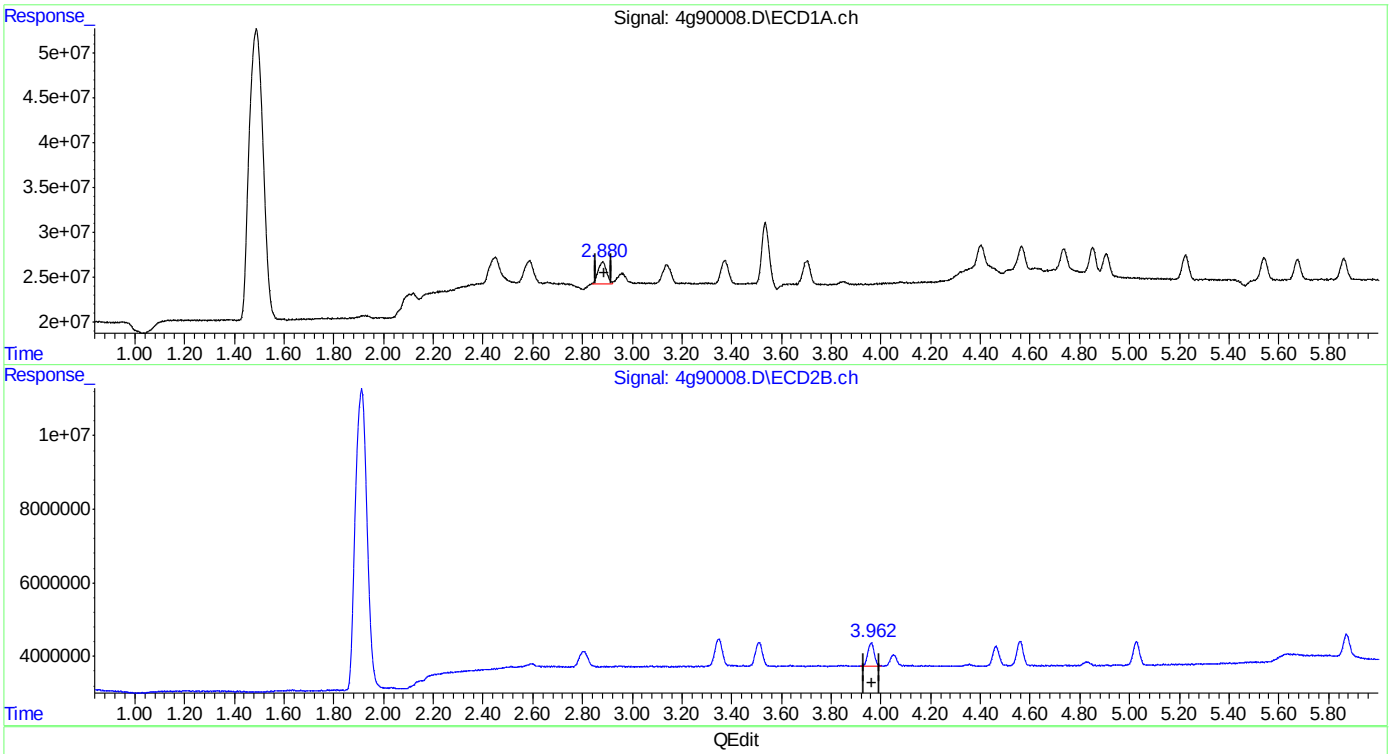
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(5) gamma-BHC (MA)
2.880min 2.183 PPB m
response 56626148

(5) gamma-BHC #2 (MA)
3.963min 2.076 PPB
response 11671583

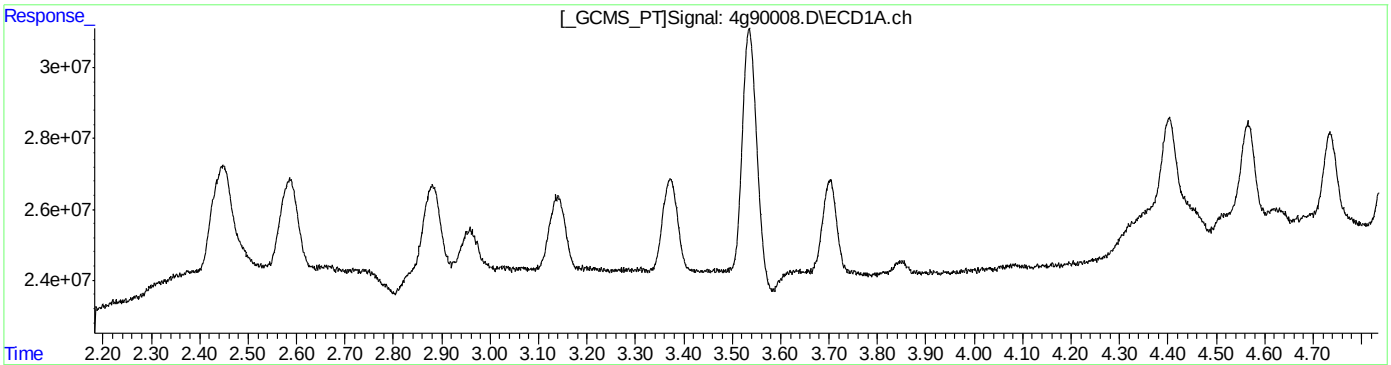
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:11:34 2018 RPT1

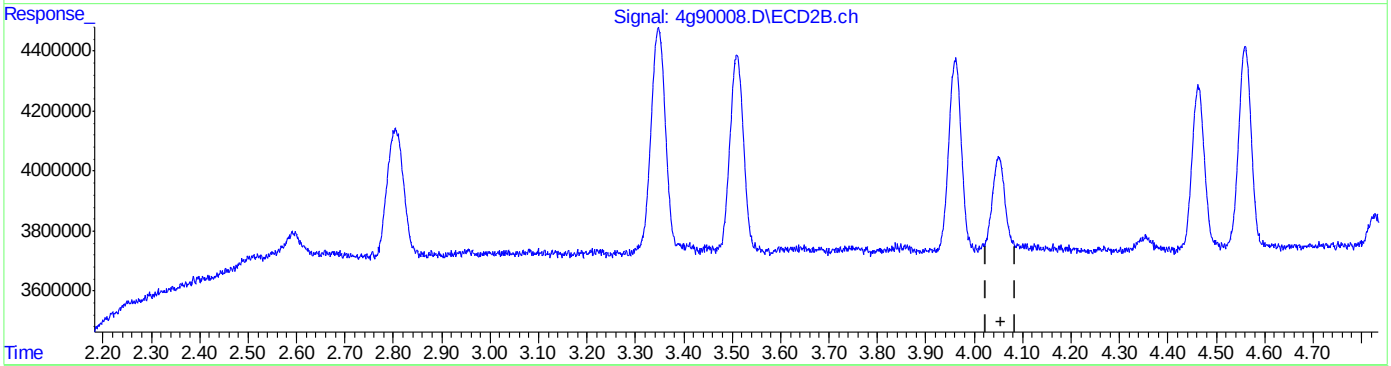
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(7) beta-BHC (B)
0.000min 0.000 PPB
response 0

(7) beta-BHC #2 (B)
0.000min 0.000 PPB
response 0

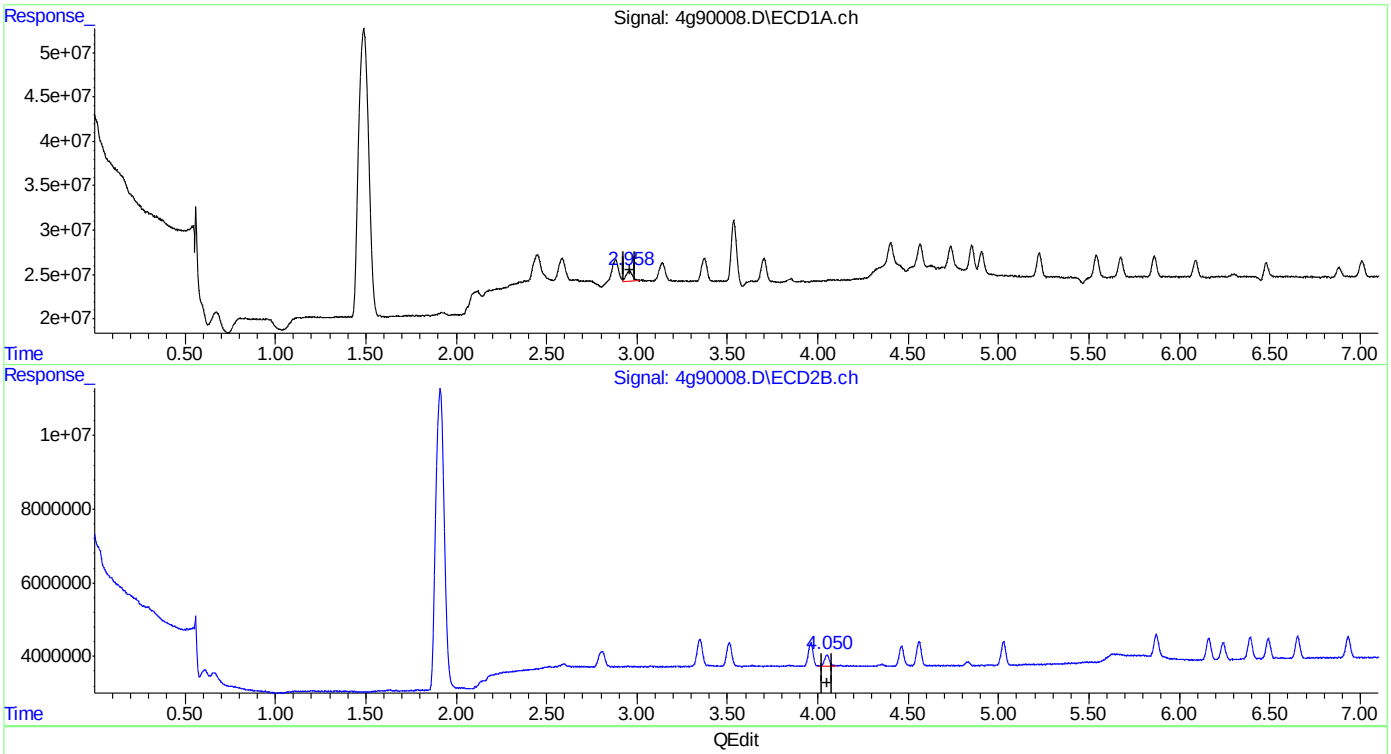
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(7) beta-BHC (B)
2.958min 2.531 PPB m
response 29597630

(7) beta-BHC #2 (B)
4.050min 2.264 PPB m
response 5865703

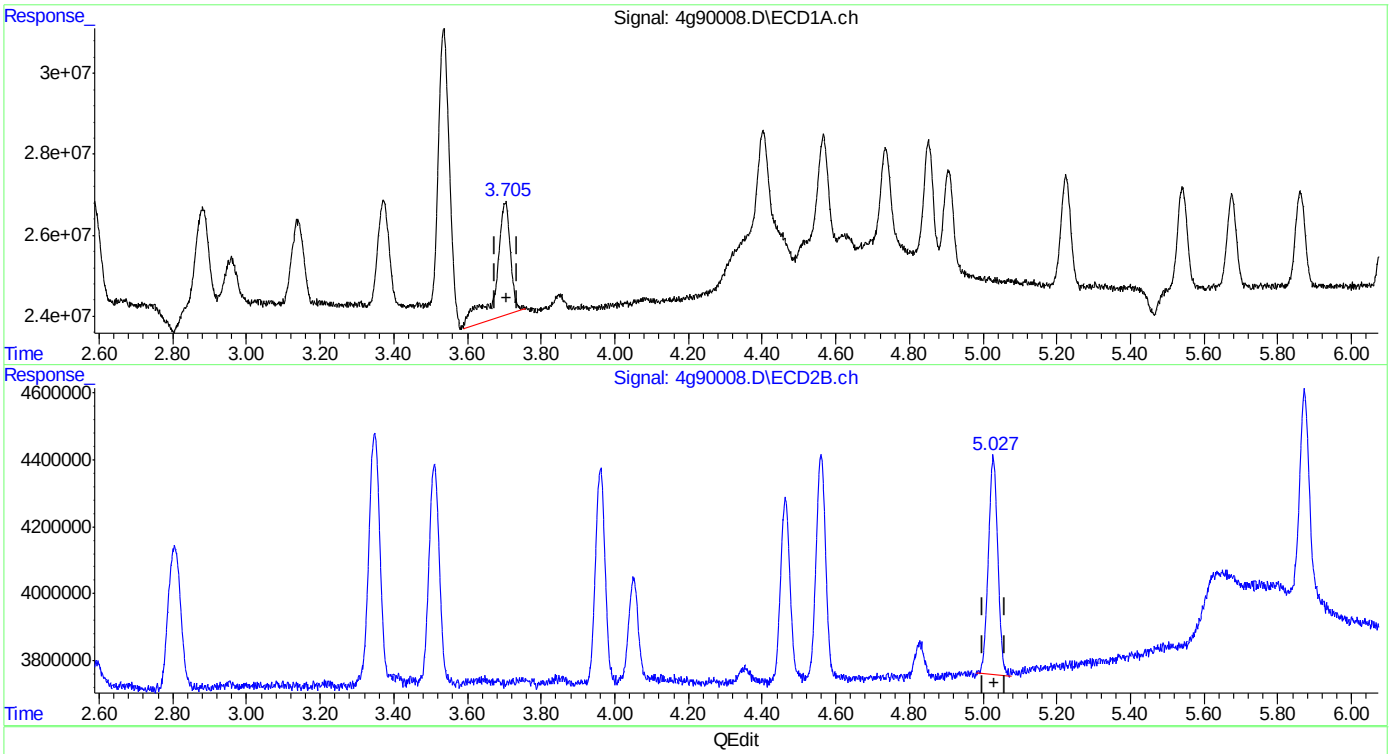
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:11:52 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(9) Aldrin (MB)
3.702min 3.259 PPB
response 77648870

(9) Aldrin #2 (MB)
5.028min 2.209 PPB
response 11597315

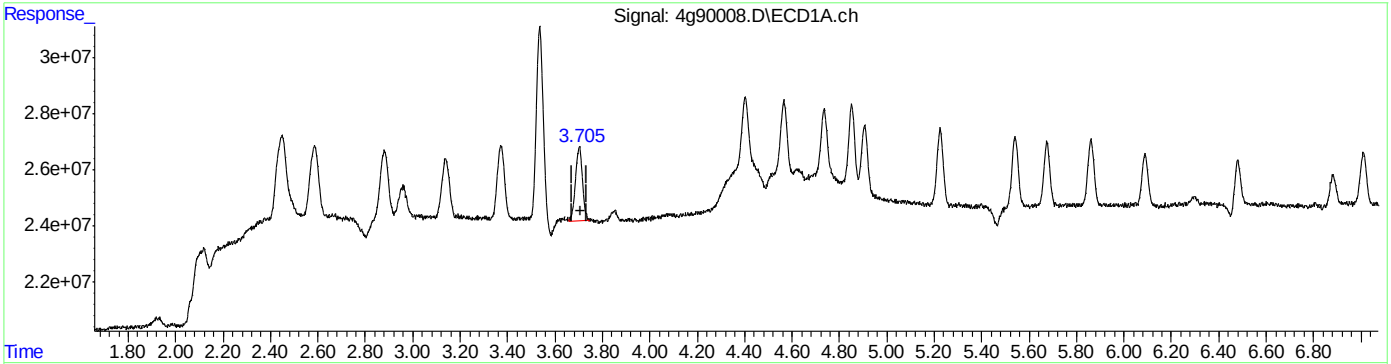
(+) = Expected Retention Time

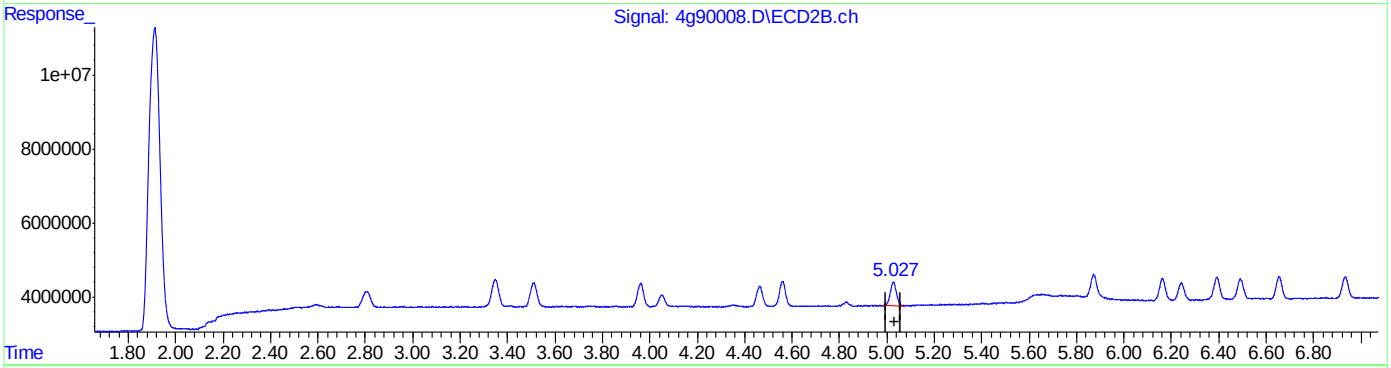
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(9) Aldrin (MB)
3.705min 2.267 PPB m
response 54003196

(9) Aldrin #2 (MB)
5.028min 2.209 PPB
response 11597315

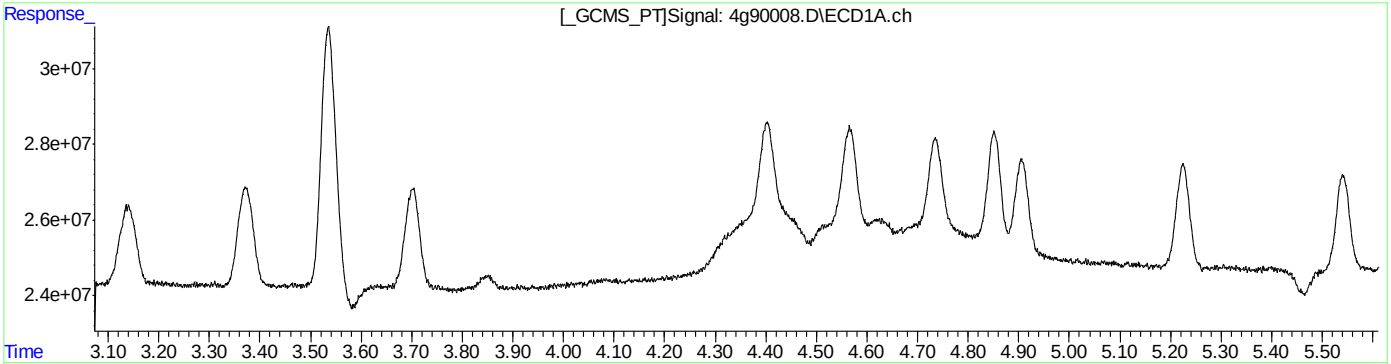
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:12:02 2018 RPT1

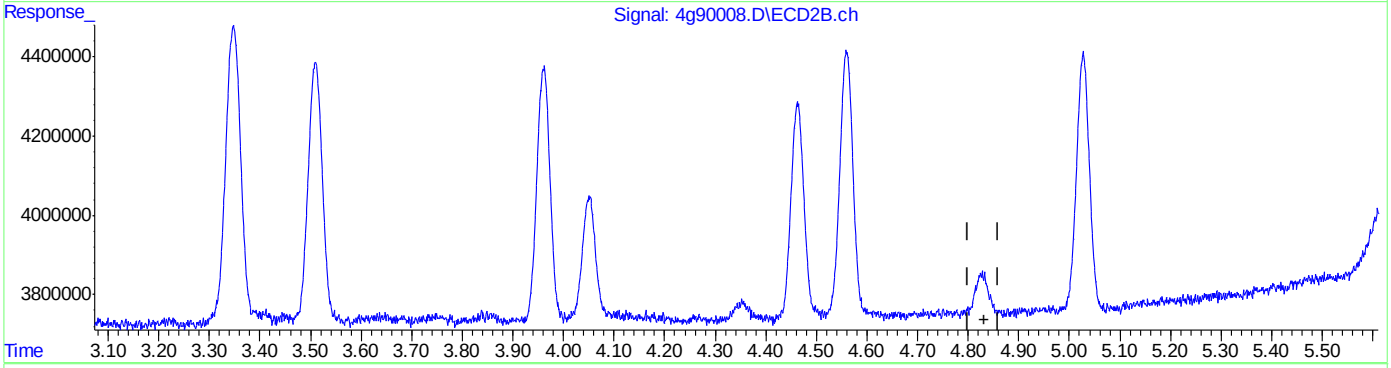
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(10) alachlor
0.000min 0.000 PPB
response 0

(10) alachlor #2
0.000min 0.000 PPB
response 0

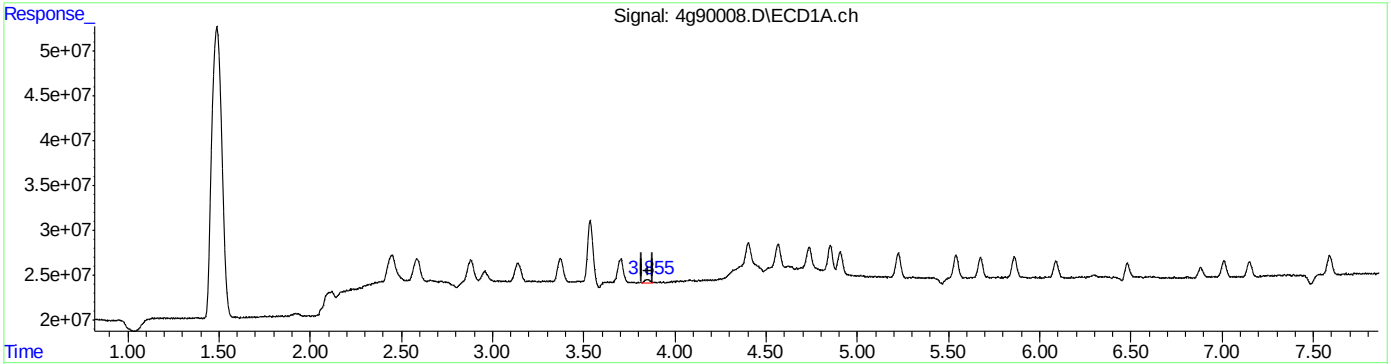
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:12:05 2018 RPT1 Page: 1

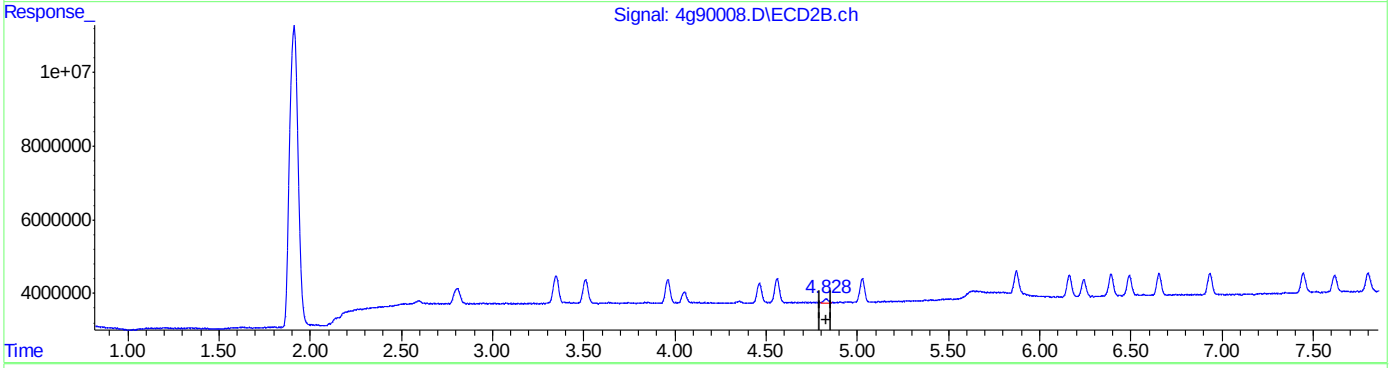
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(10) alachlor
3.855min 2.059 PPB m
response 6585109

(10) alachlor #2
4.828min 2.600 PPB m
response 1863352

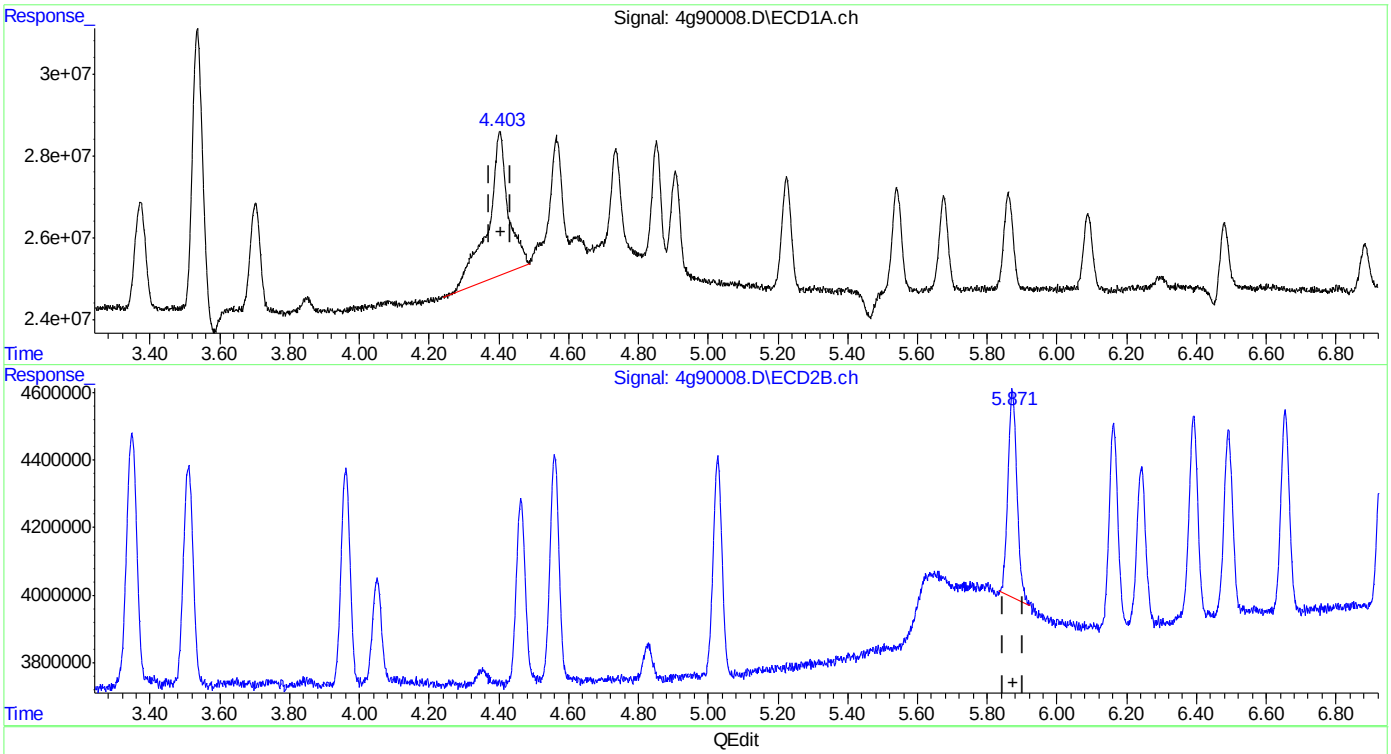
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:12:14 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(11) Heptachlor Epoxide (B)
4.403min 6.309 PPB
response 142895946

(11) Heptachlor Epoxide #2 (B)
5.872min 2.247 PPB
response 11111957

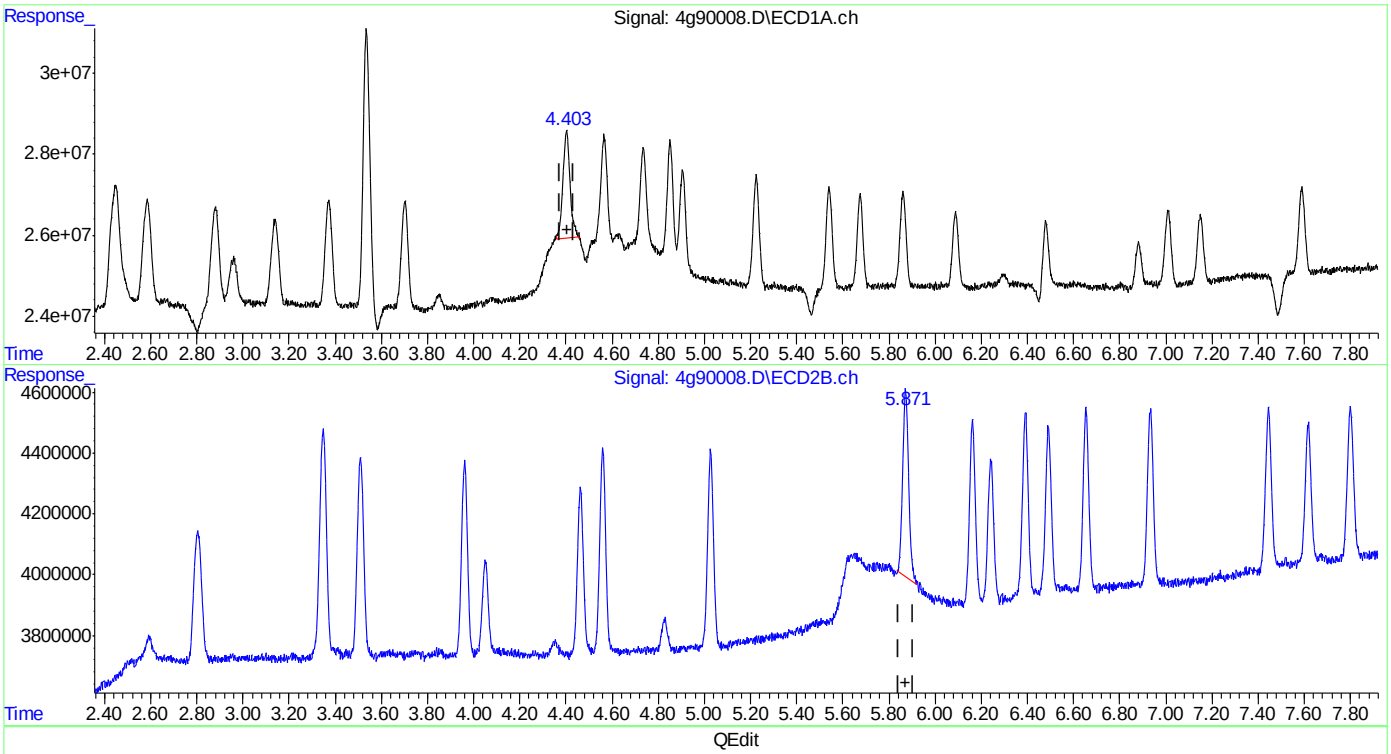
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(11) Heptachlor Epoxide (B)
4.403min 2.486 PPB m
response 56294807

(11) Heptachlor Epoxide #2 (B)
5.872min 2.247 PPB
response 11111957

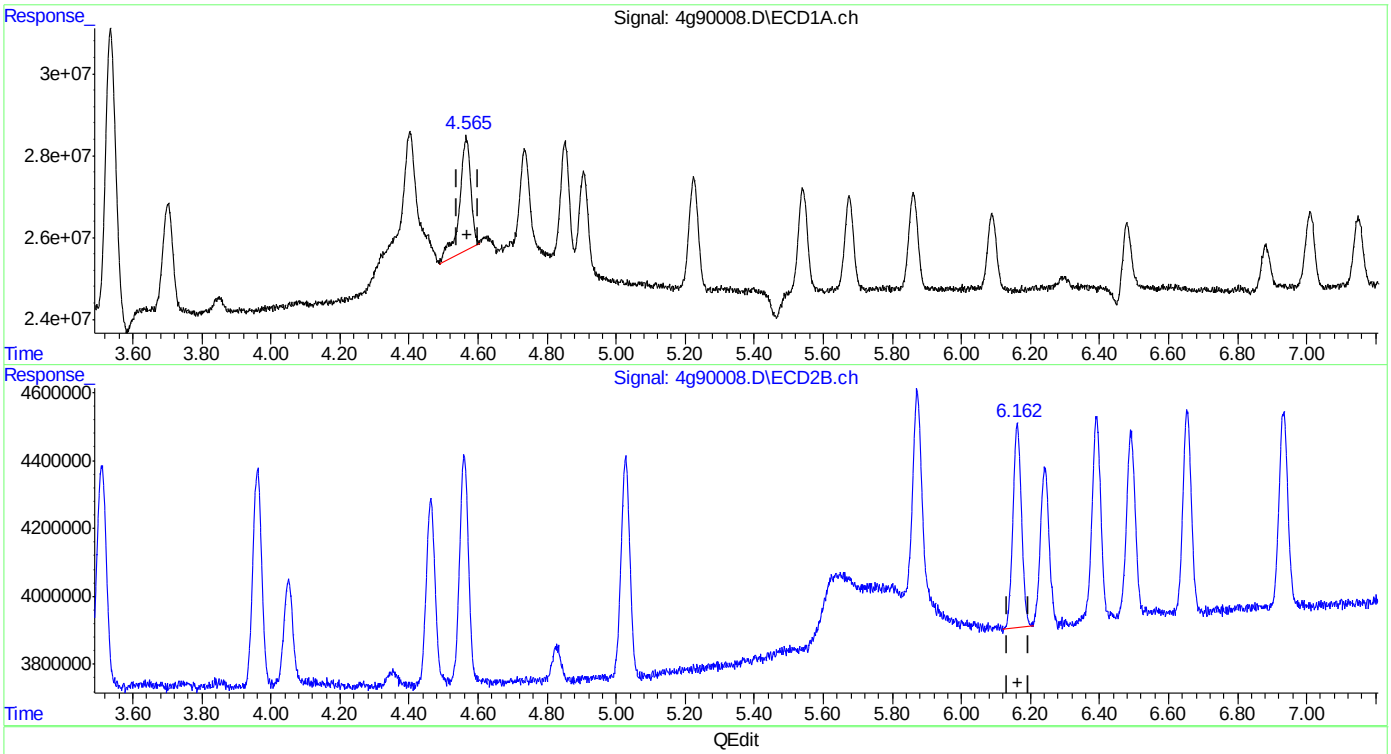
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(12) gamma-Chlordane (B)
4.566min 2.787 PPB
response 63490959

(12) gamma-Chlordane #2 (B)
6.162min 2.113 PPB
response 10433825

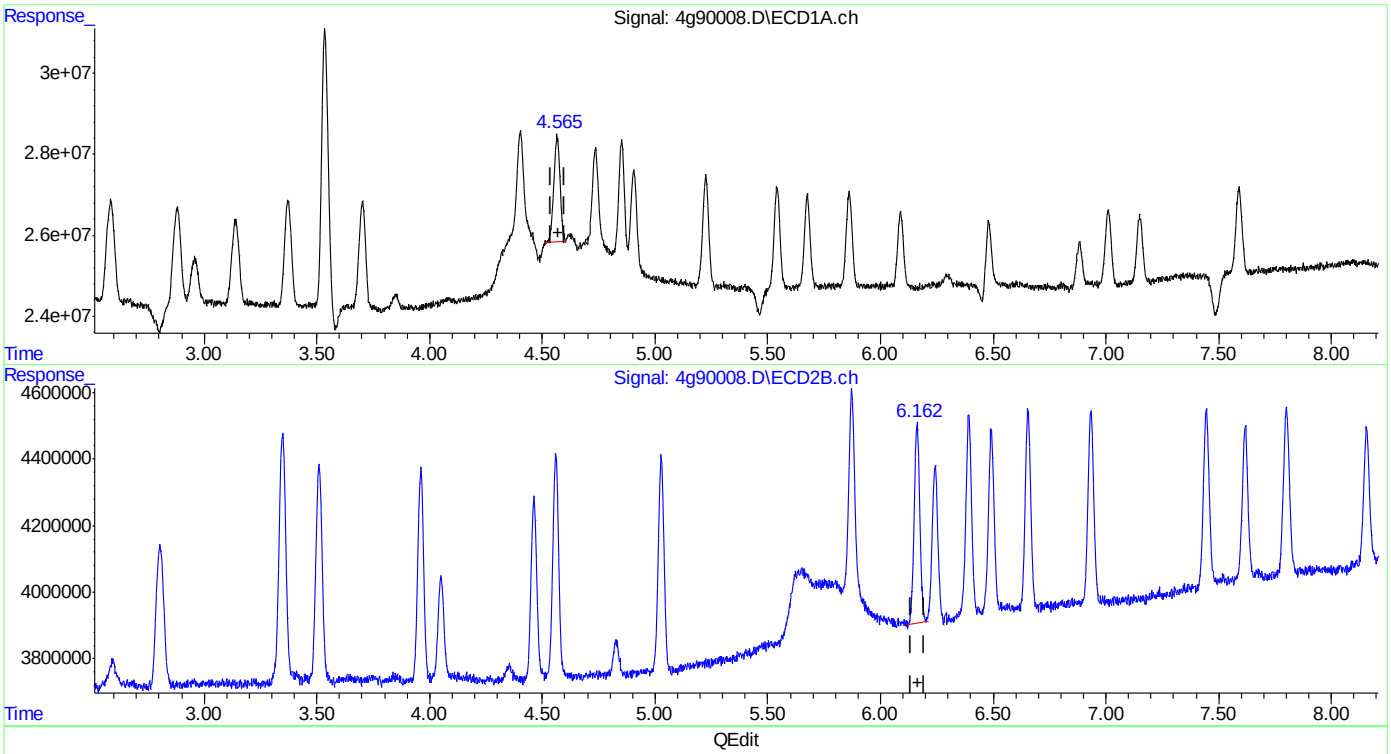
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(12) gamma-Chlordane (B)
4.565min 2.205 PPB m
response 50224082

(12) gamma-Chlordane #2 (B)
6.162min 2.113 PPB
response 10433825

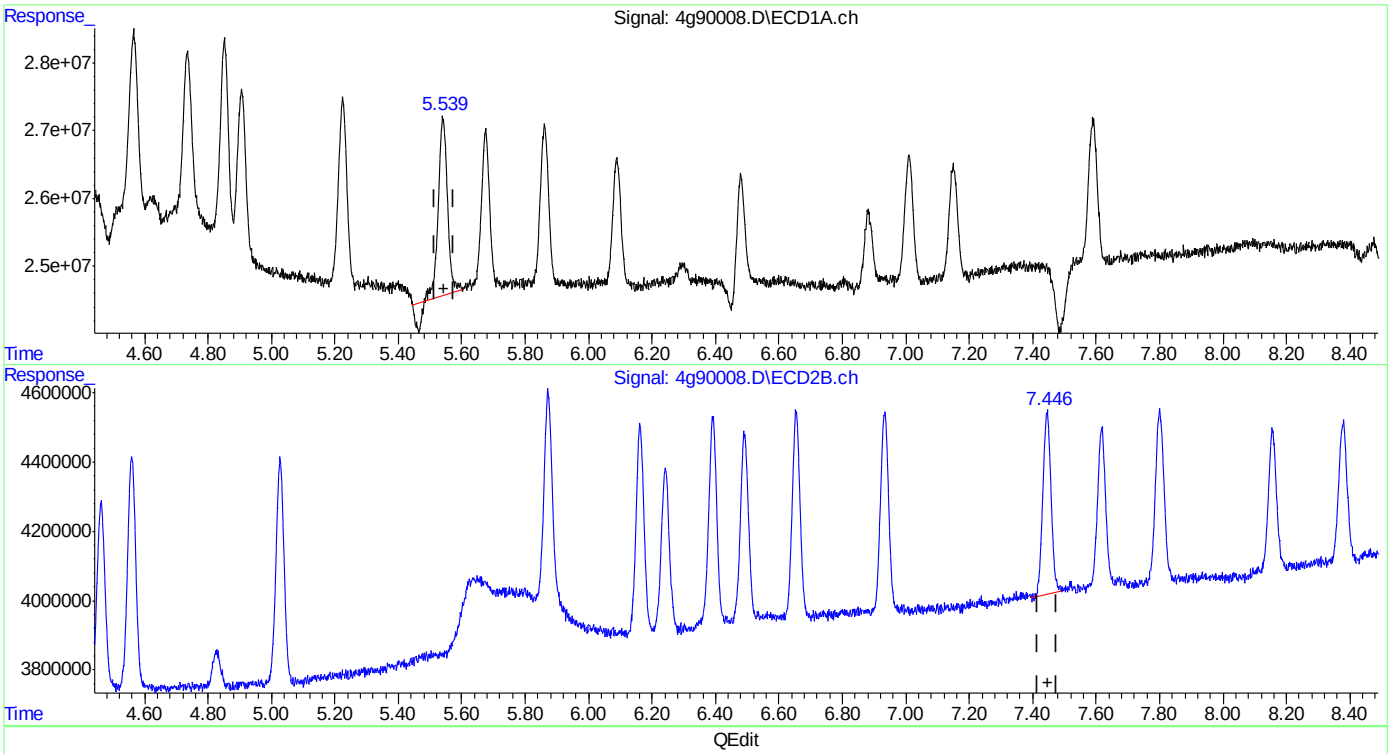
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:12:33 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(17) Endrin (MA)
5.541min 2.636 PPB
response 48951523

(17) Endrin #2 (MA)
7.446min 2.349 PPB
response 9561795

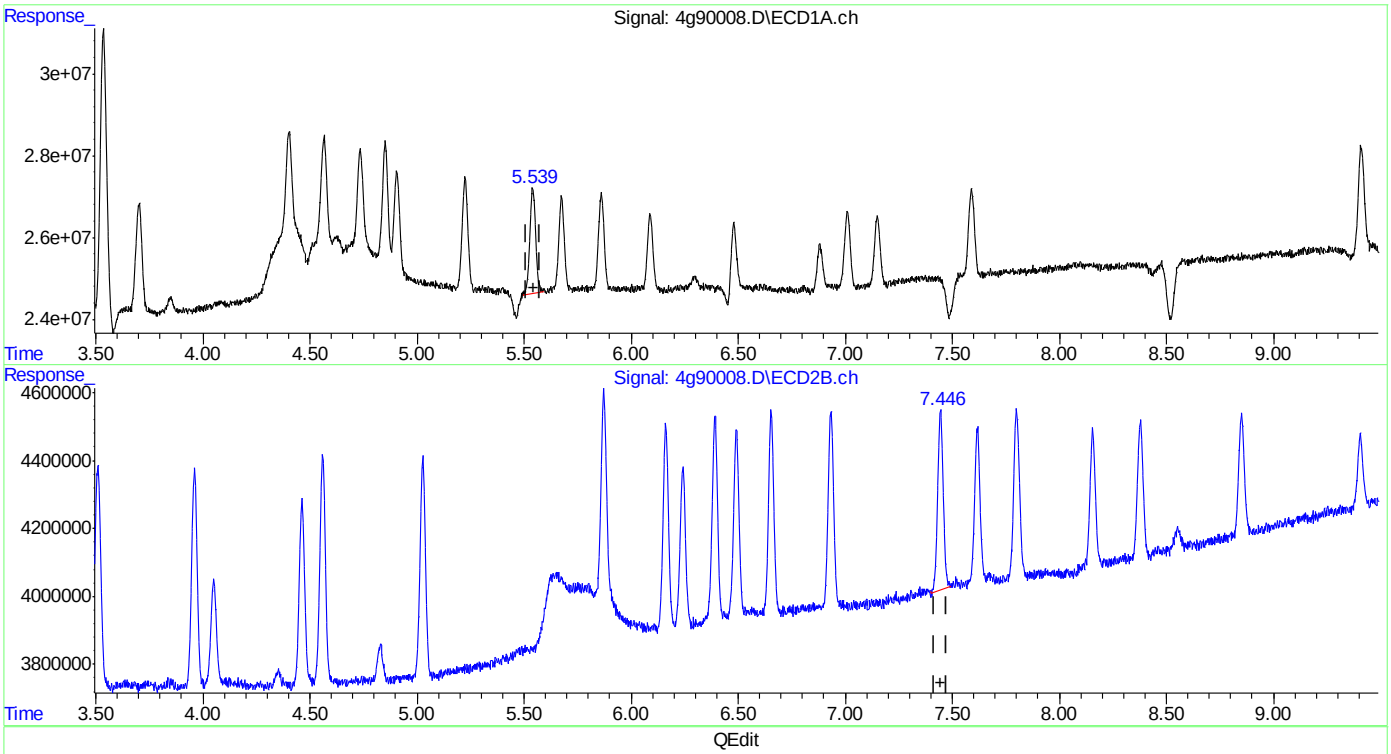
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:12:42 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(17) Endrin (MA)
5.539min 2.637 PPB m
response 48972527

(17) Endrin #2 (MA)
7.446min 2.349 PPB
response 9561795

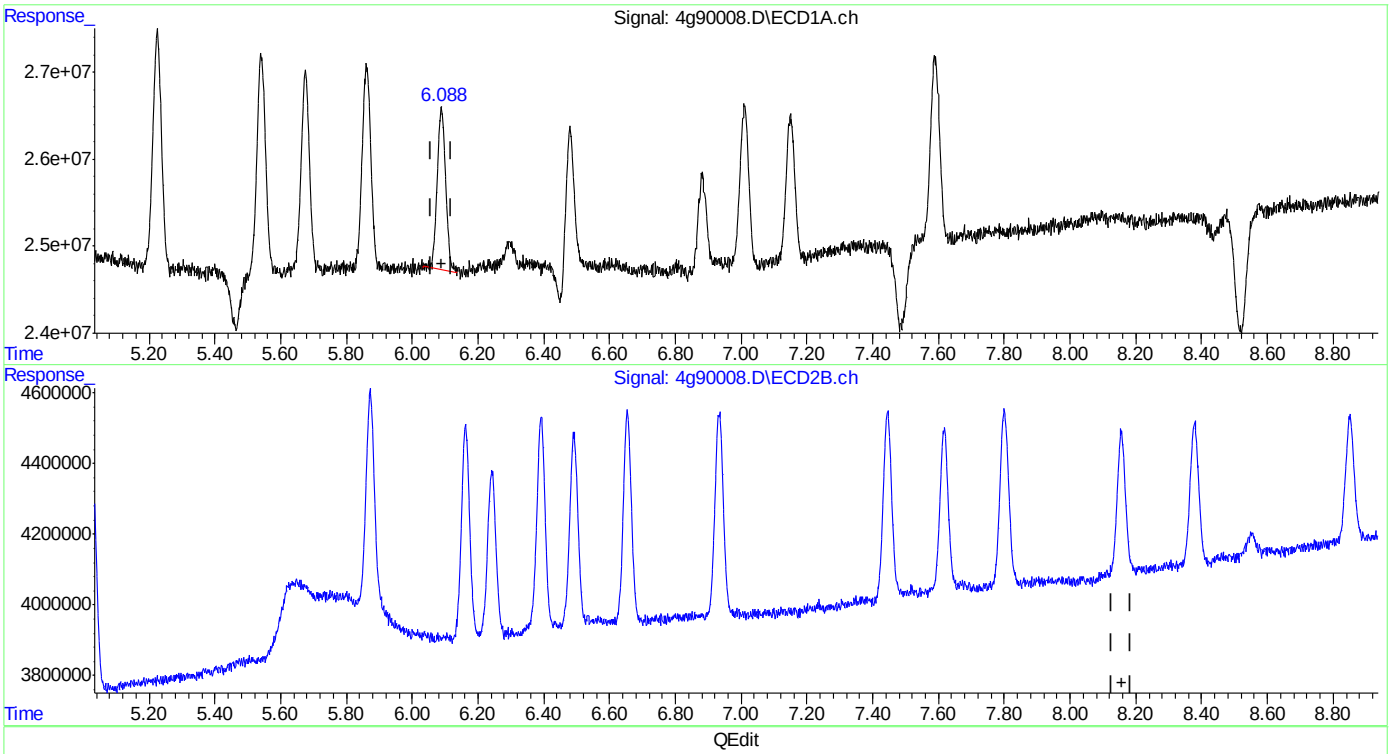
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(20) 4,4'-DDT (MA)
6.089min 2.063 PPB
response 33503844

(20) 4,4'-DDT #2 (MA)
0.000min 0.000 PPB
response 0

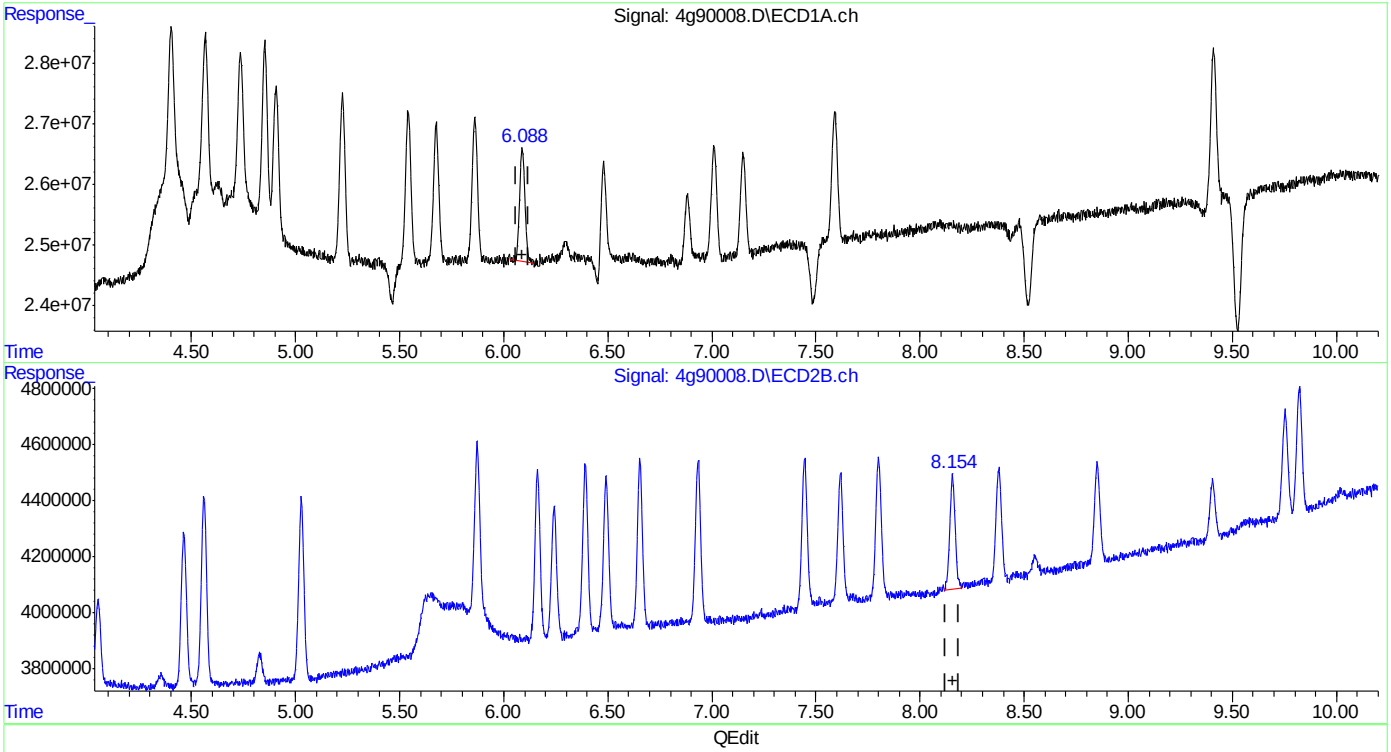
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(20) 4,4'-DDT (MA)
6.089min 2.063 PPB
response 33503844

(20) 4,4'-DDT #2 (MA)
8.154min 2.063 PPB m
response 7359912

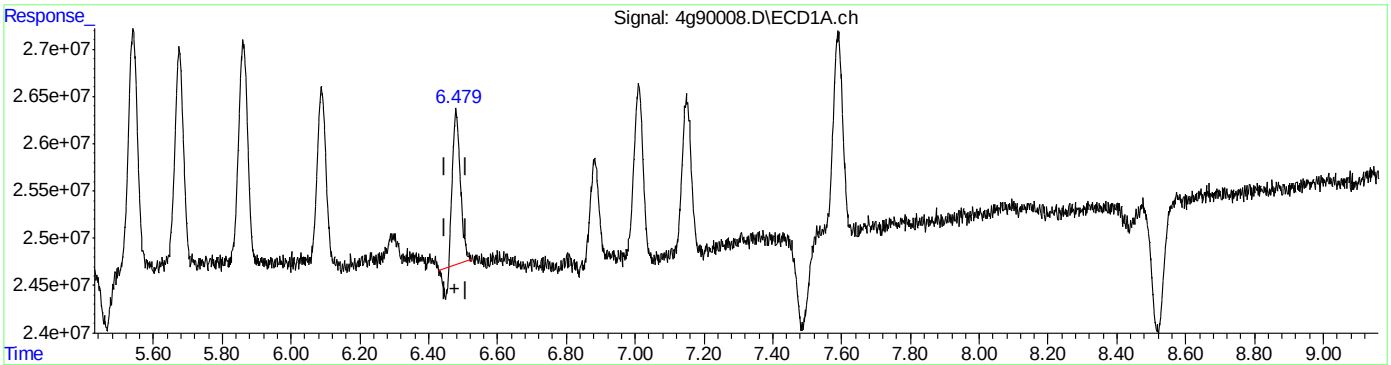
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:12:57 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(21) Endrin Aldehyde (B)
6.480min 1.505 PPB
response 24363424

(21) Endrin Aldehyde #2 (B)
0.000min 0.000 PPB
response 0

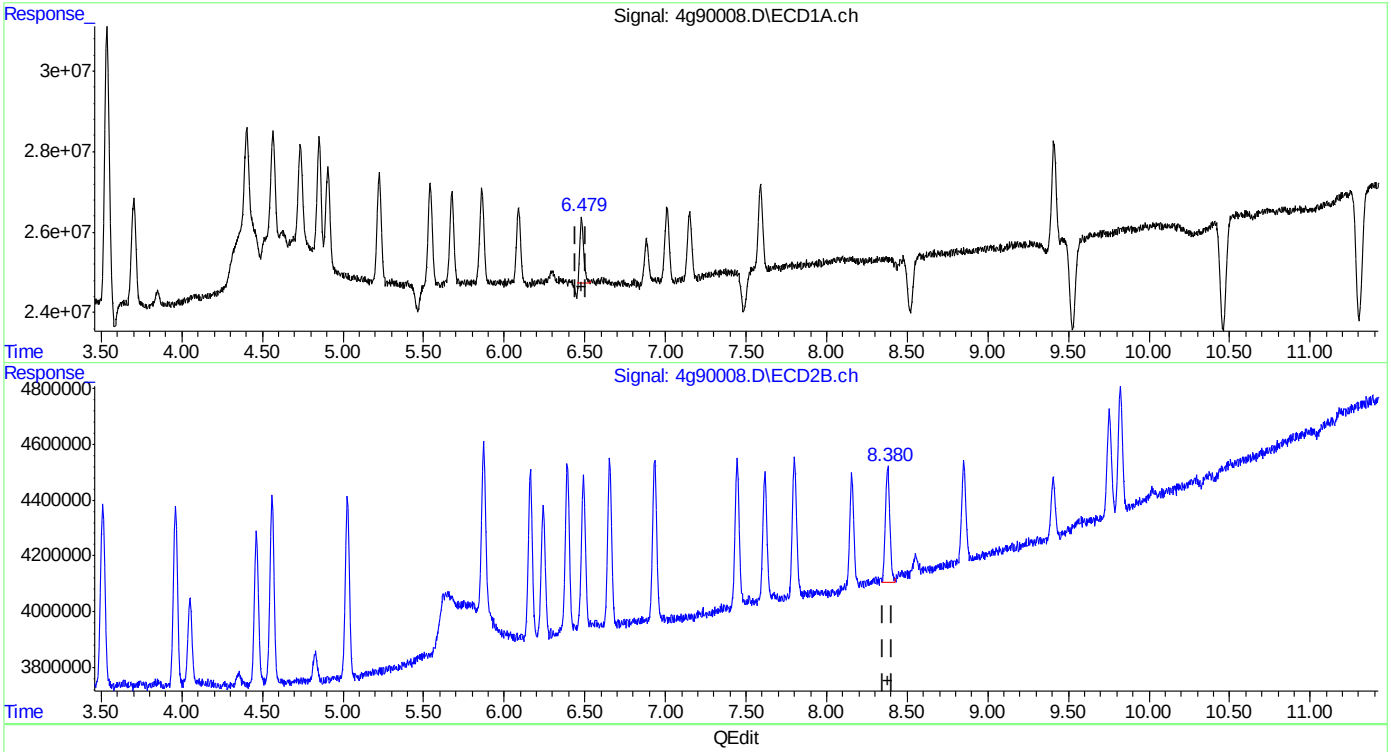
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(21) Endrin Aldehyde (B)
6.479min 1.645 PPB m
response 26636594

(21) Endrin Aldehyde #2 (B)
8.380min 2.106 PPB m
response 7837896

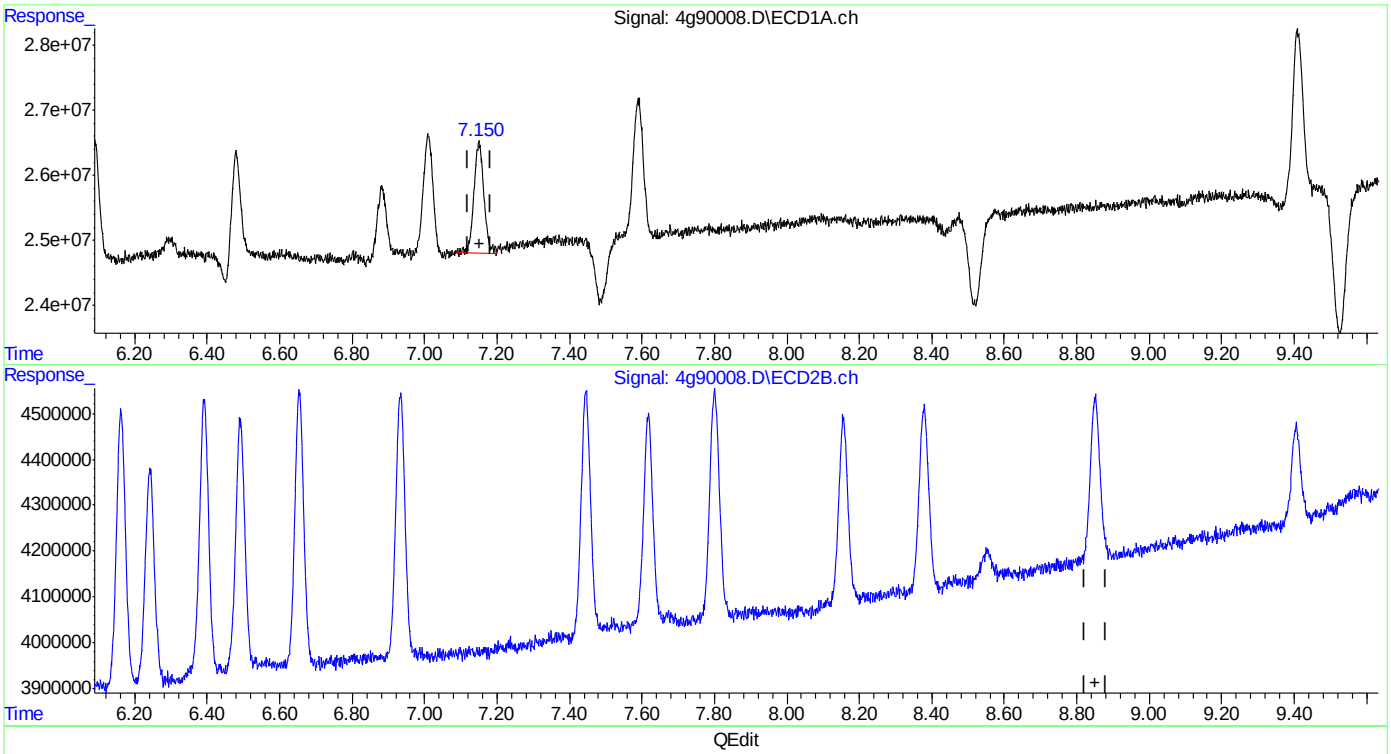
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(22) Endosulfan Sulfate (B)
7.150min 1.993 PPB
response 32834190

(22) Endosulfan Sulfate #2 (B)
0.000min 0.000 PPB
response 0

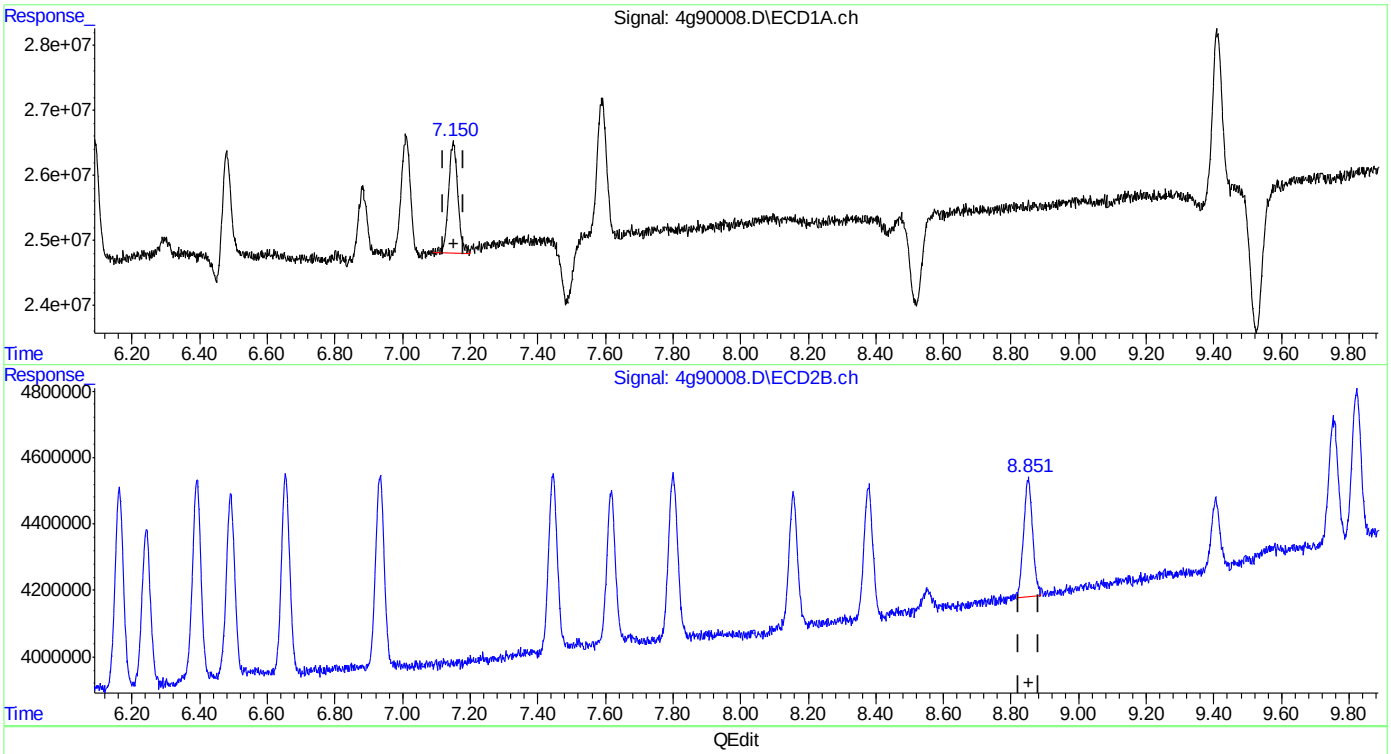
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:13:23 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(22) Endosulfan Sulfate (B)
7.150min 1.993 PPB
response 32834190

(22) Endosulfan Sulfate #2 (B)
8.851min 1.729 PPB m
response 6520281

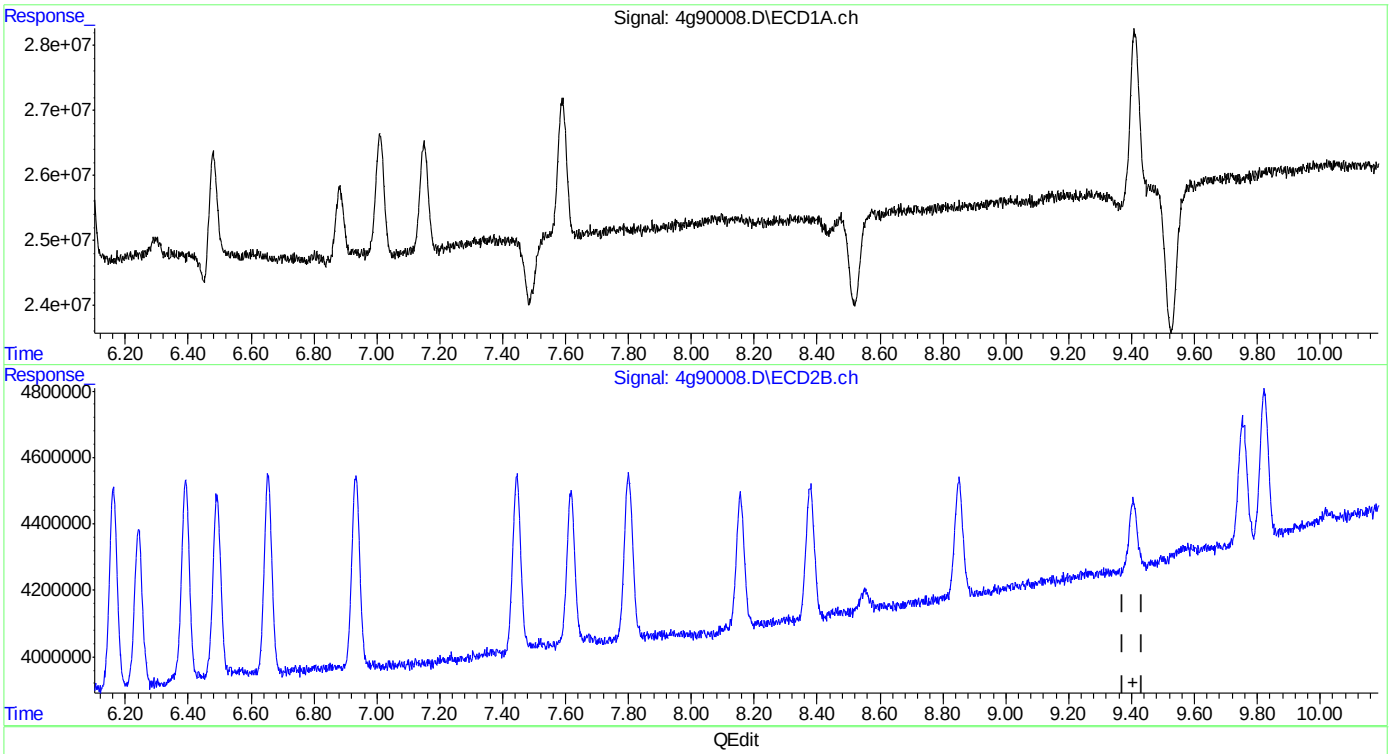
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(23) Methoxychlor (A)
0.000min 0.000 PPB
response 0

(23) Methoxychlor #2 (A)
0.000min 0.000 PPB
response 0

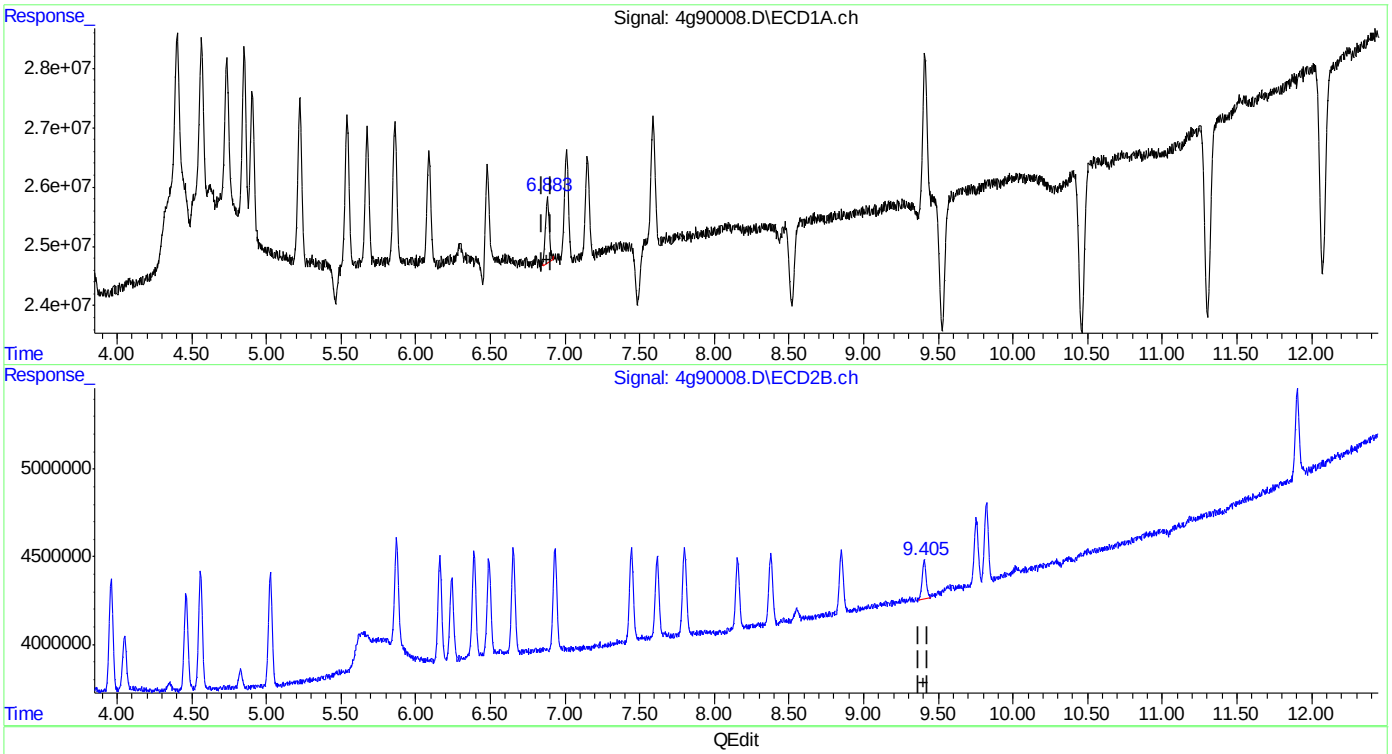
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:13:32 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(23) Methoxychlor (A)
6.883min 2.303 PPB m
response 19601084

(23) Methoxychlor #2 (A)
9.405min 2.056 PPB m
response 4062809

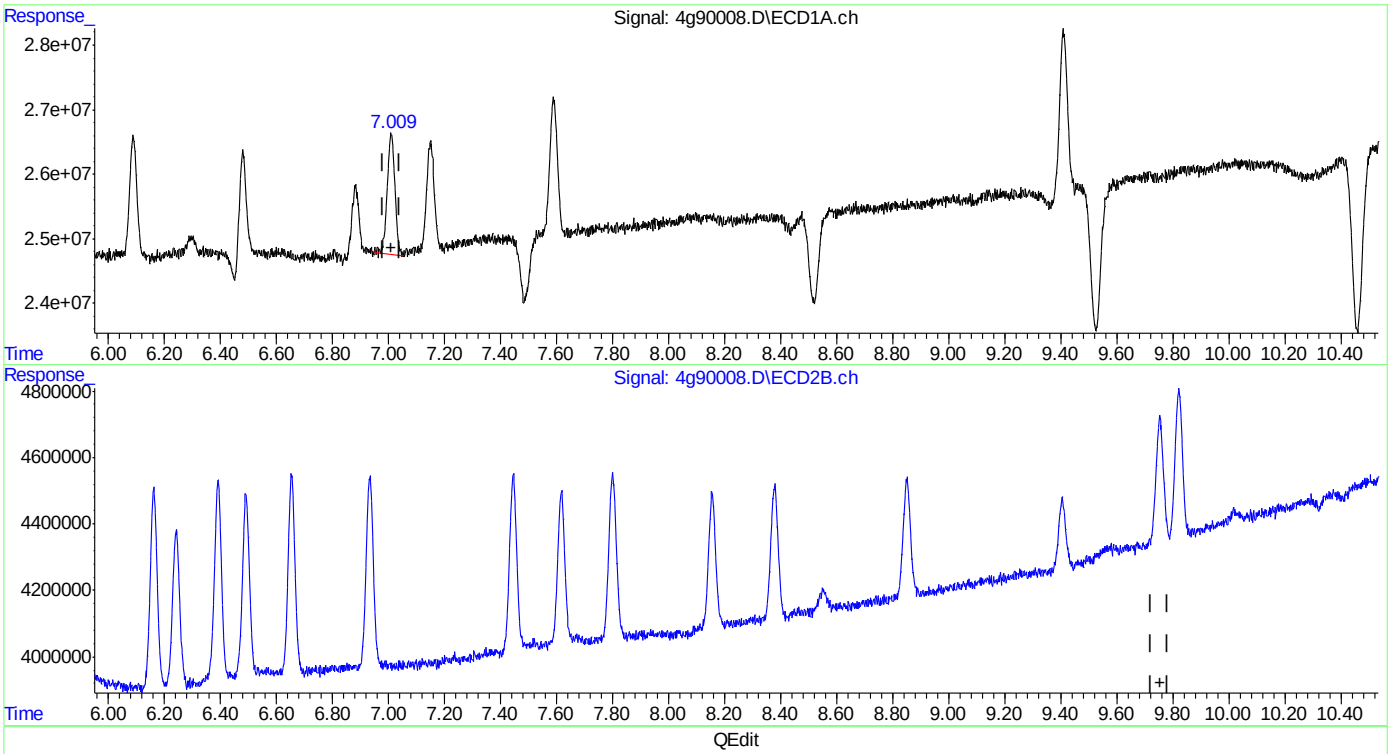
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(24) Mirex
7.010min 2.296 PPB
response 35189445

(24) Mirex #2
0.000min 0.000 PPB
response 0

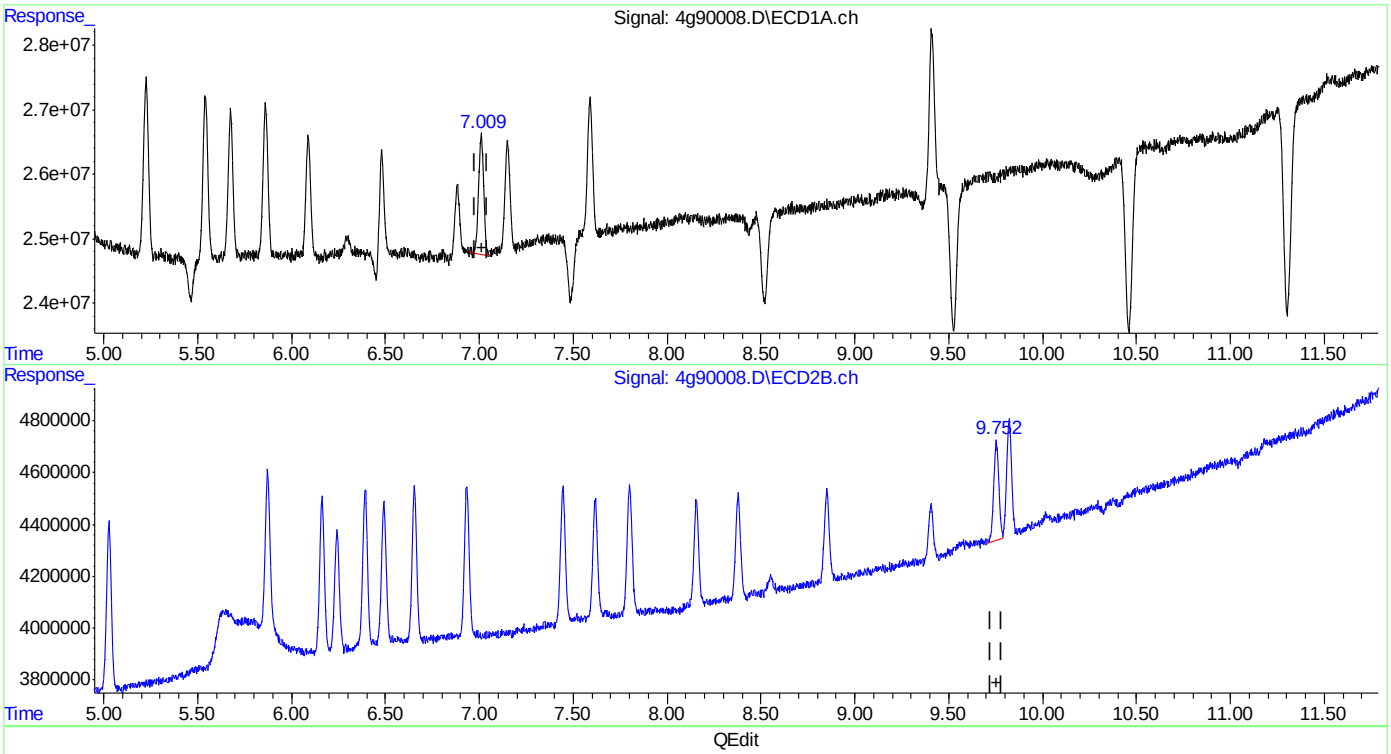
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:13:45 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(24) Mirex
7.010min 2.296 PPB
response 35189445

(24) Mirex #2
9.752min 2.029 PPB m
response 7188948

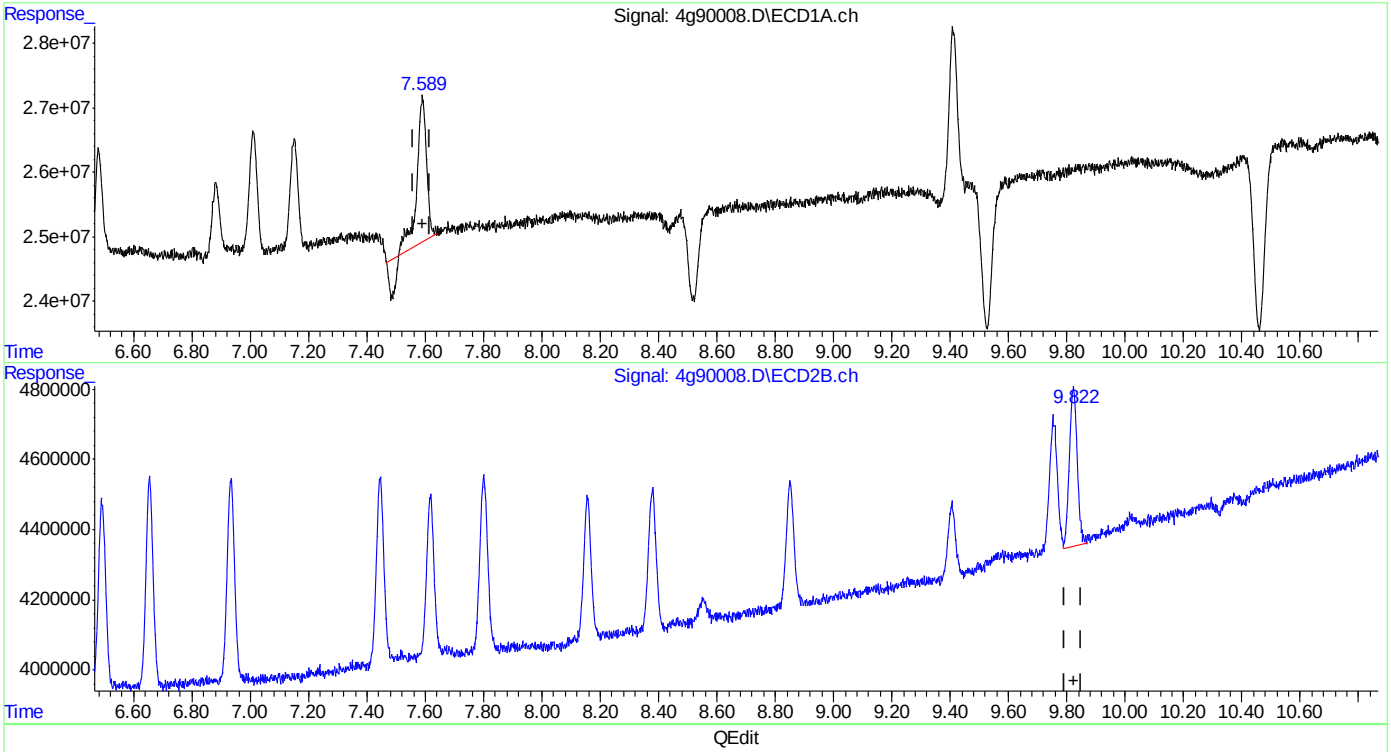
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(25) Endrin Ketone (B)
7.590min 2.271 PPB
response 46441841

(25) Endrin Ketone #2 (B)
9.823min 1.777 PPB
response 8450837

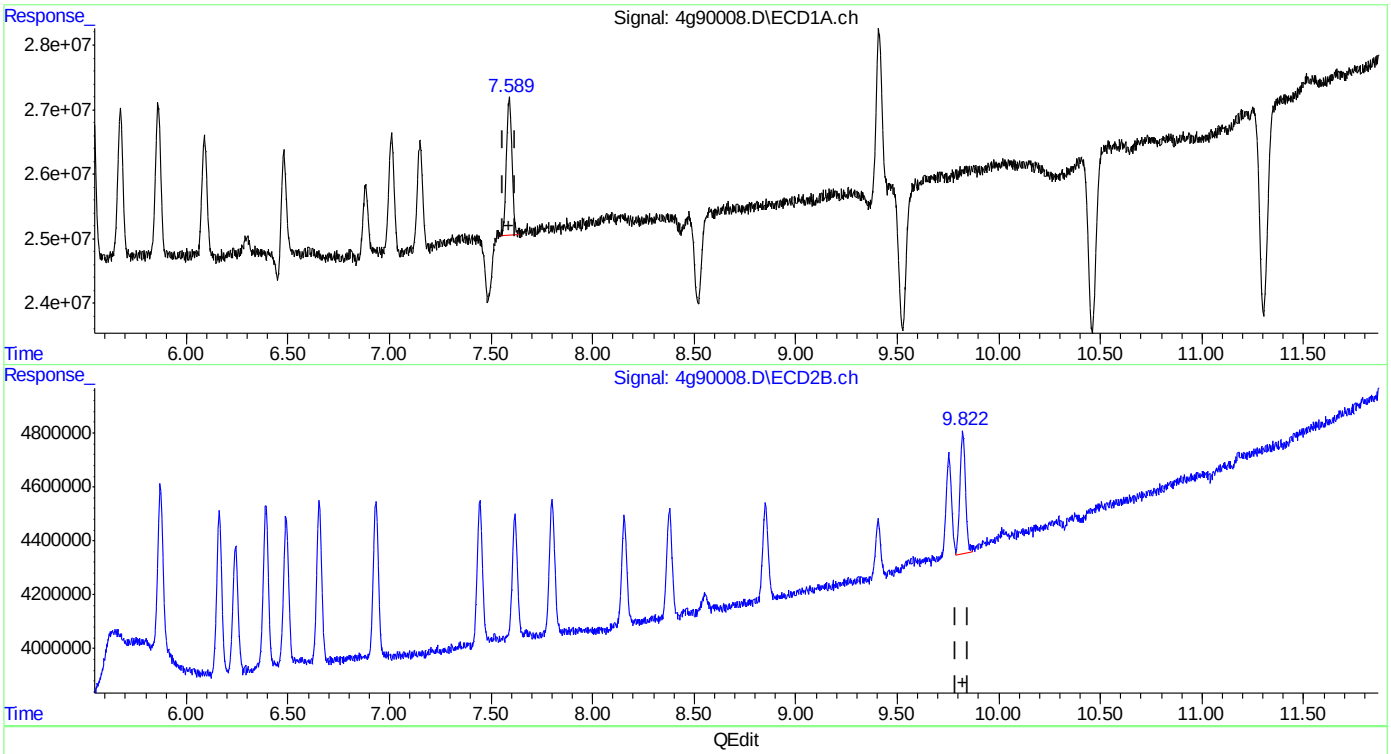
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:13:57 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:16 pm
Operator : kristend
Sample : ic2366-2
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:10:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(25) Endrin Ketone (B)
7.589min 2.016 PPB m
response 41236337

(25) Endrin Ketone #2 (B)
9.823min 1.777 PPB
response 8450837

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:48:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.487	1.913	1259.3E6	274.1E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.085f	2.805	10362451	4349788	0.542m	0.918m#
		Spiked Amount	40.000	Range	30 - 150	Recovery	= 1.36%#	2.30%#
26)	SA	Decachlor...	9.411	11.902	23622431	3932550	1.179	0.952m
		Spiked Amount	40.000			Recovery	= 2.95%	2.38%
		Target Compounds						
3)		hexachlor...	2.450	3.348	57950245	8271088	1.655m	1.189 #
4)	A	alpha-BHC	2.585	3.510	30075161	6351884	1.060m	1.018
5)	MA	gamma-BHC	2.880	3.961	28048357	5283497	1.081m	0.913
6)	MA	Heptachlor	3.370	4.559	25721760	5707105	1.046	1.028
7)	B	beta-BHC	2.954	4.053	13307399	2824141	1.137m	1.059m
8)	B	delta-BHC	3.141	4.463	23870777	4475252	0.989	0.663 #
9)	MB	Aldrin	3.702	5.029	25193138	5421821	1.057m	1.004
10)		alachlor	3.855	4.825	5369577	1015385	1.678m	1.377m
11)	B	Heptachlo...	4.403	5.874	28709533	5814022	1.267m	1.143
12)	B	gamma-Chl...	4.563	6.166	23463986	5082710	1.030m	1.000
13)	B	alpha-Chl...	4.734	6.394	20154748	5098459	0.918m	1.025
14)	A	Endosulfan I	4.907	6.494	20585348	4576904	0.985m	0.967
15)	B	4,4'-DDE	4.852	6.656	25612575	4737120	1.139m	0.956
16)	MA	Dieldrin	5.224	6.938	23974959	4914282	1.051	0.962
17)	MA	Endrin	5.543	7.444	24394528	4511246	1.313m	1.077
18)	A	4,4'-DDD	5.677	7.618	19693064	3848725	1.065	0.930
19)	B	Endosulfa...	5.863	7.802	23048096	4005070	1.155	0.868
20)	MA	4,4'-DDT	6.088	8.157	16622747	3172064	1.023m	0.864
21)	B	Endrin Al...	6.478	8.380	11140706	3570184	0.688m	0.932m#
22)	B	Endosulfa...	7.152	8.850	14915032	2978621	0.905m	0.767
23)	A	Methoxychlor	6.878	9.402	9329235	1962750	1.096	0.965m
24)		Mirex	7.008	9.755	18536178	3980023	1.209	1.092
25)	B	Endrin Ke...	7.586	9.823	19177799	4025473	0.937m	0.822

SemiQuant Compounds - Not Calibrated on this Instrument

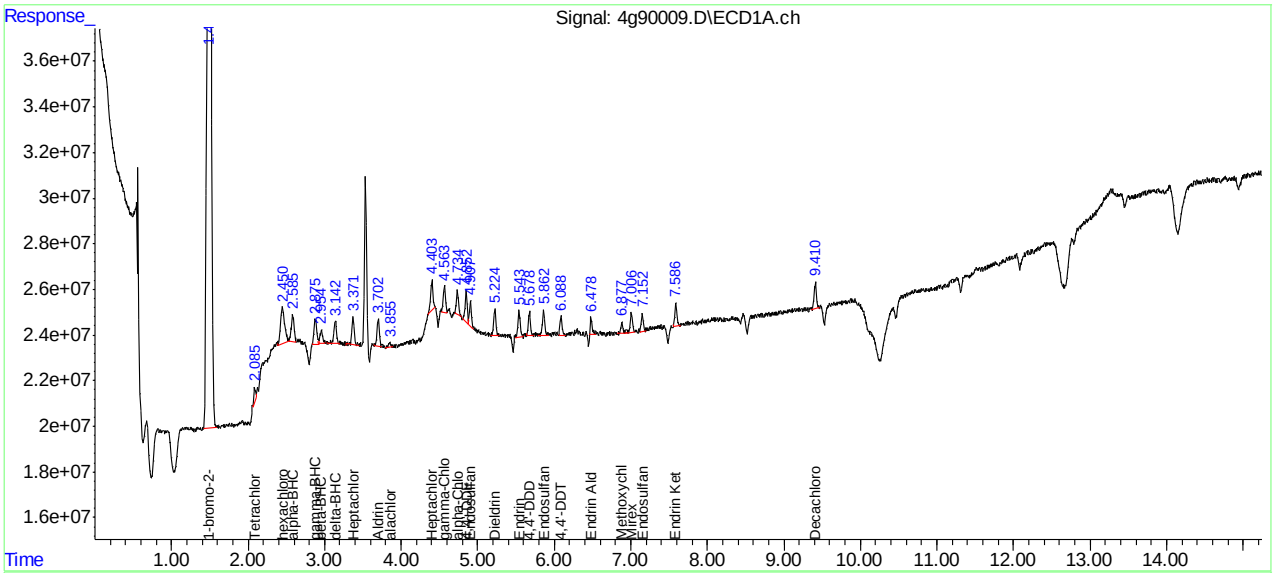
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

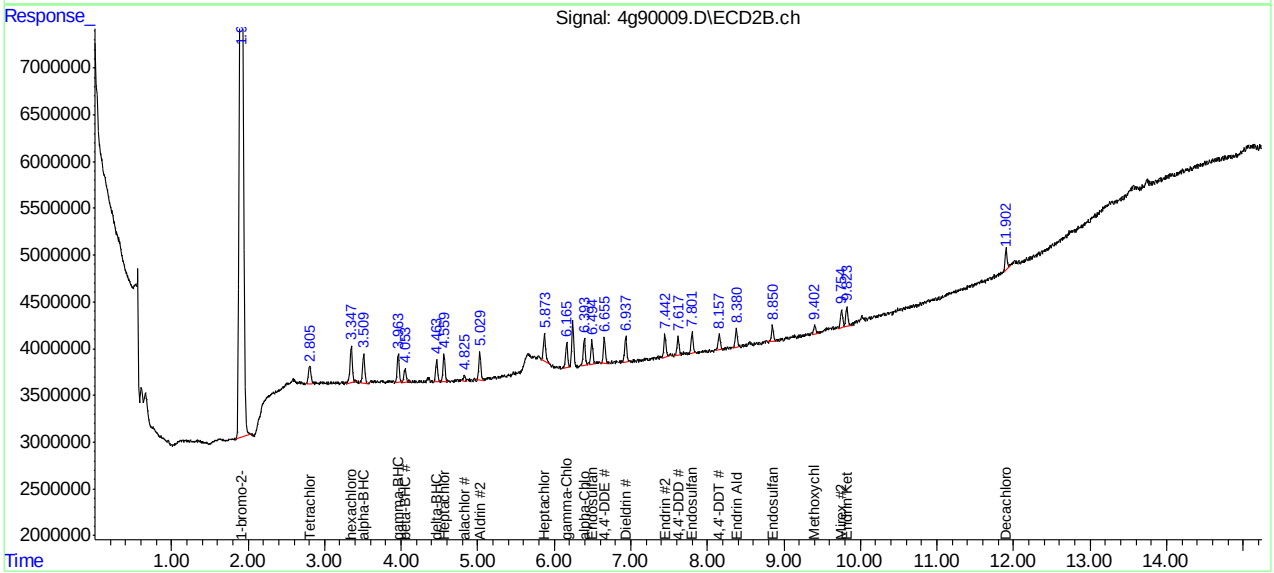
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:48:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number: G4G2366-IC2366
Lab FileID: 4G90009.D
Injection Time: 02/16/18 18:33
Method: SW846 8081B
Analyst approved: 02/19/18 09:42 Kristen Drake
Supervisor approved: 02/20/18 07:32 Gwendolyn Burns

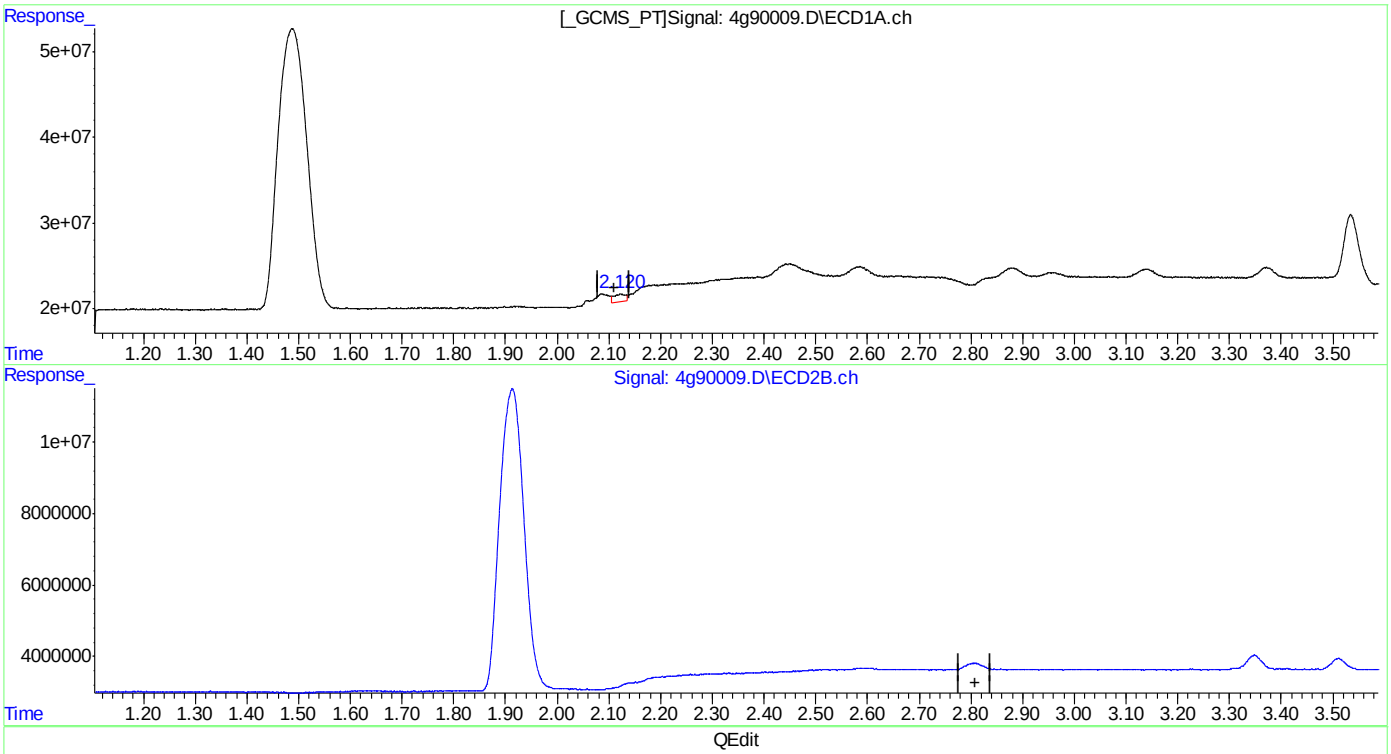
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.08	Poorly defined baseline
Hexachlorobenzene	118-74-1	1	2.45	Poorly defined baseline
alpha-BHC	319-84-6	1	2.59	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	2.80	Poorly defined baseline
gamma-BHC (Lindane)	58-89-9	1	2.88	Poorly defined baseline
beta-BHC	319-85-7	1	2.95	Poorly defined baseline
Aldrin	309-00-2	1	3.70	Poorly defined baseline
Alachlor	15972-60-8	1	3.85	Poorly defined baseline
beta-BHC	319-85-7	2	4.05	Poorly defined baseline
Heptachlor epoxide	1024-57-3	1	4.40	Poorly defined baseline
gamma-Chlordane	5103-74-2	1	4.56	Poorly defined baseline
alpha-Chlordane	5103-71-9	1	4.73	Poorly defined baseline
Alachlor	15972-60-8	2	4.83	Poorly defined baseline
4,4'-DDE	72-55-9	1	4.85	Poorly defined baseline
Endosulfan-I	959-98-8	1	4.91	Poorly defined baseline
Endrin	72-20-8	1	5.54	Poorly defined baseline
4,4'-DDT	50-29-3	1	6.09	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.48	Poorly defined baseline
Endosulfan sulfate	1031-07-8	1	7.15	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.59	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	8.38	Poorly defined baseline
Methoxychlor	72-43-5	2	9.40	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	11.90	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(2) Tetrachloro-m-xylene (SAB)
2.122min 0.739 PPB
response 14113061

(2) Tetrachloro-m-xylene #2 (SAB)
0.000min 0.000 PPB
response 0

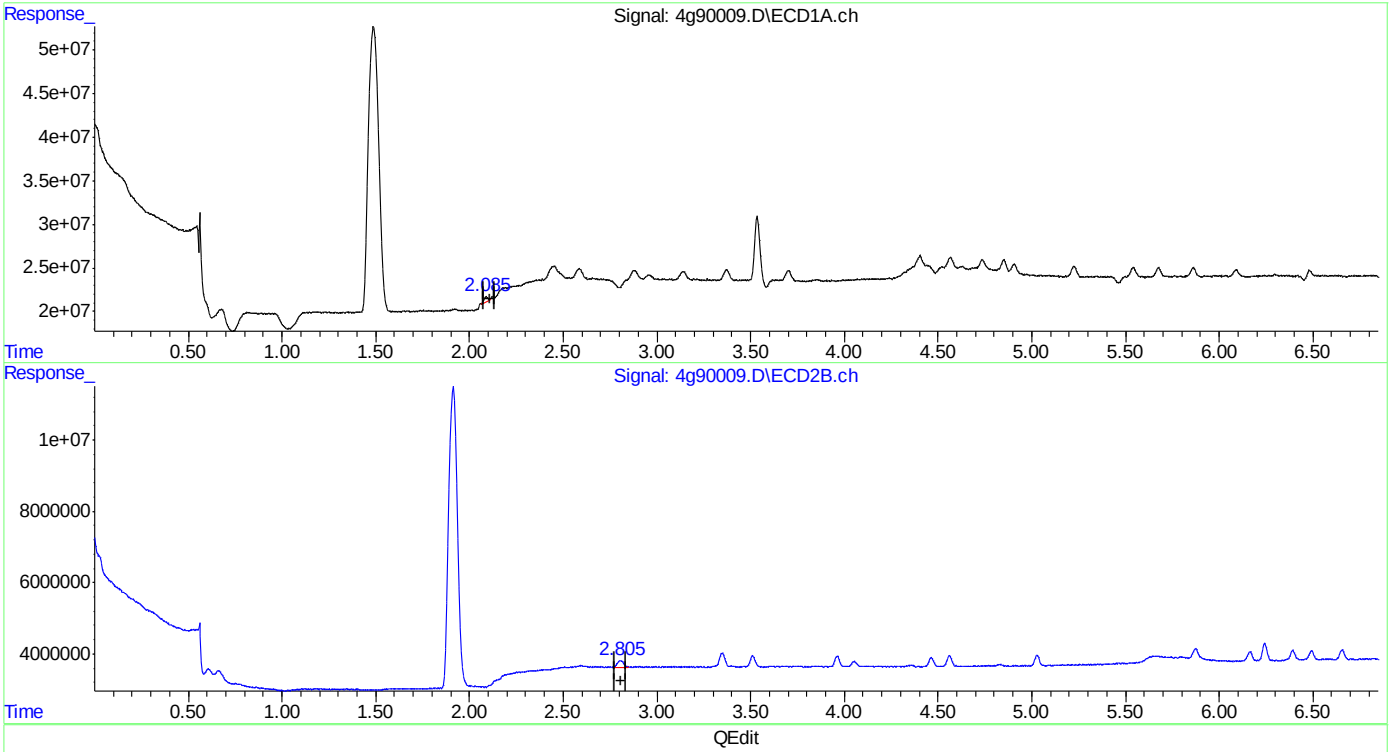
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:38:13 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(2) Tetrachloro-m-xylene (SAB)
2.085min 0.542 PPB m
response 10362451

(2) Tetrachloro-m-xylene #2 (SAB)
2.805min 0.918 PPB m
response 4349788

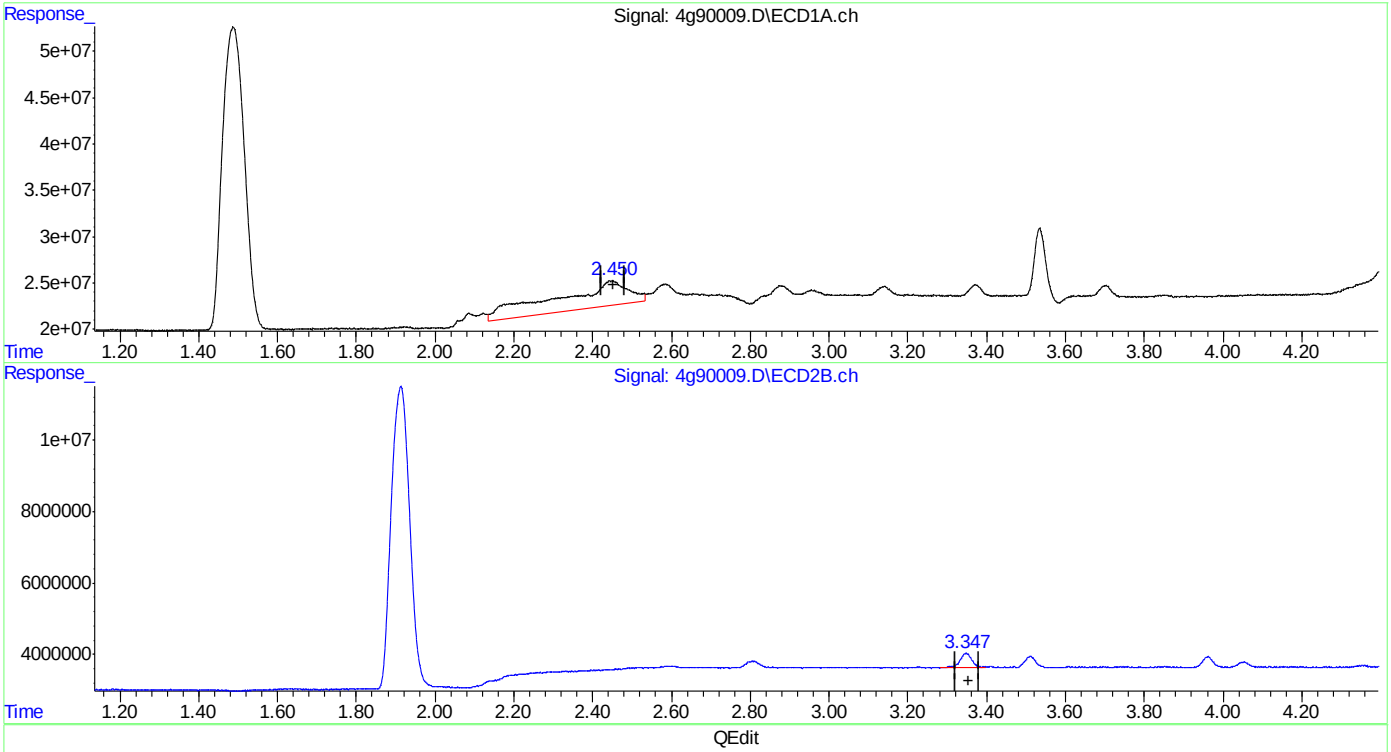
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:38:41 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(3) hexachlorobenzene
2.449min 10.529 PPB
response 368798950

(3) hexachlorobenzene #2
3.348min 1.189 PPB
response 8271088

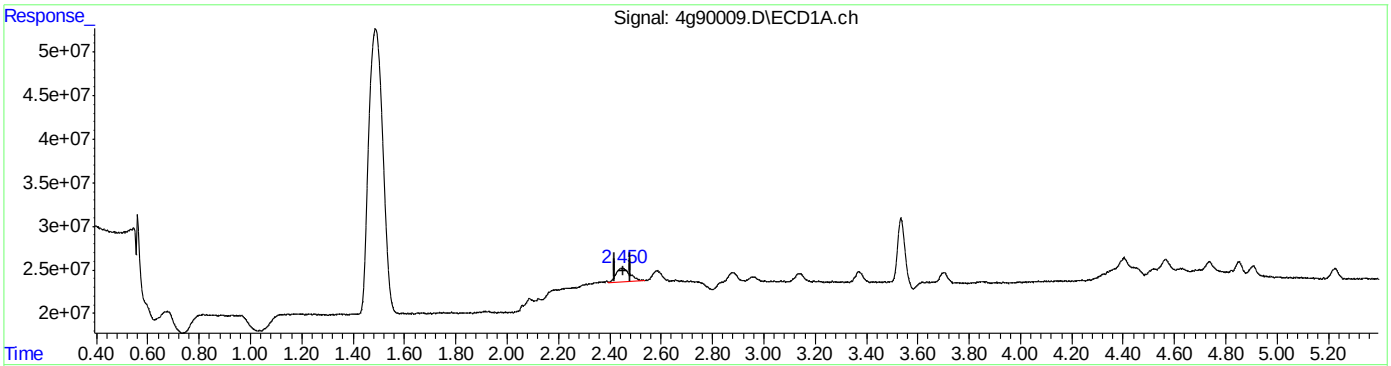
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:38:44 2018 RPT1

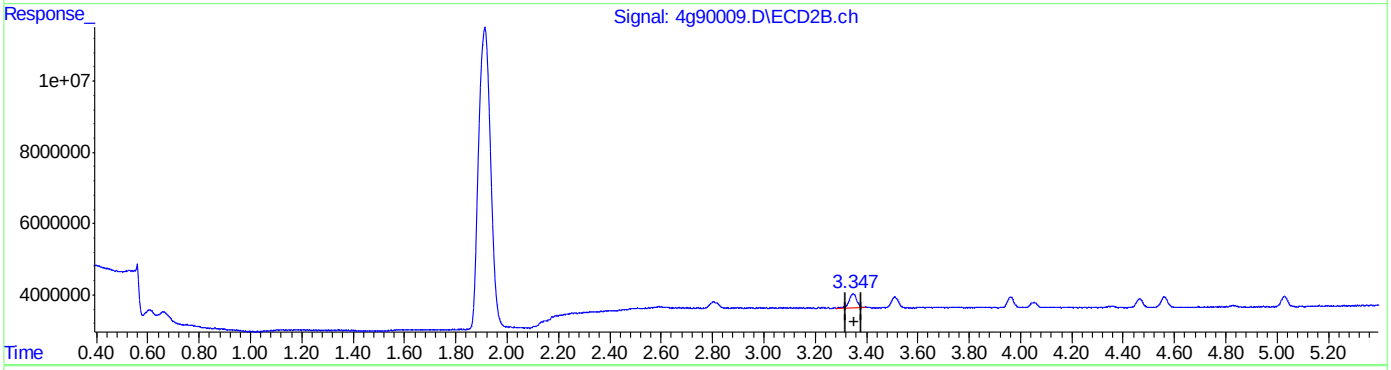
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(3) hexachlorobenzene
2.450min 1.655 PPB m
response 57950245

(3) hexachlorobenzene #2
3.348min 1.189 PPB
response 8271088

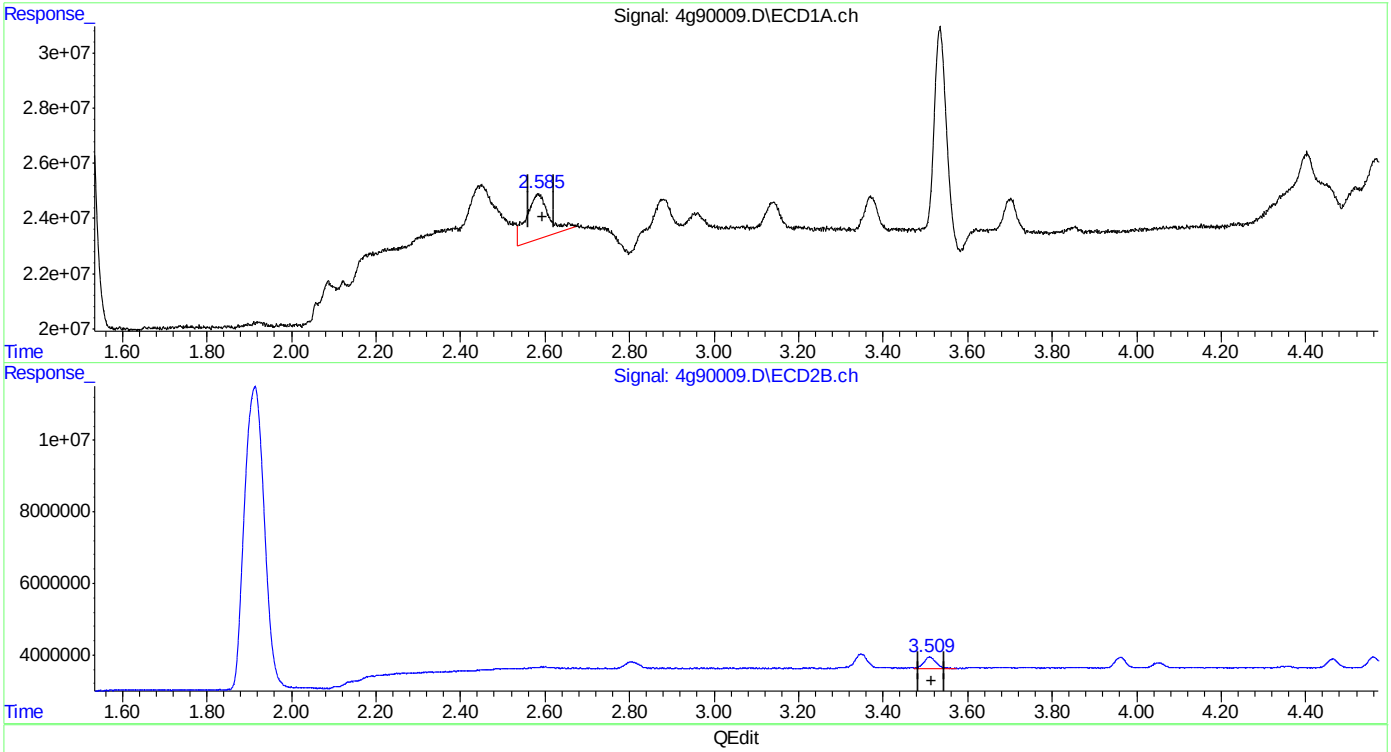
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(4) alpha-BHC (A)
2.585min 2.134 PPB
response 60544975

(4) alpha-BHC #2 (A)
3.510min 1.018 PPB
response 6351884

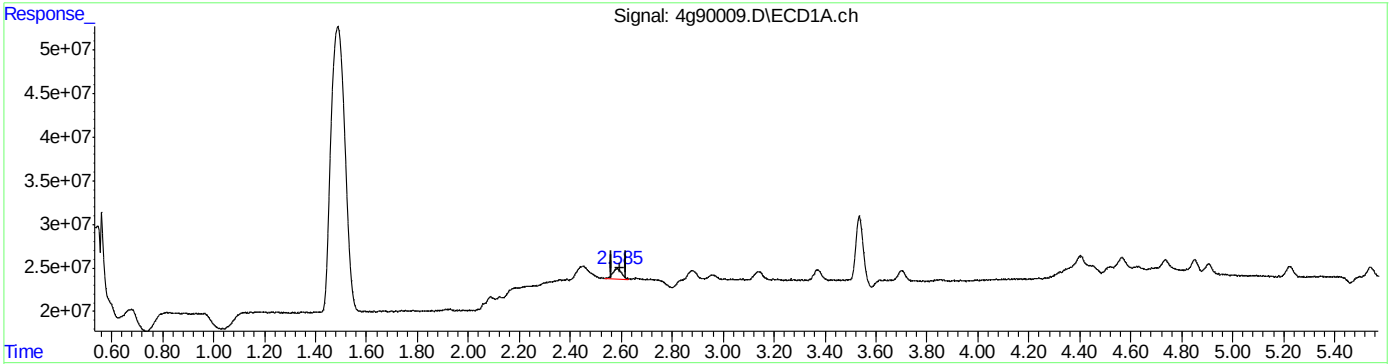
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:38:53 2018 RPT1

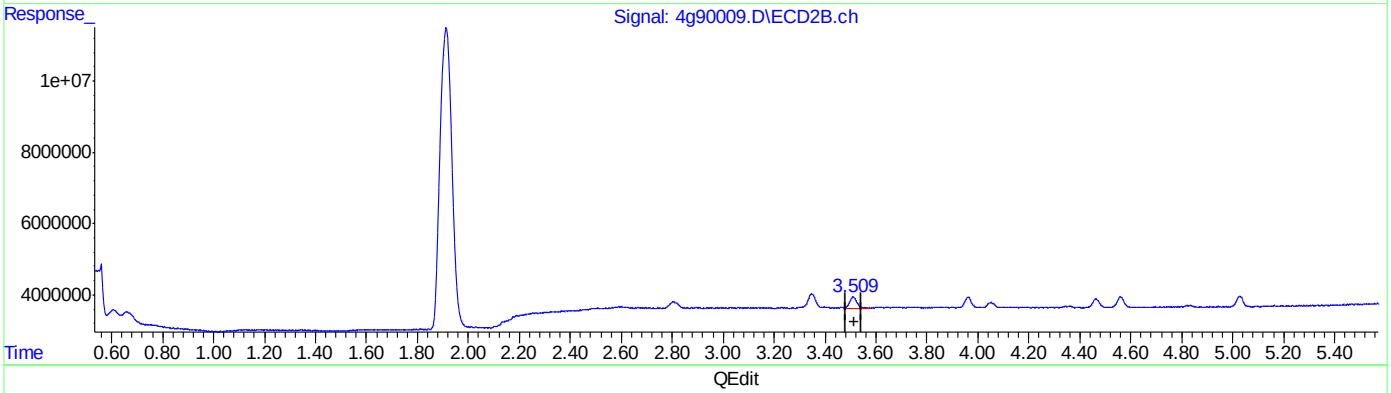
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(4) alpha-BHC (A)
2.585min 1.060 PPB m
response 30075161

(4) alpha-BHC #2 (A)
3.510min 1.018 PPB
response 6351884

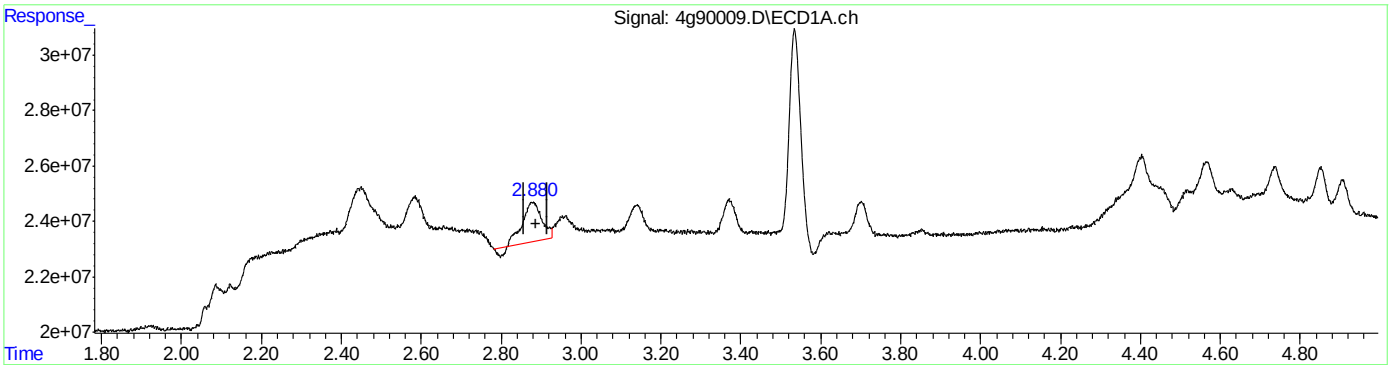
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:38:58 2018 RPT1 Page: 1

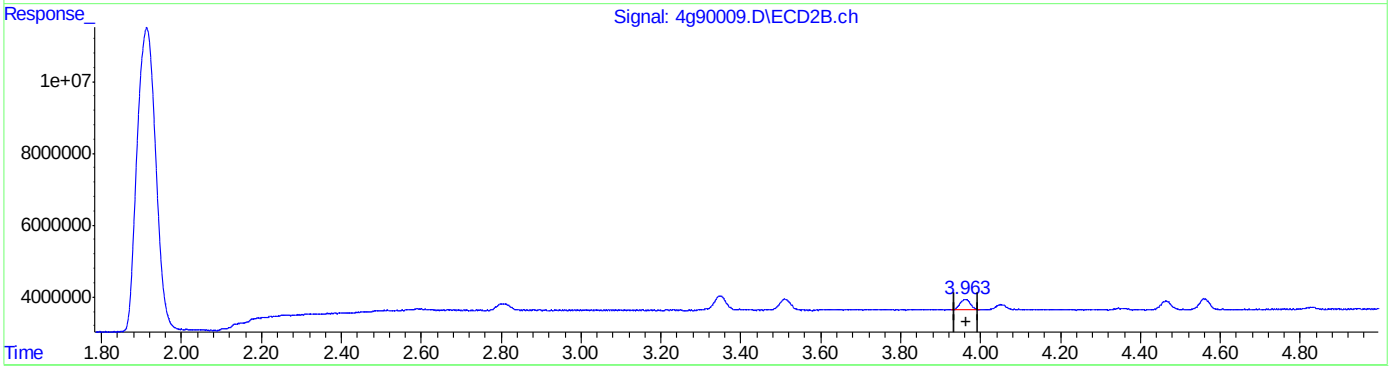
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(5) gamma-BHC (MA)
2.877min 1.818 PPB
response 47168320

(5) gamma-BHC #2 (MA)
3.961min 0.913 PPB
response 5283497

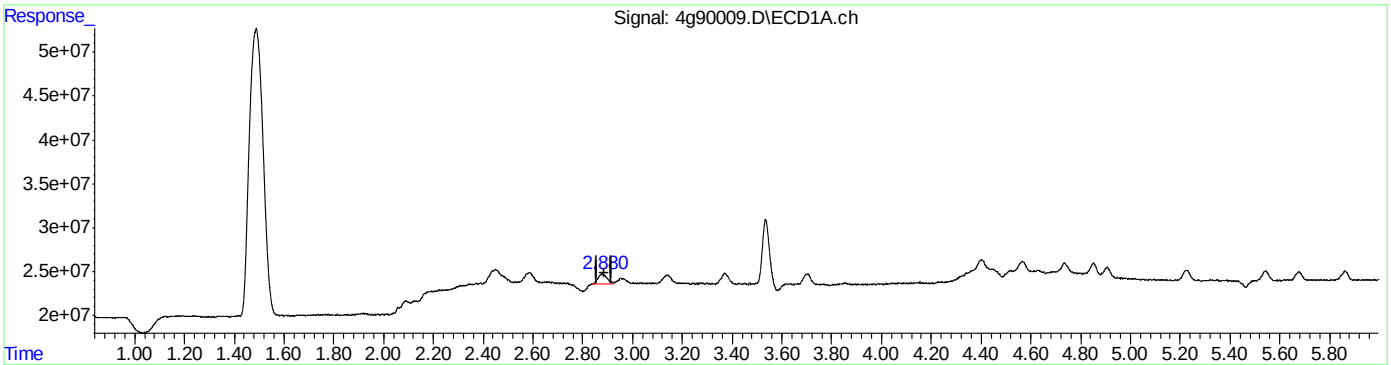
(+) = Expected Retention Time

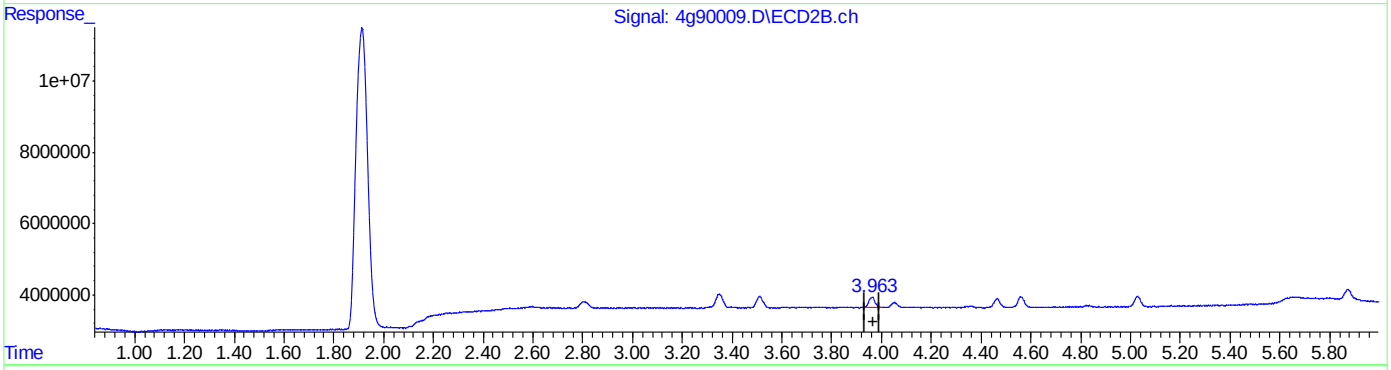
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(5) gamma-BHC (MA)
2.880min 1.081 PPB m
response 28048357

(5) gamma-BHC #2 (MA)
3.961min 0.913 PPB
response 5283497

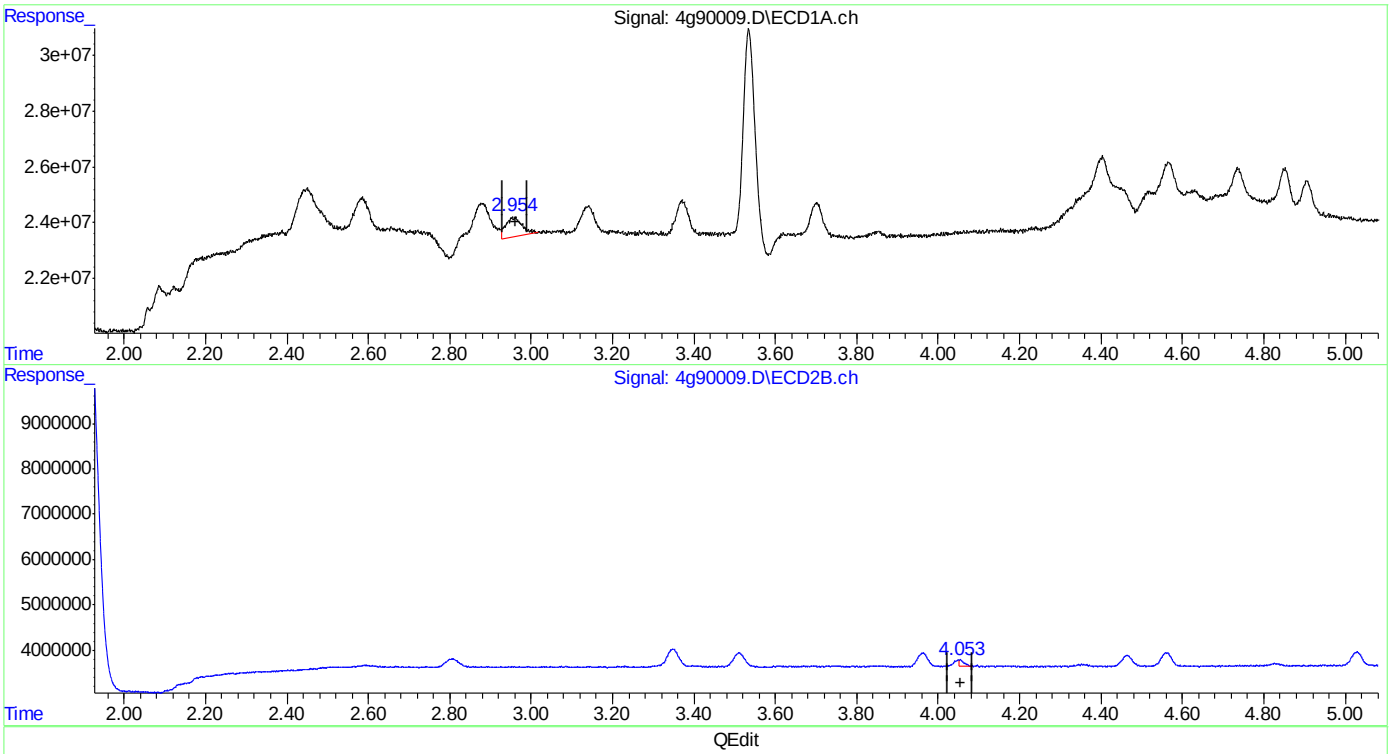
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(7) beta-BHC (B)
2.954min 1.705 PPB
response 19948713

(7) beta-BHC #2 (B)
4.055min 0.472 PPB
response 1257458

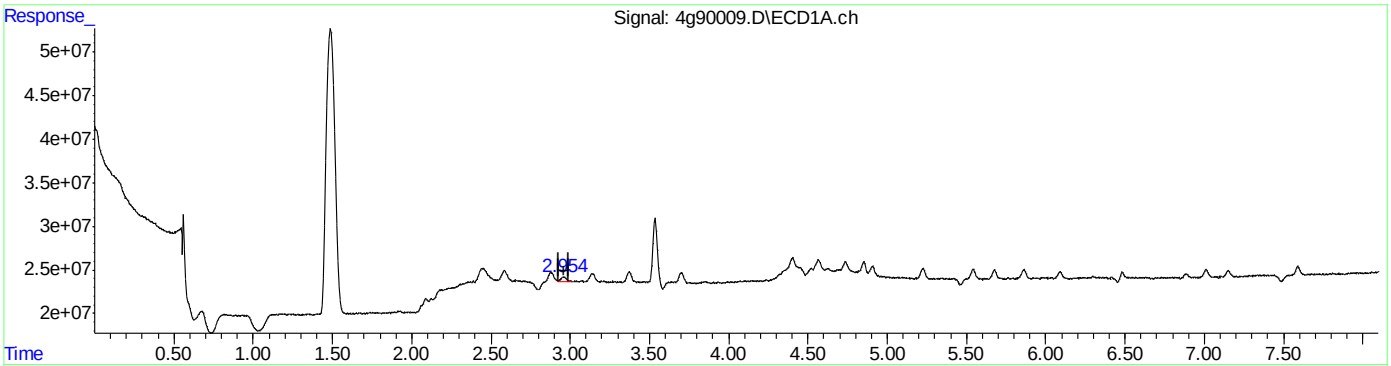
(+) = Expected Retention Time

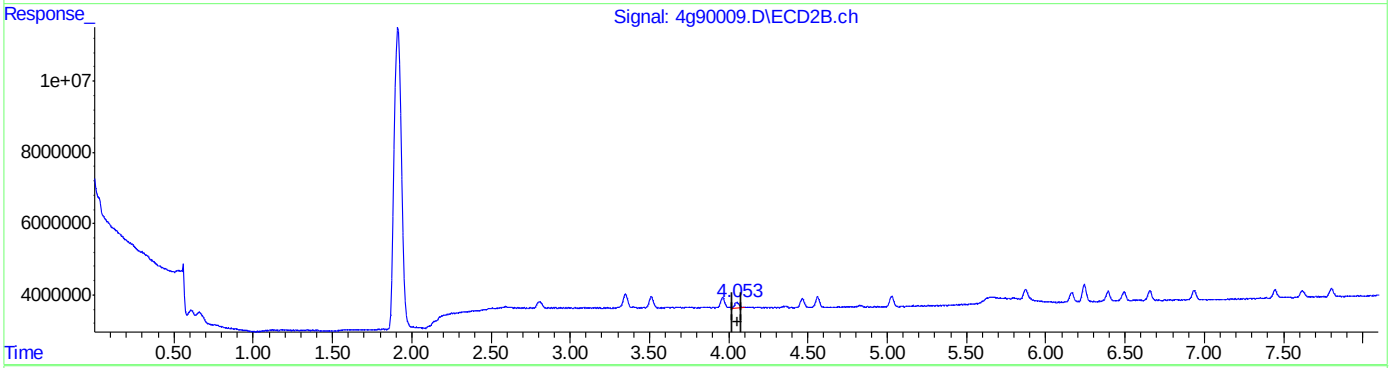
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(7) beta-BHC (B)
2.954min 1.137 PPB m
response 13307399

(7) beta-BHC #2 (B)
4.053min 1.059 PPB m
response 2824141

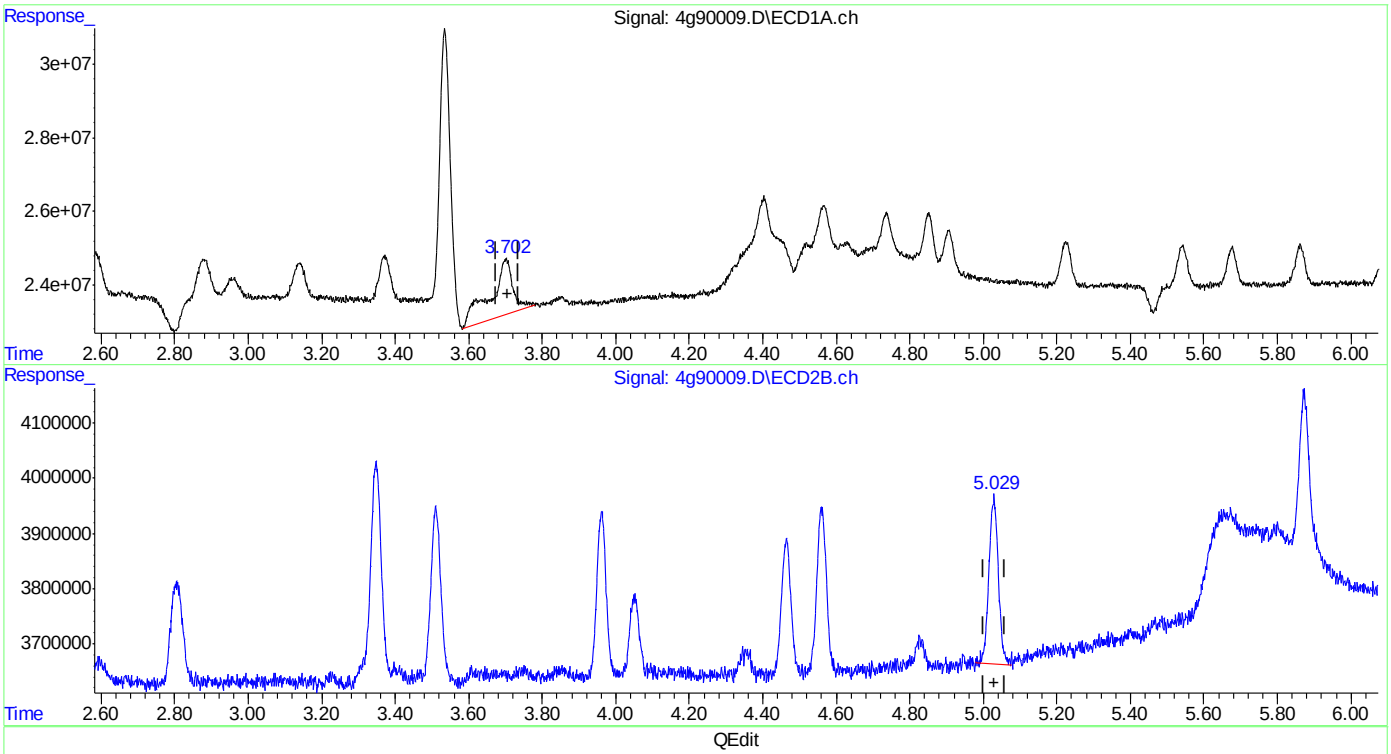
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:39:23 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(9) Aldrin (MB)
3.702min 2.730 PPB
response 65071020

(9) Aldrin #2 (MB)
5.029min 1.004 PPB
response 5421821

(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:39:27 2018 RPT1

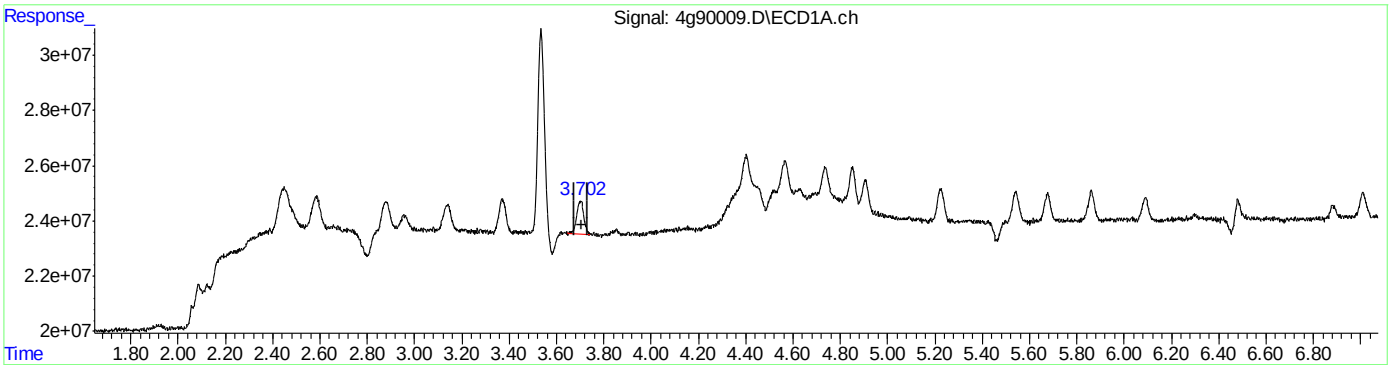
SGS JC62879

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(9) Aldrin (MB)
3.702min 1.057 PPB m
response 25193138

(9) Aldrin #2 (MB)
5.029min 1.004 PPB
response 5421821

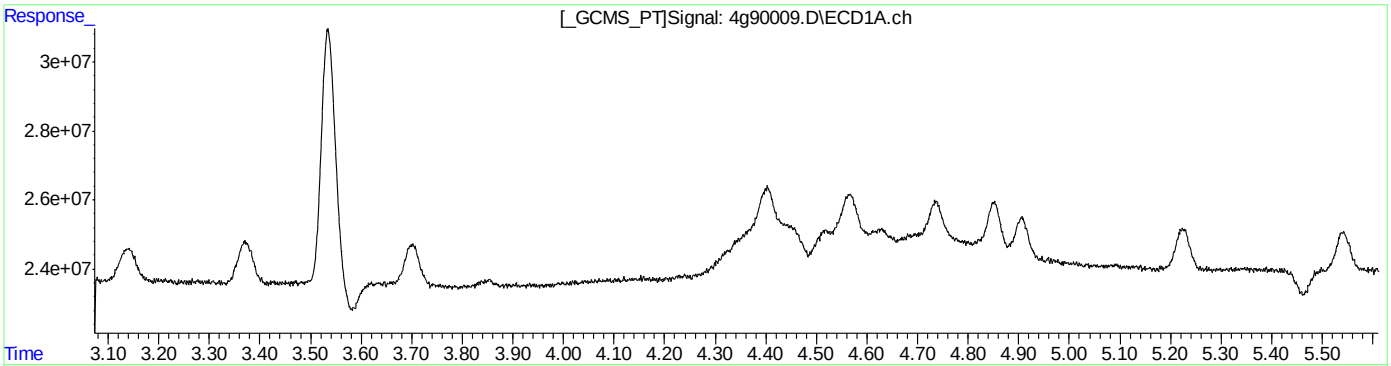
(+) = Expected Retention Time

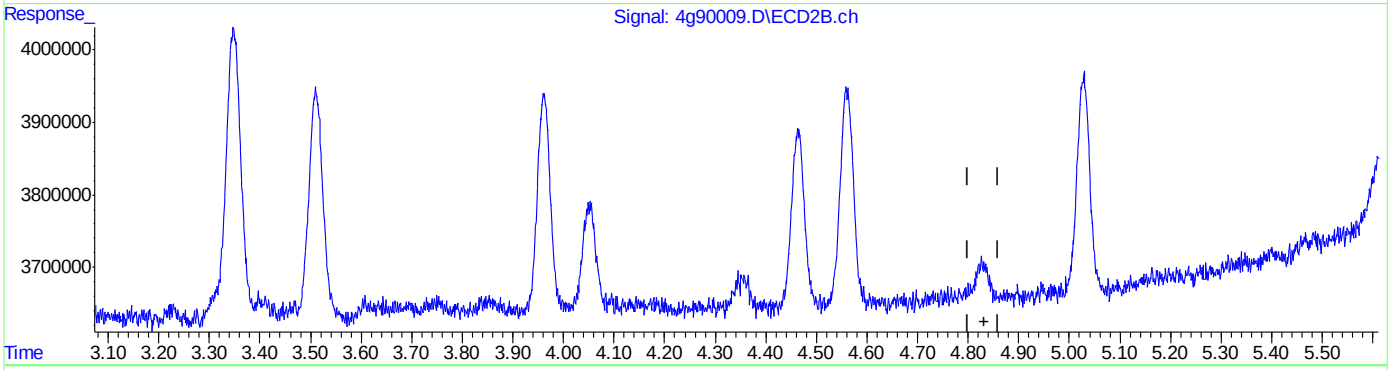
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(10) alachlor
0.000min 0.000 PPB
response 0

(10) alachlor #2
0.000min 0.000 PPB
response 0

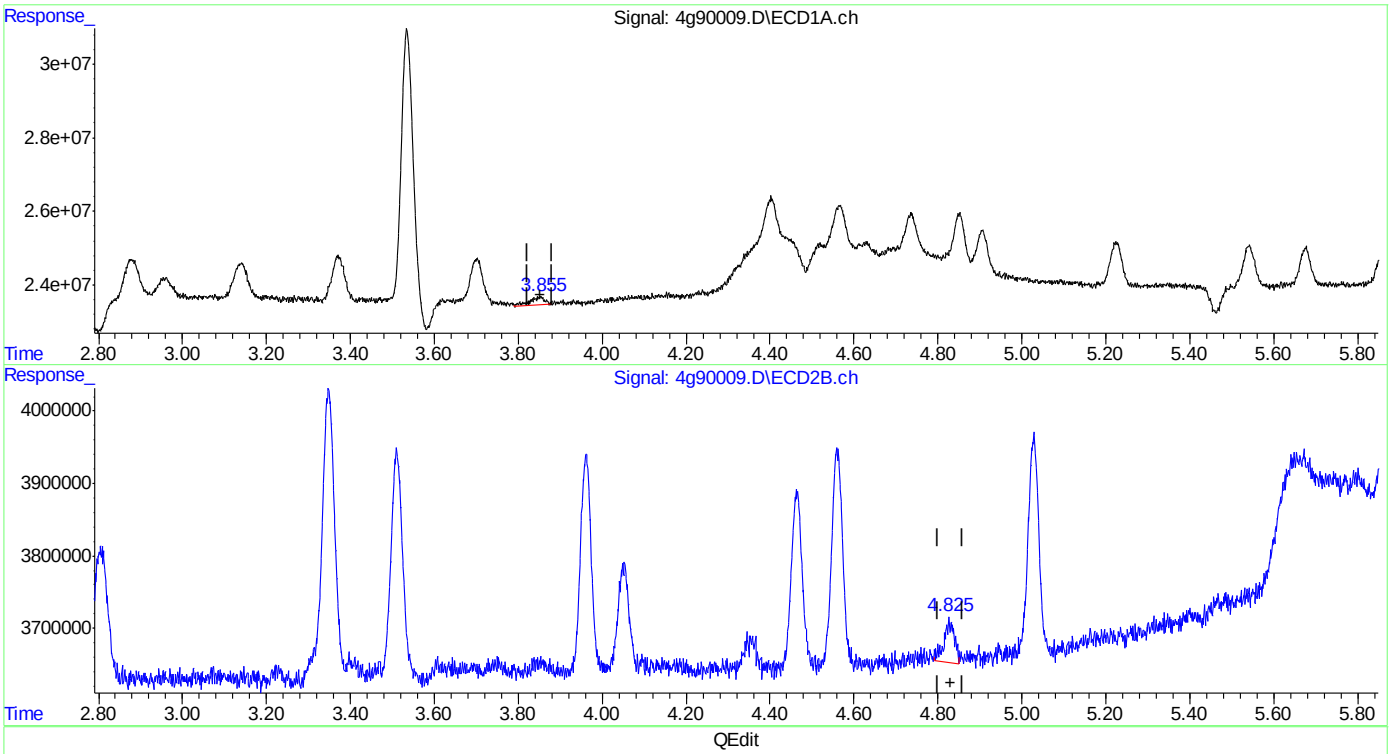
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:39:37 2018 RPT1 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(10) alachlor
3.855min 1.678 PPB m
response 5369577

(10) alachlor #2
4.825min 1.377 PPB m
response 1015385

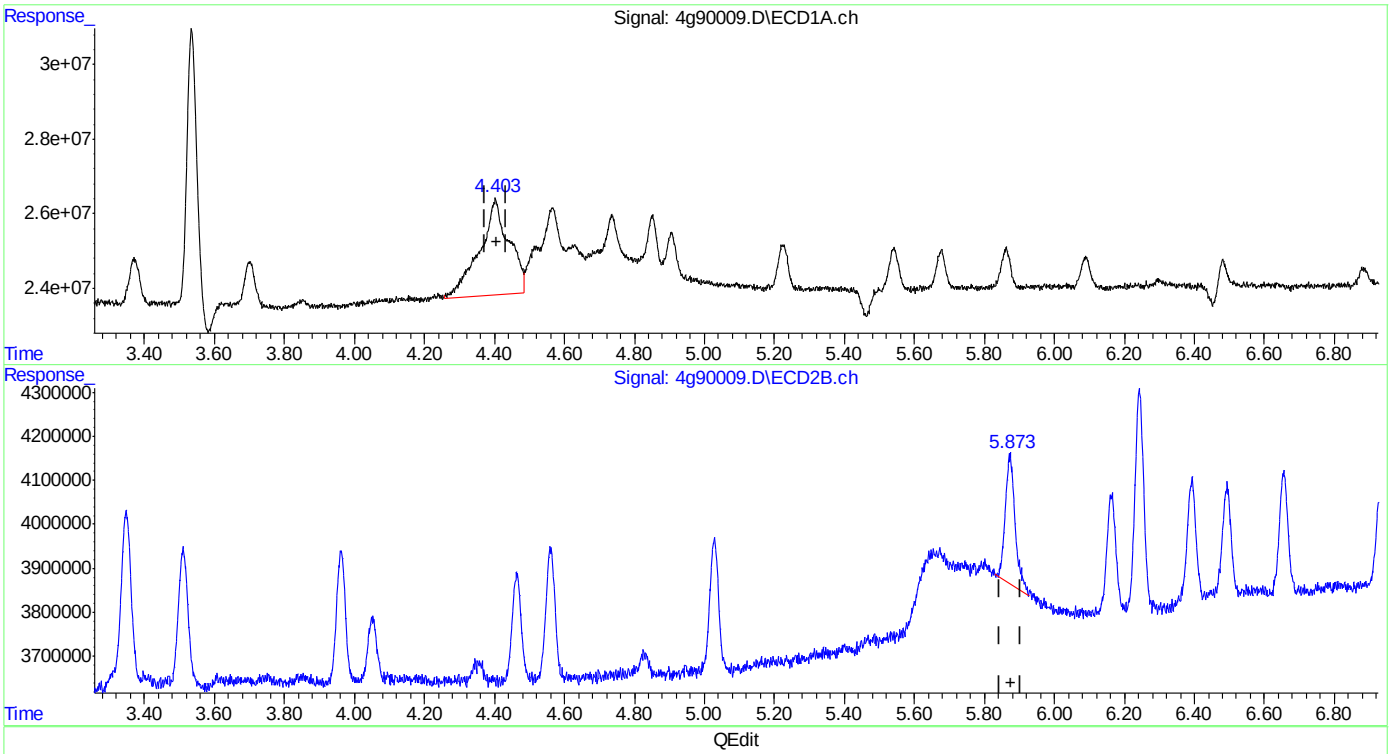
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:39:47 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(11) Heptachlor Epoxide (B)
4.403min 6.590 PPB
response 149318362

(11) Heptachlor Epoxide #2 (B)
5.874min 1.143 PPB
response 5814022

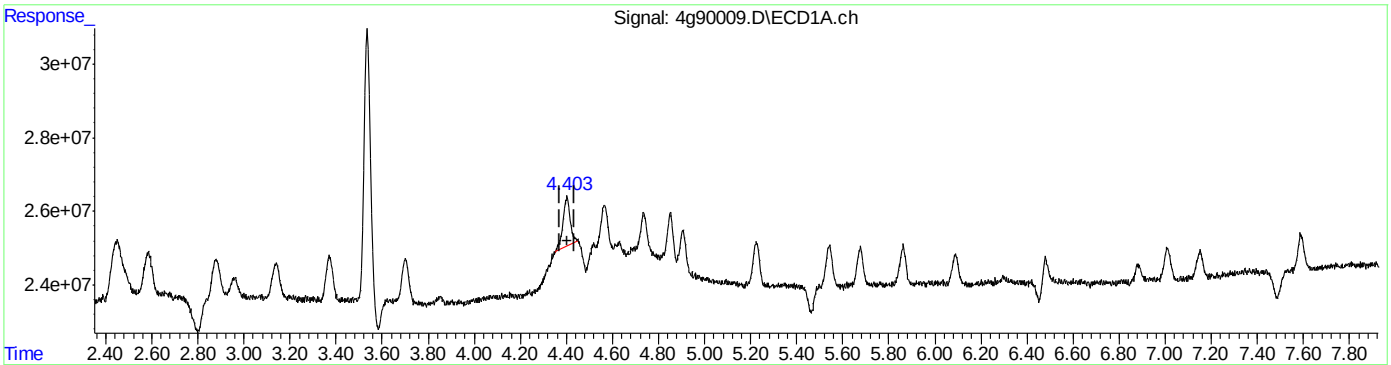
(+) = Expected Retention Time

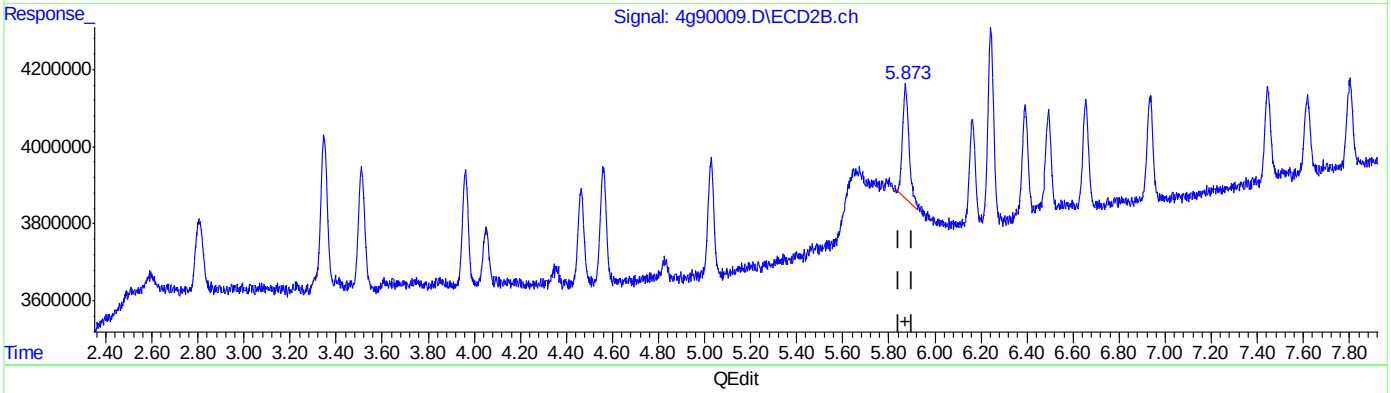
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(11) Heptachlor Epoxide (B)
4.403min 1.267 PPB m
response 28709533

(11) Heptachlor Epoxide #2 (B)
5.874min 1.143 PPB
response 5814022

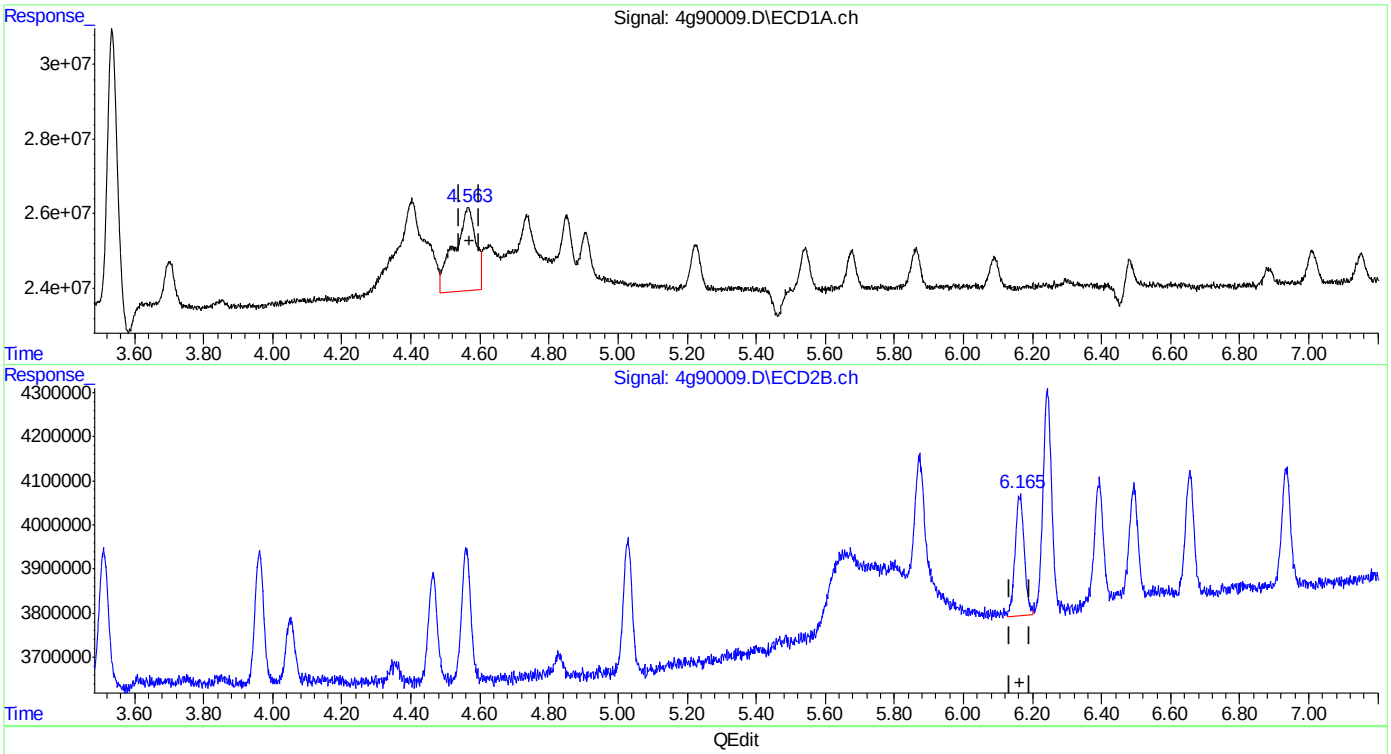
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(12) gamma-Chlordane (B)
4.566min 4.288 PPB
response 97717959

(12) gamma-Chlordane #2 (B)
6.166min 1.000 PPB
response 5082710

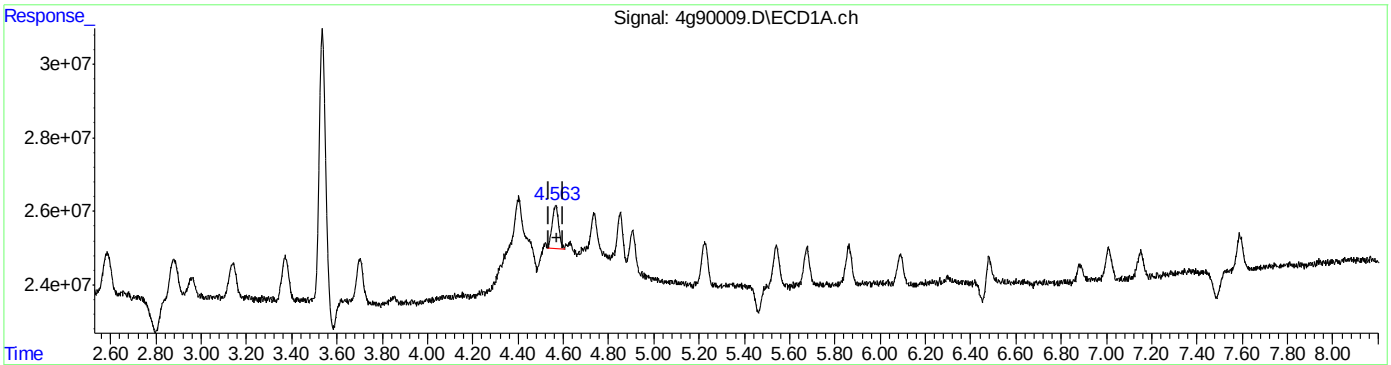
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:40:01 2018 RPT1

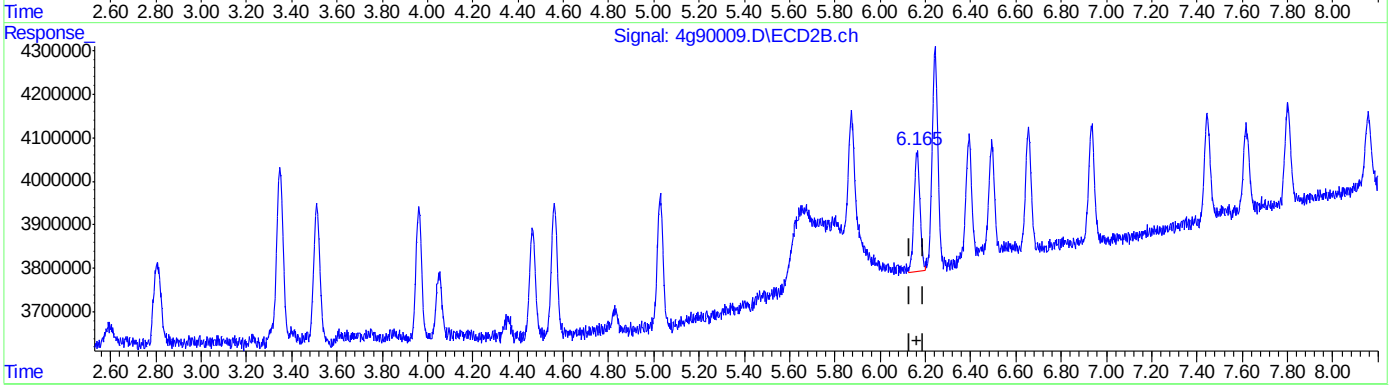
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(12) gamma-Chlordane (B)
4.563min 1.030 PPB m
response 23463986

(12) gamma-Chlordane #2 (B)
6.166min 1.000 PPB
response 5082710

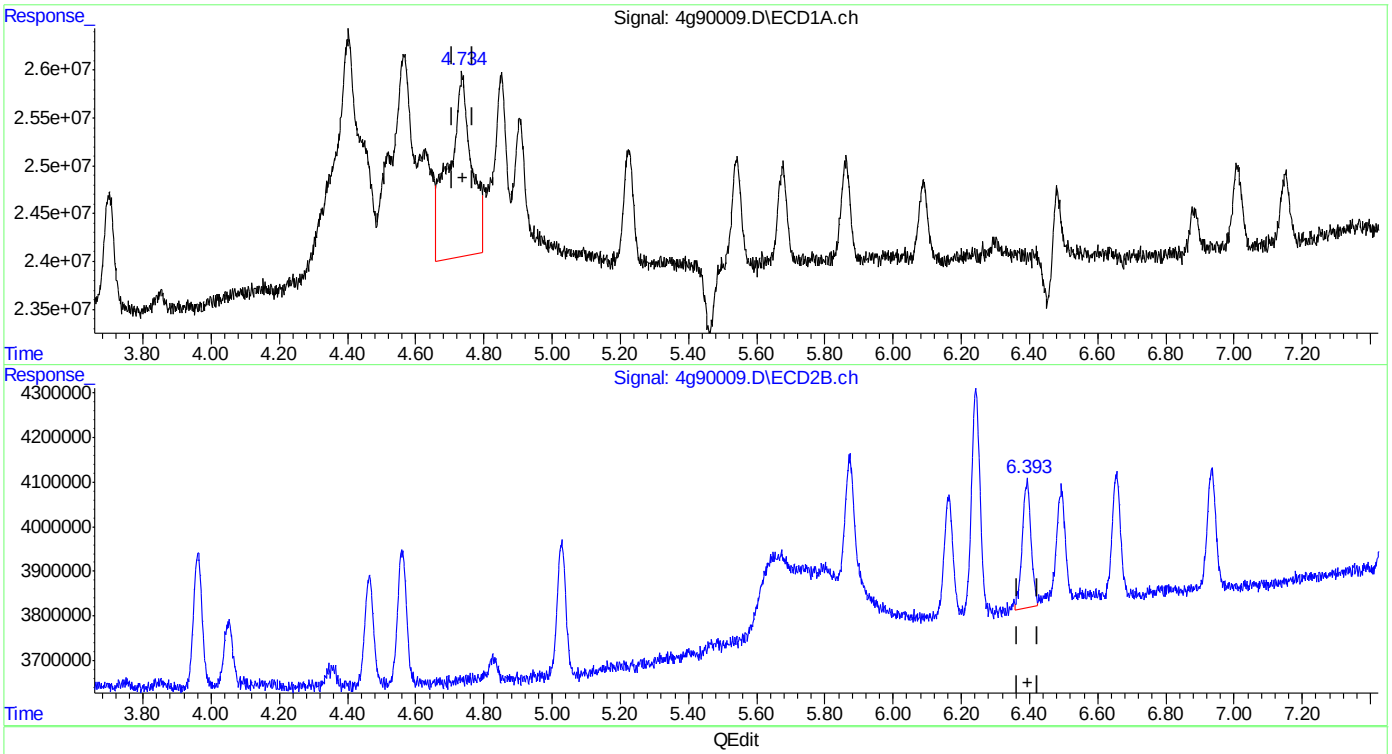
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(13) alpha-Chlordane (B)
4.736min 4.040 PPB
response 88697699

(13) alpha-Chlordane #2 (B)
6.394min 1.025 PPB
response 5098459

(+) = Expected Retention Time

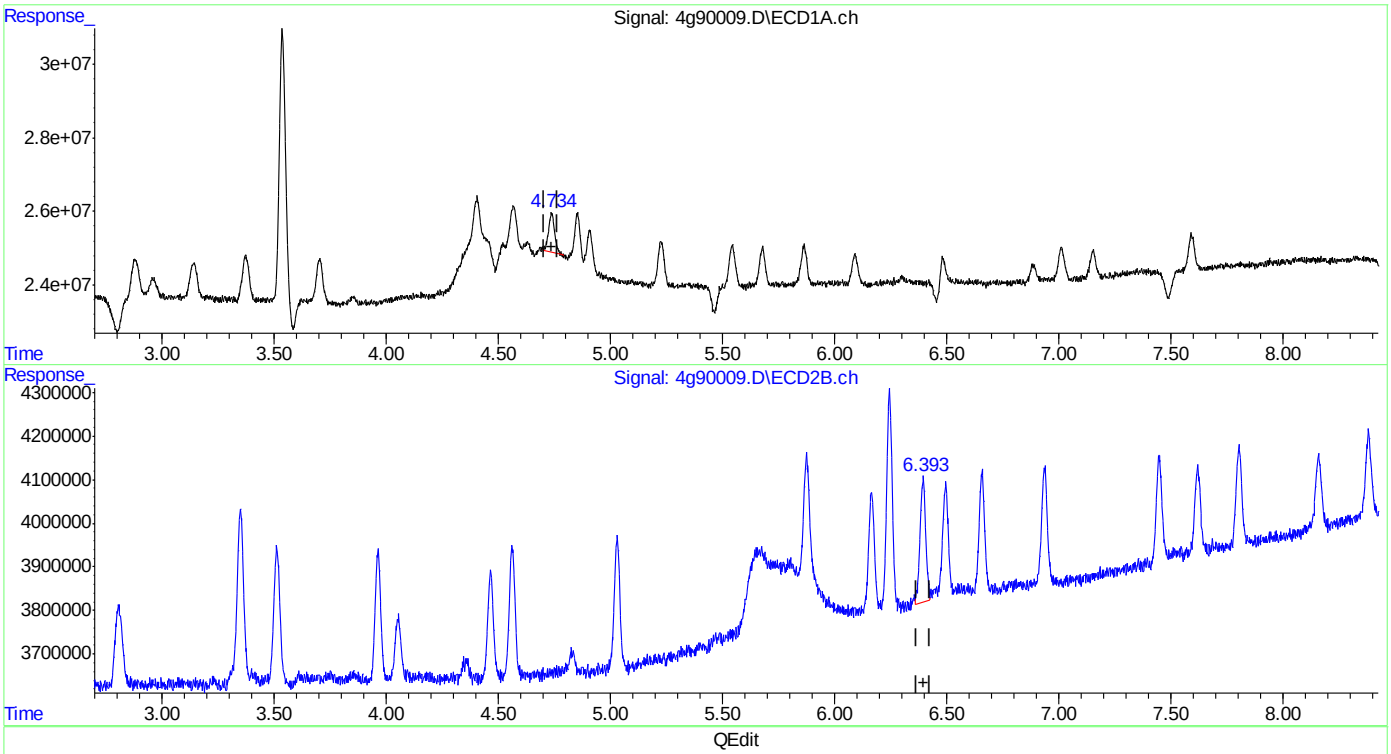
11.6.25.20

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(13) alpha-Chlordane (B)
4.734min 0.918 PPB m
response 20154748

(13) alpha-Chlordane #2 (B)
6.394min 1.025 PPB
response 5098459

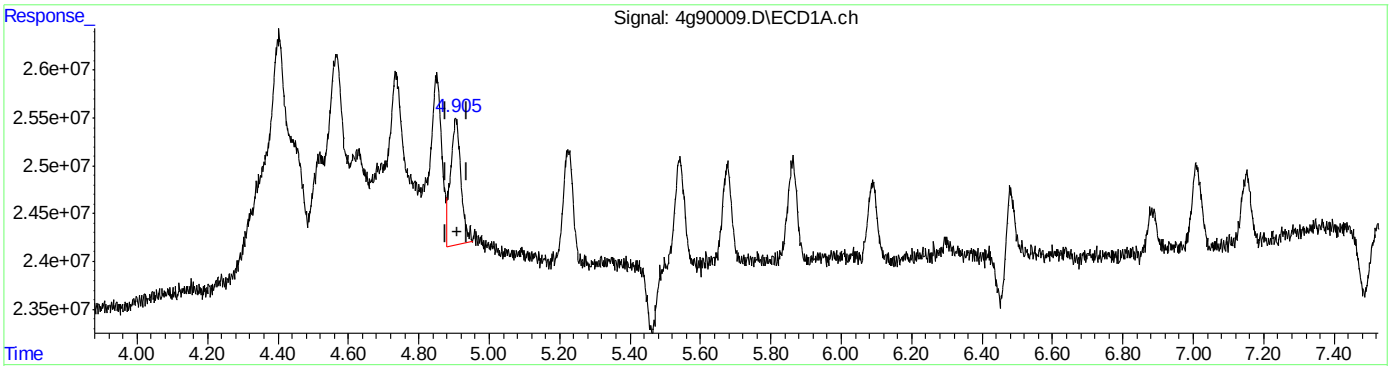
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:40:14 2018 RPT1

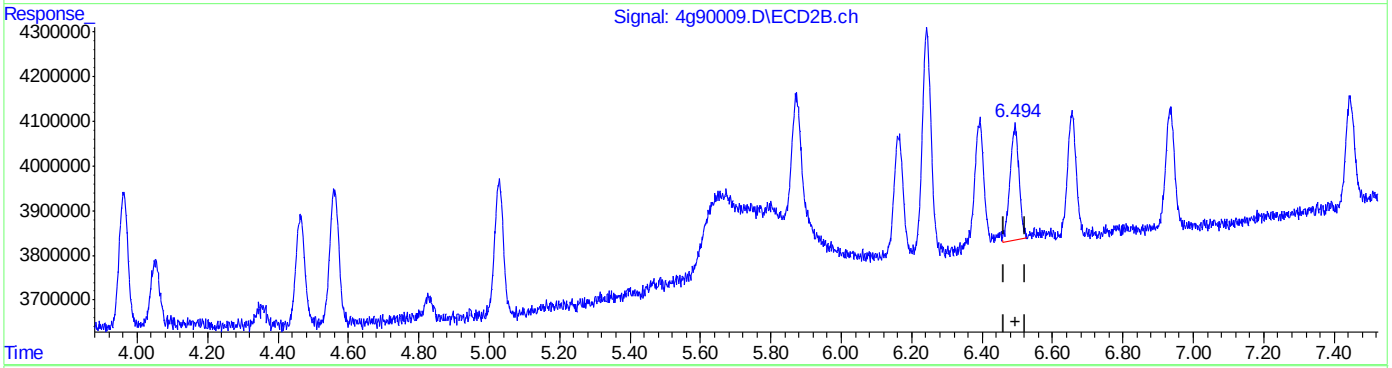
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(14) Endosulfan I (A)
4.906min 1.314 PPB
response 27455420

(14) Endosulfan I #2 (A)
6.494min 0.967 PPB
response 4576904

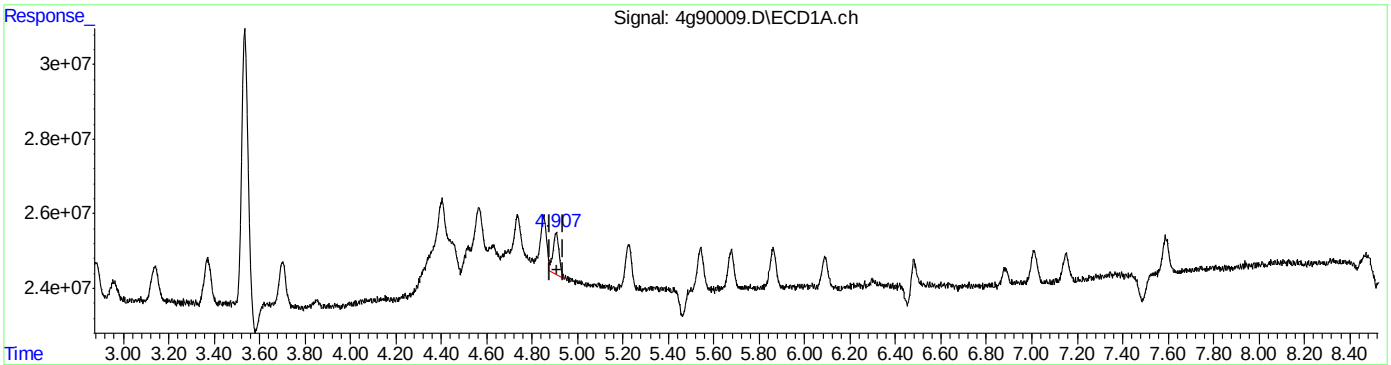
(+) = Expected Retention Time

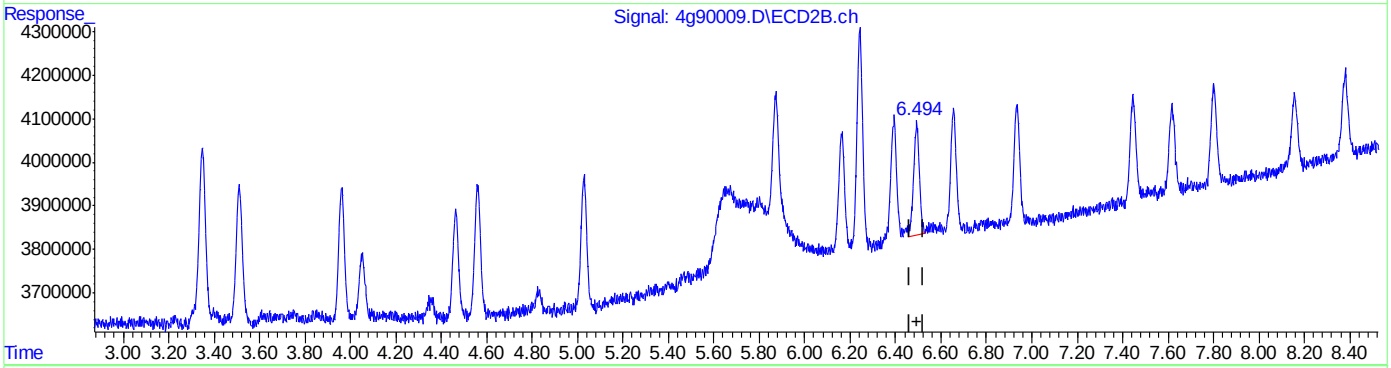
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(14) Endosulfan I (A)
4.907min 0.985 PPB m
response 20585348

(14) Endosulfan I #2 (A)
6.494min 0.967 PPB
response 4576904

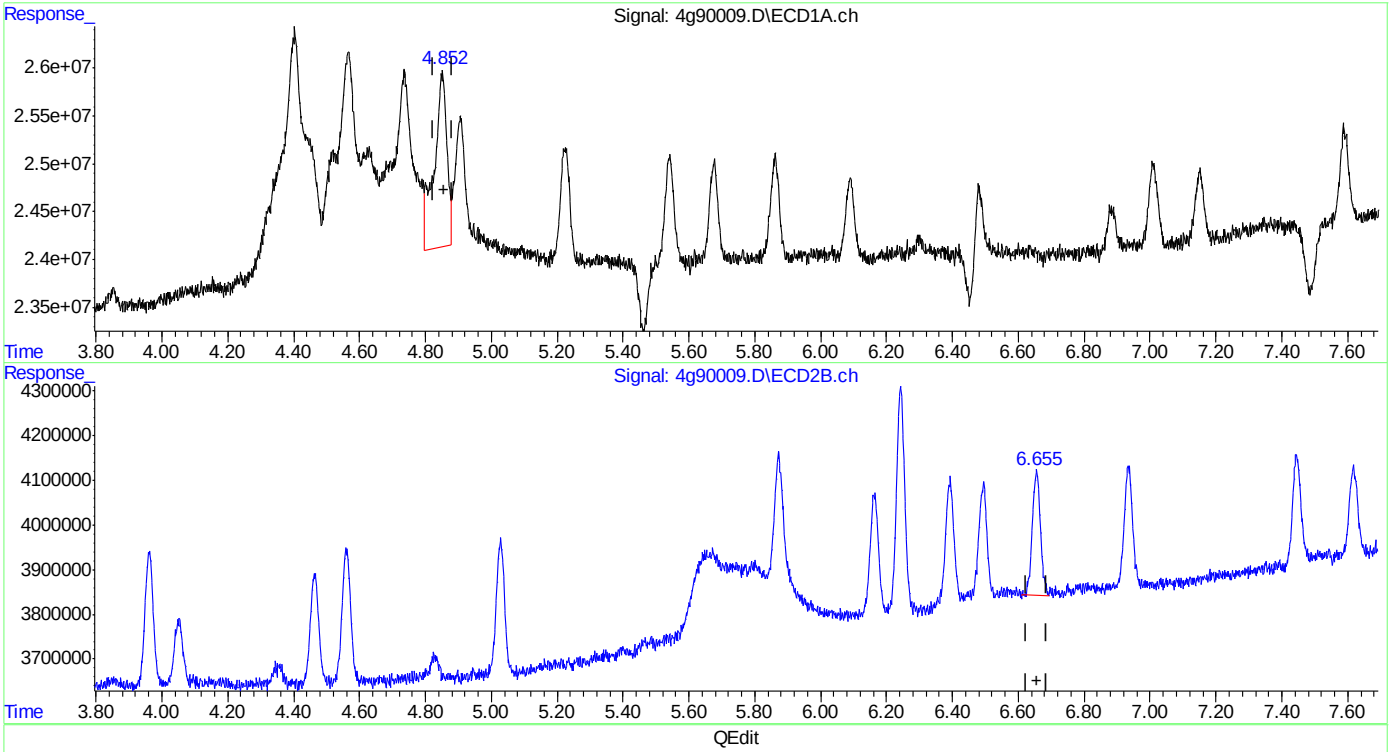
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(15) 4,4'-DDE (B)
4.851min 2.212 PPB
response 49748390

(15) 4,4'-DDE #2 (B)
6.656min 0.956 PPB
response 4737120

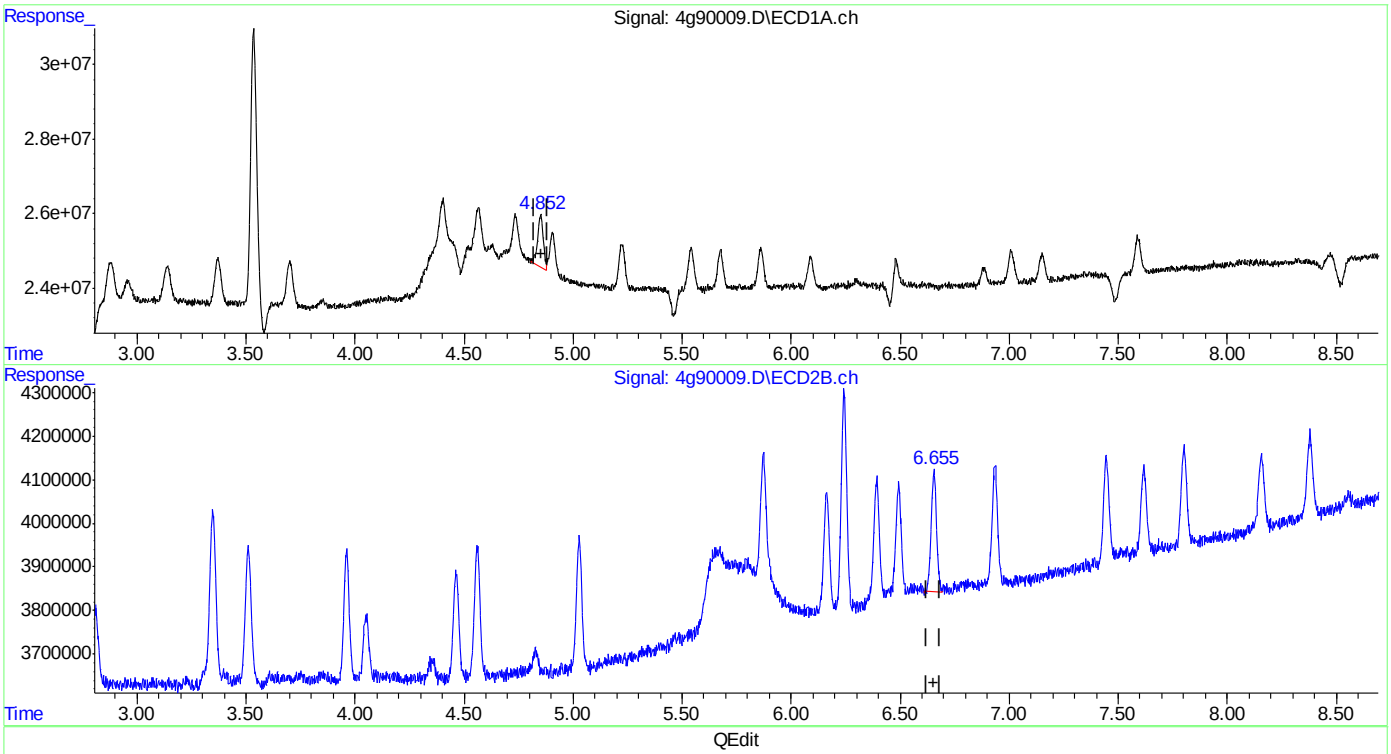
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(15) 4,4'-DDE (B)
4.852min 1.139 PPB m
response 25612575

(15) 4,4'-DDE #2 (B)
6.656min 0.956 PPB
response 4737120

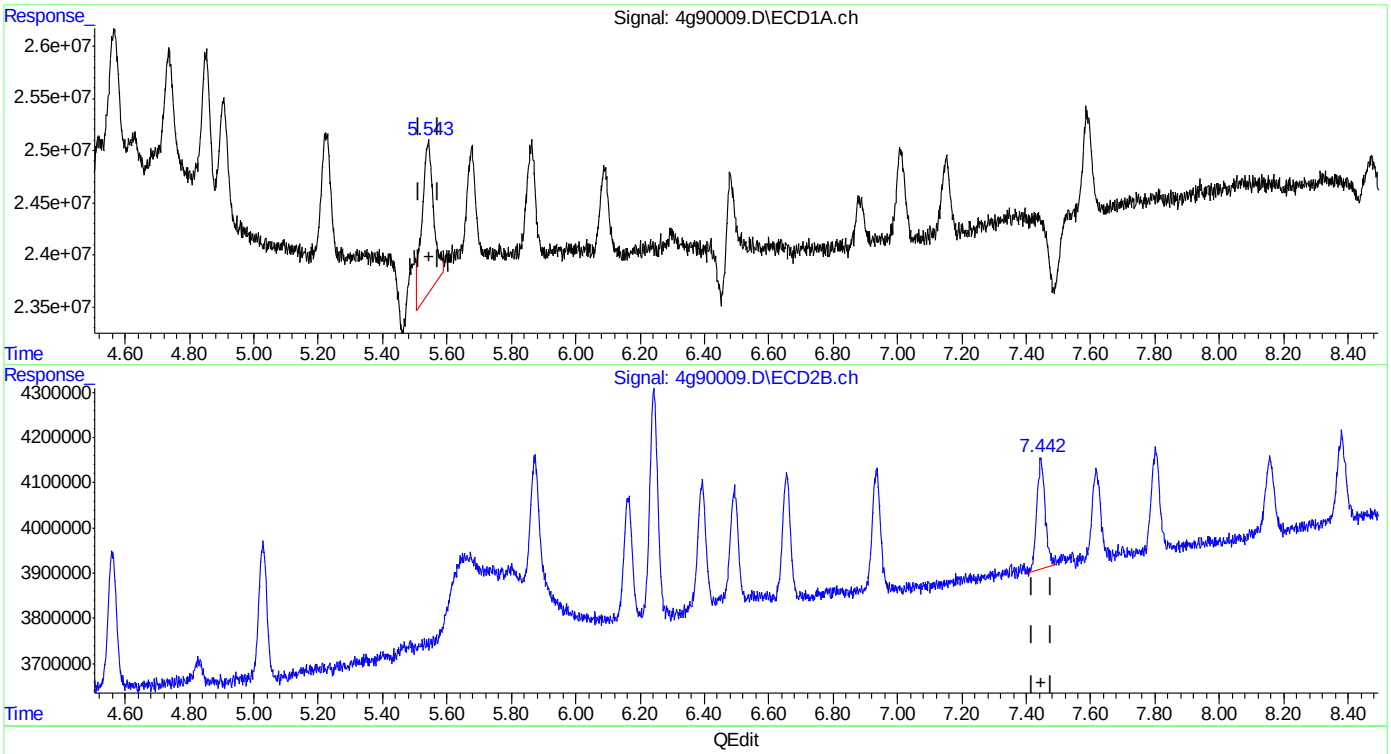
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:40:37 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(17) Endrin (MA)
5.542min 1.977 PPB
response 36734934

(17) Endrin #2 (MA)
7.444min 1.077 PPB
response 4511246

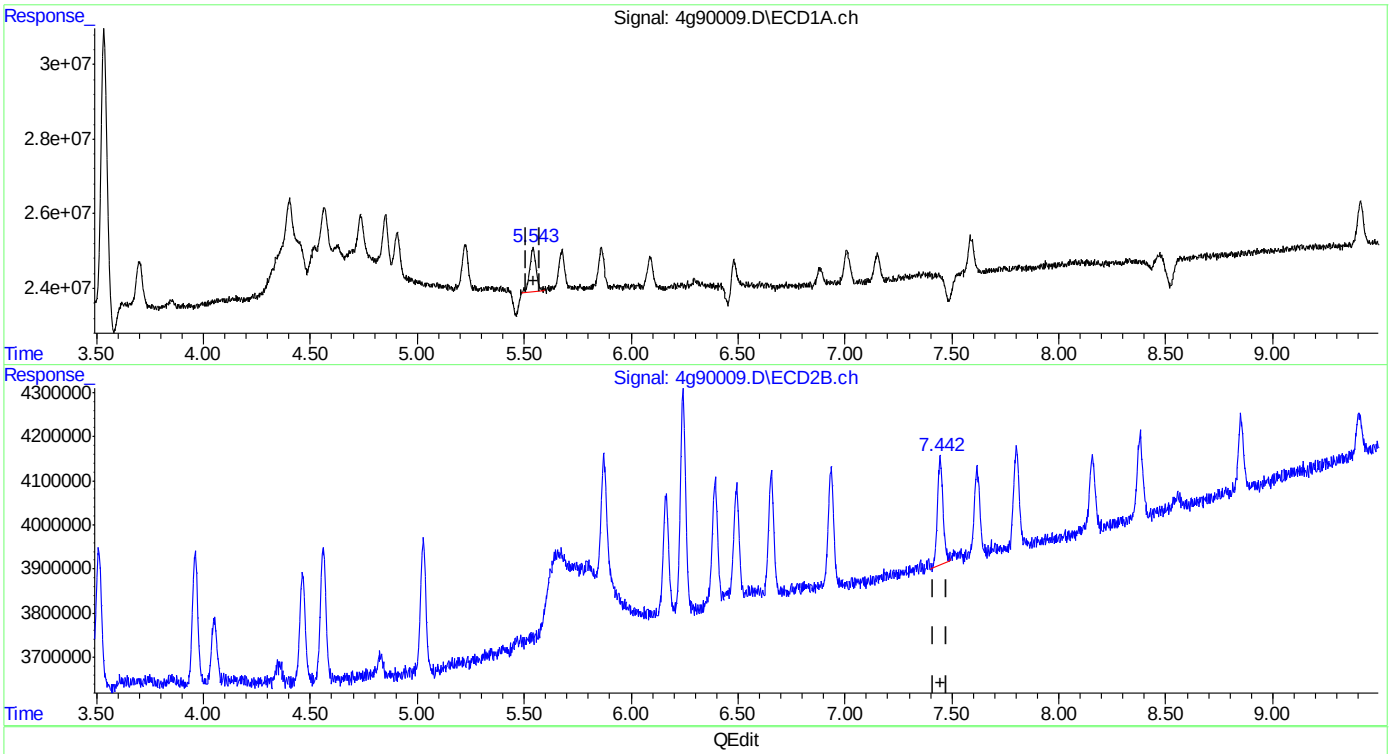
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:40:41 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(17) Endrin (MA)
5.543min 1.313 PPB m
response 24394528

(17) Endrin #2 (MA)
7.444min 1.077 PPB
response 4511246

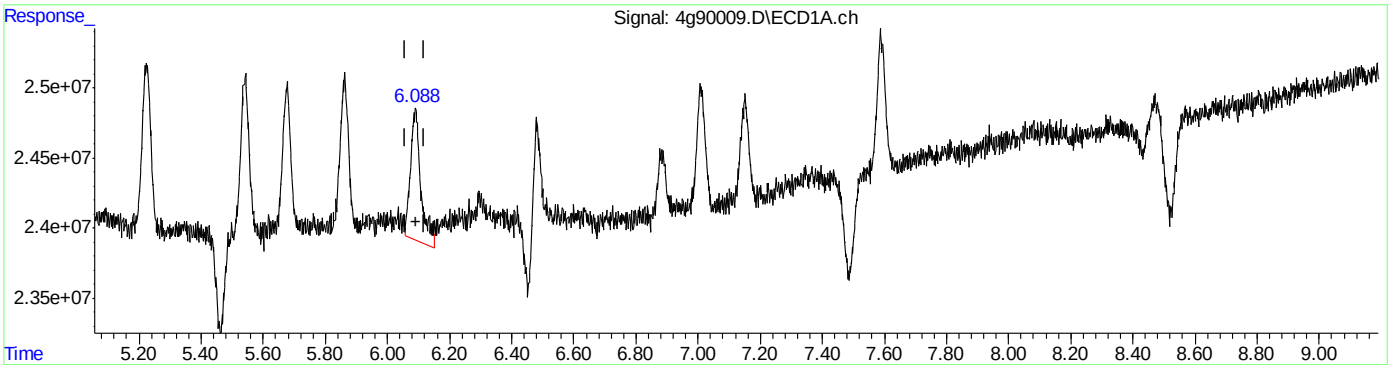
(+) = Expected Retention Time

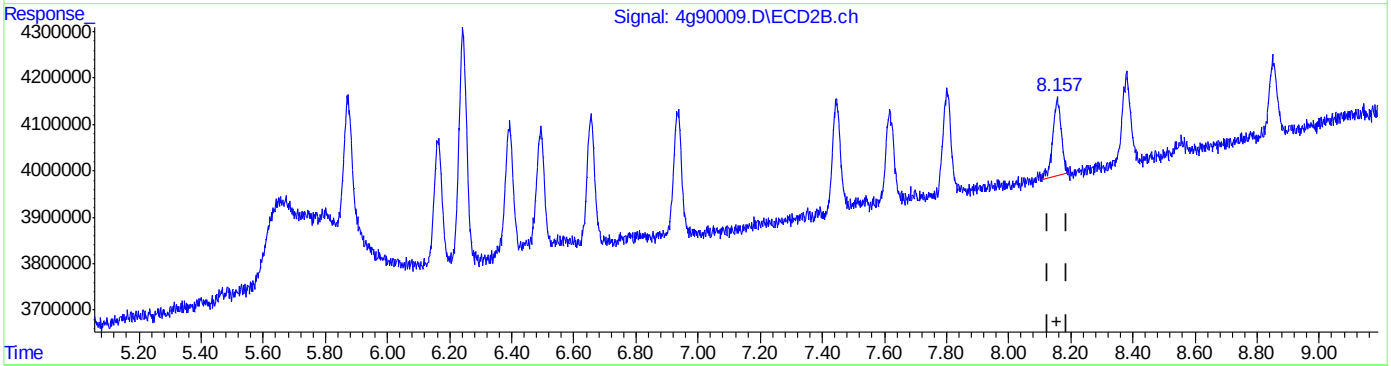
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(20) 4,4'-DDT (MA)
6.089min 1.312 PPB
response 21306598

(20) 4,4'-DDT #2 (MA)
8.157min 0.864 PPB
response 3172064

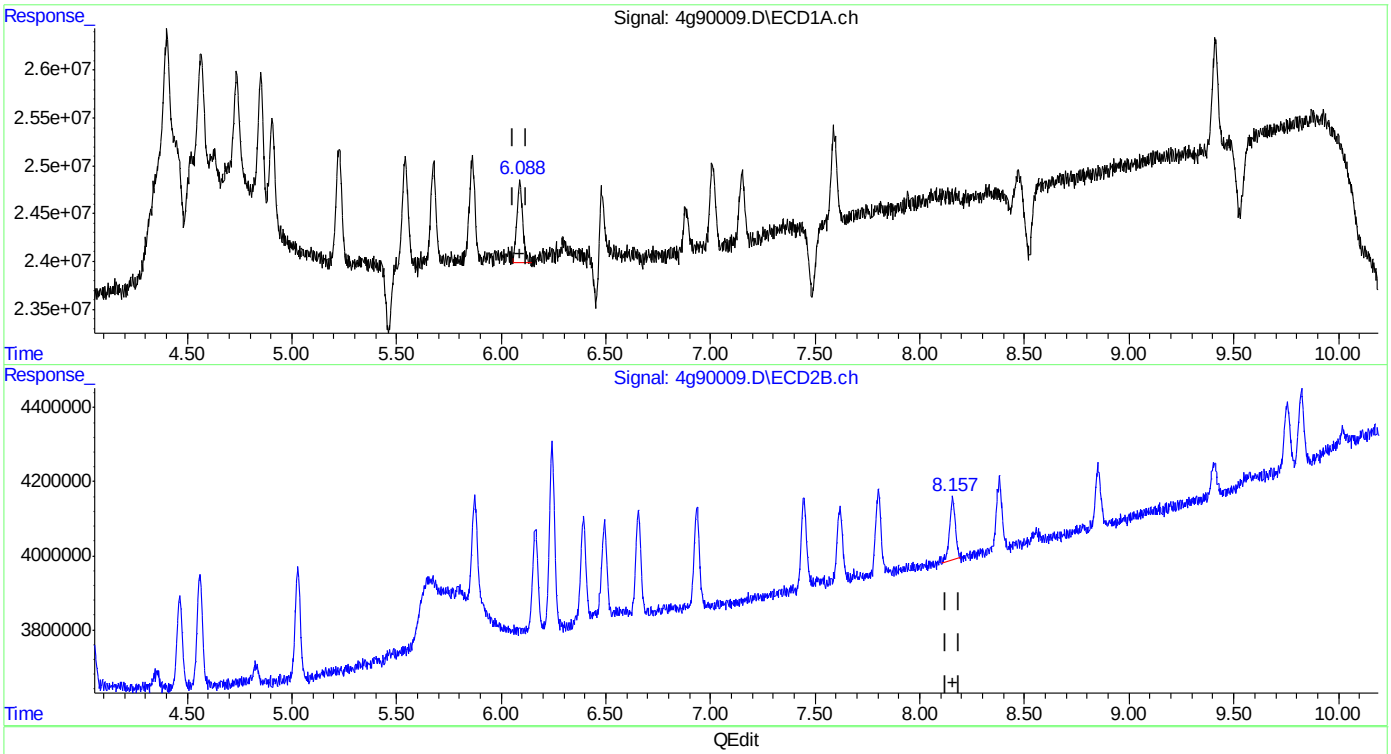
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(20) 4,4'-DDT (MA)
6.088min 1.023 PPB m
response 16622747

(20) 4,4'-DDT #2 (MA)
8.157min 0.864 PPB
response 3172064

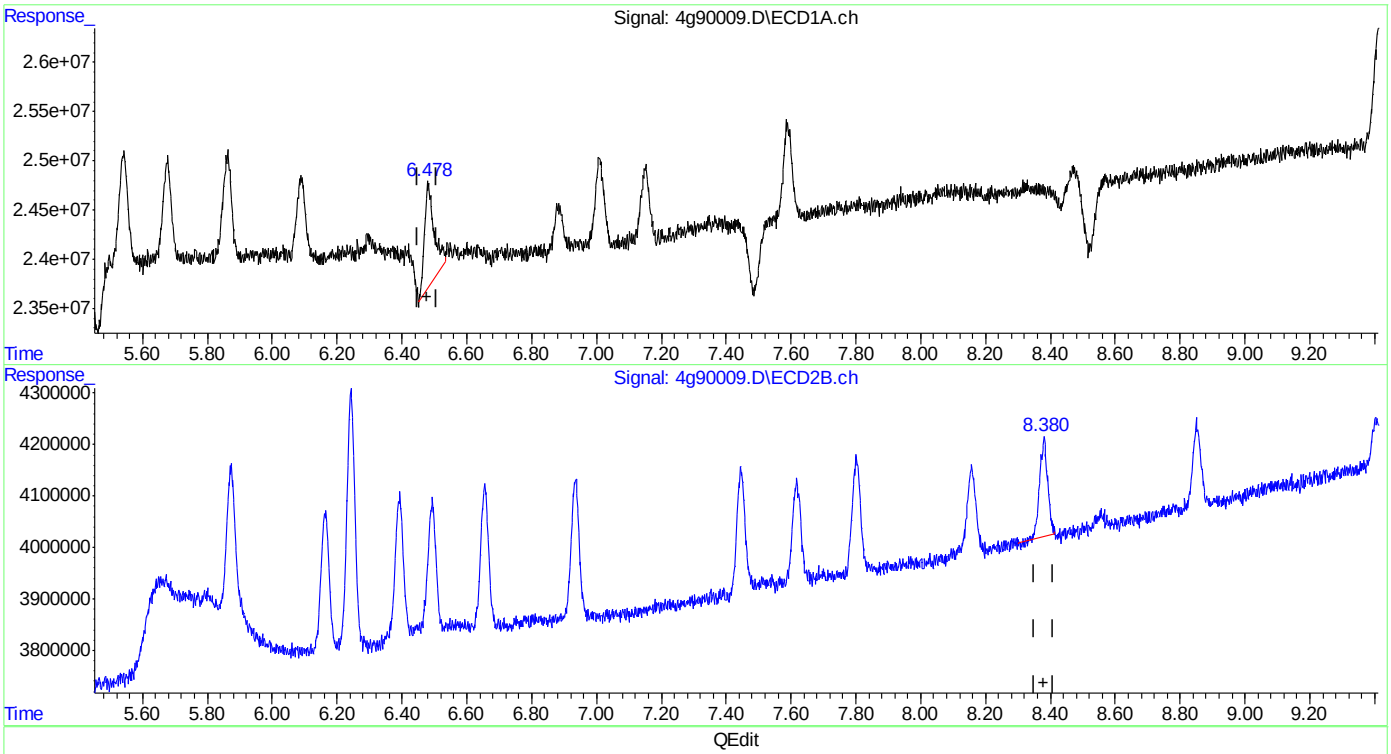
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(21) Endrin Aldehyde (B)
6.481min 1.331 PPB
response 21556208

(21) Endrin Aldehyde #2 (B)
8.380min 0.838 PPB
response 3207425

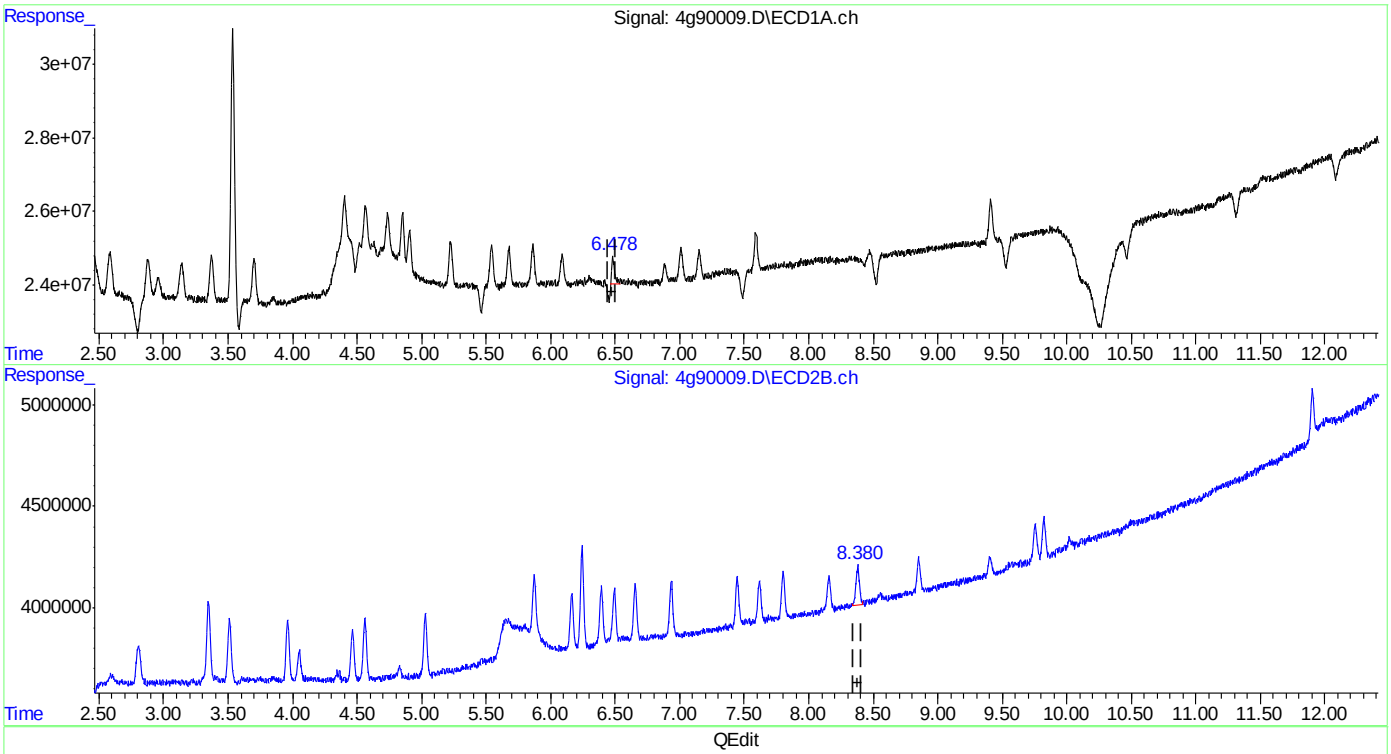
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(21) Endrin Aldehyde (B)
6.478min 0.688 PPB m
response 11140706

(21) Endrin Aldehyde #2 (B)
8.380min 0.932 PPB m
response 3570184

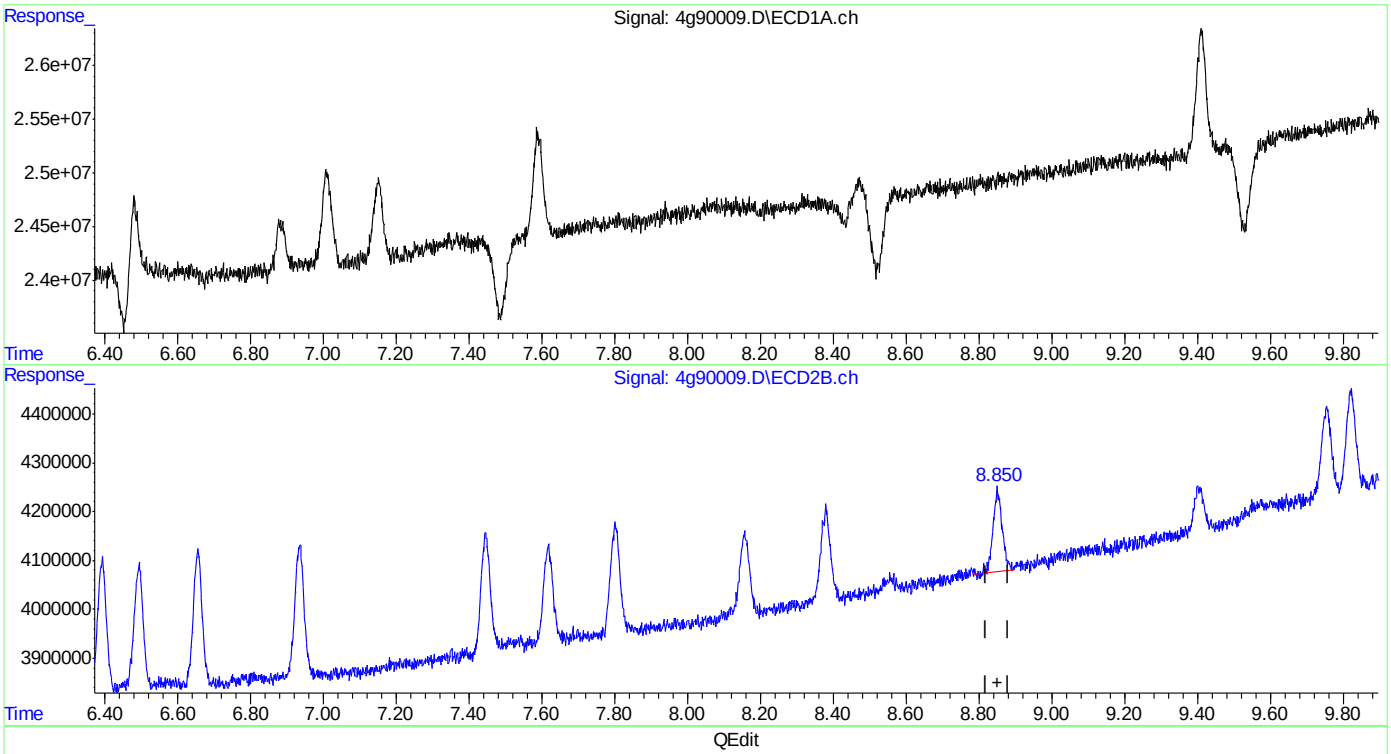
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(22) Endosulfan Sulfate (B)
0.000min 0.000 PPB
response 0

(22) Endosulfan Sulfate #2 (B)
8.850min 0.767 PPB
response 2978621

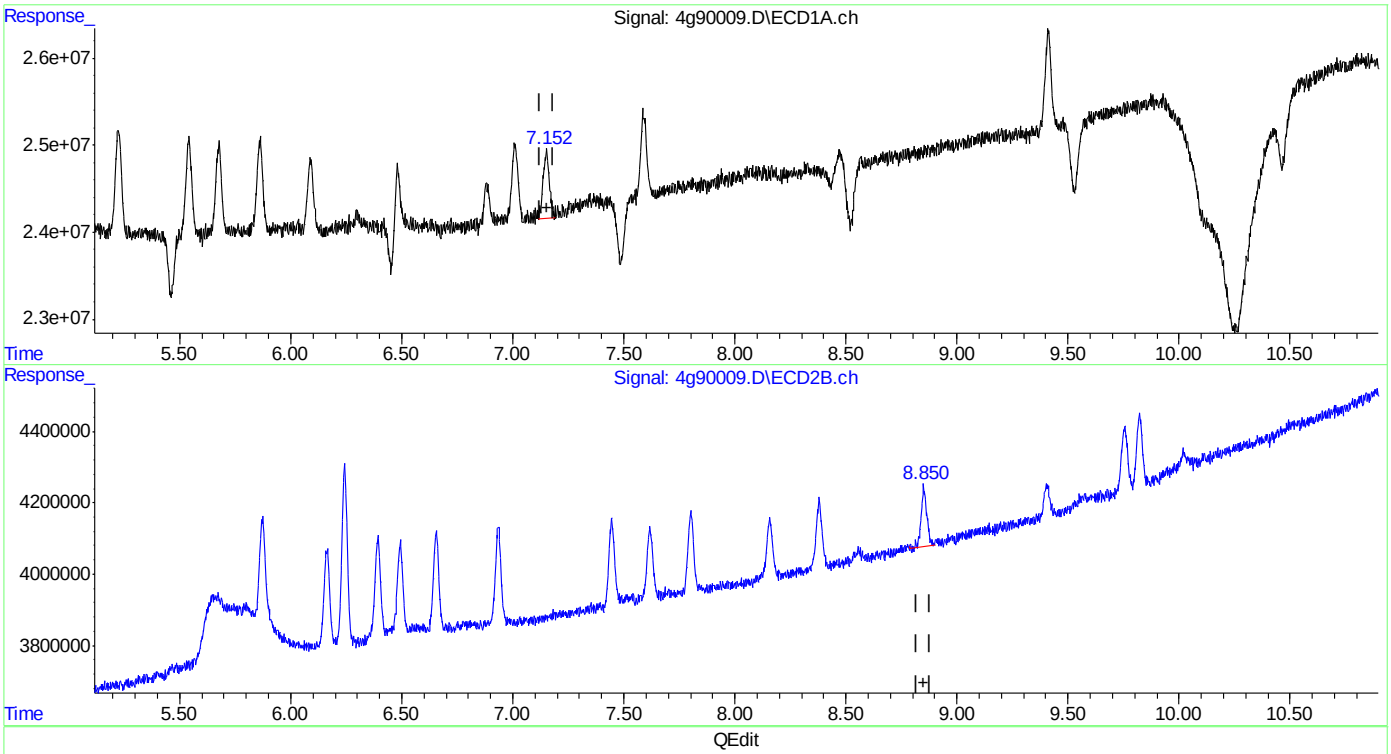
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:41:18 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(22) Endosulfan Sulfate (B)
7.152min 0.905 PPB m
response 14915032

(22) Endosulfan Sulfate #2 (B)
8.850min 0.767 PPB
response 2978621

(+) = Expected Retention Time

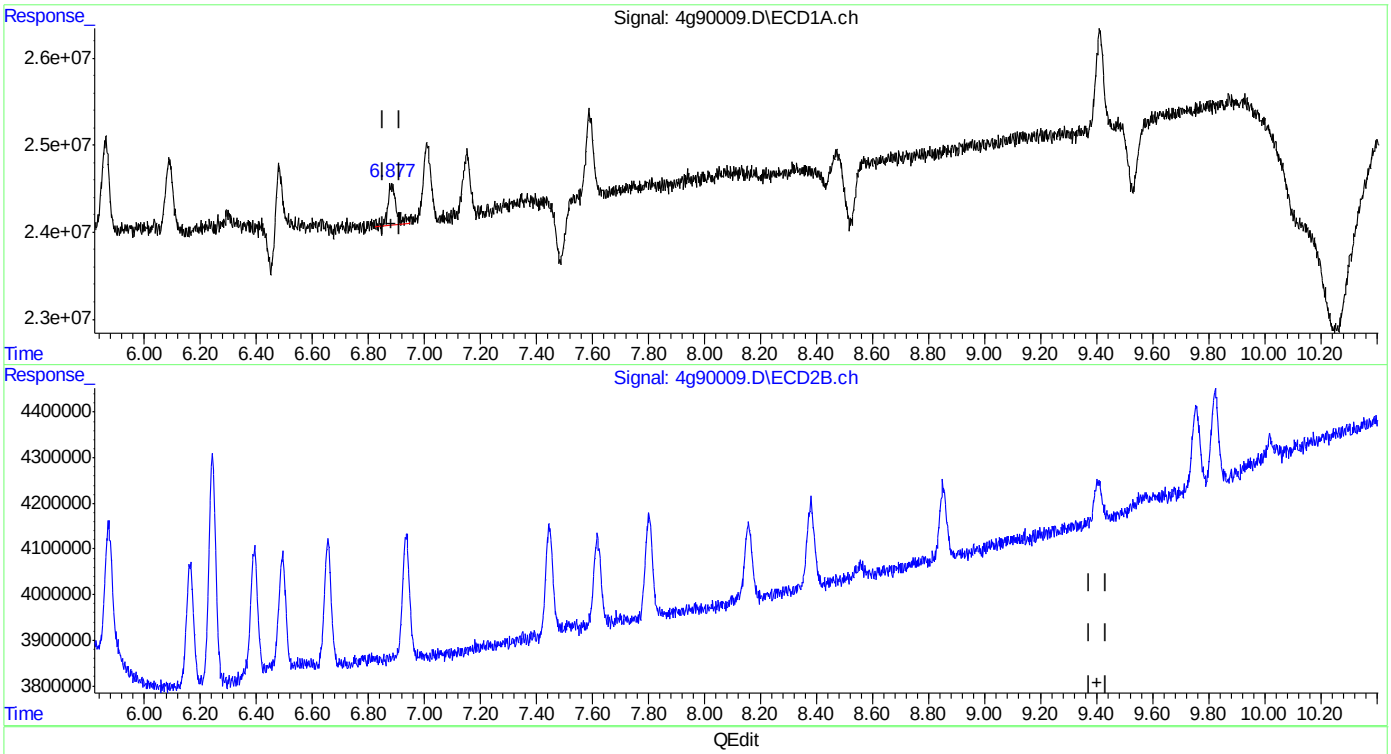
11.6.25.33 11

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(23) Methoxychlor (A)
6.878min 1.096 PPB
response 9329235

(23) Methoxychlor #2 (A)
9.403min -0.160 PPB
response -325971

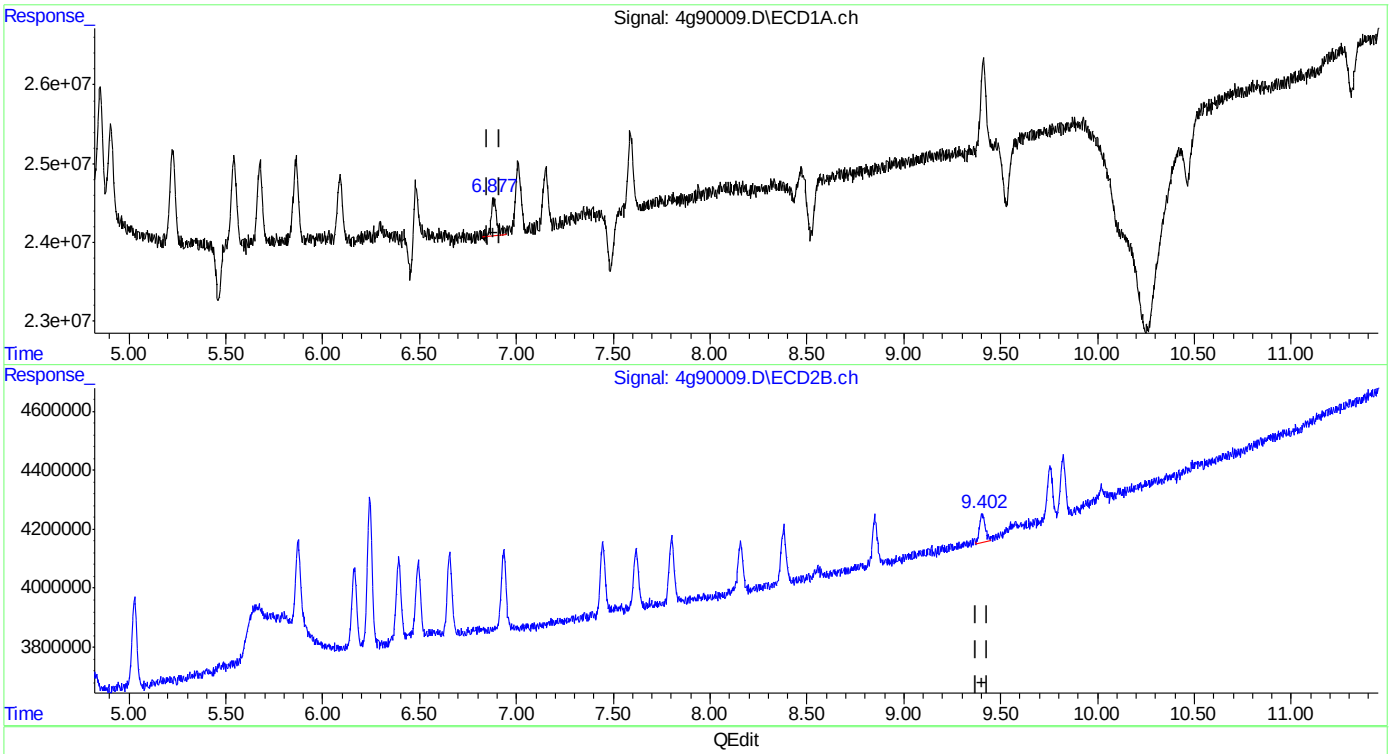
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:41:27 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(23) Methoxychlor (A)
6.878min 1.096 PPB
response 9329235

(23) Methoxychlor #2 (A)
9.402min 0.965 PPB m
response 1962750

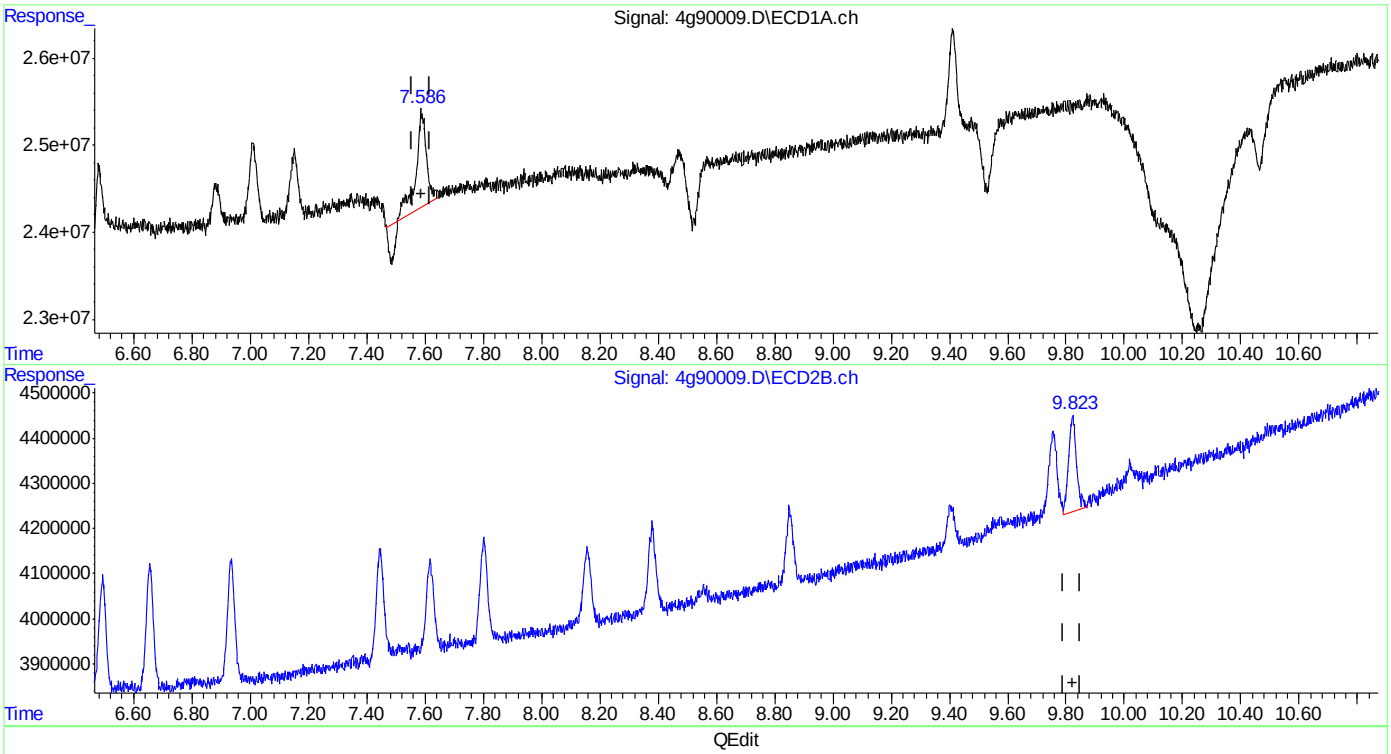
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(25) Endrin Ketone (B)
7.588min 1.129 PPB
response 23105687

(25) Endrin Ketone #2 (B)
9.823min 0.822 PPB
response 4025473

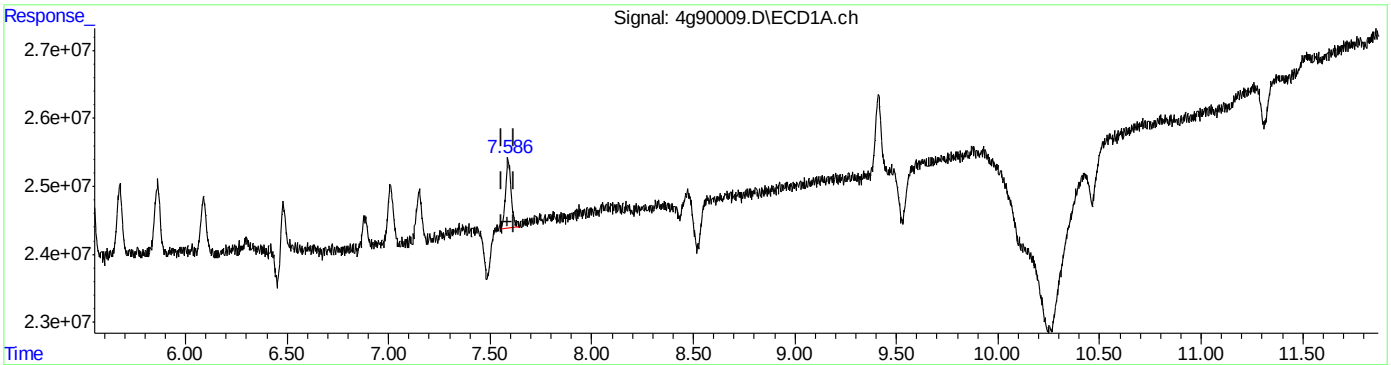
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:41:38 2018 RPT1

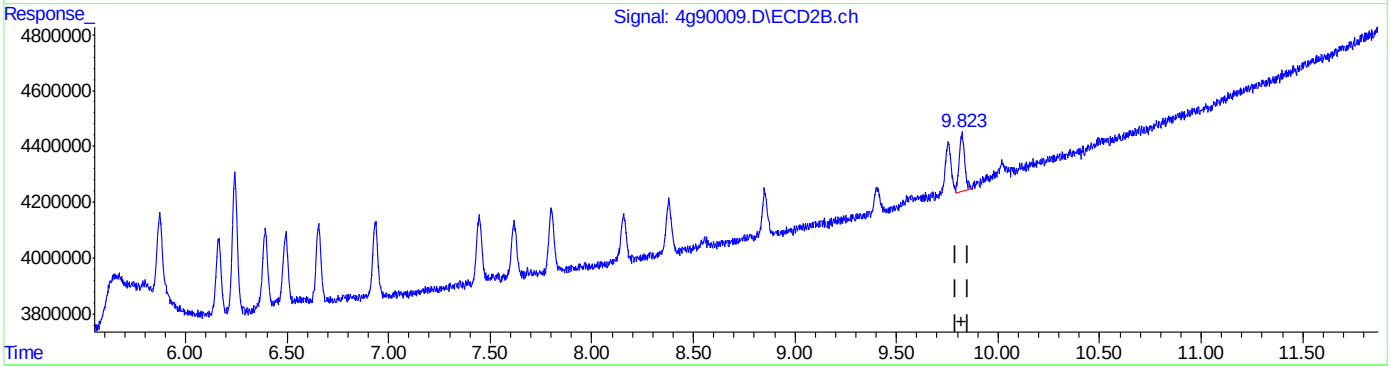
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(25) Endrin Ketone (B)
7.586min 0.937 PPB m
response 19177799

(25) Endrin Ketone #2 (B)
9.823min 0.822 PPB
response 4025473

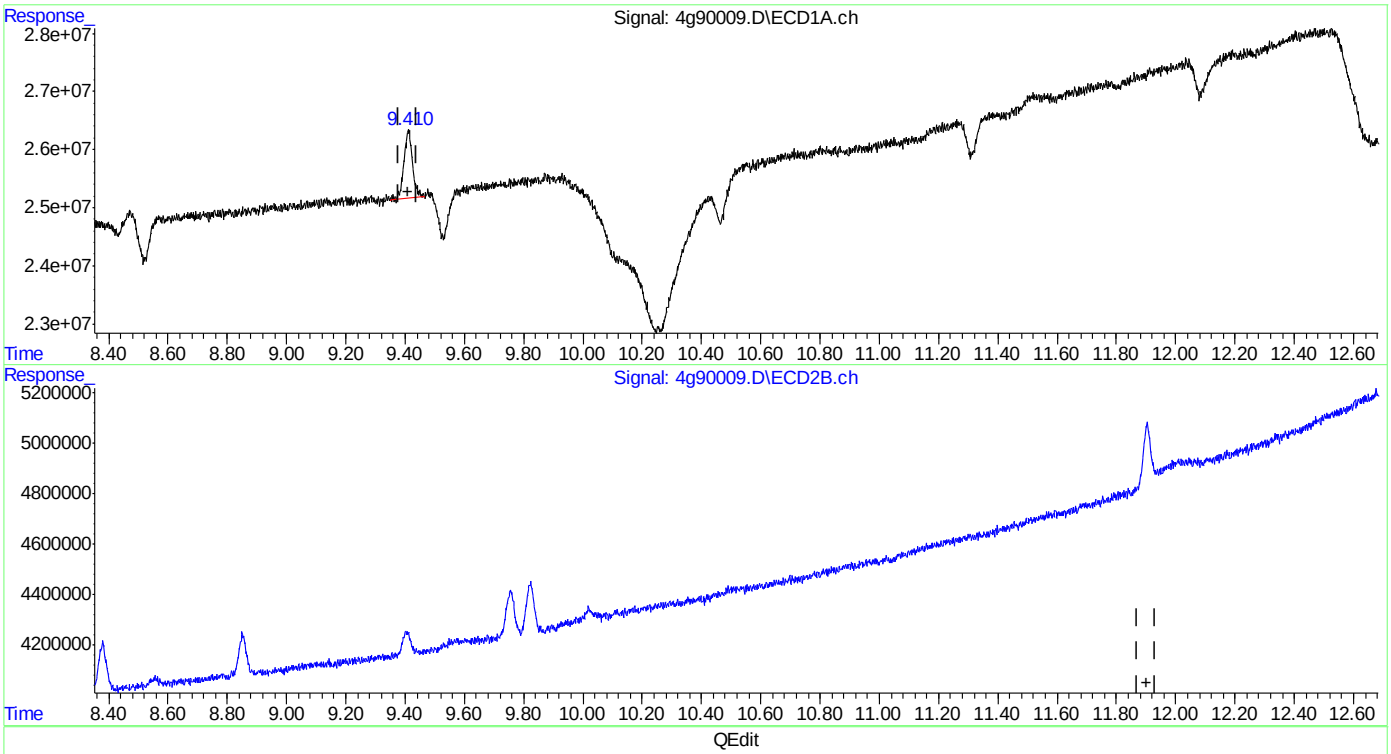
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:41:43 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(26) Decachlorobiphenyl (SA)
9.411min 1.179 PPB
response 23622431

(26) Decachlorobiphenyl #2 (SA)
0.000min 0.000 PPB
response 0

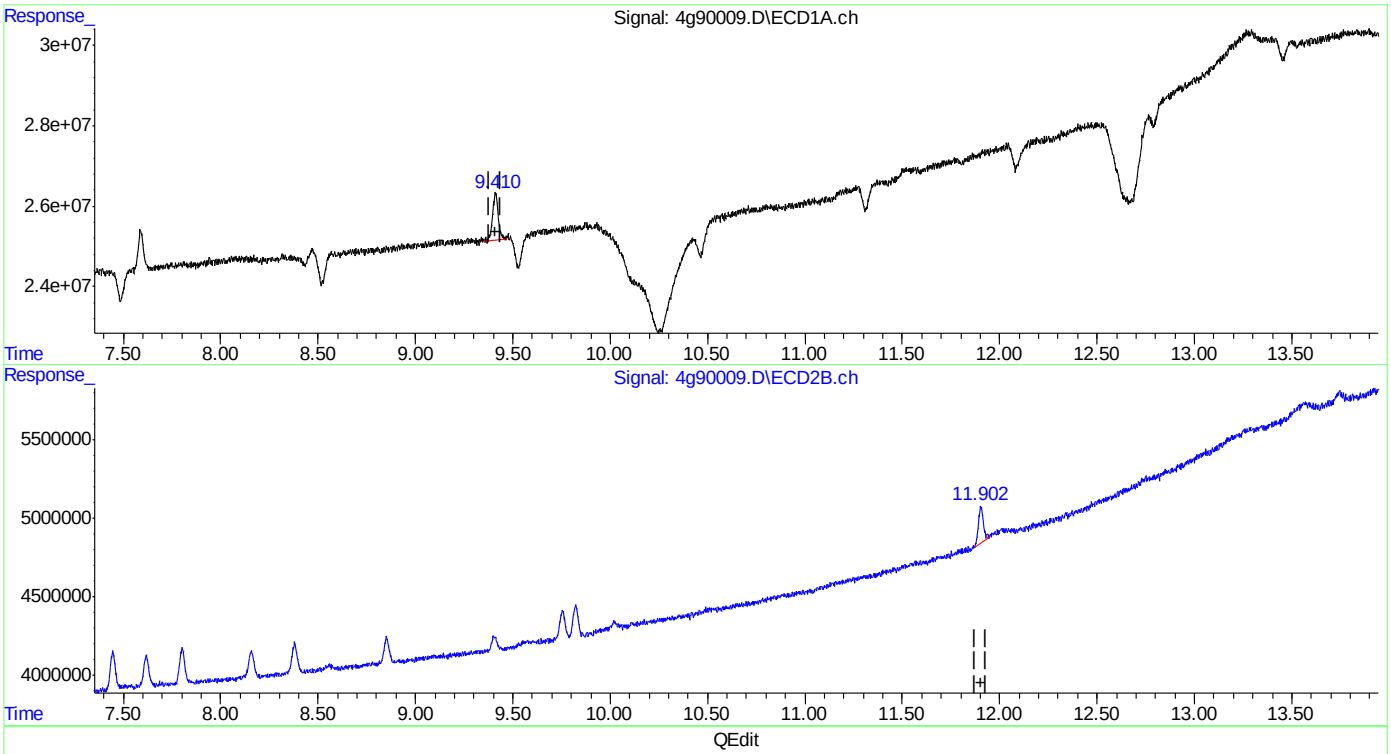
(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:41:47 2018 RPT1 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:33 pm
Operator : kristend
Sample : ic2366-1
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:38:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(26) Decachlorobiphenyl (SA)
9.411min 1.179 PPB
response 23622431

(26) Decachlorobiphenyl #2 (SA)
11.902min 0.952 PPB m
response 3932550

(+) = Expected Retention Time
4PST2366.M Mon Feb 19 09:41:53 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90010.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:50 pm
Operator : kristend
Sample : ic2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:48:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
33) I	1-bromo-2...	1.500	1.919	1314.4E6	267.6E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
34)	Chlordane...	3.377	4.564	698.4E6	150.3E6	542.644	566.332
35)	Chlordane...	4.325	5.813	314.9E6	75220392	583.830	594.277
36)	Chlordane...	4.568	6.164	1761.1E6	341.9E6	539.194	543.632
37)	Chlordane...	4.728	6.395	2683.8E6	563.2E6	533.988	542.241m
38)	Chlordane...	5.611	7.570	314.3E6	58465315	533.502	509.200
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

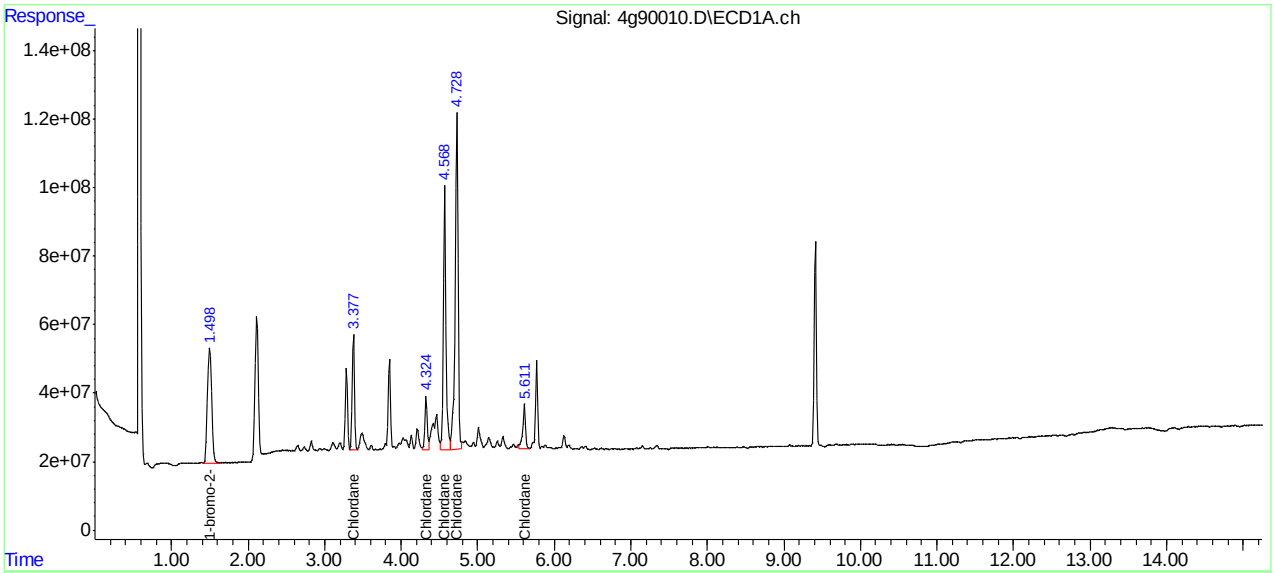
11.6.26 11

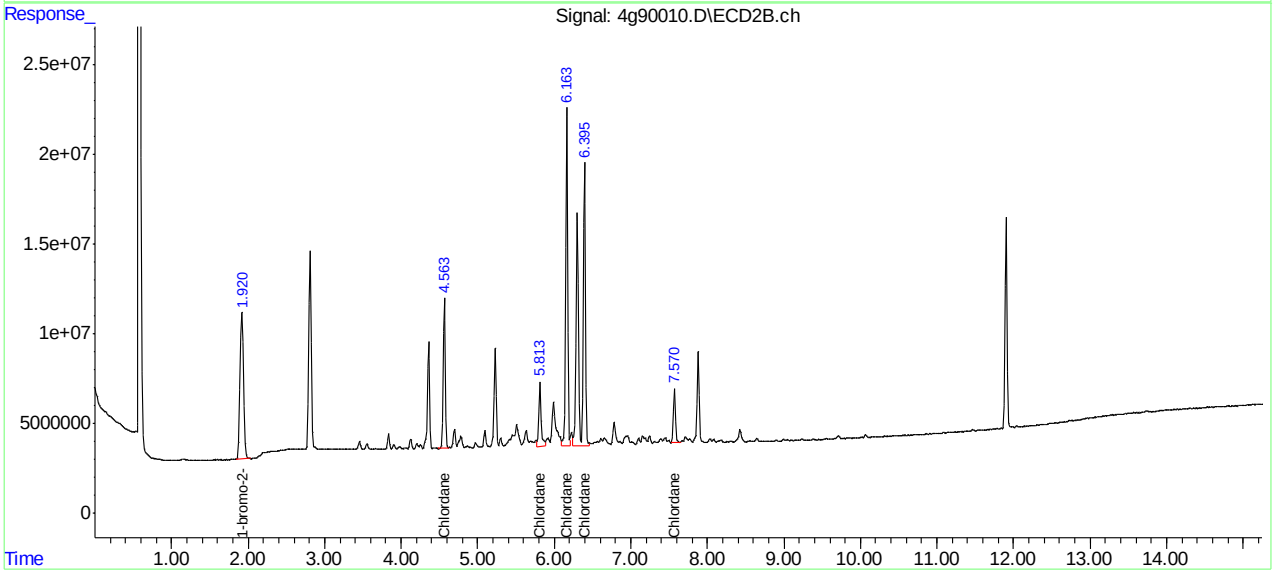
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90010.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:50 pm
Operator : kristend
Sample : ic2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:48:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G4G2366-IC2366	**Method:**	SW846 8081B
Lab FileID:	4G90010.D	**Analyst approved:**	02/19/18 09:31 Kristen Drake
Injection Time:	02/16/18 18:50	**Supervisor approved:**	02/20/18 07:32 Gwendolyn Burns

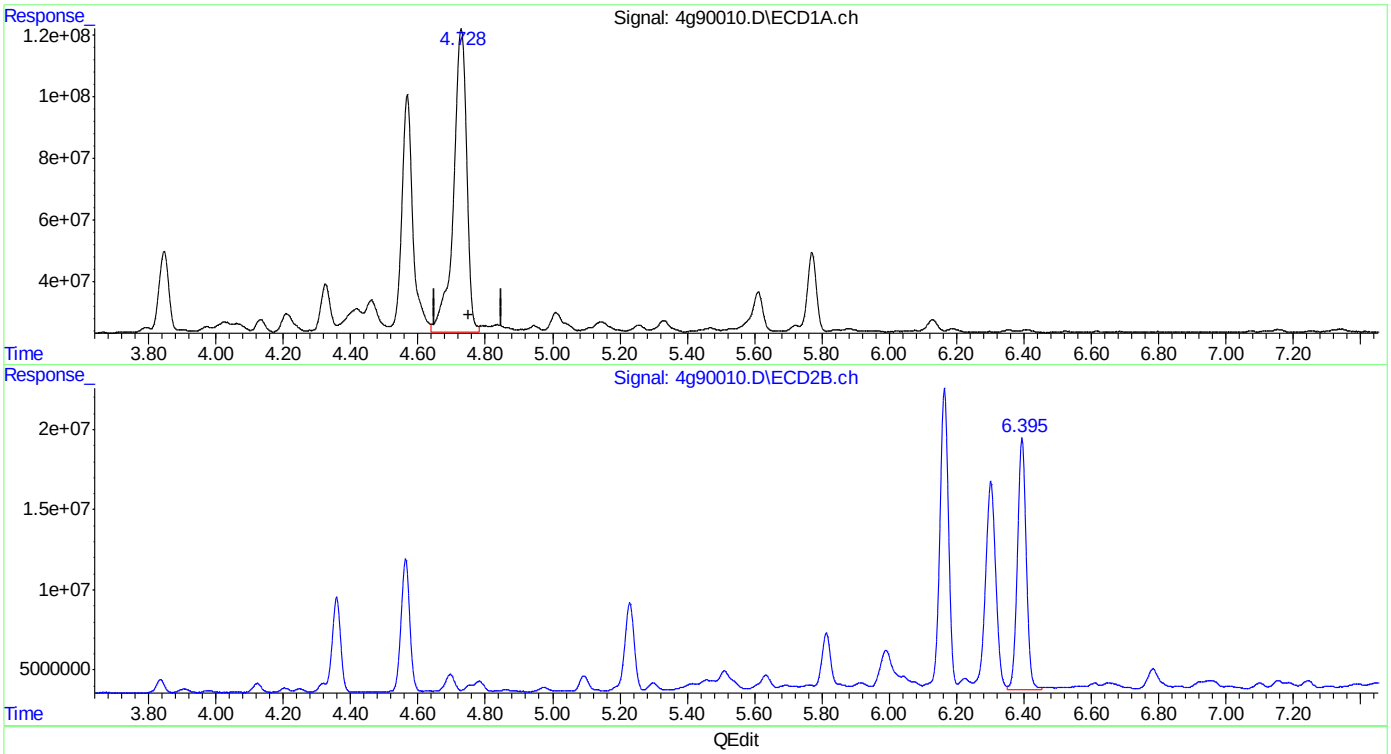
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	6.39	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90010.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:50 pm
Operator : kristend
Sample : ic2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:23:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(37) Chlordane {D}
4.728min 533.988 PPB
response 2683757475

(37) Chlordane {D} #2
6.394min 274.073 PPB
response 284664184

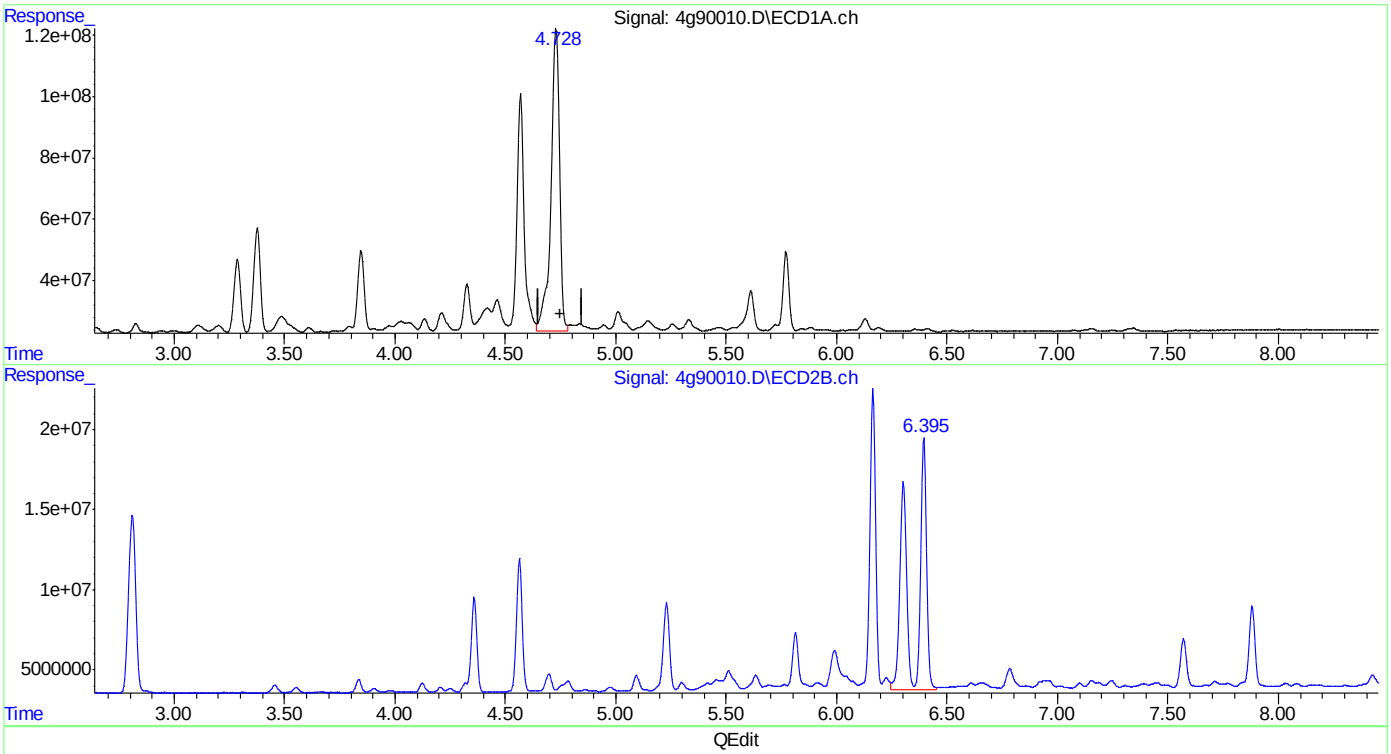
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90010.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 6:50 pm
Operator : kristend
Sample : ic2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:23:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 08:59:15 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(37) Chlordane {D}
4.728min 533.988 PPB
response 2683757475

(37) Chlordane {D} #2
6.395min 542.241 PPB m
response 563194380

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90011.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:07 pm
Operator : kristend
Sample : ic2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:48:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
27) I	1-bromo-2...	1.493	1.916	1322.6E6	275.8E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
28) L8	Toxaphene{A}	5.234	6.897	185.9E6	52153952	585.430	601.862m
29) L8	Toxaphene{B}	5.847	7.770	497.9E6	67509091	503.037	522.493
30) L8	Toxaphene{C}	6.017	7.935	383.1E6	119.9E6	555.533	531.307
31) L8	Toxaphene{D}	6.360	8.376	322.9E6	72572926	559.720	535.038
32) L8	Toxaphene{E}	7.001	9.291	303.3E6	60110893	508.412	465.940
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

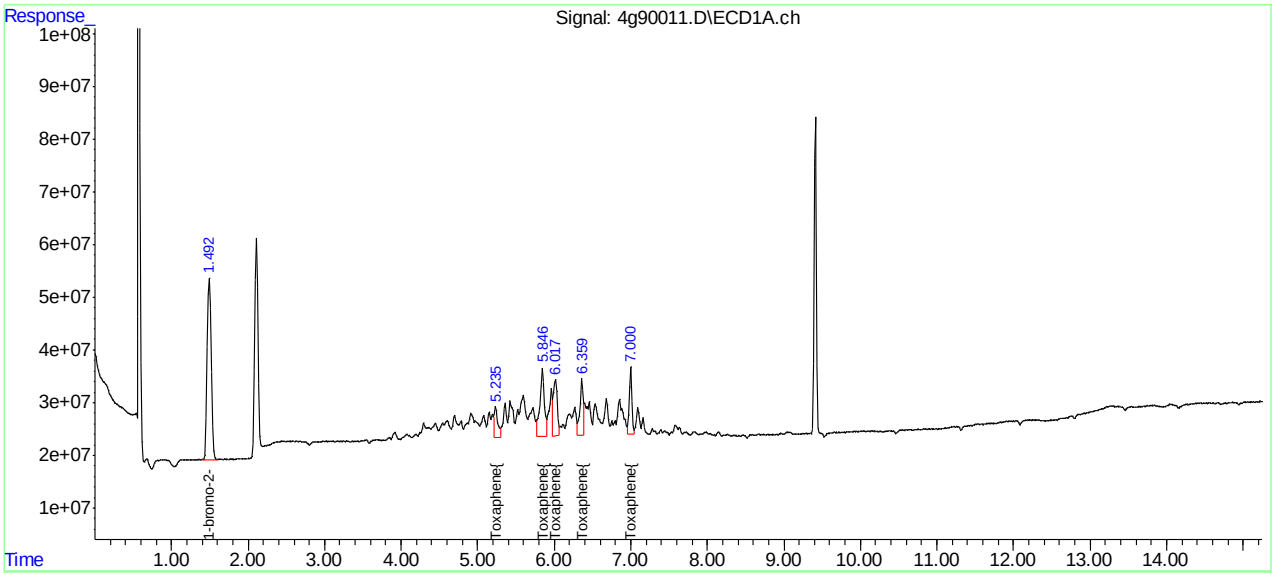
11.6.27 11

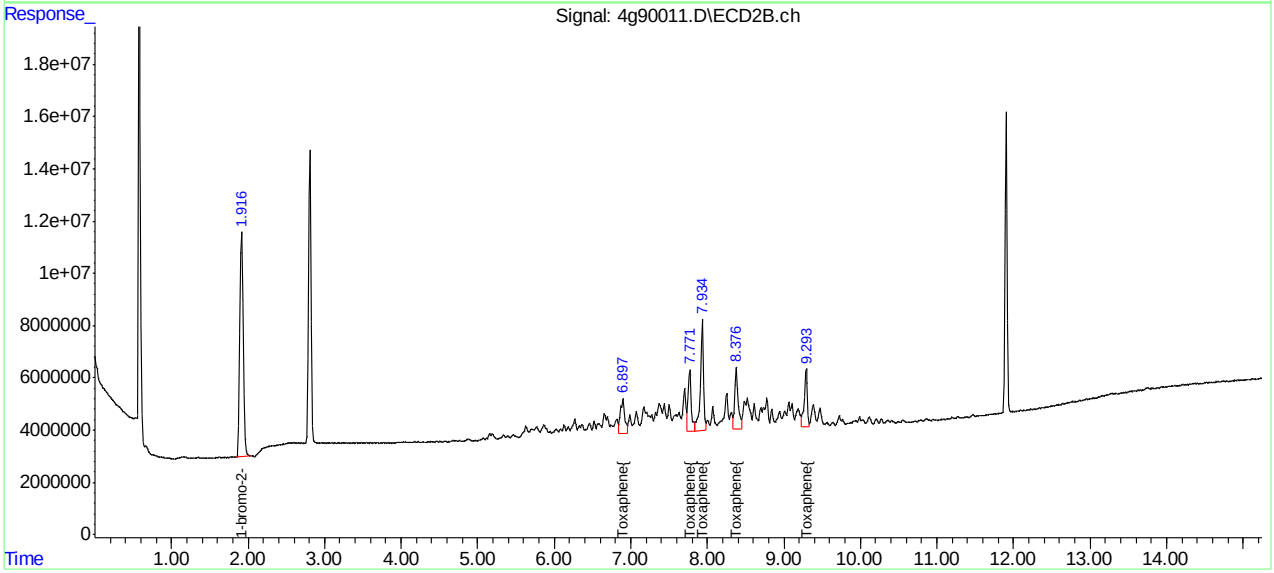
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90011.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:07 pm
Operator : kristend
Sample : ic2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:48:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G4G2366-IC2366	**Method:**	SW846 8081B
Lab FileID:	4G90011.D	**Analyst approved:**	02/19/18 09:31 Kristen Drake
Injection Time:	02/16/18 19:07	**Supervisor approved:**	02/20/18 07:32 Gwendolyn Burns

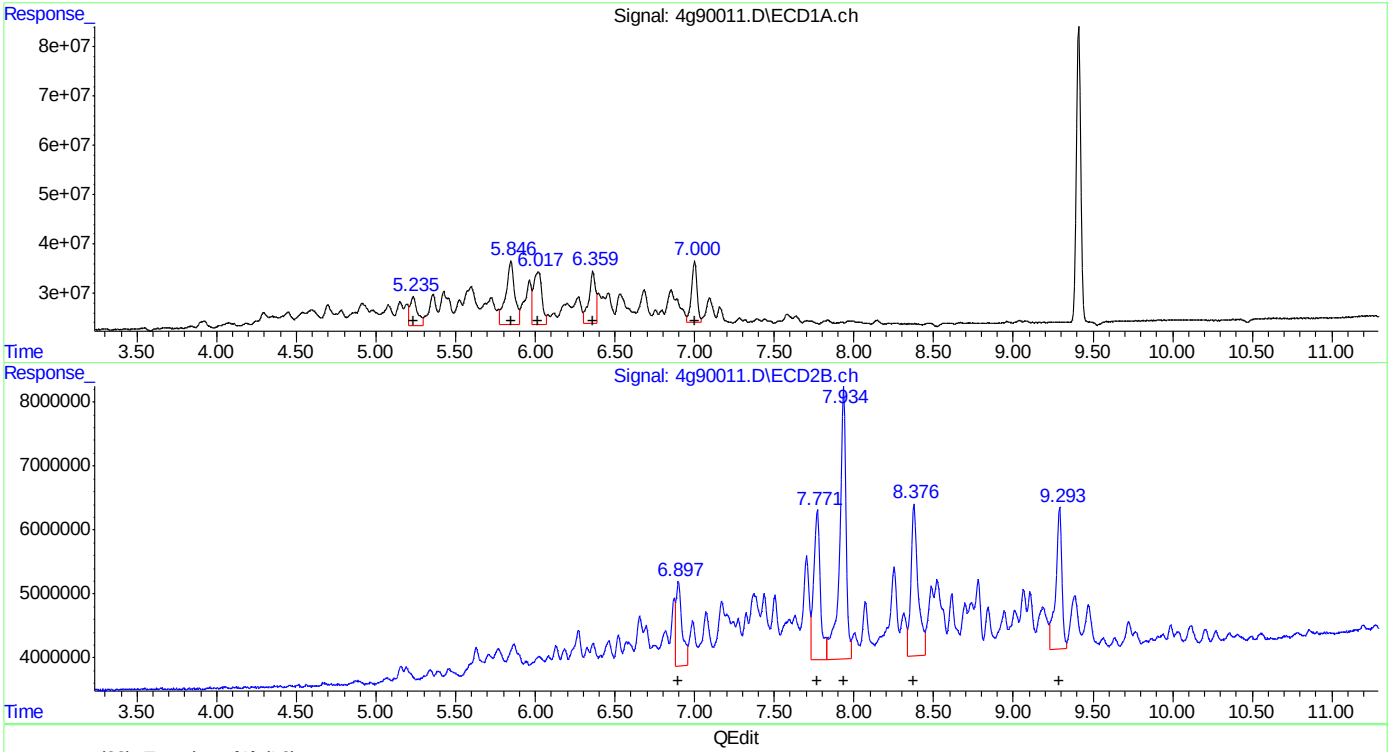
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		2	6.90	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90011.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:07 pm
Operator : kristend
Sample : ic2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:26:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(28) Toxaphene{A} (L8)

R.T.	Response	Conc
5.23	185912838	585.43
5.85	497911183	503.04
6.02	383149151	555.53
6.36	322908307	559.72
7.00	303273350	508.41

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.90	34596581	399.25
7.77	67509091	522.49
7.93	119850760	531.31
8.38	72572926	535.04
9.29	60110893	465.94

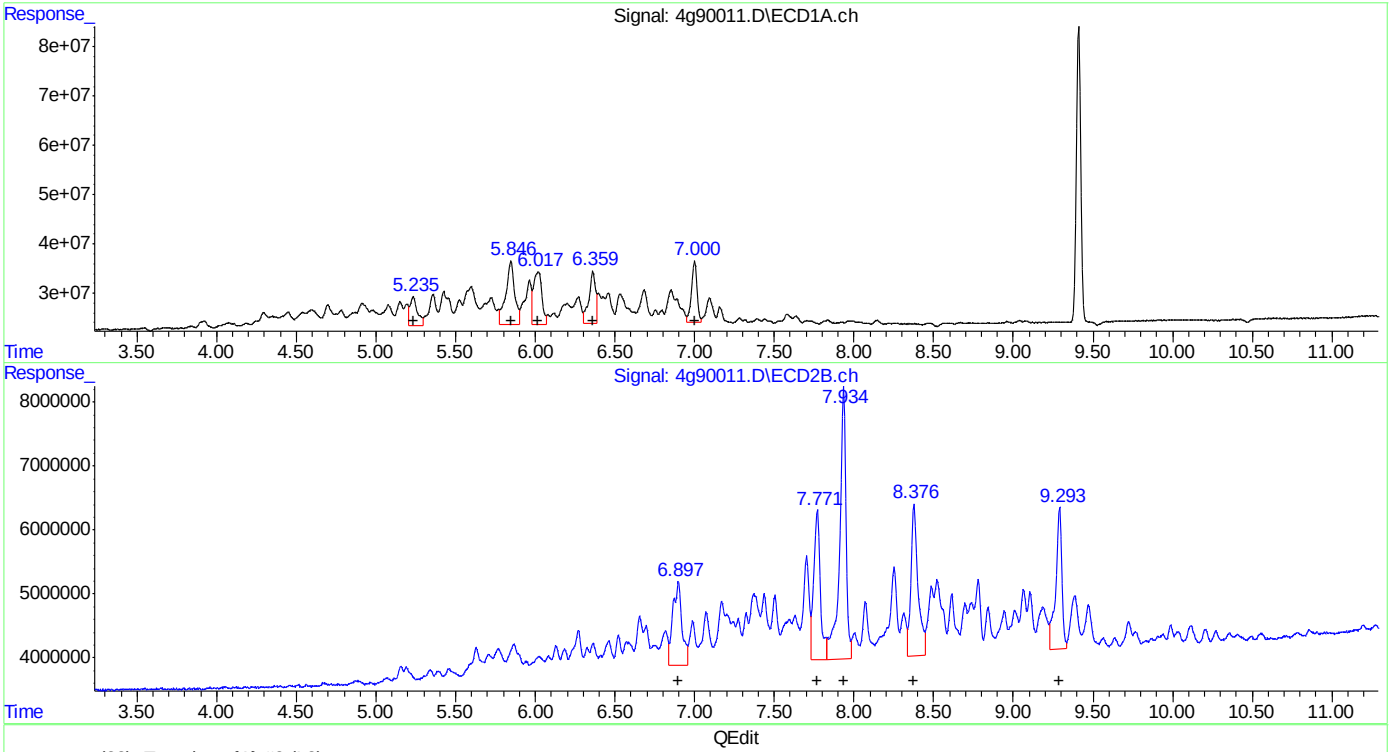
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90011.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:07 pm
Operator : kristend
Sample : ic2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 09:26:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:26:11 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
5.23	185912838	585.43
5.85	497911183	503.04
6.02	383149151	555.53
6.36	322908307	559.72
7.00	303273350	508.41

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.90	52153952	601.86
7.77	67509091	522.49
7.93	119850760	531.31
8.38	72572926	535.04
9.29	60110893	465.94

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90012.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:24 pm
Operator : kristend
Sample : icv2366-25
Misc : op9981,g4g2366,880,,,5,10
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:36:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.482	1.907	1212.7E6	255.2E6	50.000	50.000
27) I	1-bromo-2...	1.482	1.907	1212.7E6	255.2E6	50.000	50.000
33) I	1-bromo-2...	1.482	1.907	1212.7E6	255.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.102f	2.800	514.3E6	106.7E6	21.502	22.714
	Spiked Amount 40.000	Range 30 - 150		Recovery =		53.75%	56.78%
26) SA	Decachlor...	9.411	11.903	523.3E6	93738574	24.306	24.082
	Spiked Amount 40.000			Recovery =		60.77%	60.20%
	Target Compounds						
4) A	alpha-BHC	2.581	3.508	730.3E6	151.2E6	24.688	24.189
5) MA	gamma-BHC	2.876	3.959	670.3E6	138.5E6	24.997	24.658
6) MA	Heptachlor	3.369	4.559	664.8E6	140.5E6	25.302	24.591
7) B	beta-BHC	2.953	4.048	285.8E6	61707997	23.852	24.091
8) B	delta-BHC	3.136	4.462	565.1E6	117.8E6	25.018	24.734
9) MB	Aldrin	3.700	5.026	625.3E6	128.9E6	24.895	23.968
11) B	Heptachlo...	4.400	5.872	599.7E6	121.2E6	25.588m	23.808
12) B	gamma-Chl...	4.563	6.161	596.0E6	120.7E6	26.965	24.639
13) B	alpha-Chl...	4.734	6.391	565.1E6	116.6E6	25.984	24.182
14) A	Endosulfan I	4.905	6.491	540.6E6	111.9E6	26.258	24.839
15) B	4,4'-DDE	4.852	6.654	596.5E6	119.4E6	25.354	24.479
16) MA	Dieldrin	5.223	6.934	604.9E6	120.2E6	25.614	24.573
17) MA	Endrin	5.541	7.445	549.9E6	109.3E6	24.321	23.786
18) A	4,4'-DDD	5.674	7.618	485.4E6	96480869	25.646	24.796
19) B	Endosulfa...	5.860	7.800	517.1E6	106.0E6	25.111	24.680
20) MA	4,4'-DDT	6.088	8.156	462.5E6	93647199	26.458	25.503
21) B	Endrin Al...	6.476	8.378	417.3E6	86515393	27.526	24.892
22) B	Endosulfa...	7.149	8.851	379.3E6	76062467	24.887	24.276
23) A	Methoxychlor	6.881	9.405	246.7E6	50243248	25.401	24.409
24)	Mirex	7.009	9.753	395.9E6	80308834	24.962	24.137
25) B	Endrin Ke...	7.589	9.822	497.5E6	101.2E6	26.000	25.027
	SemiQuant Compounds - Not Calibrated on this Instrument						

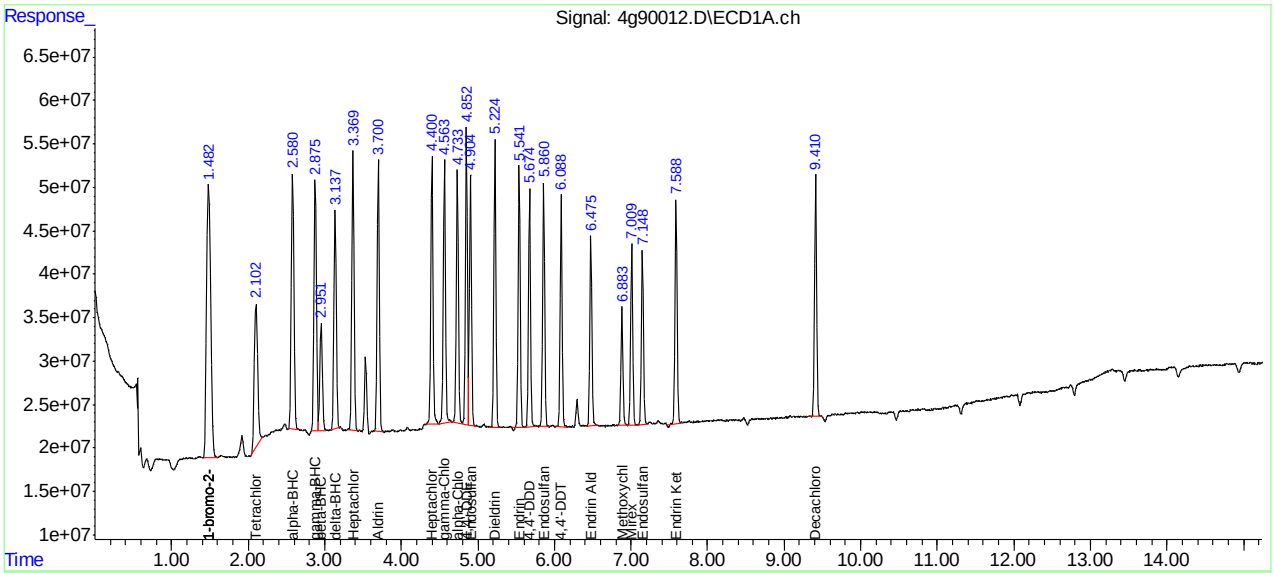
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

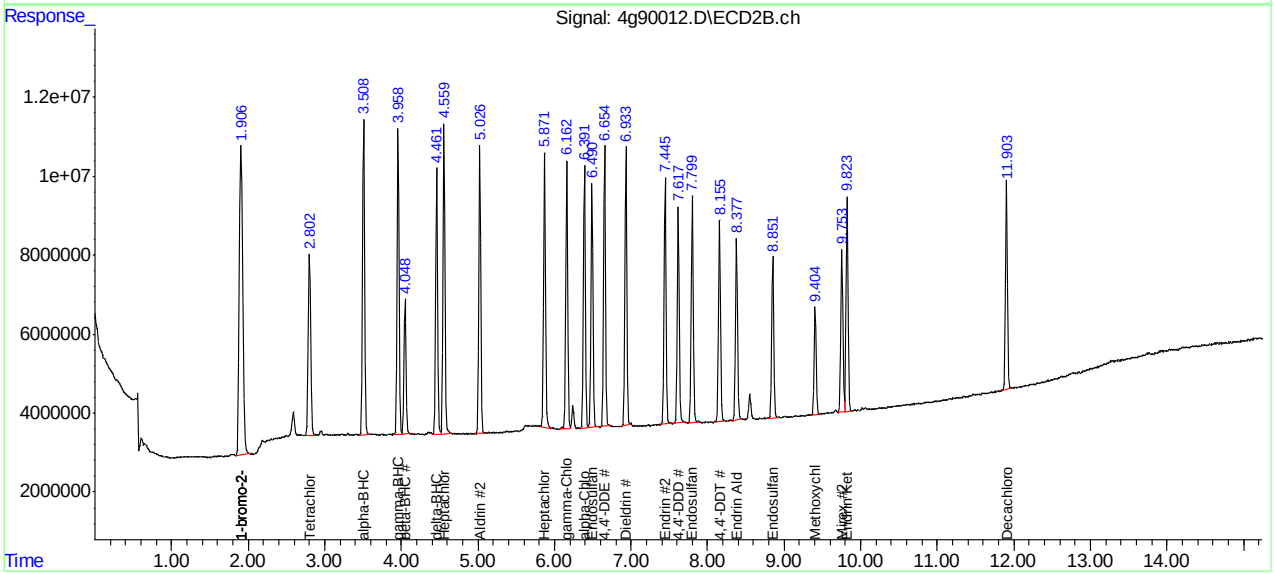
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90012.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:24 pm
Operator : kristend
Sample : icv2366-25
Misc : op9981,g4g2366,880,,,5,10
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:36:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

Sample Number:	G4G2366-ICV2366	**Method:**	SW846 8081B
Lab FileID:	4G90012.D	**Analyst approved:**	02/19/18 12:46 Kristen Drake
Injection Time:	02/16/18 19:24	**Supervisor approved:**	02/20/18 07:32 Gwendolyn Burns

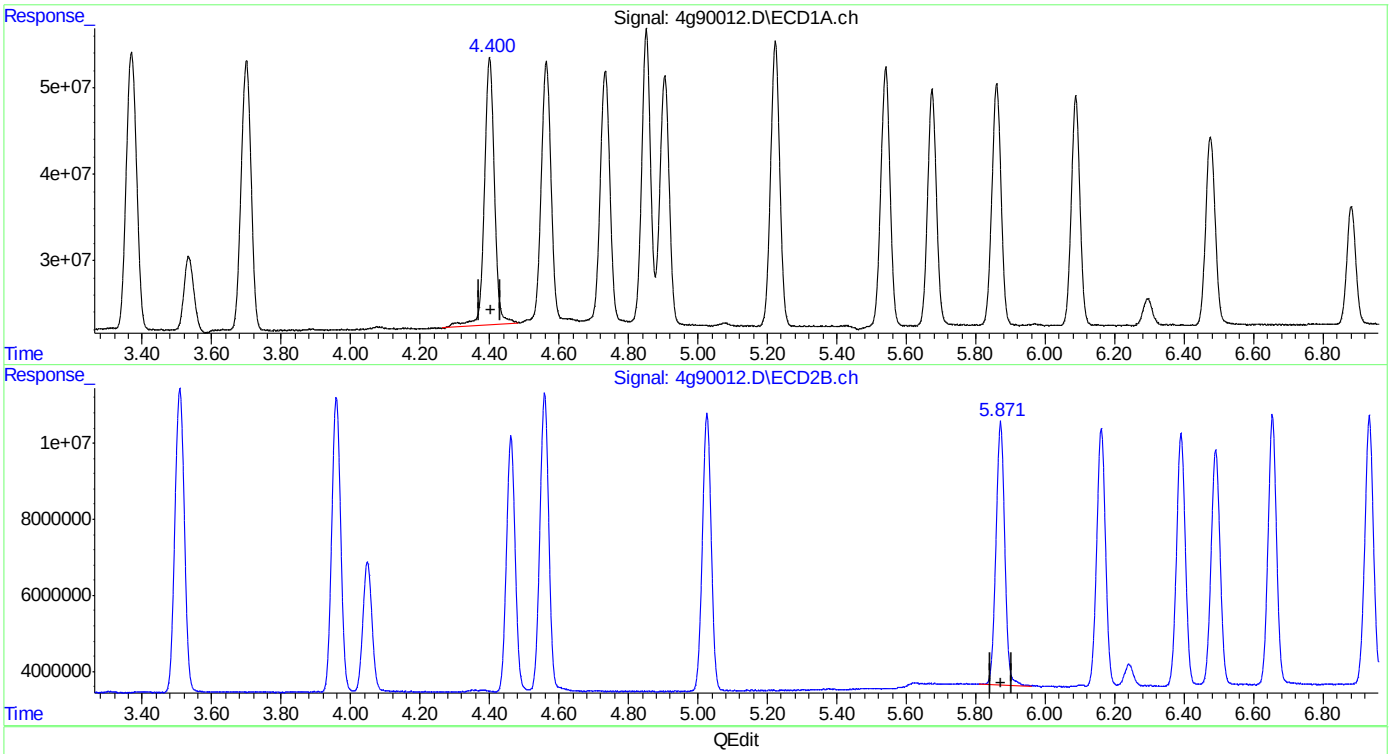
Parameter	CAS	Sig#	R.T. (min.)	Reason
Heptachlor epoxide	1024-57-3	1	4.40	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90012.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:24 pm
Operator : kristend
Sample : icv2366-25
Misc : op9981,g4g2366,880,,,5,10
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:36:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(11) Heptachlor Epoxide (B)
4.400min 26.724 PPB
response 626311446

(11) Heptachlor Epoxide #2 (B)
5.872min 23.808 PPB
response 121187029

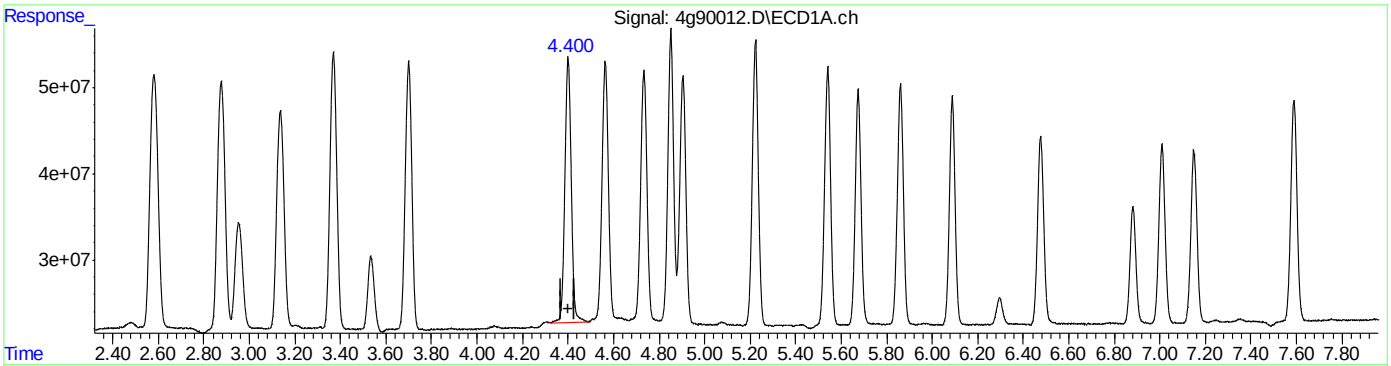
(+) = Expected Retention Time

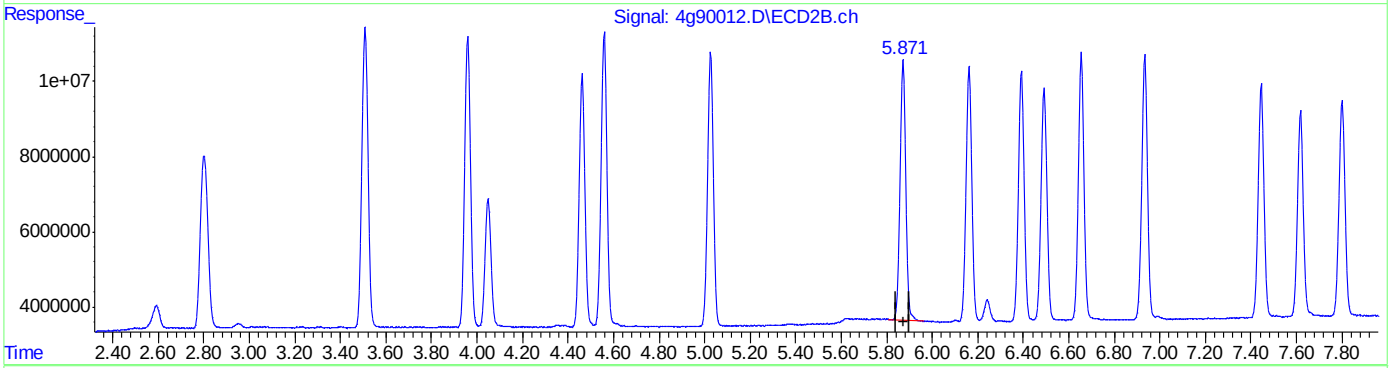
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90012.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:24 pm
Operator : kristend
Sample : icv2366-25
Misc : op9981,g4g2366,880,,,5,10
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:36:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(11) Heptachlor Epoxide (B)
4.400min 25.588 PPB m
response 599689941

(11) Heptachlor Epoxide #2 (B)
5.872min 23.808 PPB
response 121187029

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90013.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:41 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:32:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.502f	1.922	1377.2E6	280.4E6	50.000	50.000
27)	I 1-bromo-2...	1.502	1.922	1377.2E6	280.4E6	50.000	50.000
33)	I 1-bromo-2...	1.502	1.922	1377.2E6	280.4E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.117f	2.813	1224.0E6	228.2E6	45.893m	44.214
	Spiked Amount 40.000	Range 30 - 150		Recovery = 114.73%		110.54%	
26)	SA Decachlor...	9.410	11.905	1116.0E6	193.4E6	45.648	45.214
	Spiked Amount 40.000			Recovery = 114.12%		113.04%	
	Target Compounds						
34)	Chlordane...	3.377	4.564	799.4E6	170.6E6	546.220	541.766
35)	Chlordane...	4.325	5.813	316.0E6	72879976	478.803	462.350
36)	Chlordane...	4.568	6.165	1721.4E6	331.7E6	466.427	462.979
37)	Chlordane...	4.729	6.395	2665.2E6	546.6E6	473.876	463.149m
38)	Chlordane...	5.611	7.571	350.4E6	64551423	532.062	526.873
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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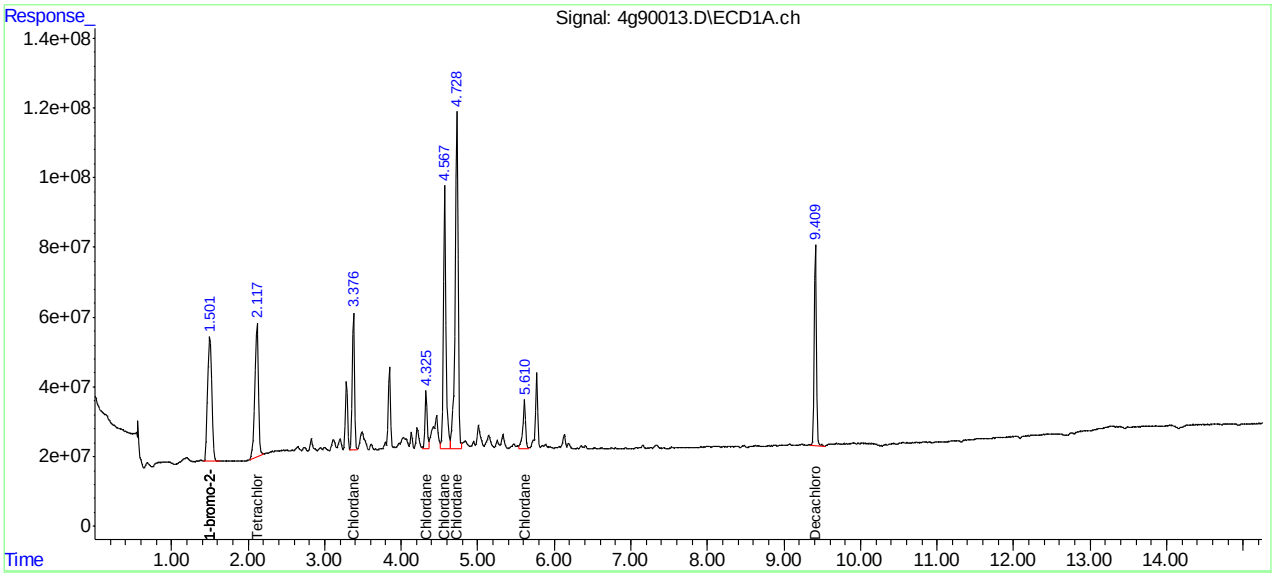
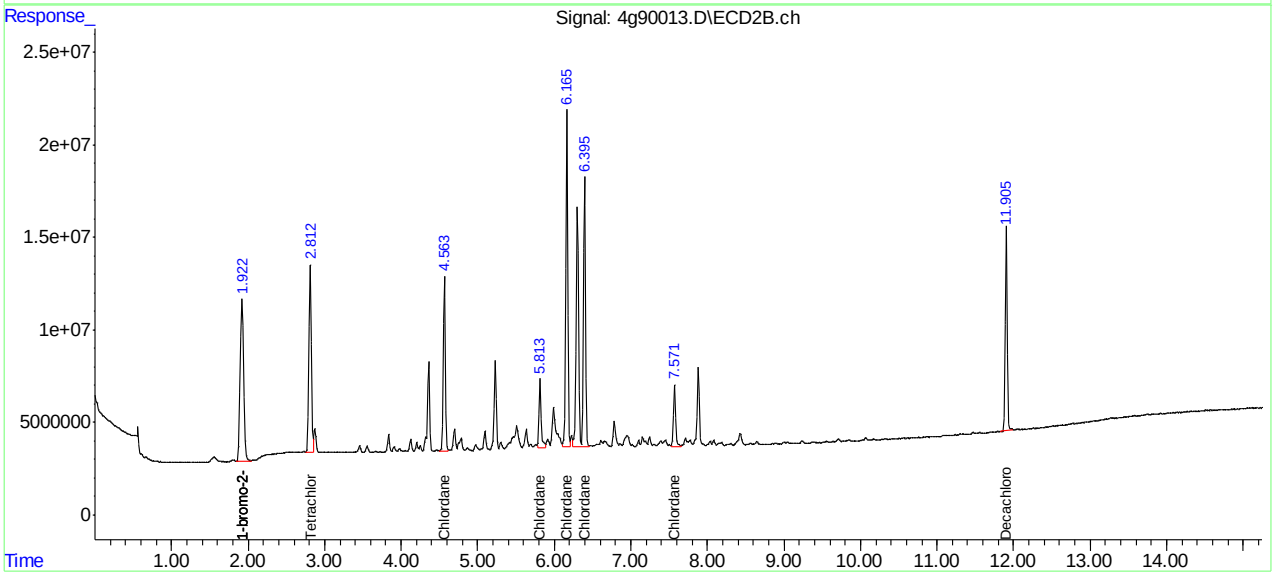
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90013.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:41 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:32:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

Sample Number:	G4G2366-ICV2366	**Method:**	SW846 8081B
Lab FileID:	4G90013.D	**Analyst approved:**	02/19/18 12:46 Kristen Drake
Injection Time:	02/16/18 19:41	**Supervisor approved:**	02/20/18 07:32 Gwendolyn Burns

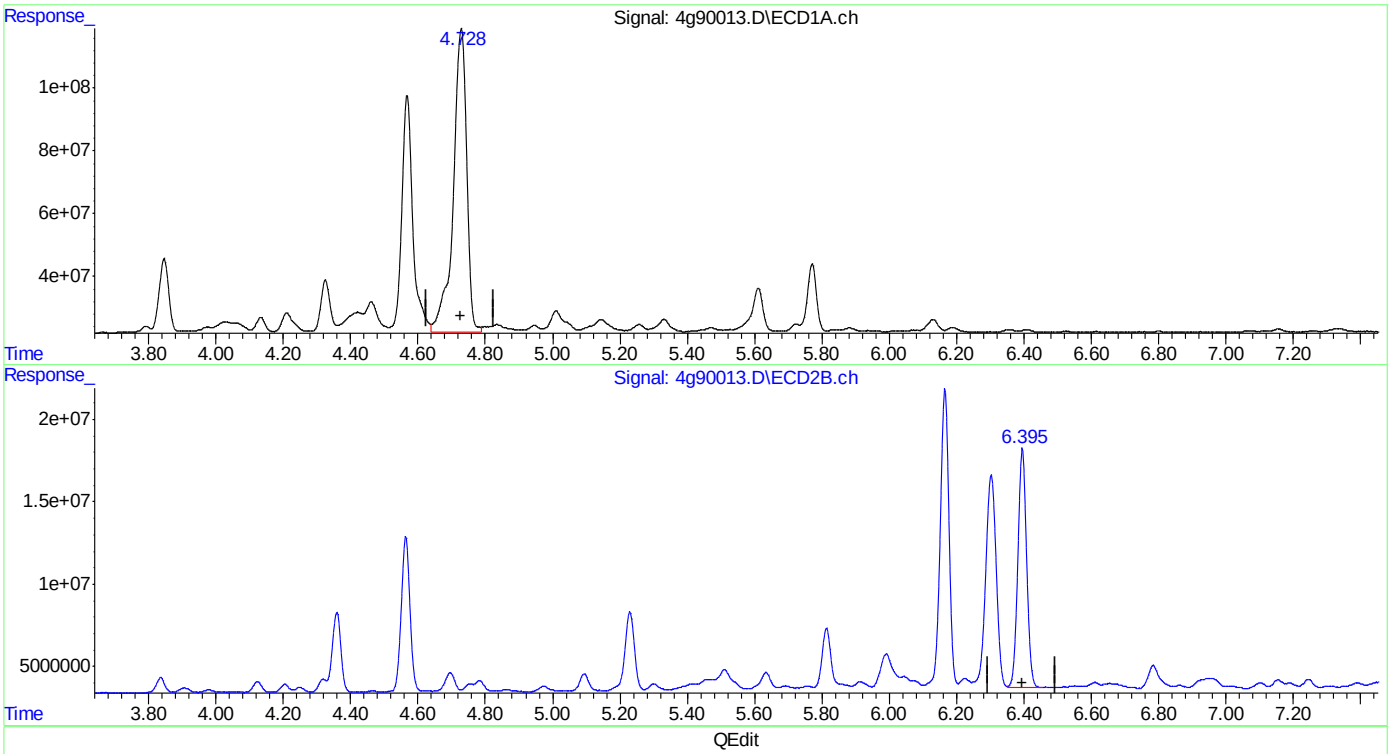
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.12	Poorly defined baseline
Chlordane-D		2	6.39	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90013.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:41 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:31:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(37) Chlordane {D}
4.729min 473.876 PPB
response 2665151933

(37) Chlordane {D} #2
6.395min 221.555 PPB
response 261481718

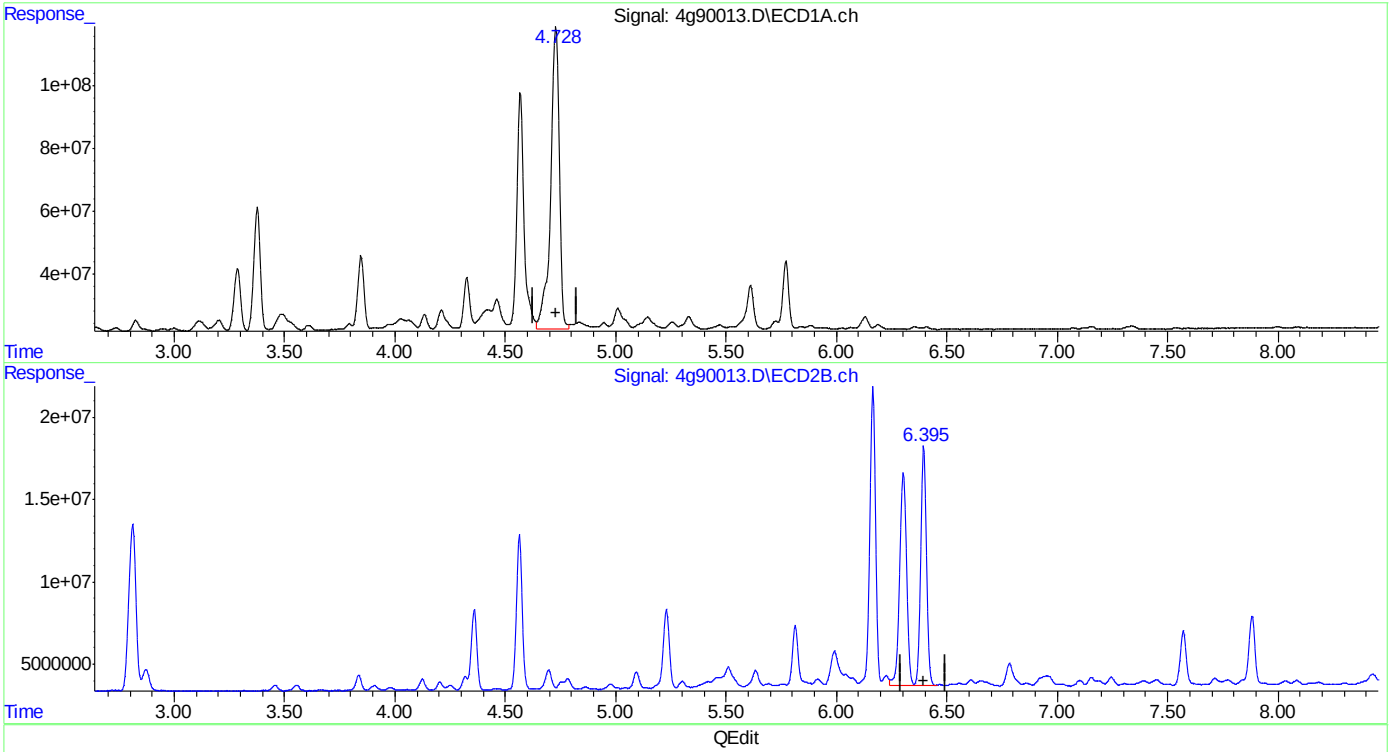
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90013.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:41 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:31:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(37) Chlordane {D}
4.729min 473.876 PPB
response 2665151933

(37) Chlordane {D} #2
6.395min 463.149 PPB m
response 546614406

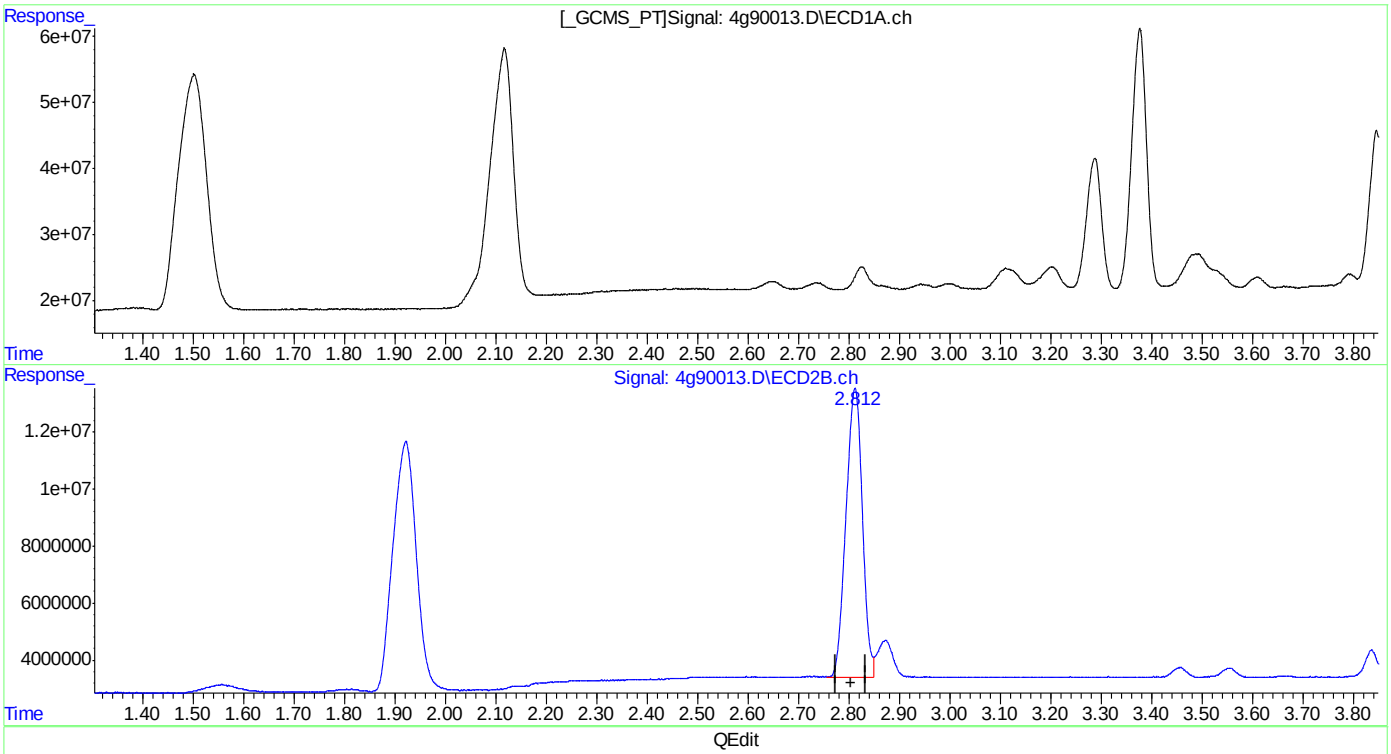
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90013.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:41 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:31:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(2) Tetrachloro-m-xylene (SAB)
0.000min 0.000 PPB
response 0

(2) Tetrachloro-m-xylene #2 (SAB)
2.813min 44.214 PPB
response 228199075

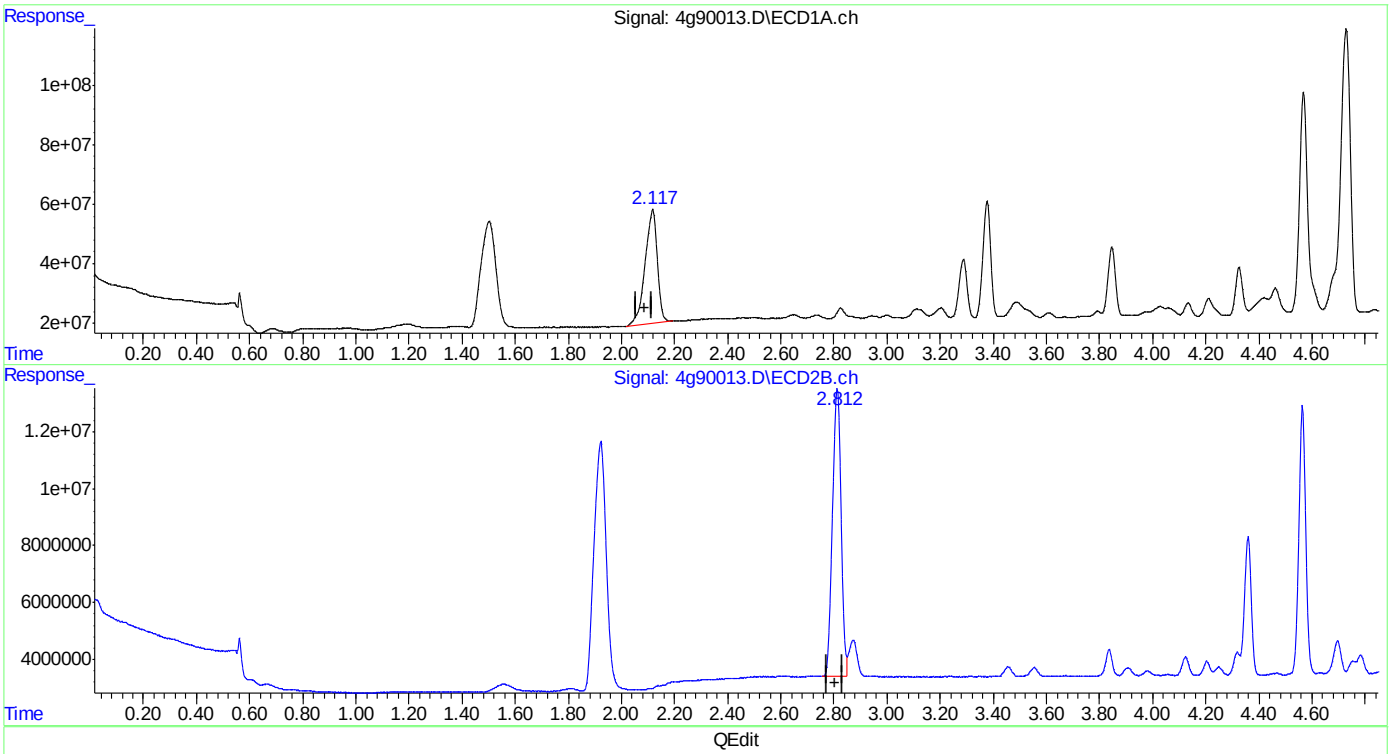
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90013.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:41 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:31:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)
2.117min 45.893 PPB m
response 1223977382

(2) Tetrachloro-m-xylene #2 (SAB)
2.813min 44.214 PPB
response 228199075

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 02/20/18 07:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90014.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:58 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:34:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.497	1.917	1324.1E6	275.1E6	50.000	50.000
27) I	1-bromo-2...	1.497	1.917	1324.1E6	275.1E6	50.000	50.000
33) I	1-bromo-2...	1.497	1.917	1324.1E6	275.1E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.114f	2.808	1106.0E6	226.8E6	43.037	44.786
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 107.59%	111.97%
26) SA	Decachlor...	9.408	11.904	1111.3E6	197.6E6	47.277m	47.086
	Spiked Amount	40.000			Recovery	= 118.19%	117.71%
	Target Compounds						
28) L8	Toxaphene{A}	5.233	6.898	197.8E6	52754684	531.268	507.102m
29) L8	Toxaphene{B}	5.846	7.771	563.4E6	67047957	565.132	497.903
30) L8	Toxaphene{C}	6.022	7.935	379.3E6	121.2E6	494.408m	506.964
31) L8	Toxaphene{D}	6.361	8.377	350.0E6	72594989	541.347	501.480
32) L8	Toxaphene{E}	7.000	9.289	342.3E6	61550075	563.765	513.330
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

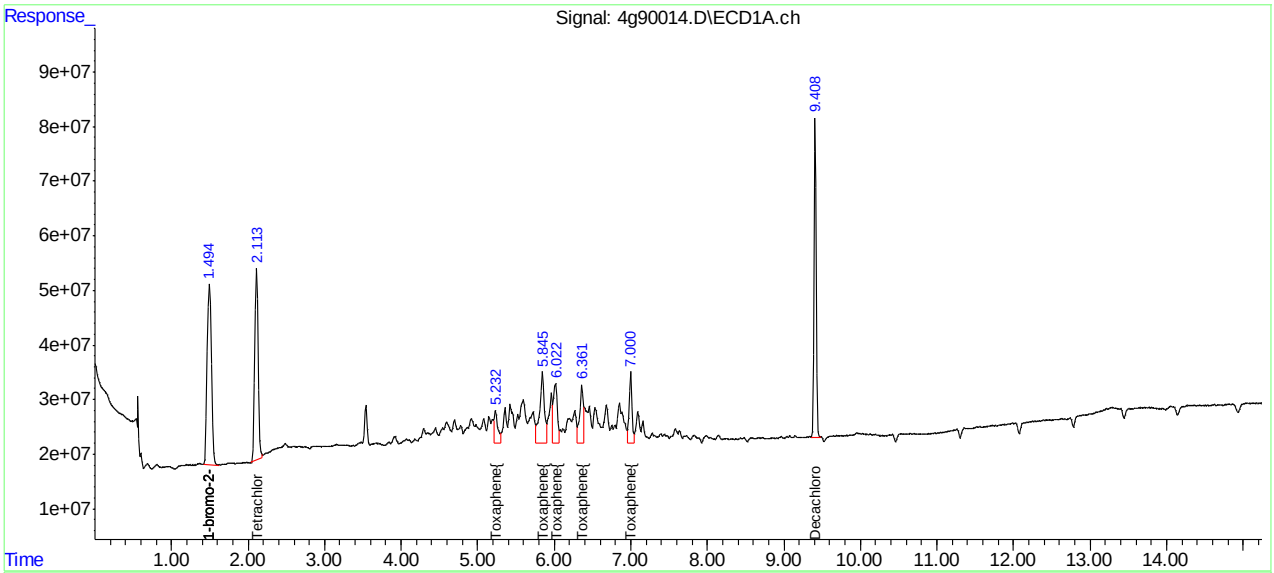
11.6.30 11

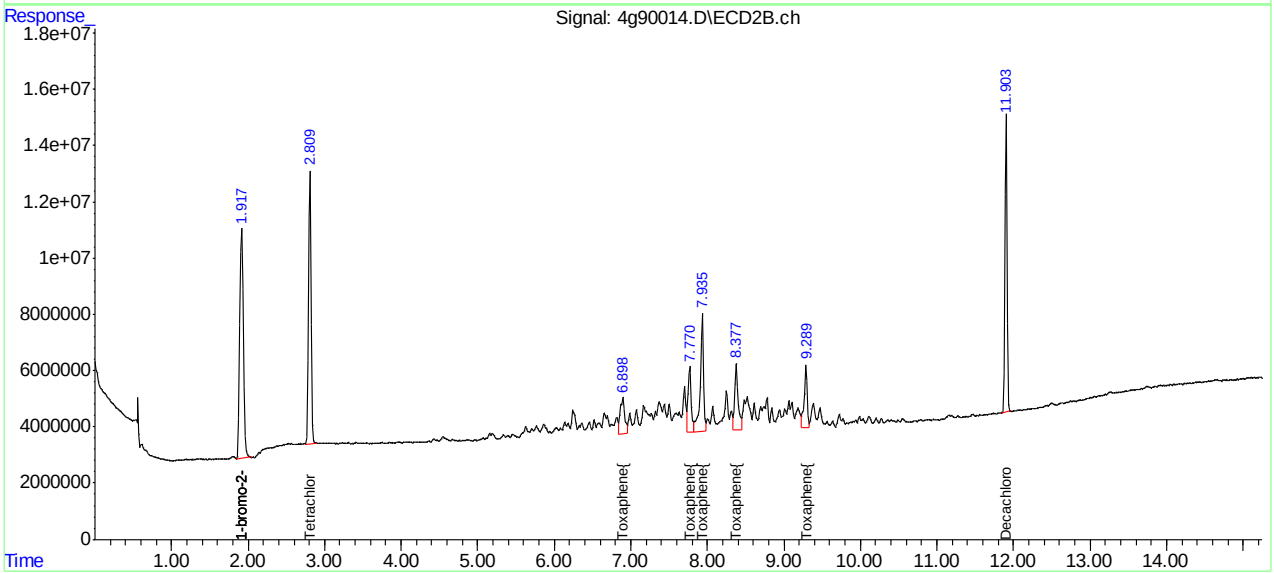
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90014.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:58 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:34:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integration Approval Summary

Sample Number:	G4G2366-ICV2366	**Method:**	SW846 8081B
Lab FileID:	4G90014.D	**Analyst approved:**	02/19/18 12:46 Kristen Drake
Injection Time:	02/16/18 19:58	**Supervisor approved:**	02/20/18 07:32 Gwendolyn Burns

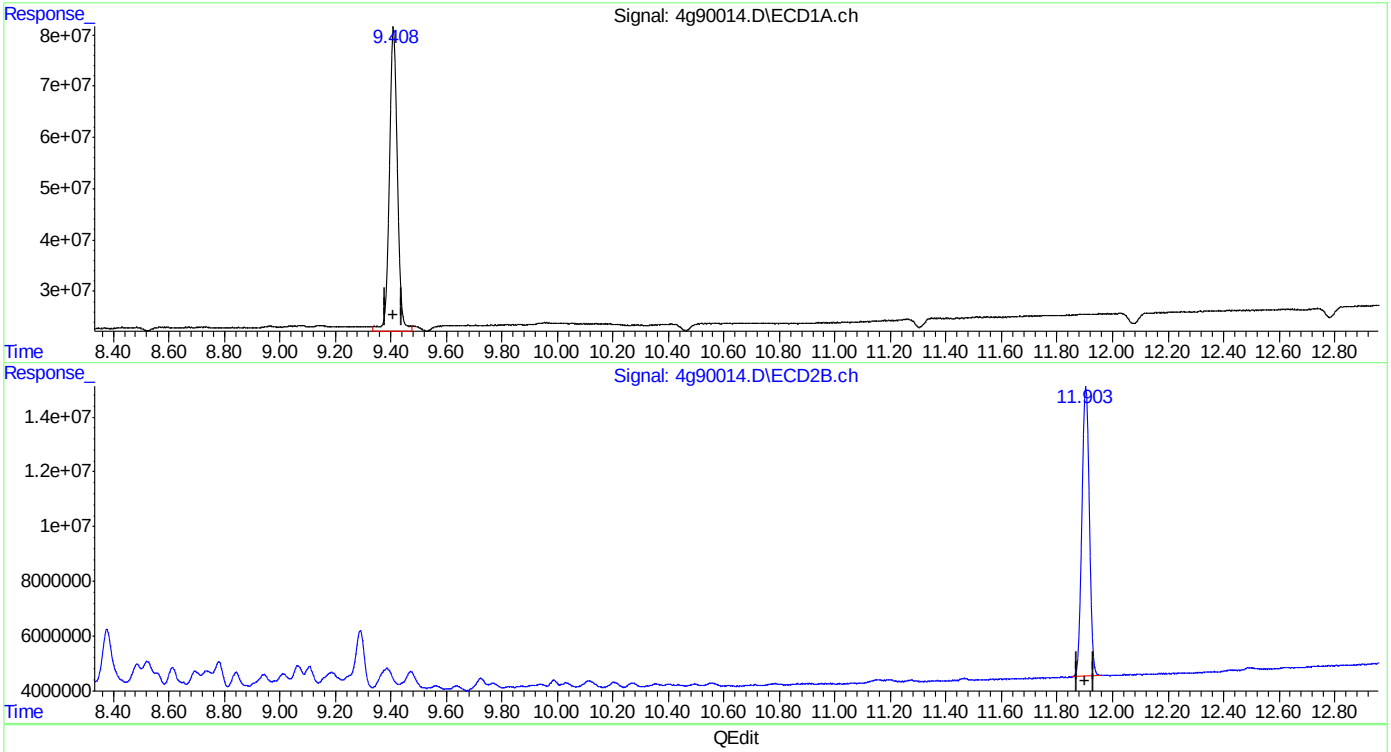
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-C		1	6.02	Split peak
Toxaphene-A		2	6.90	Split peak
Decachlorobiphenyl	2051-24-3	1	9.41	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90014.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:58 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:33:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(26) Decachlorobiphenyl (SA)
9.409min 50.613 PPB
response 1189713423

(26) Decachlorobiphenyl #2 (SA)
11.904min 47.086 PPB
response 197608260

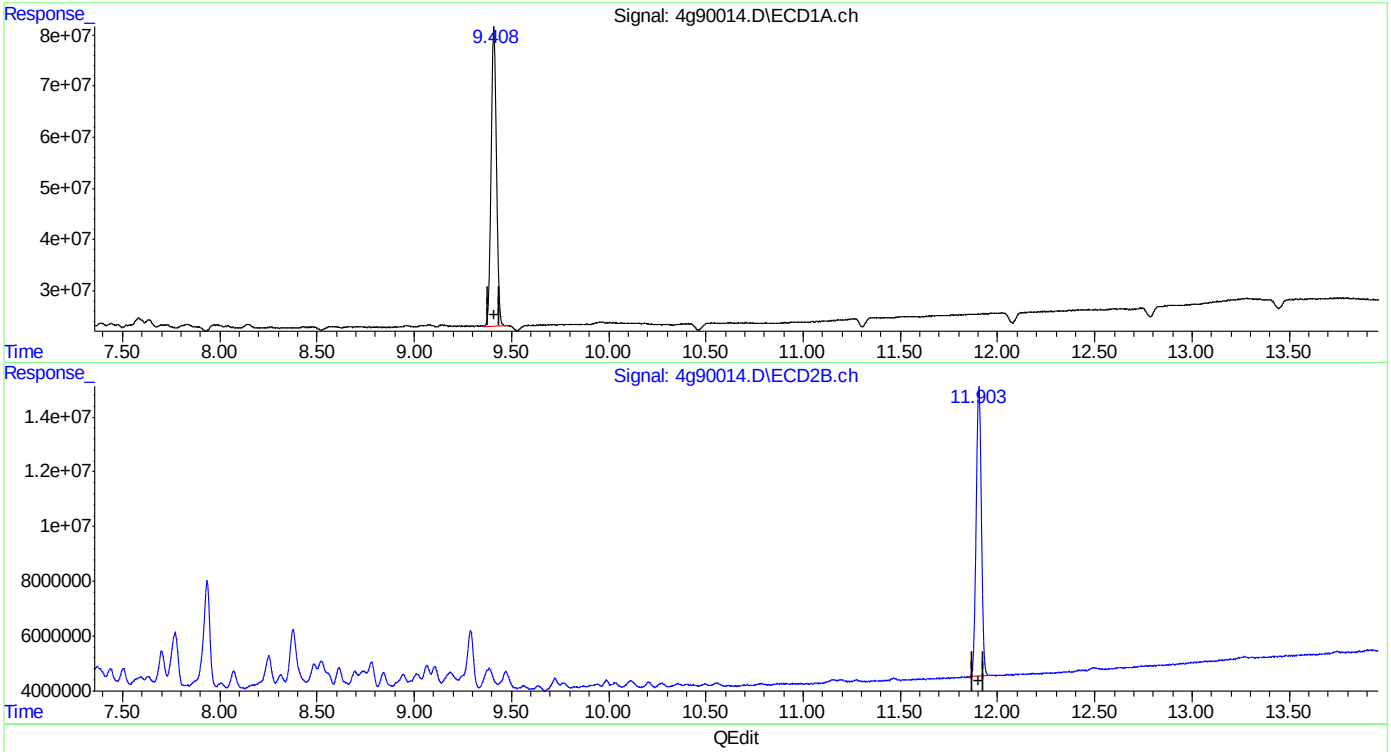
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90014.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:58 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:33:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(26) Decachlorobiphenyl (SA)
9.408min 47.277 PPB m
response 1111279820

(26) Decachlorobiphenyl #2 (SA)
11.904min 47.086 PPB
response 197608260

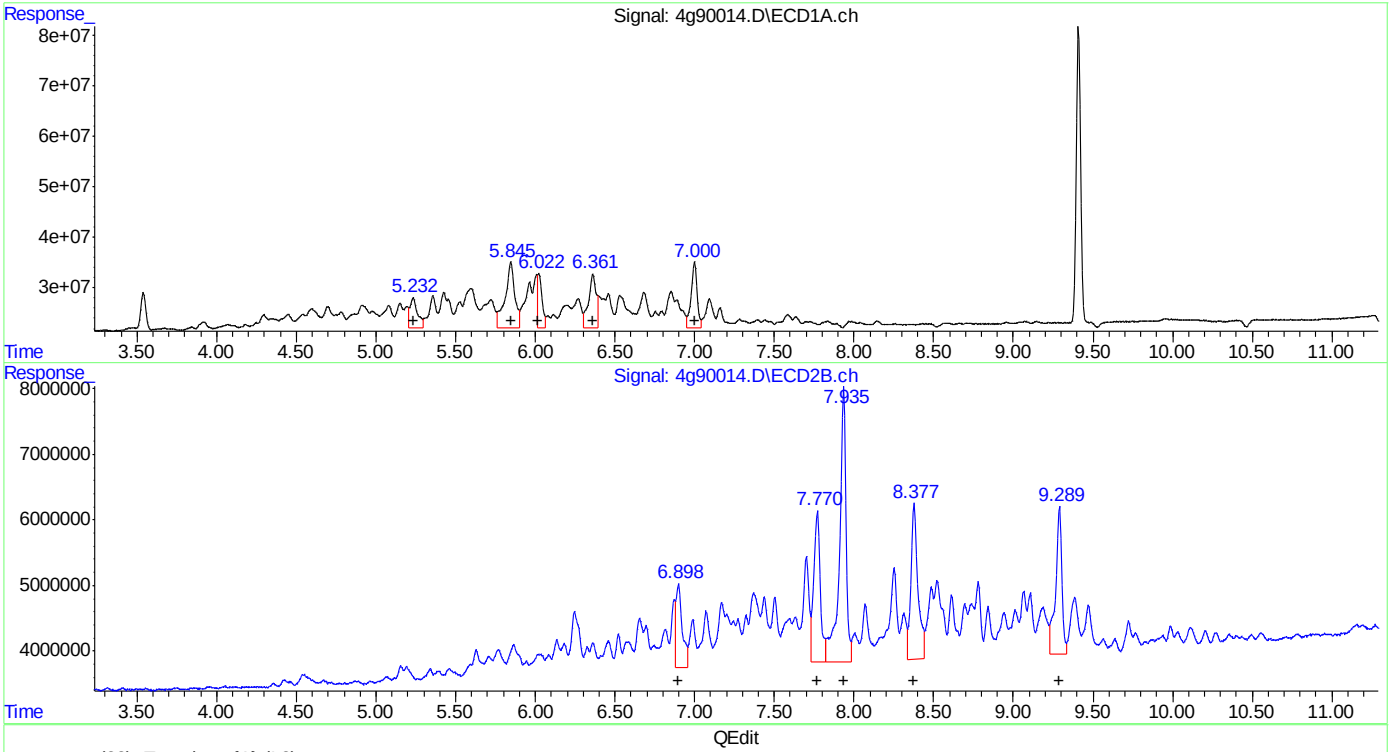
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90014.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:58 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:33:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(28) Toxaphene{A} (L8)

R.T.	Response	Conc
5.23	197756580	531.27
5.85	563390788	565.13
6.02	214818421	280.02
6.36	349995451	541.35
7.00	342326133	563.77

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.90	35245101	338.79
7.77	67047957	497.90
7.94	121198406	506.96
8.38	72594989	501.48
9.29	61550075	513.33

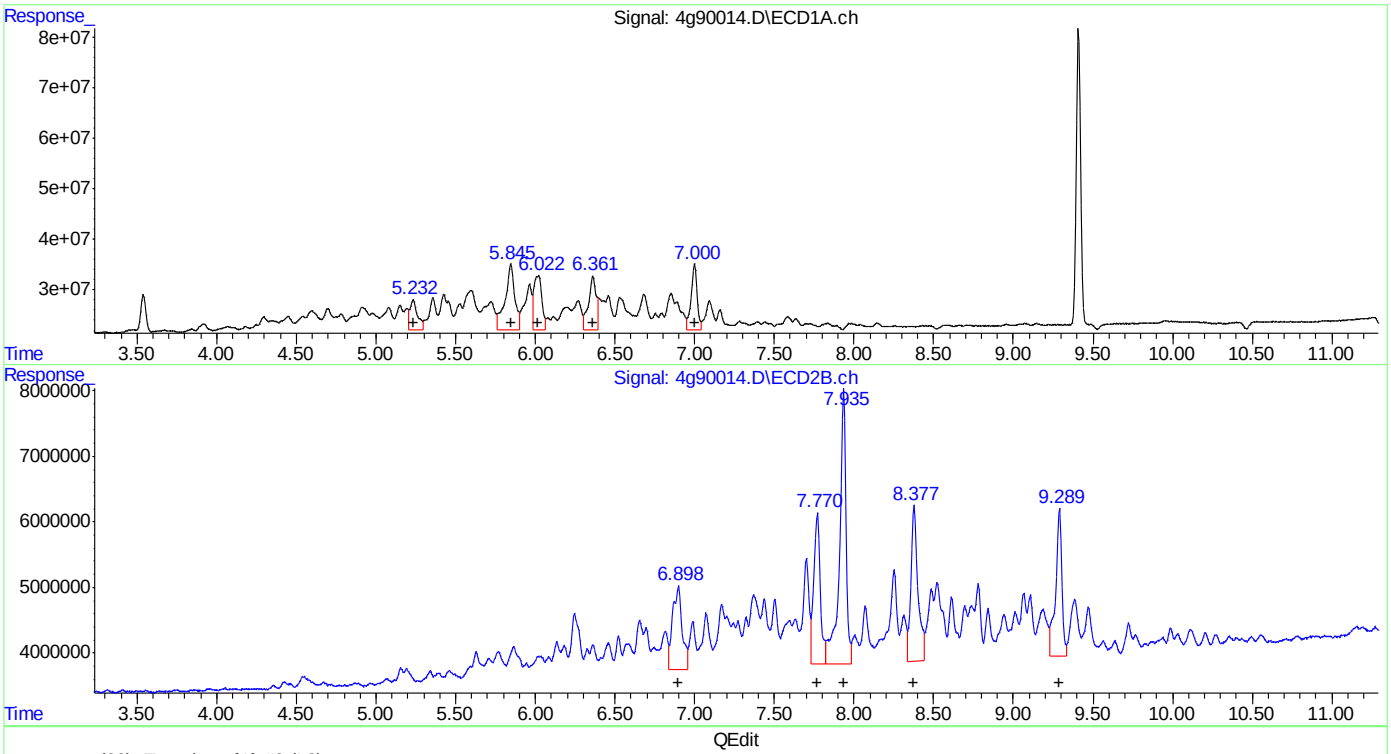
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90014.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 7:58 pm
Operator : kristend
Sample : icv2366-500
Misc : op9981,g4g2366,880,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:33:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
5.23	197756580	531.27
5.85	563390788	565.13
6.02	379281210	494.41
6.36	349995451	541.35
7.00	342326133	563.77

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.90	52754684	507.10
7.77	67047957	497.90
7.94	121198406	506.96
8.38	72594989	501.48
9.29	61550075	513.33

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90016.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 8:32 pm
Operator : kristend
Sample : icv2366-50
Misc : op9981,g4g2366,880,,,5,20
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:38:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.479	1.905	1274.7E6	278.9E6	50.000	50.000
27) I	1-bromo-2...	1.479	1.905	1274.7E6	278.9E6	50.000	50.000
33) I	1-bromo-2...	1.479	1.905	1274.7E6	278.9E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
3)	hexachlor...	2.440	3.345	1899.5E6	377.7E6	54.963	49.634
	SemiQuant Compounds - Not Calibrated on this Instrument						

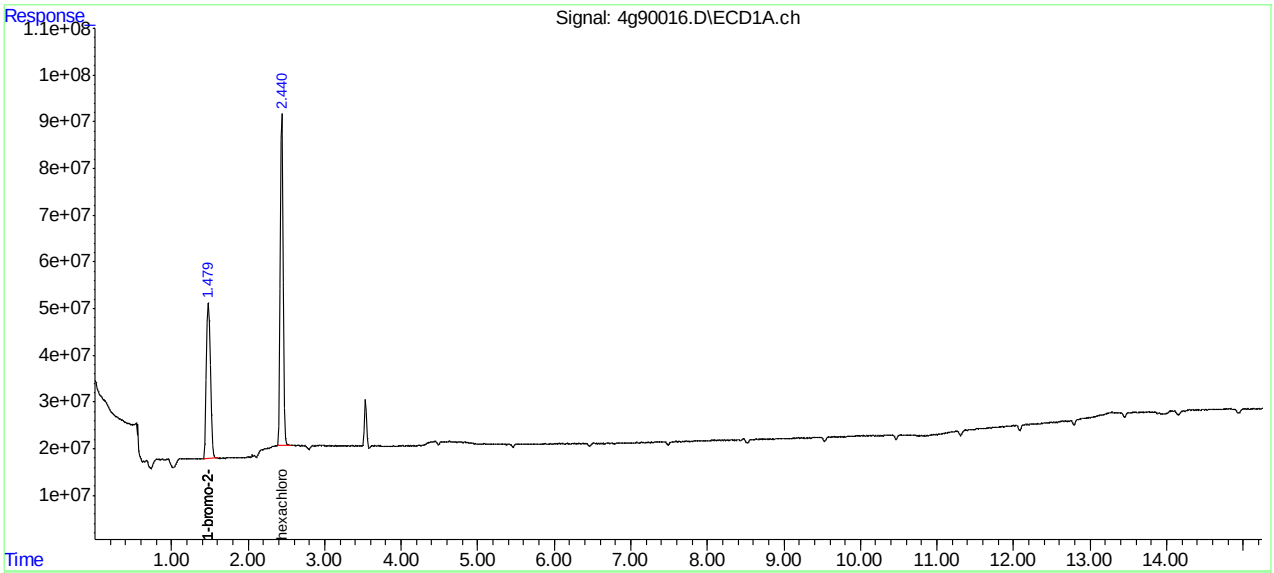
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

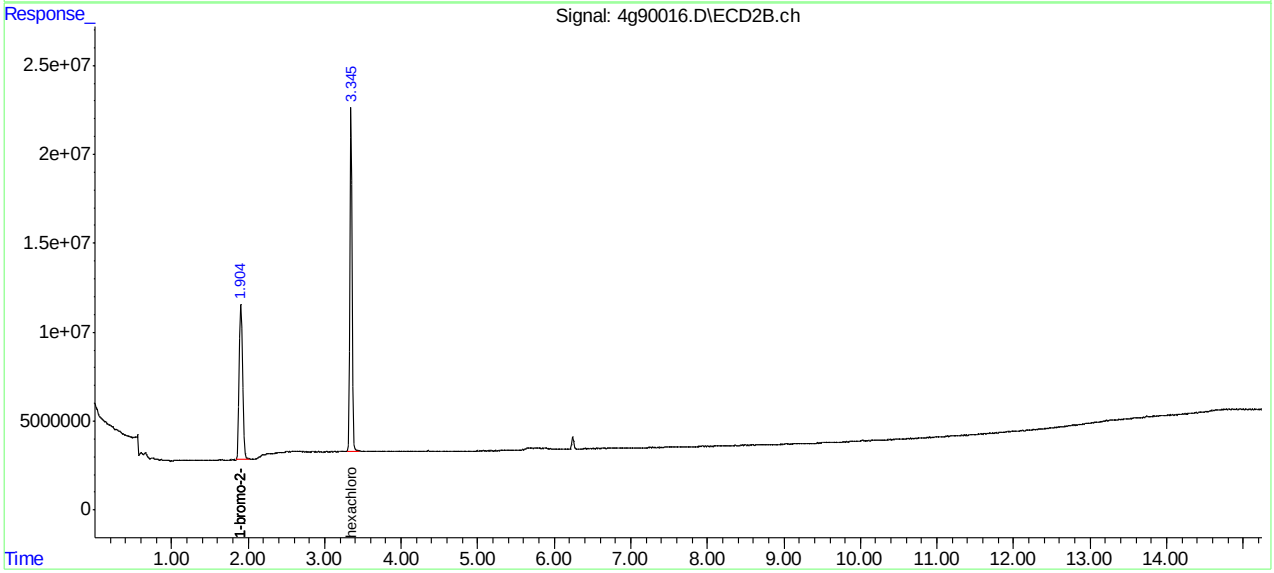
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2366\
Data File : 4g90016.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 16 Feb 2018 8:32 pm
Operator : kristend
Sample : icv2366-50
Misc : op9981,g4g2366,880,,,5,20
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 12:38:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2367\
Data File : 4g90020.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Feb 2018 12:44 pm
Operator : kristend
Sample : icv2366-50
Misc : op9981,g4g2367,880,,,5,20
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 13:01:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.488	1.892f	1097.8E6	260.1E6	50.000	50.000
27) I	1-bromo-2...	1.488	1.892	1097.8E6	260.1E6	50.000	50.000
33) I	1-bromo-2...	1.488	1.892	1097.8E6	260.1E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
10)	alachlor	3.866	4.815	141.4E6	34827875	55.572	49.283
	SemiQuant Compounds - Not Calibrated on this Instrument						

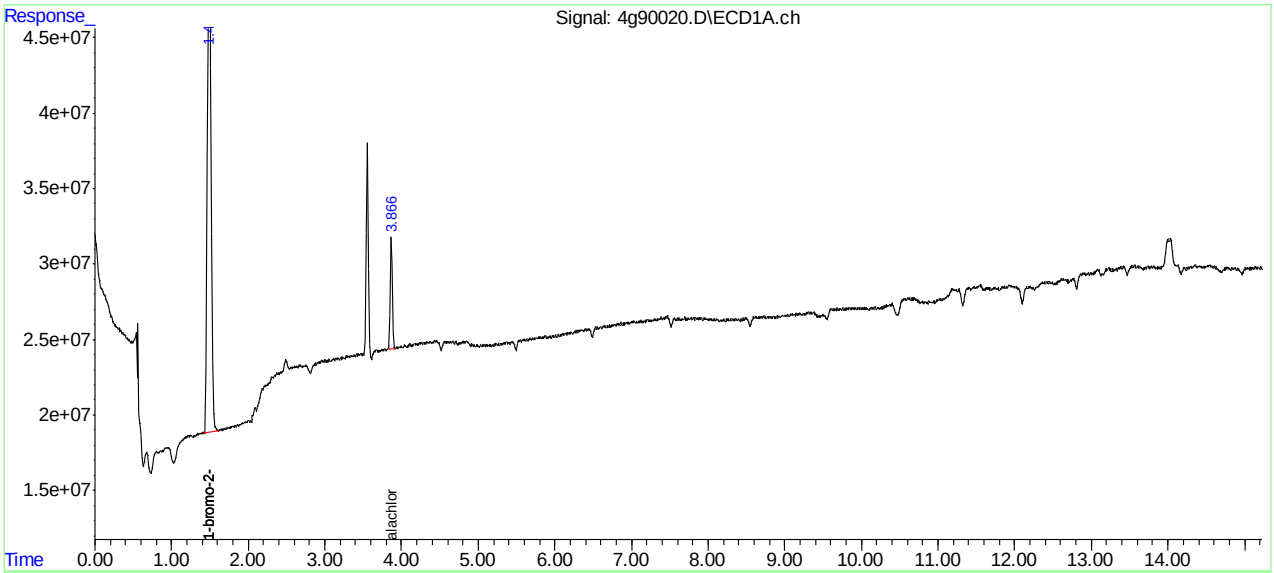
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

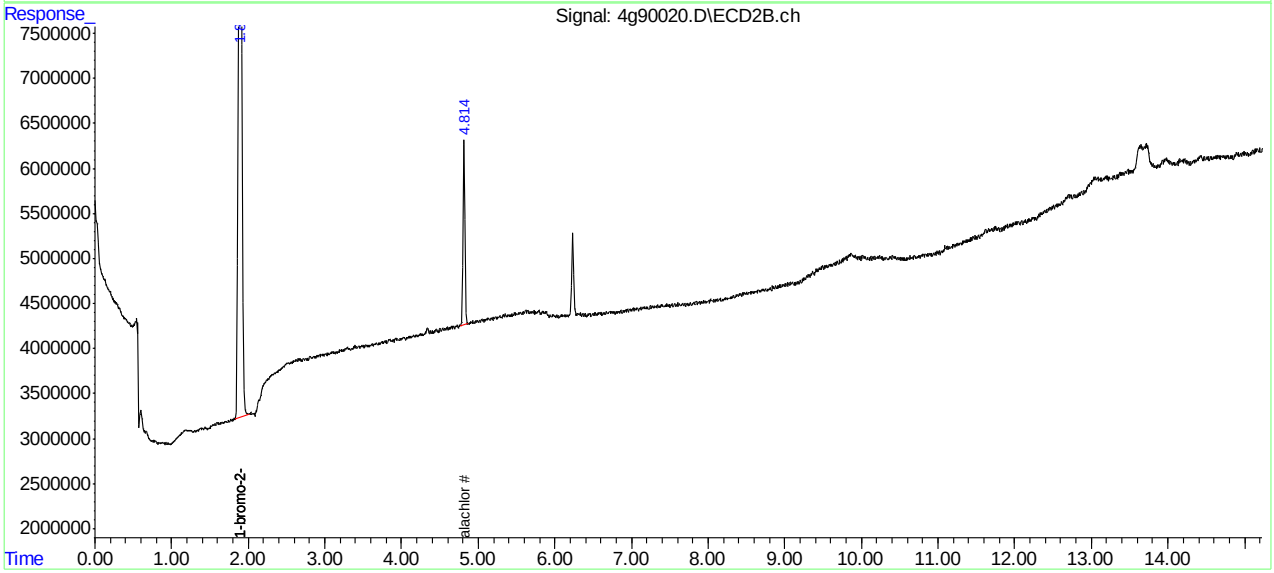
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2367\
Data File : 4g90020.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Feb 2018 12:44 pm
Operator : kristend
Sample : icv2366-50
Misc : op9981,g4g2367,880,,,5,20
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 19 13:01:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Mon Feb 19 09:52:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





JC62879

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90983.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:20 am
Operator : kristend
Sample : cc2366-50
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:42:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.464	1.884	1380.5E6	241.5E6	50.000	50.000
27)	I	1-bromo-2...	1.464	1.884	1380.5E6	241.5E6	50.000	50.000
33)	I	1-bromo-2...	1.464	1.884	1380.5E6	241.5E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.073	2.762	1255.5E6	212.6E6	47.001	47.831
		Spiked Amount 40.000	Range 30 - 150		Recovery = 117.50%		119.58%	
26)	SA	Decachlor...	9.306	11.809	1109.5E6	164.4E6	45.272	44.630
		Spiked Amount 40.000			Recovery = 113.18%		111.58%	
		Target Compounds						
3)		hexachlor...	2.404	3.299	1828.4E6	305.5E6	48.466	46.358
4)	A	alpha-BHC	2.541	3.458	1632.4E6	277.4E6	48.477	46.882
5)	MA	gamma-BHC	2.832	3.904	1379.3E6	235.2E6	45.189	44.234
6)	MA	Heptachlor	3.316	4.493	1383.3E6	245.1E6	46.250	45.334
7)	B	beta-BHC	2.910	3.995	548.8E6	96607439	40.237	39.844
8)	B	delta-BHC	3.092	4.405	1118.1E6	194.1E6	43.479	43.067
9)	MB	Aldrin	3.640	4.956	1300.1E6	221.3E6	45.470	43.494
10)		alachlor	3.784	4.761	146.3E6	29256812	45.737	44.586
11)	B	Heptachlo...	4.329	5.793	1088.8E6	217.7E6	40.813	45.179
12)	B	gamma-Chl...	4.491	6.081	1096.8E6	198.4E6	43.595	42.788
13)	B	alpha-Chl...	4.659	6.309	1077.7E6	192.1E6	43.529	42.085
14)	A	Endosulfan I	4.826	6.407	1080.6E6	185.3E6	46.113	43.443
15)	B	4,4'-DDE	4.780	6.573	1114.3E6	199.9E6	41.602	43.287
16)	MA	Dieldrin	5.141	6.846	1200.0E6	200.4E6	44.637	43.300
17)	MA	Endrin	5.455	7.355	1174.7E6	195.2E6	45.635	44.864
18)	A	4,4'-DDD	5.597	7.532	975.1E6	161.7E6	45.253	43.902
19)	B	Endosulfa...	5.774	7.710	1038.8E6	178.6E6	44.311	43.952
20)	MA	4,4'-DDT	6.004	8.066	912.9E6	154.2E6	45.877	44.357
21)	B	Endrin Al...	6.382	8.285	823.8E6	140.1E6	47.735	42.587
22)	B	Endosulfa...	7.050	8.755	839.8E6	139.3E6	48.403	46.961
23)	A	Methoxychlor	6.798	9.313	504.5E6	87234031	45.635	44.772
24)		Mirex	6.914	9.652	784.9E6	139.4E6	43.470	44.248
25)	B	Endrin Ke...	7.485	9.723	1010.5E6	172.5E6	46.386	45.071

SemiQuant Compounds - Not Calibrated on this Instrument

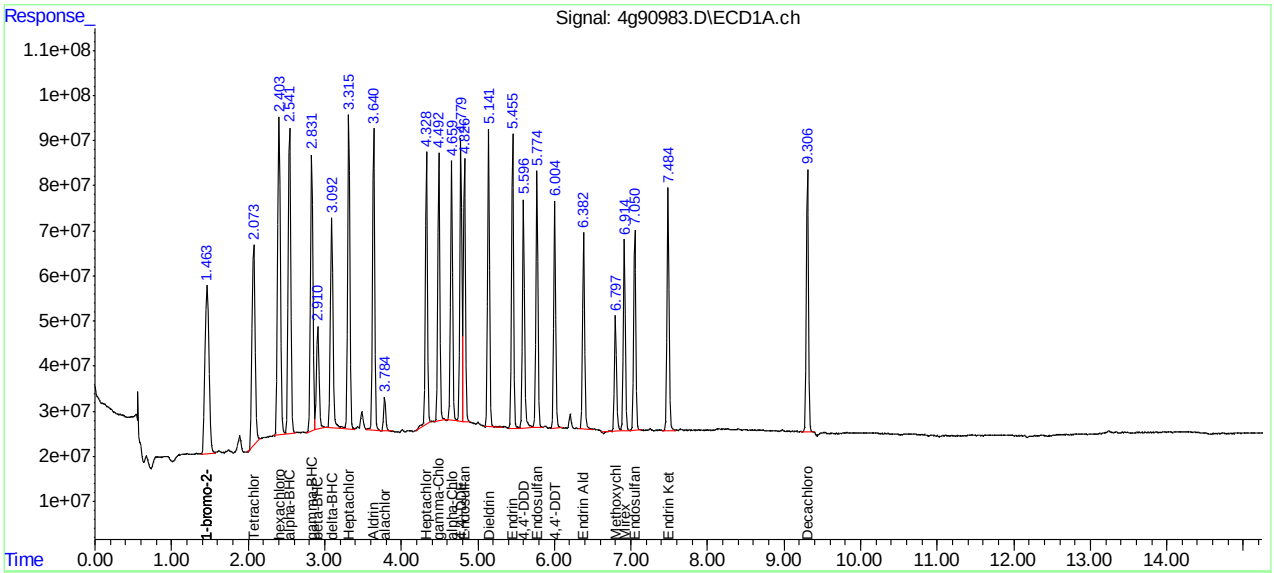
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

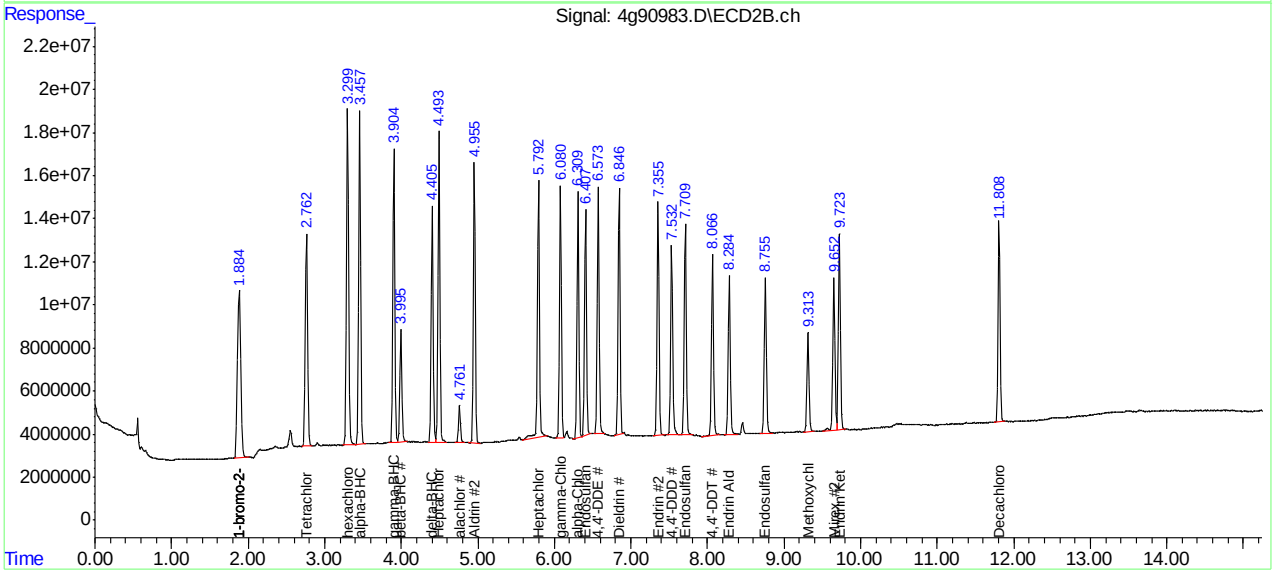
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2399\
Data File : 4g90983.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Mar 2018 9:20 am
Operator : kristend
Sample : cc2366-50
Misc : op10830,g4g2399,1020,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 27 09:42:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 08:39:28 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





JC62879

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/28/18 13:11

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2400\
Data File : 4g91001.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Mar 2018 12:54 am
Operator : christp
Sample : cc2366-25
Misc : op10876,g4g2400,290,,,2,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 28 01:11:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.474	1.889	1465.4E6	244.8E6	50.000	50.000
27)	I	1-bromo-2...	1.474	1.889	1465.4E6	244.8E6	50.000	50.000
33)	I	1-bromo-2...	1.474	1.889	1465.4E6	244.8E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.081	2.765	626.3E6	109.2E6	21.673	24.248
		Spiked Amount 40.000	Range 30 - 150		Recovery =		54.18%	60.62%
26)	SA	Decachlor...	9.305	11.805	580.7E6	84535920	22.324	22.641
		Spiked Amount 40.000			Recovery =		55.81%	56.60%
		Target Compounds						
3)		hexachlor...	2.412	3.301	978.4E6	158.0E6	23.562	23.664
4)	A	alpha-BHC	2.549	3.458	886.5E6	141.3E6	24.802	23.574
5)	MA	gamma-BHC	2.837	3.904	773.5E6	129.2E6	23.874	23.973
6)	MA	Heptachlor	3.321	4.492	772.3E6	129.6E6	24.327	23.654
7)	B	beta-BHC	2.920	3.998	311.9E6	54054788	21.542	21.999
8)	B	delta-BHC	3.100	4.405	624.6E6	106.3E6	22.884	23.284
9)	MB	Aldrin	3.644	4.954	720.1E6	119.1E6	23.726	23.095
10)		alachlor	3.787	4.759	82020385	14719003	24.152	22.135
11)	B	Heptachlo...	4.332	5.789	593.0E6	99304938	20.941	20.338m
12)	B	gamma-Chl...	4.494	6.077	635.6E6	106.3E6	23.800	22.622
13)	B	alpha-Chl...	4.661	6.306	636.1E6	103.9E6	24.203	22.471
14)	A	Endosulfan I	4.828	6.404	645.9E6	98232110	25.965	22.729
15)	B	4,4'-DDE	4.782	6.571	644.8E6	106.2E6	22.680	22.691
16)	MA	Dieldrin	5.143	6.843	668.5E6	107.0E6	23.424	22.802
17)	MA	Endrin	5.456	7.351	643.9E6	102.6E6	23.567	23.270
18)	A	4,4'-DDD	5.601	7.531	539.9E6	89635470	23.607	24.015
19)	B	Endosulfa...	5.775	7.707	575.9E6	96779079	23.143	23.501
20)	MA	4,4'-DDT	6.007	8.062	489.3E6	78903489	23.165	22.400
21)	B	Endrin Al...	6.384	8.281	464.4E6	76145465	25.355	22.839
22)	B	Endosulfa...	7.052	8.752	458.6E6	74551852	24.900	24.804
23)	A	Methoxychlor	6.803	9.310	266.3E6	43939949	22.688	22.254
24)		Mirex	6.914	9.648	435.3E6	70568487	22.713	22.110
25)	B	Endrin Ke...	7.486	9.720	558.6E6	91656836	24.158	23.637

SemiQuant Compounds - Not Calibrated on this Instrument

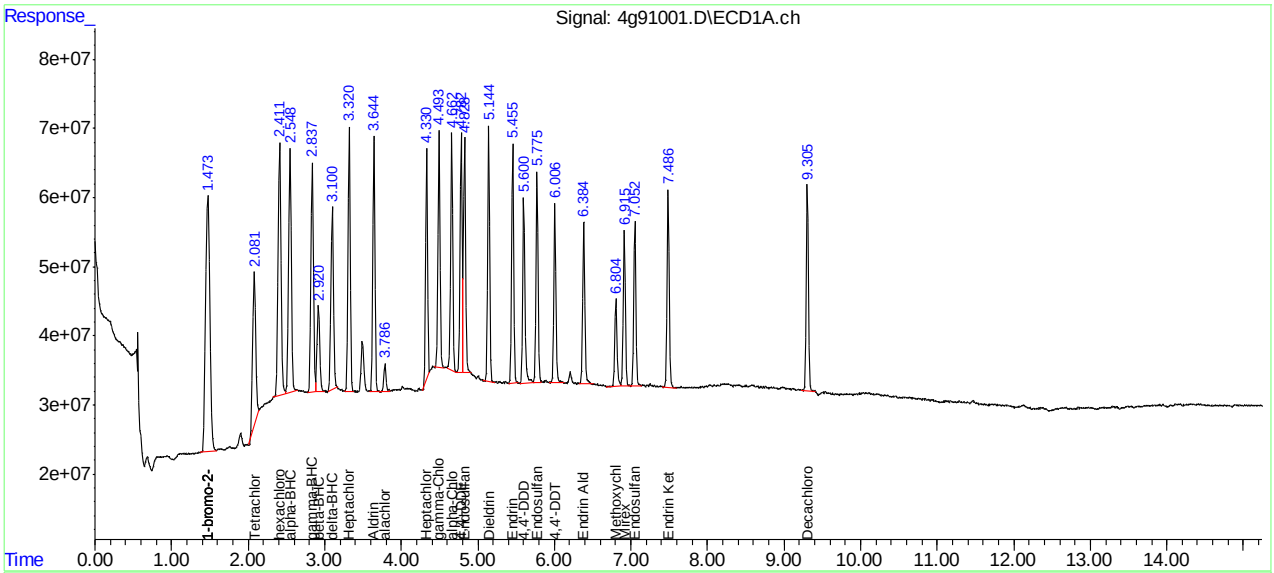
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

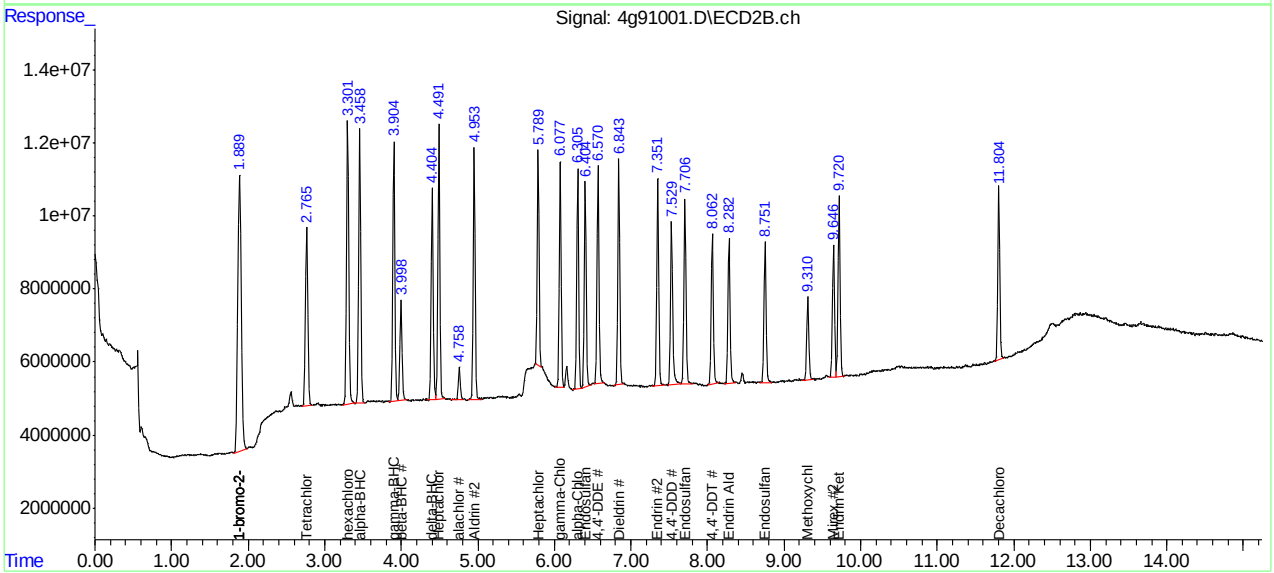
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G2400\
Data File : 4g91001.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Mar 2018 12:54 am
Operator : christp
Sample : cc2366-25
Misc : op10876,g4g2400,290,,,2,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 28 01:11:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





SGS JC62879

Manual Integration Approval Summary

Sample Number:	G4G2400-CC2366	**Method:**	SW846 8081B
Lab FileID:	4G91001.D	**Analyst approved:**	03/28/18 12:41 Dharmistha Mehta
Injection Time:	03/28/18 00:54	**Supervisor approved:**	03/28/18 13:11 Gwendolyn Burns

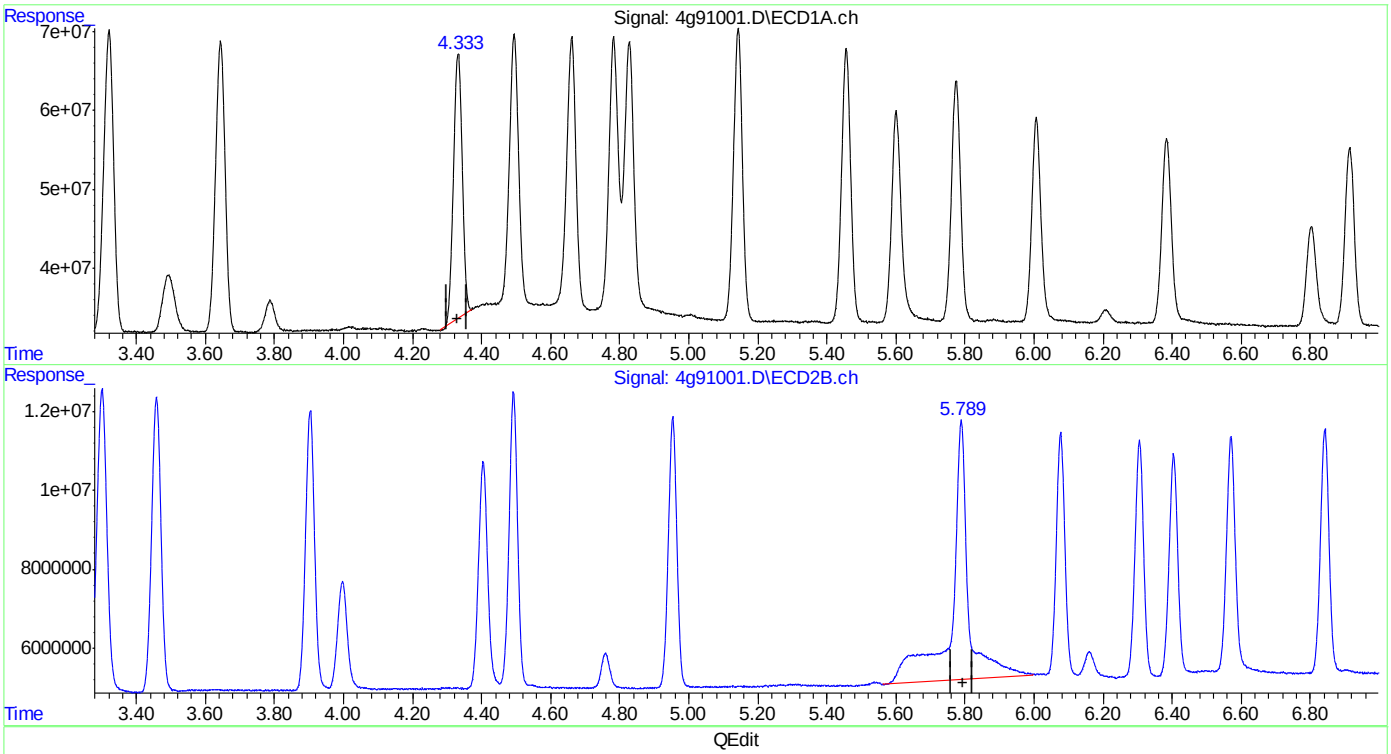
Parameter	CAS	Sig#	R.T. (min.)	Reason
Heptachlor epoxide	1024-57-3	2	5.79	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2400\
Data File : 4g91001.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Mar 2018 12:54 am
Operator : christp
Sample : cc2366-25
Misc : op10876,g4g2400,290,,,2,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 28 01:10:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(11) Heptachlor Epoxide (B)
4.332min 20.941 PPB
response 593033412

(11) Heptachlor Epoxide #2 (B)
5.789min 45.667 PPB
response 222983230

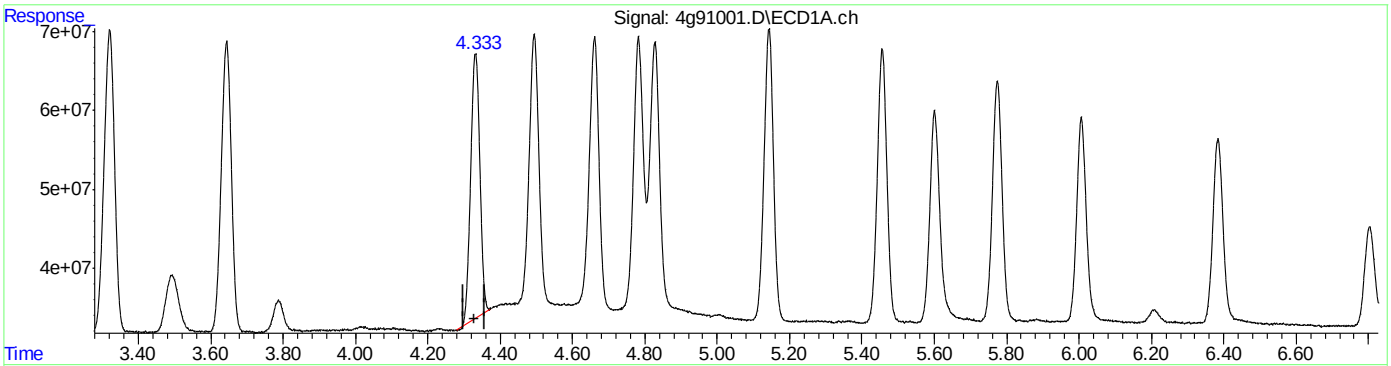
(+) = Expected Retention Time
4PST2366.M Wed Mar 28 01:10:50 2018 RPT1

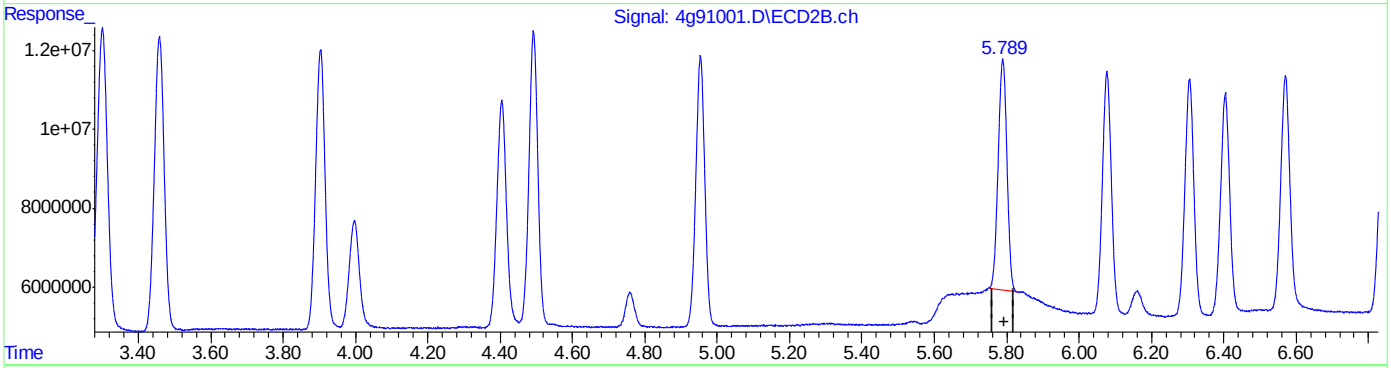
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G2400\
Data File : 4g91001.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Mar 2018 12:54 am
Operator : christp
Sample : cc2366-25
Misc : op10876,g4g2400,290,,,2,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 28 01:10:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\4PST2366.M
Quant Title : PEST/PCB
QLast Update : Tue Mar 27 15:46:20 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(11) Heptachlor Epoxide (B)
4.332min 20.941 PPB
response 593033412

(11) Heptachlor Epoxide #2 (B)
5.789min 20.338 PPB m
response 99304938

(+) = Expected Retention Time
4PST2366.M Wed Mar 28 01:11:09 2018 RPT1

SGS JC62879

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:26 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.21	25649	31232	2.219	2.006
	Spiked Amount 40.000			Recovery	=	5.55%	5.01%
51) S	Decachlorobiphen	14.19	17.33	41752	53159	2.445m	2.520m
	Spiked Amount 40.000			Recovery	=	6.11%	6.30%
	Target Compounds						
41)	AR1016-A	3.72	5.16	18345	25722	57.906	62.745m
42)	AR1016-B	4.26	5.99	33896	51975	61.471	64.484
43)	AR1016-C	5.06	6.94	73105	102581	59.548	62.980
44)	AR1016-D	5.30	7.23	28166	41388	59.157	58.559
45)	AR1016-E	6.03	8.25	30175	29627	61.053	61.944
46)	AR1260-A	9.66	12.36	80860	111005	59.384	62.291
47)	AR1260-B	9.91	12.55	39468	52612	60.039	65.290
48)	AR1260-C	10.44	13.24	35823	54185	58.264	62.956
49)	AR1260-D	11.12	13.80	87928	108139	56.104	60.321
50)	AR1260-E	11.74	14.66	84866	104122	54.944m	55.899m

11.6.35 11

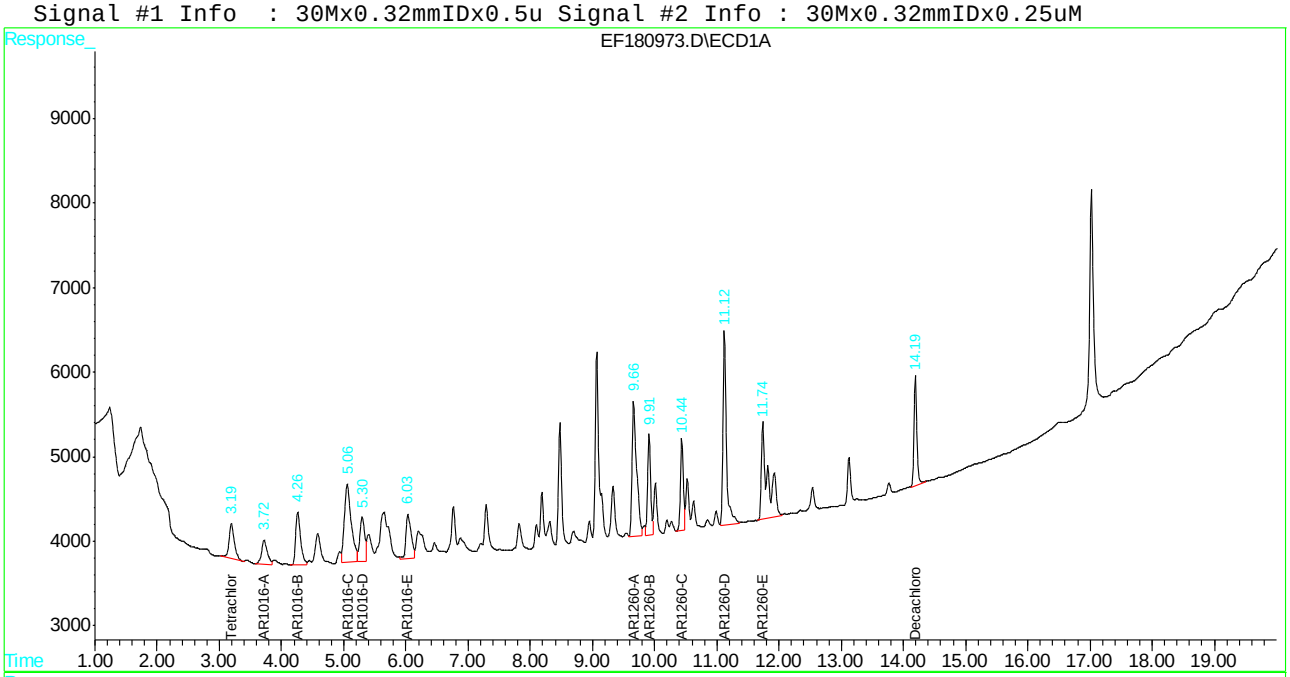
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180973.D PCB6195.M Tue Mar 20 15:27:04 2018 GCEF Page 1

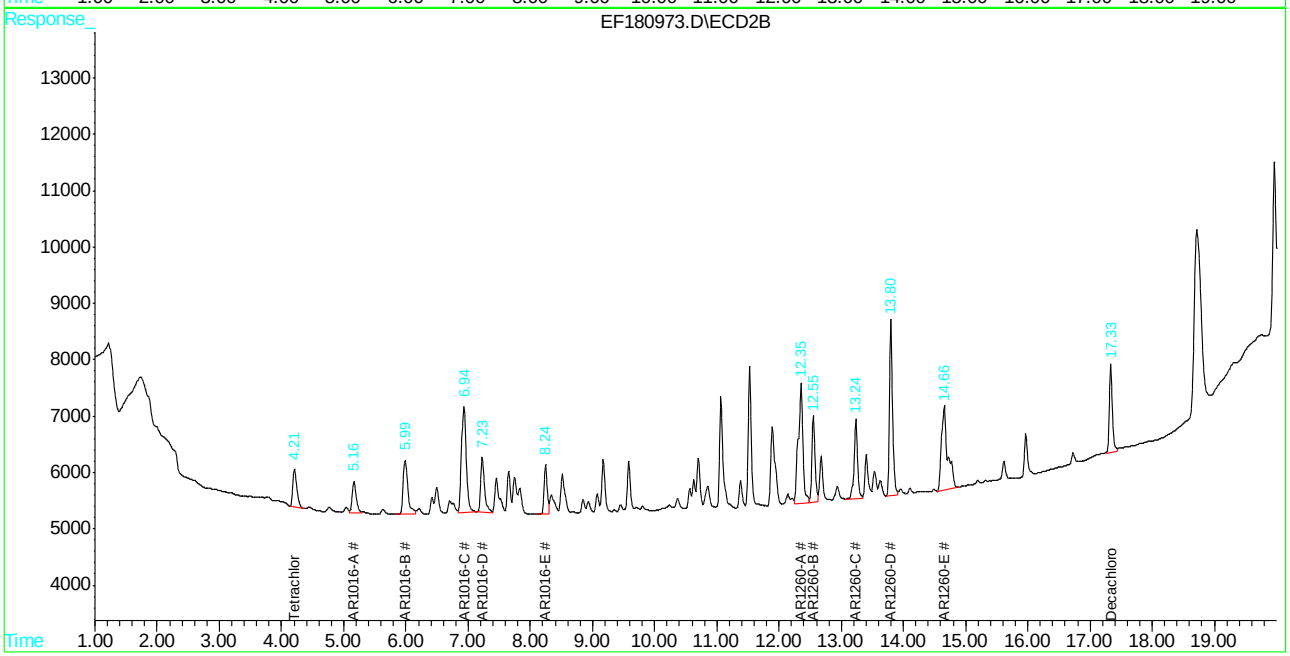
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:26 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62879

Manual Integration Approval Summary

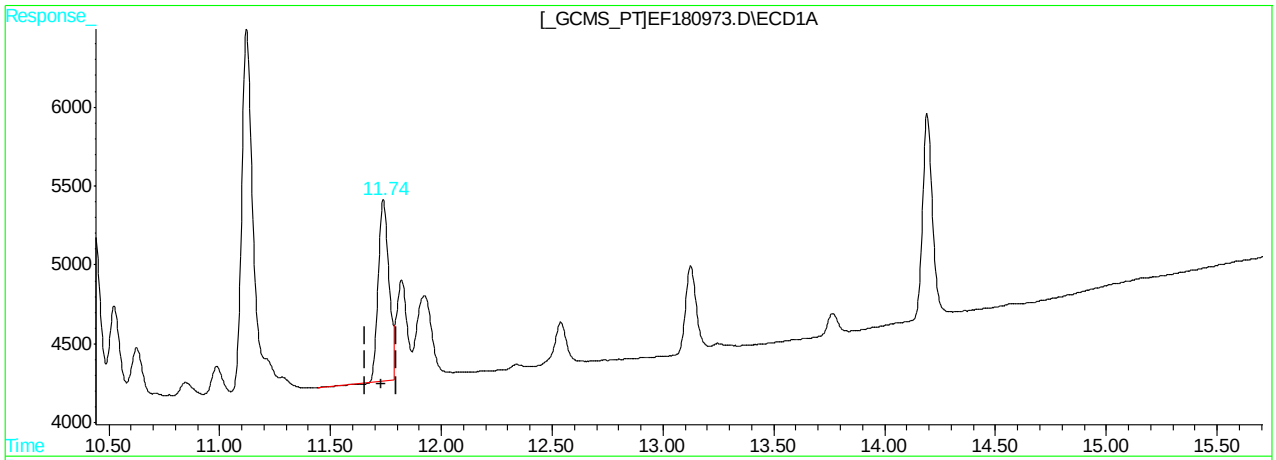
Sample Number:	GEF6195-IC6195	**Method:**	SW846 8082A
Lab FileID:	EF180973.D	**Analyst approved:**	03/20/18 15:40 Tianwei Ruan
Injection Time:	03/19/18 17:24	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

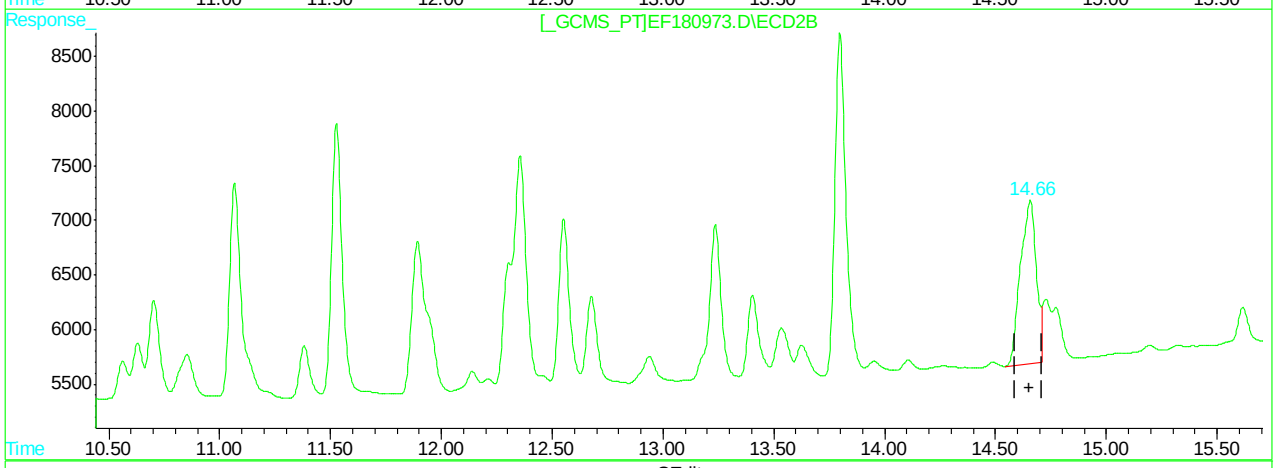
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		2	5.16	Split peak
AR1260-E		1	11.74	Split peak
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
AR1260-E		2	14.66	Split peak
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 24.593PPB

response 37987

(50) AR1260-E #2

14.66min 39.735PPB

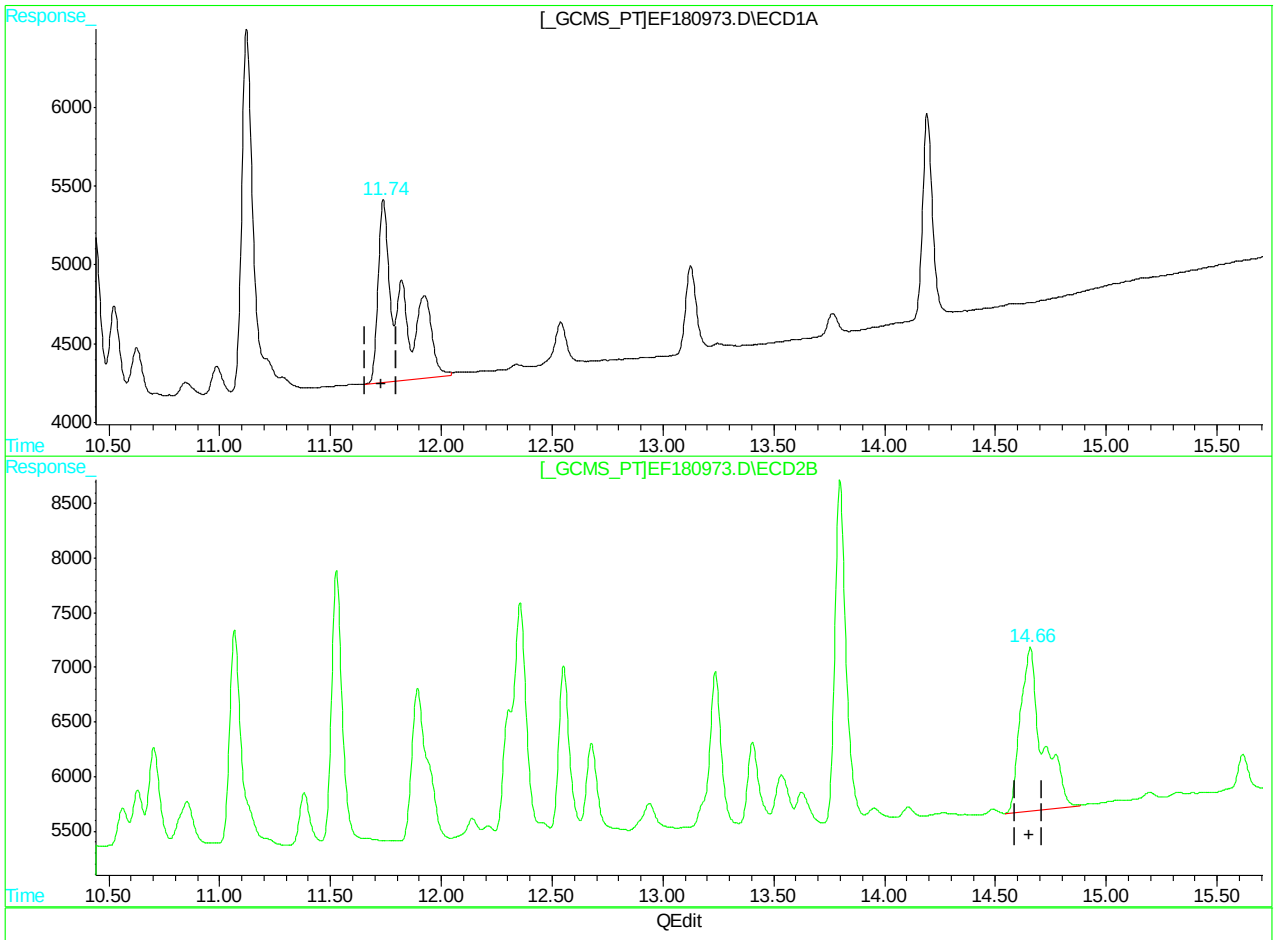
response 74013

(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:25:27 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration



(50) AR1260-E

11.74min 54.944PPB m

response 84866

(50) AR1260-E #2

14.66min 55.899PPB m

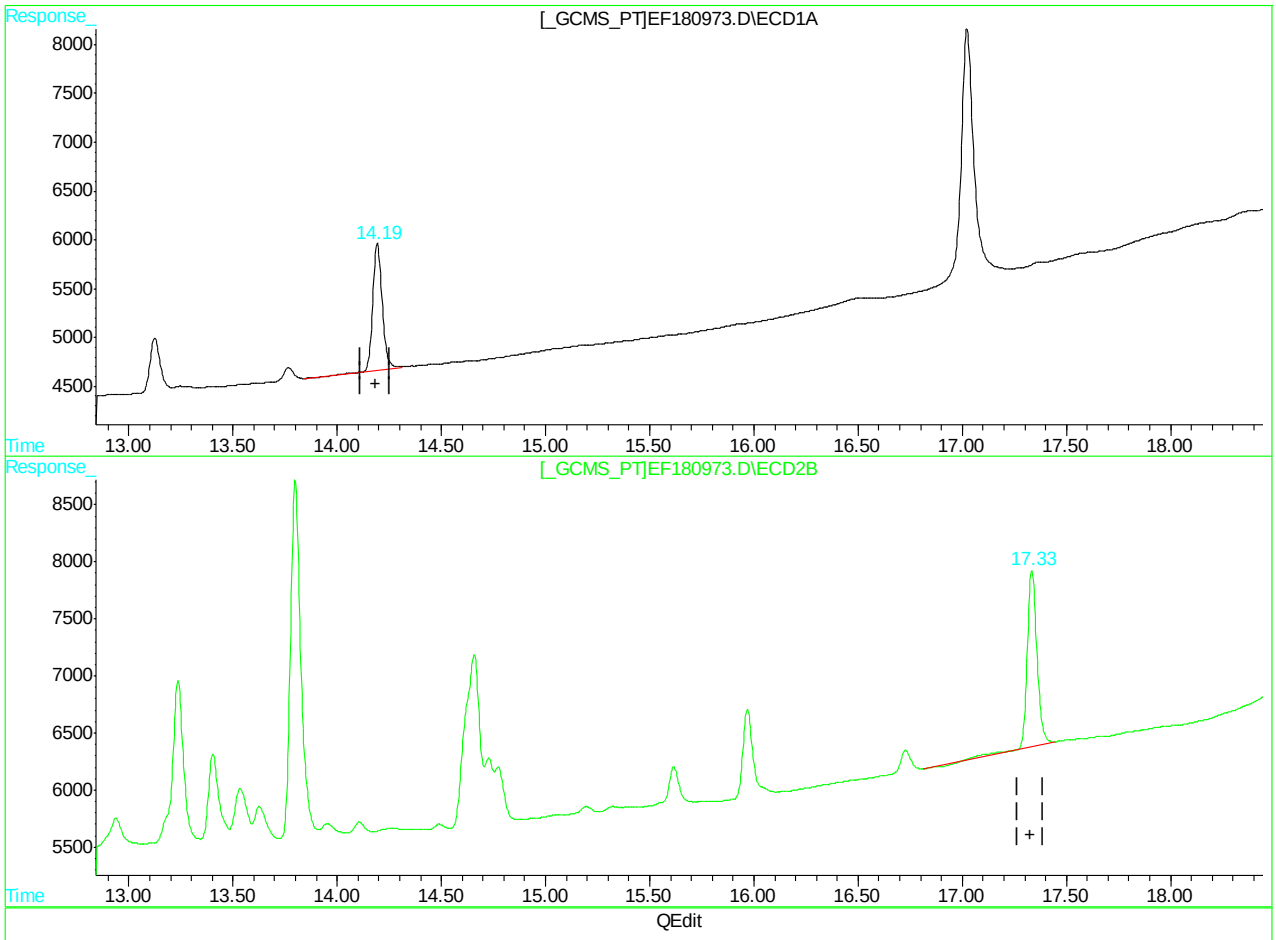
response 104122

(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:25:39 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.19min 2.406PPB

response 41081

(51) Decachlorobiphenyl #2 (S)

17.34min 2.331PPB

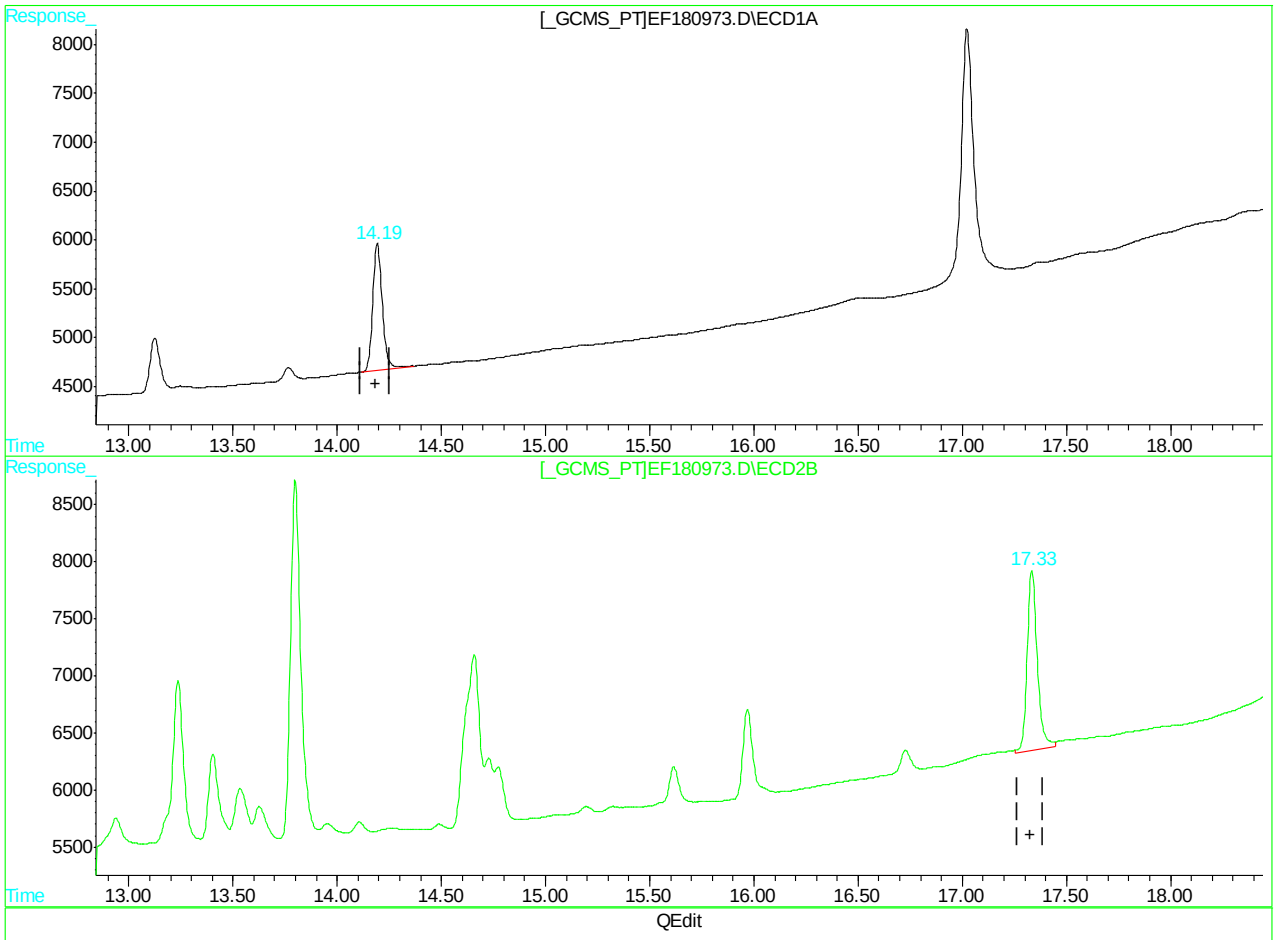
response 49165

(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:25:43 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.19min 2.445PPB m

response 41752

(51) Decachlorobiphenyl #2 (S)

17.33min 2.520PPB m

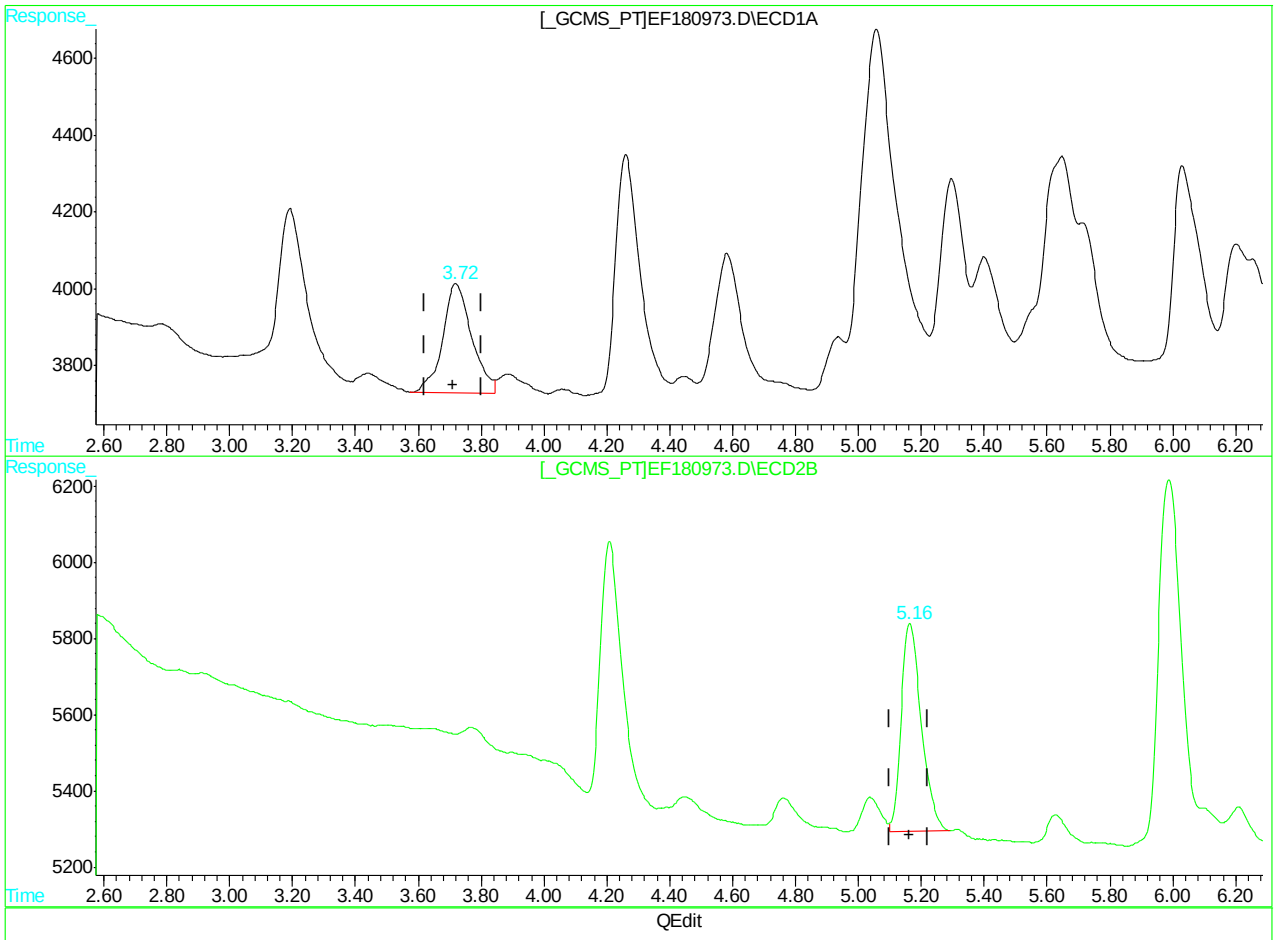
response 53159

(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:26:09 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration



(41) AR1016-A

3.72min 57.906PPB

response 18345

(41) AR1016-A #2

5.16min 58.992PPB

response 24183

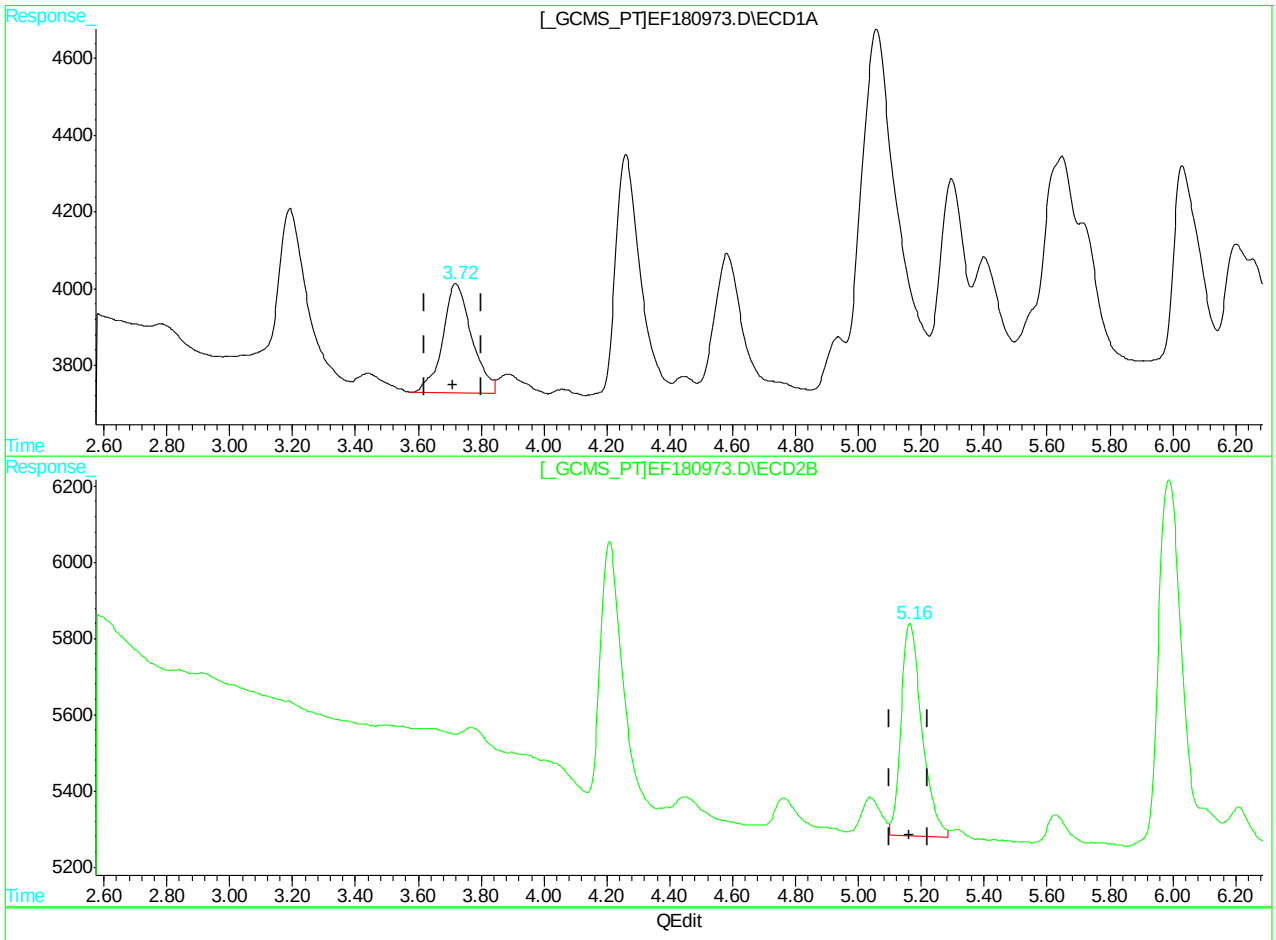
(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:26:19 2018 GCEF

11.6.35.6

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180973.D\ECD2B.CH
Acq On : 19 Mar 2018 5:24 pm Operator: tianweir
Sample : ic6195-50 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:15:03 2018
Response via : Multiple Level Calibration



(41) AR1016-A

3.72min 57.906PPB

response 18345

(41) AR1016-A #2

5.16min 62.745PPB m

response 25722

(+) = Expected Retention Time
EF180973.D PCB6195.M Tue Mar 20 15:26:27 2018 GCEF

11.6.35.7 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.21	110296	152957	9.283	9.797m
	Spiked Amount 40.000			Recovery =		23.21%	24.49%
51) S	Decachlorobiphen	14.19	17.33	183182	226077	10.057m	10.309m
	Spiked Amount 40.000			Recovery =		25.14%	25.77%
	Target Compounds						
41)	AR1016-A	3.72	5.16	82714	110175	247.651	277.746
42)	AR1016-B	4.26	5.99	147886	218249	254.108	272.322
43)	AR1016-C	5.05	6.94	323824	439109	241.889	272.948
44)	AR1016-D	5.29	7.23	125696	186172	252.045	271.732
45)	AR1016-E	6.03	8.24	128712	128853	245.418	265.558m
46)	AR1260-A	9.66	12.36	358610	473406	249.838	264.962
47)	AR1260-B	9.91	12.55	176213	218853	258.523	270.553
48)	AR1260-C	10.44	13.24	162372	228115	254.913	265.419
49)	AR1260-D	11.12	13.80	410074	475230	245.490	256.311
50)	AR1260-E	11.74	14.66	391699	481880	239.079m	250.609m

11.6.36
11

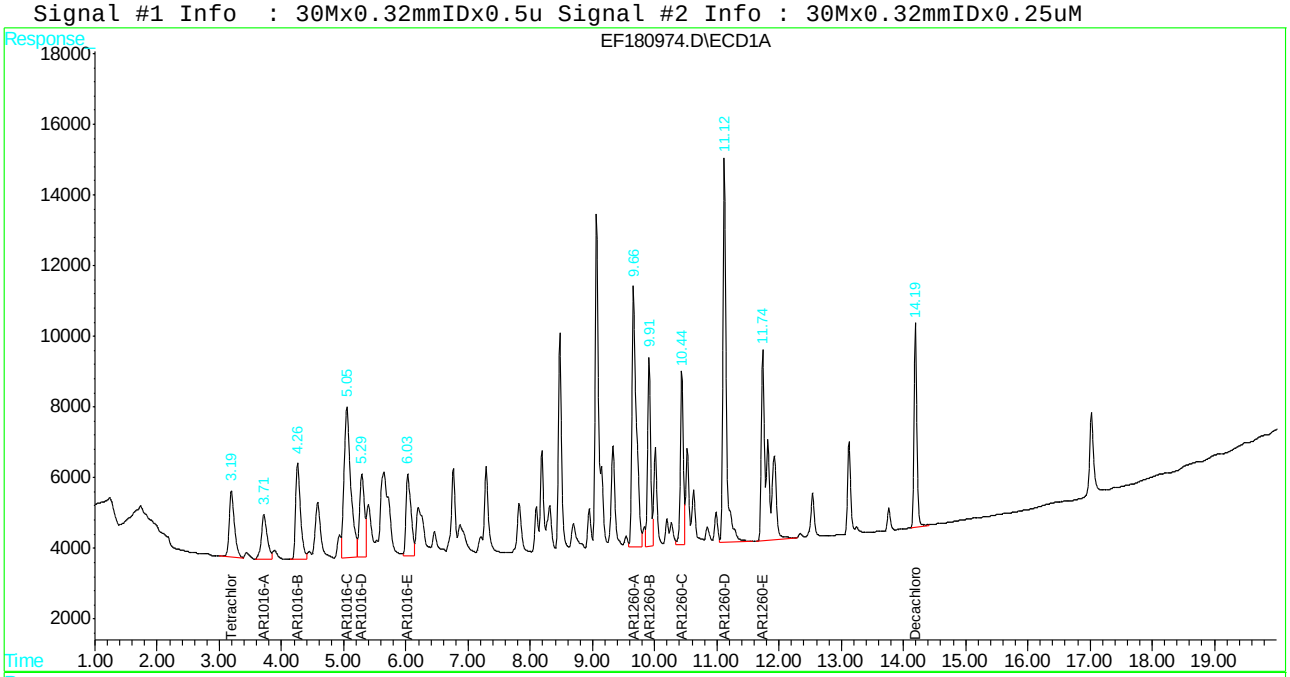
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180974.D PCB6195.M Tue Mar 20 12:22:17 2018 GCEF Page 1

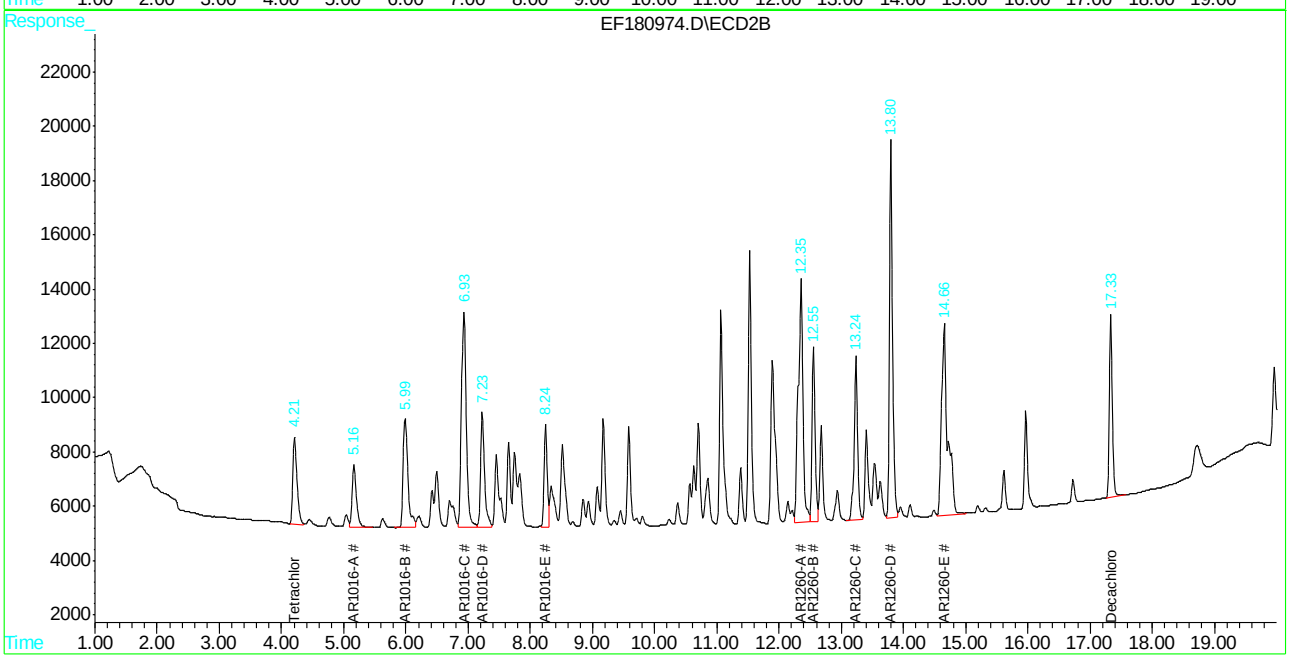
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

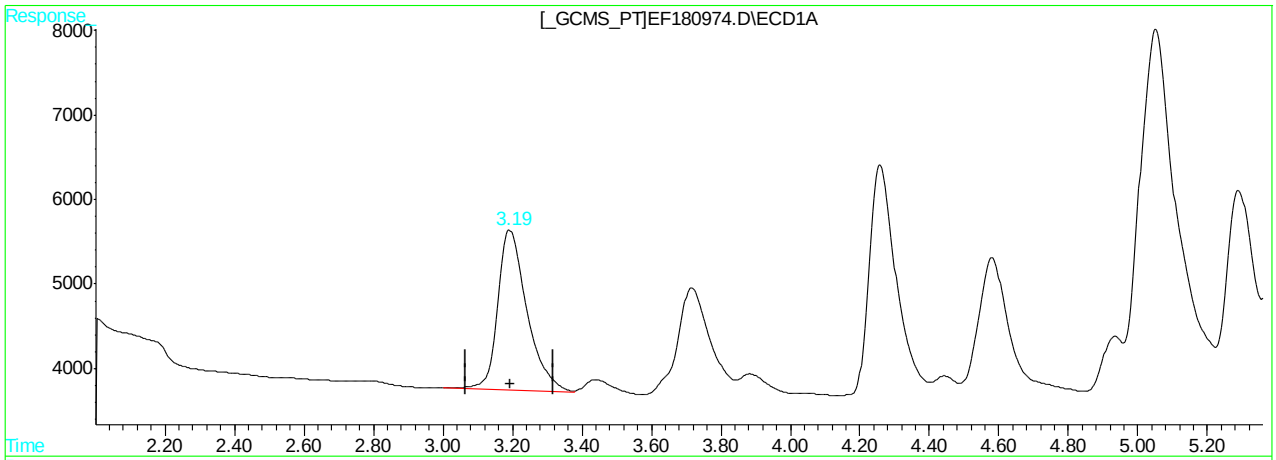
Sample Number: GEF6195-IC6195
Lab FileID: EF180974.D
Injection Time: 03/19/18 17:49
Method: SW846 8082A
Analyst approved: 03/20/18 15:40 Tianwei Ruan
Supervisor approved: 03/21/18 11:23 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	4.21	Poorly defined baseline
AR1016-E		2	8.24	Split peak
AR1260-E		1	11.74	Split peak
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
AR1260-E		2	14.66	Split peak
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 9.283PPB

response 110296

(1) Tetrachloro-m-xylene #2 (S)

4.21min 9.614PPB

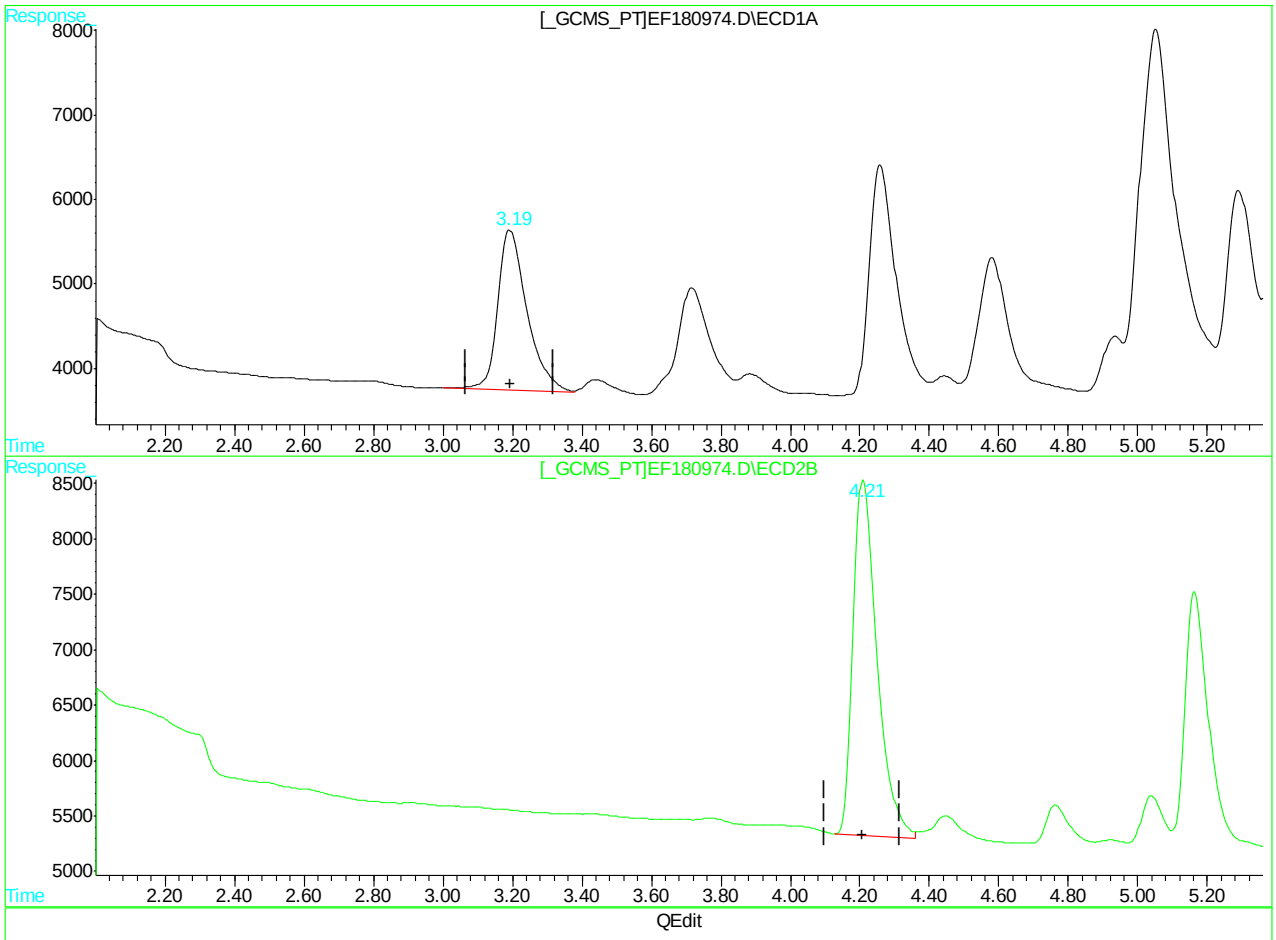
response 150102

(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:09:21 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 9.283PPB

response 110296

(1) Tetrachloro-m-xylene #2 (S)

4.21min 9.797PPB m

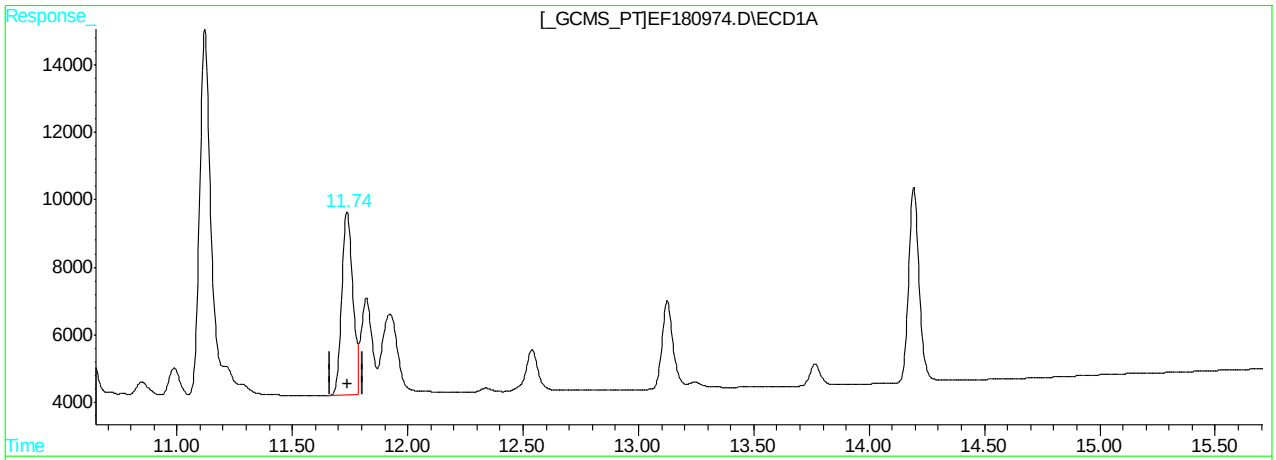
response 152957

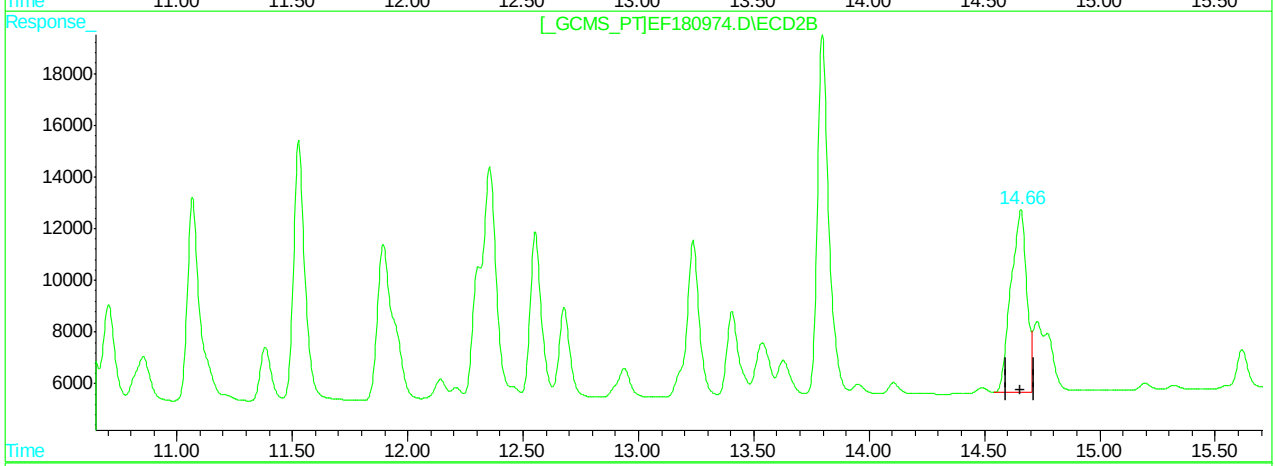
(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:09:49 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 110.153PPB

response 180470

(50) AR1260-E #2

14.66min 175.078PPB

response 336647

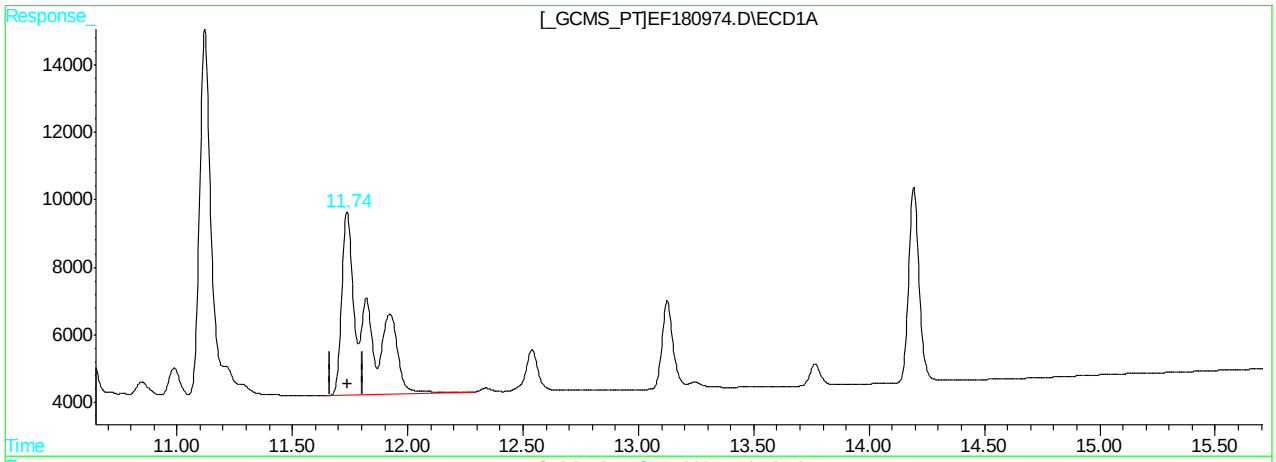
(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:10:23 2018 GCEF

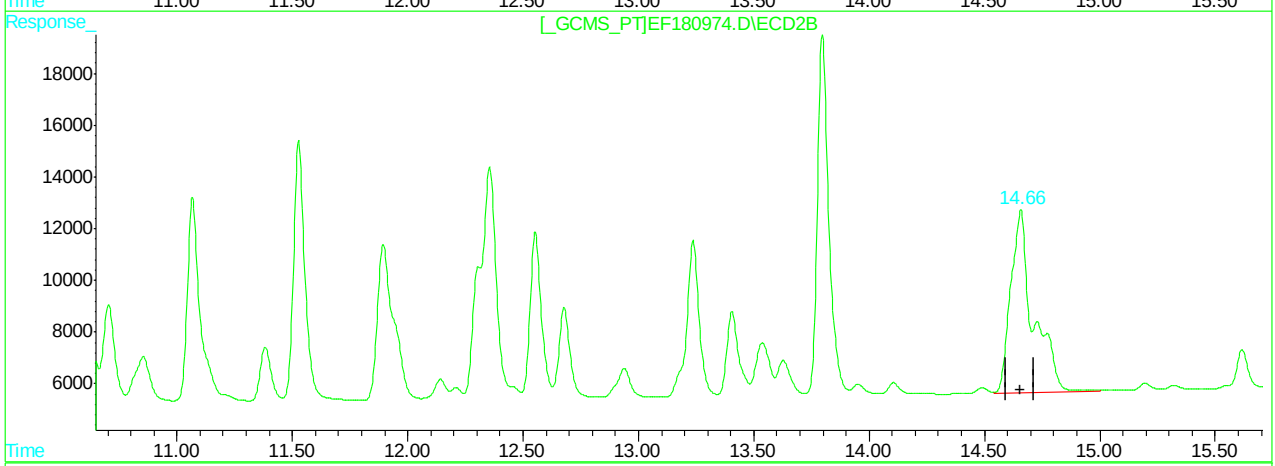
11.6.36.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 239.079PPB m

response 391699

(50) AR1260-E #2

14.66min 250.609PPB m

response 481880

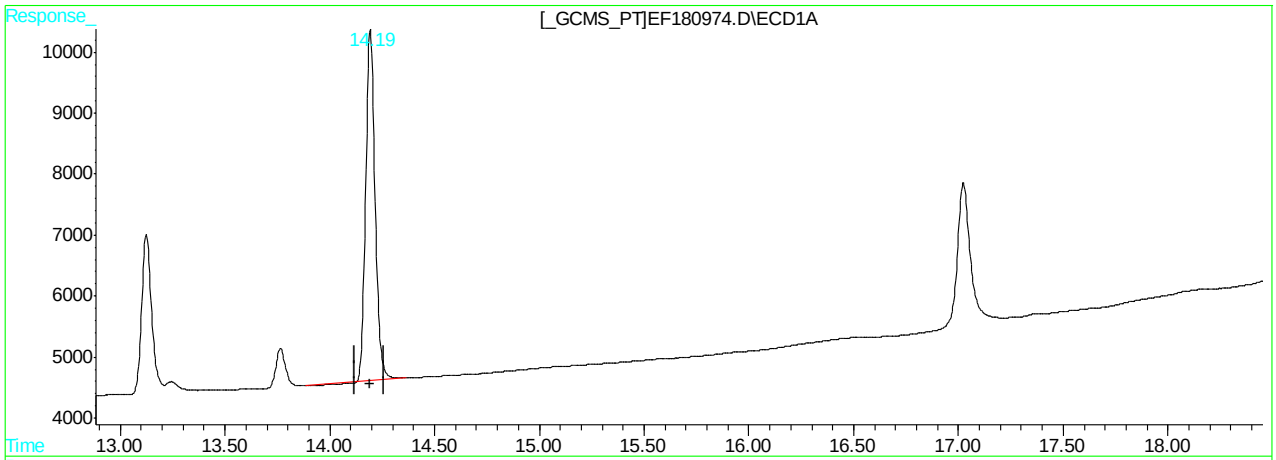
(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:11:33 2018 GCEF

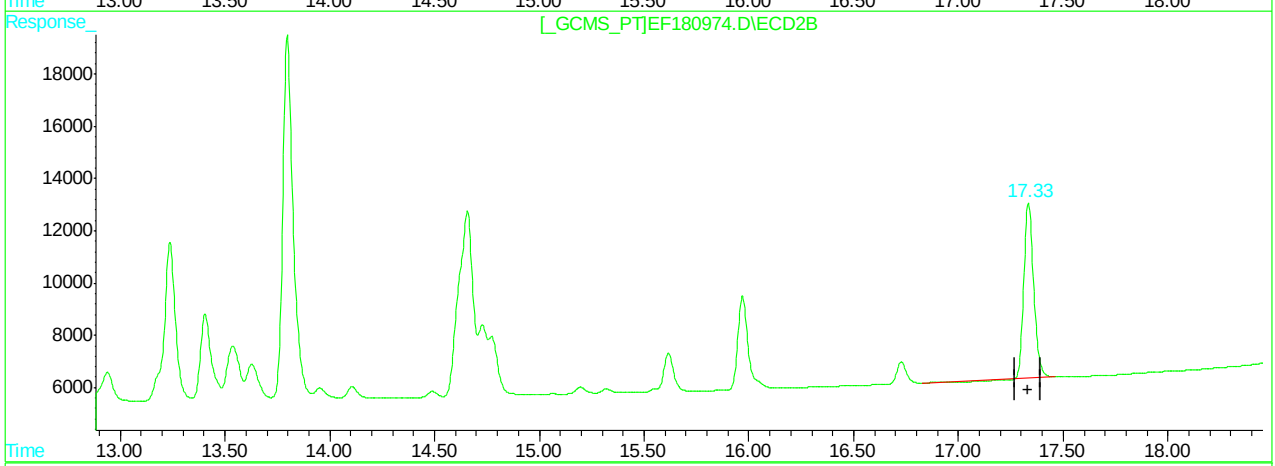
11.6.36.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 9.798PPB

response 178455

(51) Decachlorobiphenyl #2 (S)

17.33min 9.776PPB

response 214396

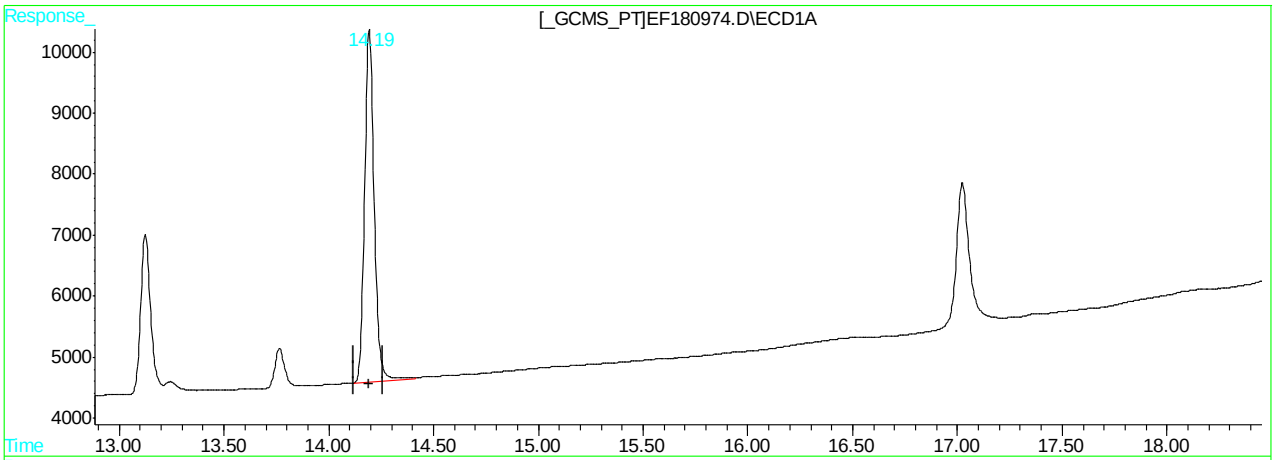
(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:11:41 2018 GCEF

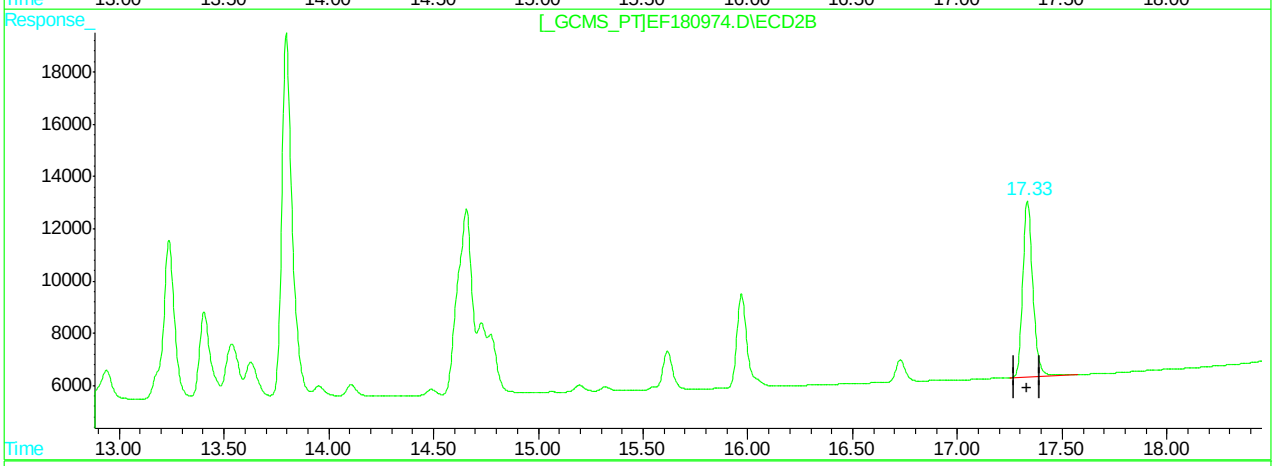
11.6.36.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:08 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 10.057PPB m

response 183182

(51) Decachlorobiphenyl #2 (S)

17.33min 10.309PPB m

response 226077

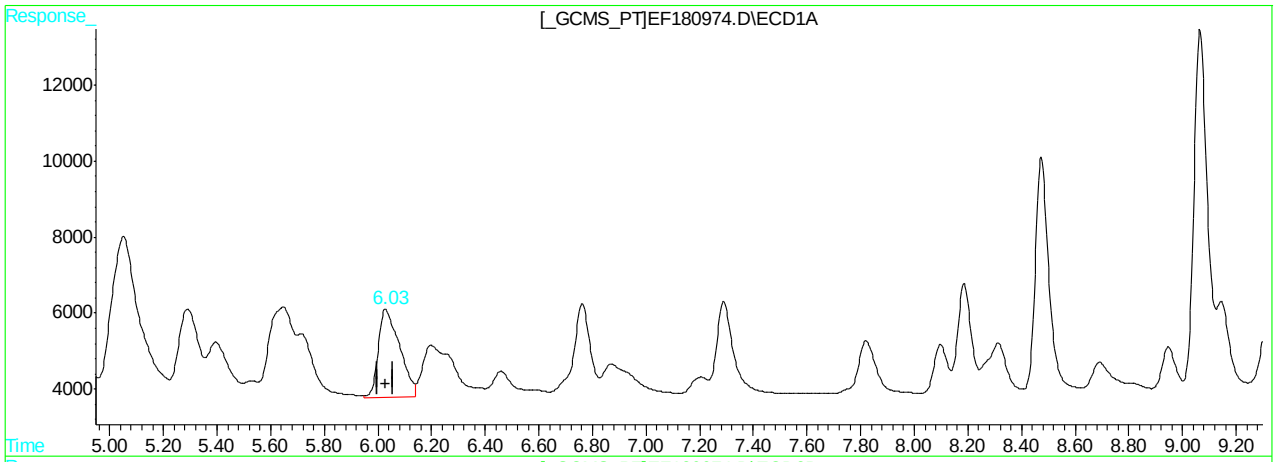
(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:12:23 2018 GCEF

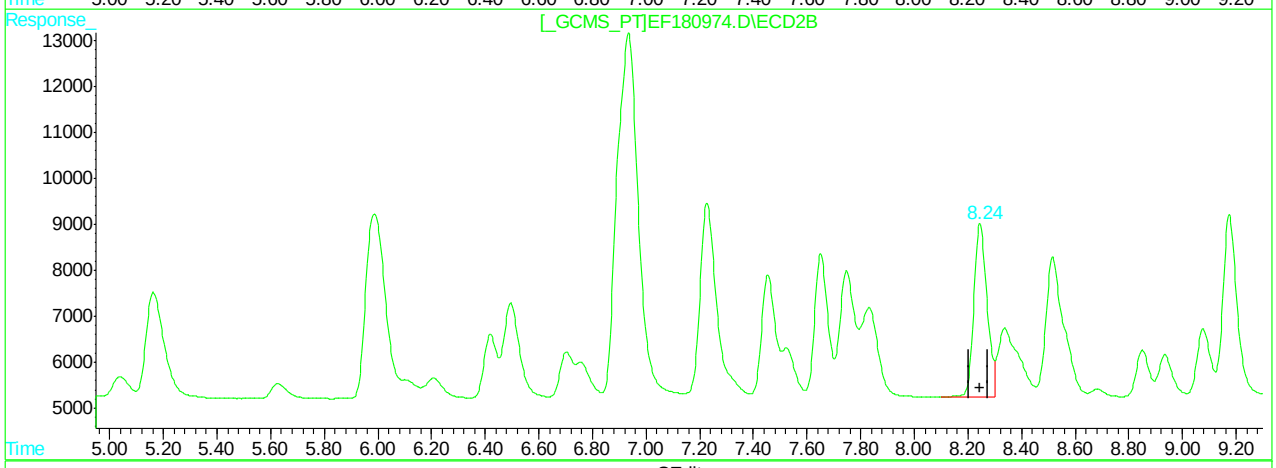
11.6.36.7 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:12 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.03min 245.418PPB

response 128712

(45) AR1016-E #2

8.25min 265.963PPB

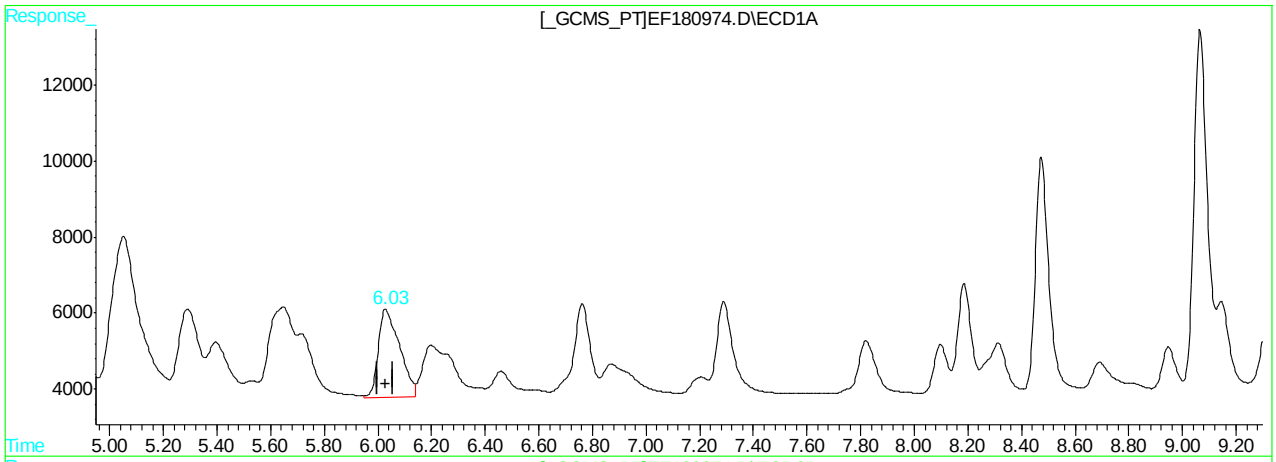
response 129050

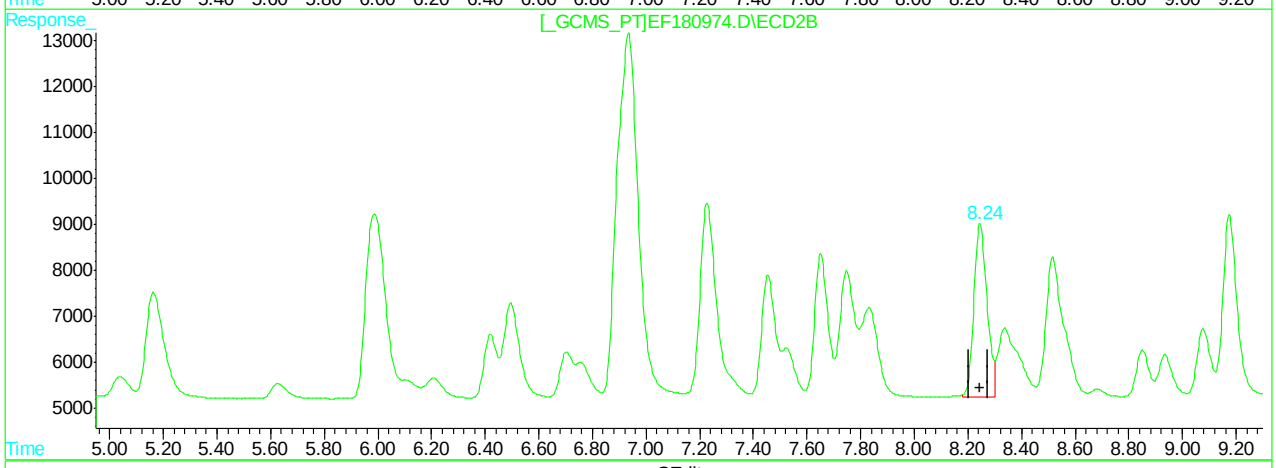
(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:21:58 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180974.D\ECD2B.CH
Acq On : 19 Mar 2018 5:49 pm Operator: tianweir
Sample : ic6195-250 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:12 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.03min 245.418PPB

response 128712

(45) AR1016-E #2

8.24min 265.558PPB m

response 128853

(+) = Expected Retention Time
EF180974.D PCB6195.M Tue Mar 20 12:22:12 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:21 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.21	220447	302809	18.554	19.394
	Spiked Amount 40.000			Recovery =		46.38%	48.48%
51) S	Decachlorobiphen	14.19	17.33	349492	423625	19.188m	19.317m
	Spiked Amount 40.000			Recovery =		47.97%	48.29%
	Target Compounds						
41)	AR1016-A	3.71	5.16	162085	212513	485.292	535.733
42)	AR1016-B	4.26	5.98	285087	417196	489.855	520.561
43)	AR1016-C	5.04	6.93	633540	835297	473.241	519.218
44)	AR1016-D	5.28	7.22	247136	360490	495.556	526.163
45)	AR1016-E	6.02	8.24	252199	248957	480.872	513.083m
46)	AR1260-A	9.65	12.35	702493	910758	489.415	509.746
47)	AR1260-B	9.90	12.55	343699	412812	504.245	510.330
48)	AR1260-C	10.43	13.23	318509	440053	500.037	512.017
49)	AR1260-D	11.11	13.79	817904	921784	489.638	497.155
50)	AR1260-E	11.73	14.65	787872	952374	480.889m	495.295m

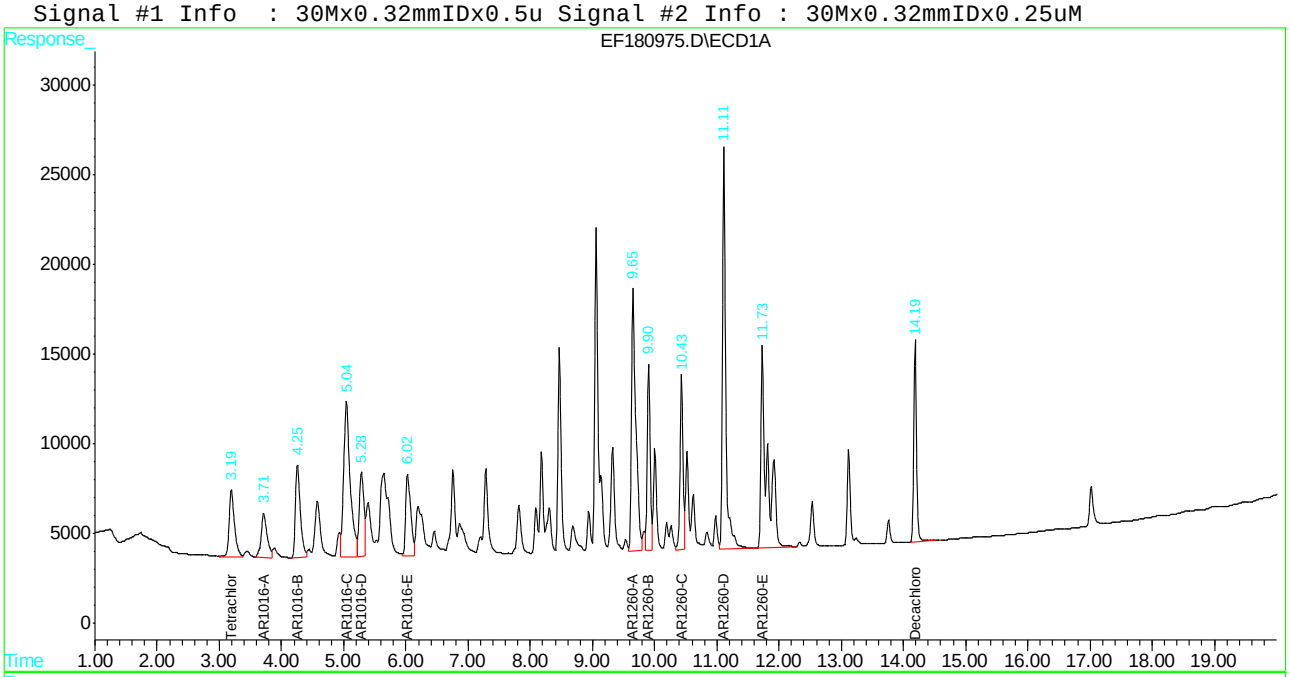
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

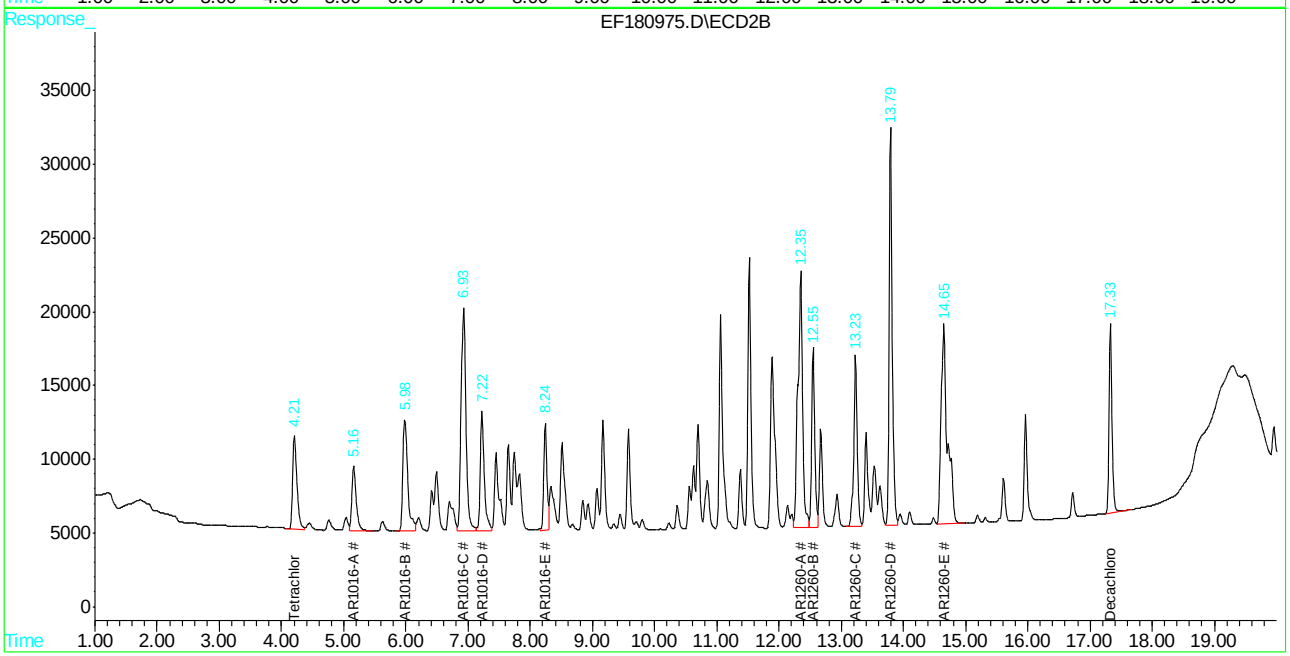
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:21 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62879

Manual Integration Approval Summary

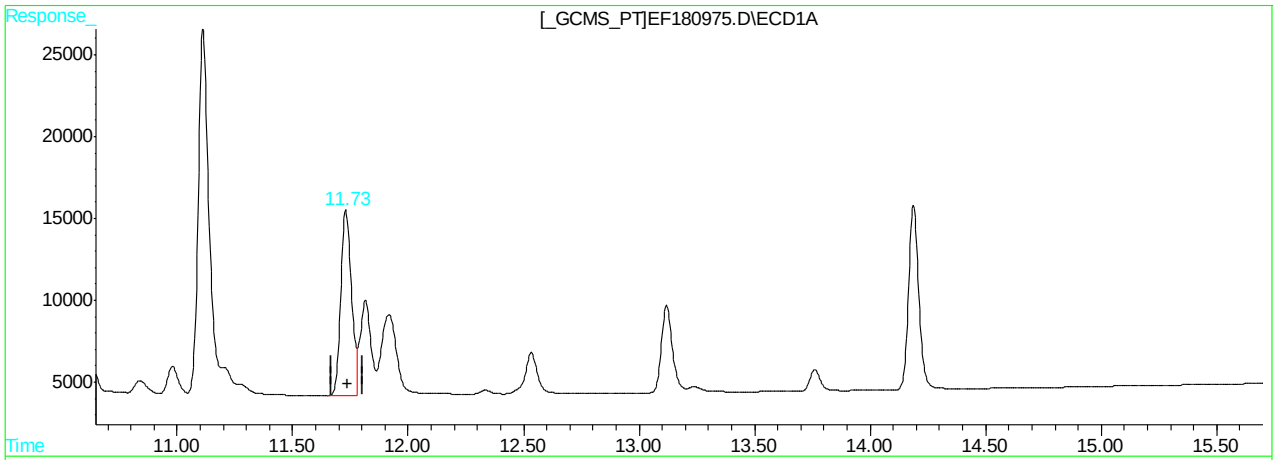
Sample Number:	GEF6195-IC6195	**Method:**	SW846 8082A
Lab FileID:	EF180975.D	**Analyst approved:**	03/20/18 15:40 Tianwei Ruan
Injection Time:	03/19/18 18:14	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

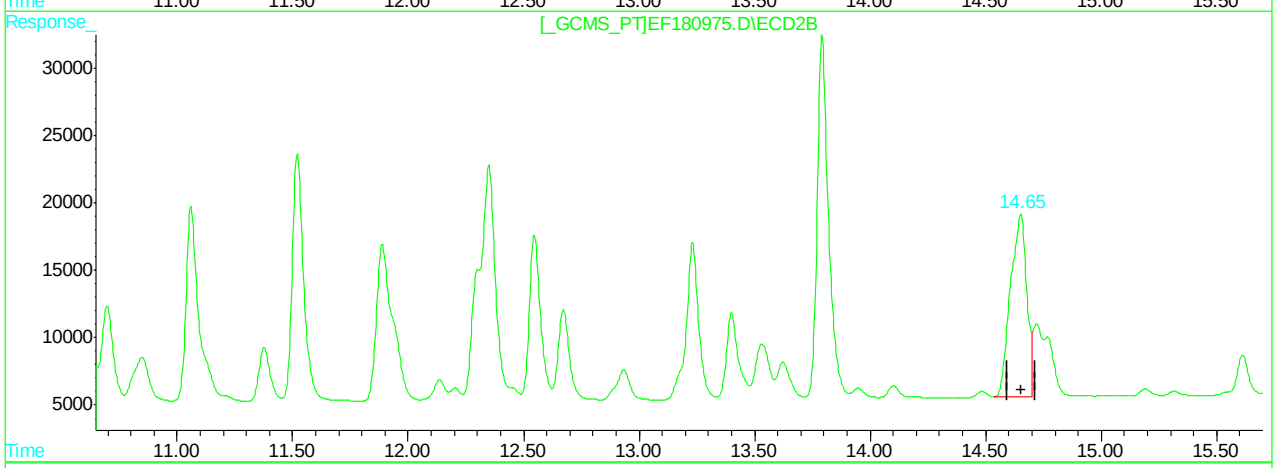
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		2	8.24	Split peak
AR1260-E		1	11.73	Split peak
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
AR1260-E		2	14.65	Split peak
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 223.836PPB

response 366724

(50) AR1260-E #2

14.65min 347.556PPB

response 668295

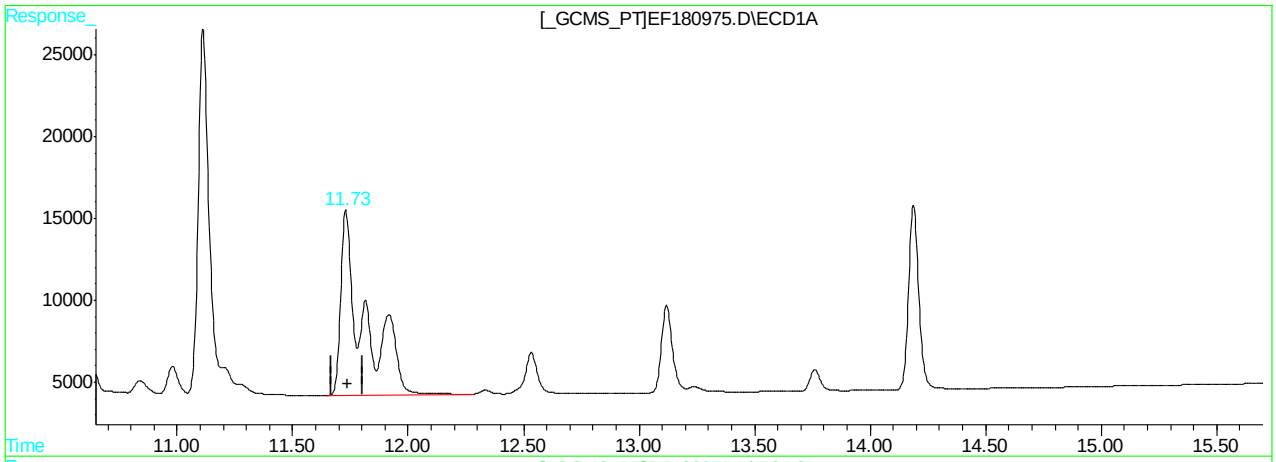
(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:19:01 2018 GCEF

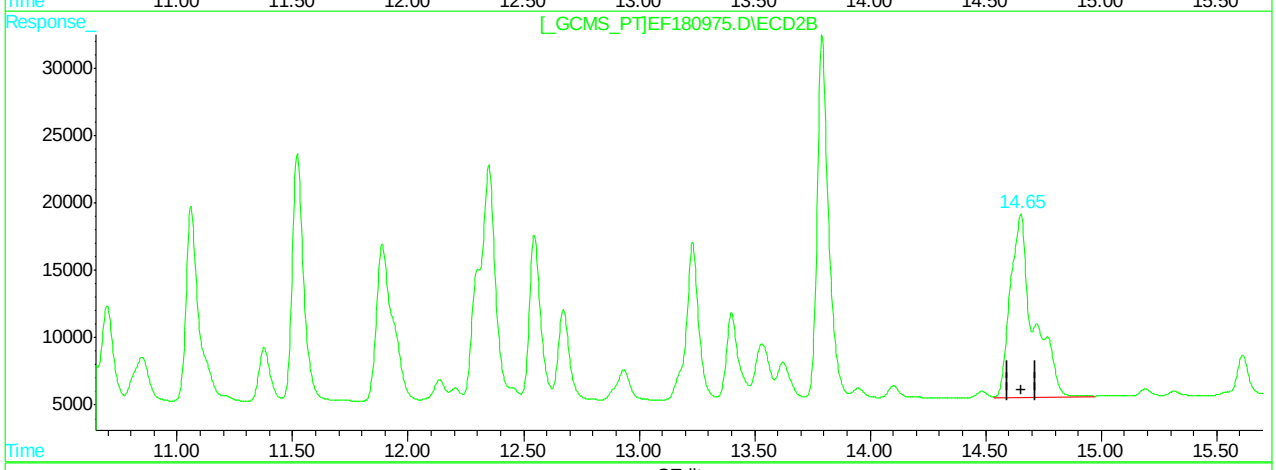
11.6.37.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 480.889PPB m

response 787872

(50) AR1260-E #2

14.65min 495.295PPB m

response 952374

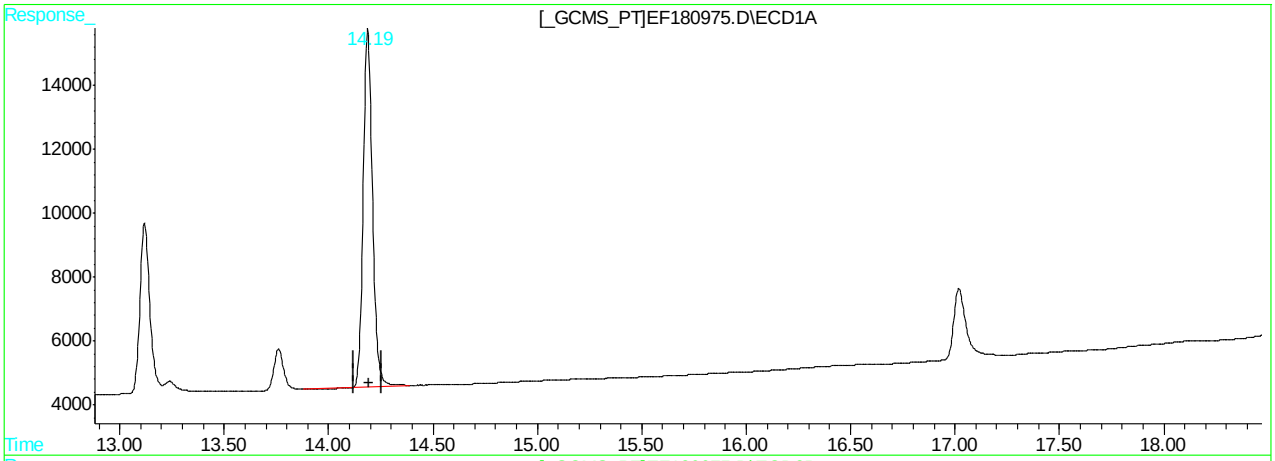
(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:19:48 2018 GCEF

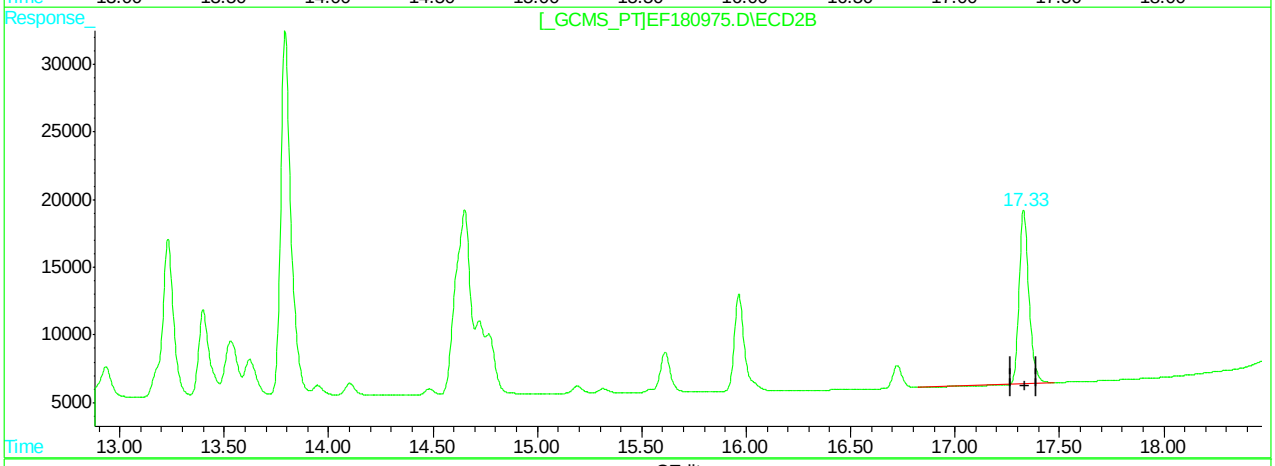
11.6.37.3 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 18.774PPB

response 341952

(51) Decachlorobiphenyl #2 (S)

17.33min 18.485PPB

response 405379

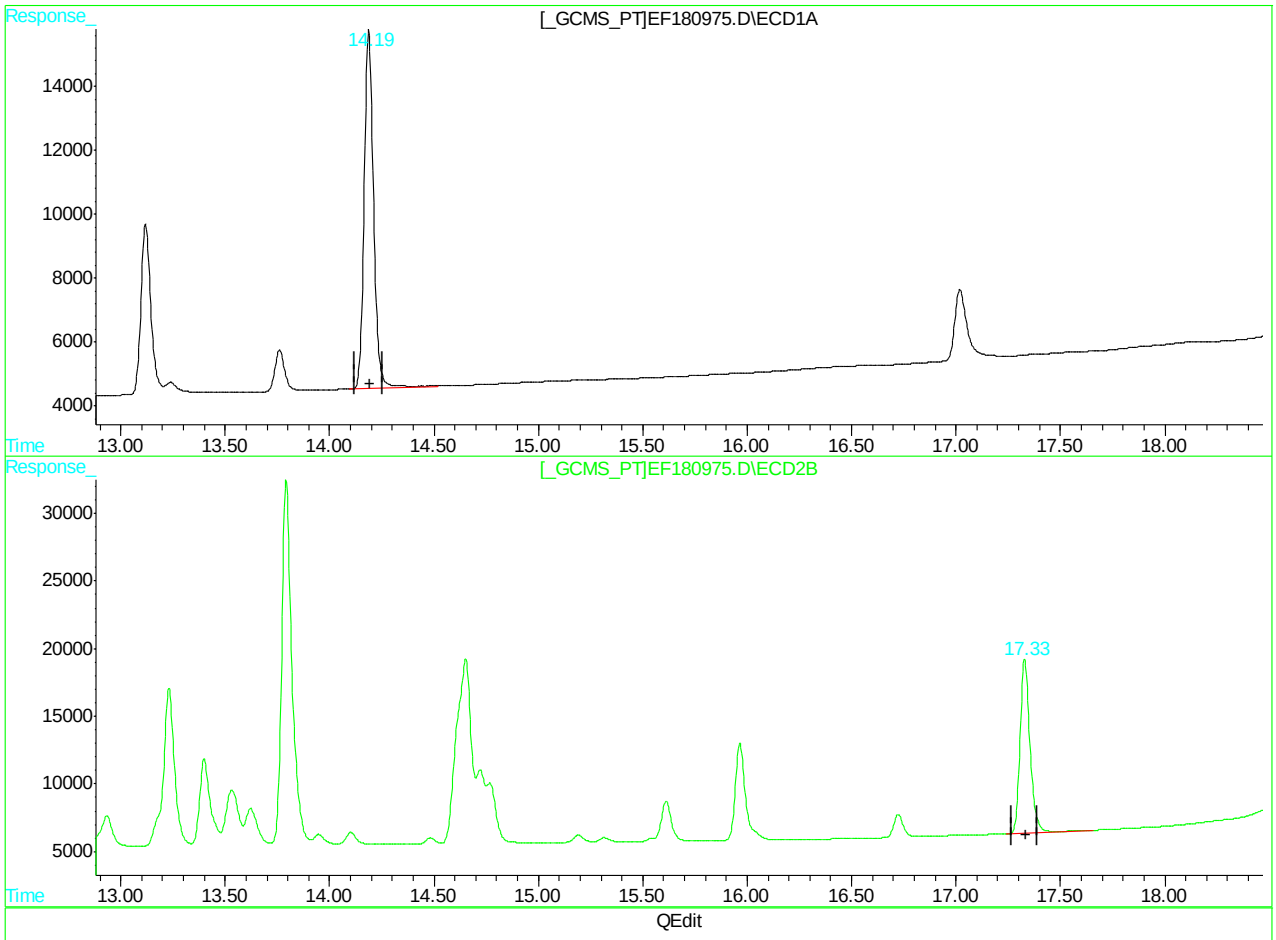
(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:19:54 2018 GCEF

11.6.37.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.19min 19.188PPB m

response 349492

(51) Decachlorobiphenyl #2 (S)

17.33min 19.317PPB m

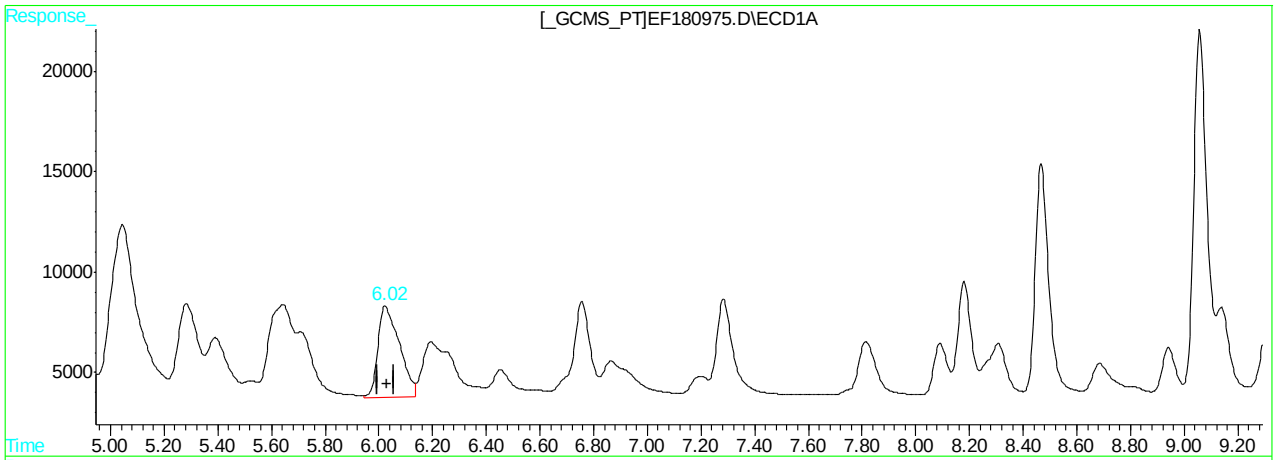
response 423625

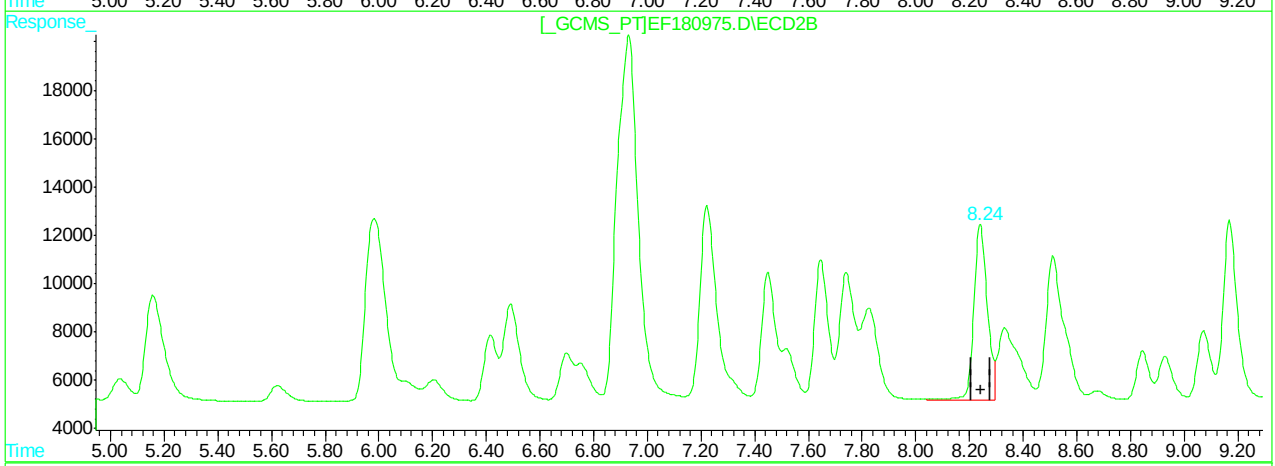
(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:20:34 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.02min 480.872PPB

response 252199

(45) AR1016-E #2

8.24min 523.158PPB

response 253846

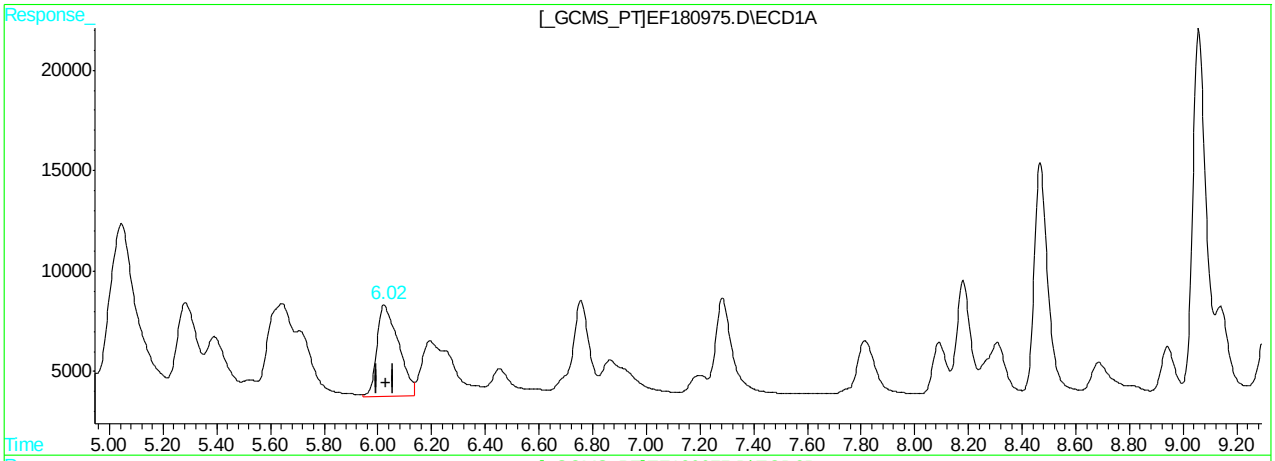
(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:20:57 2018 GCEF

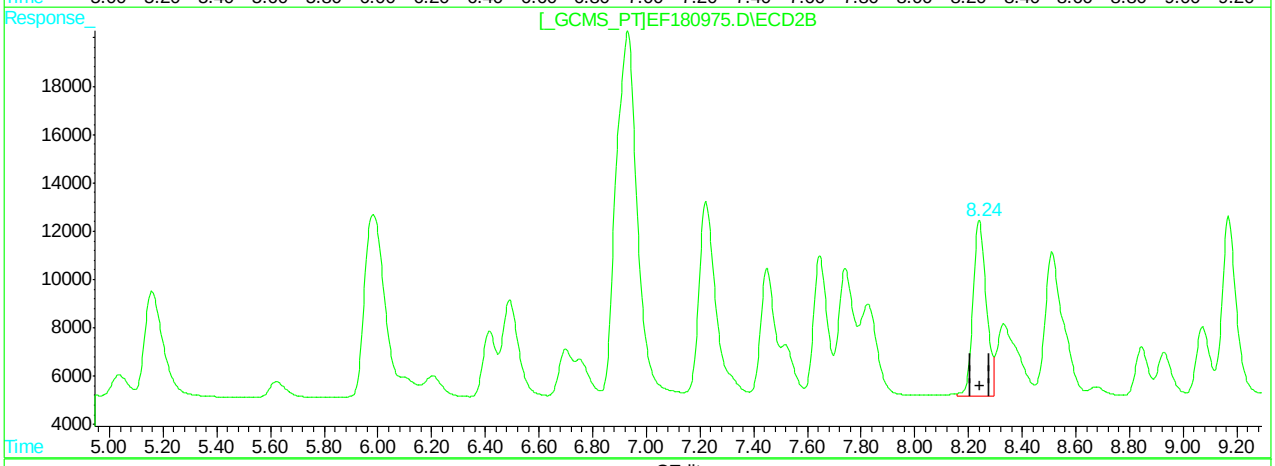
11.6.37.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180975.D\ECD2B.CH
Acq On : 19 Mar 2018 6:14 pm Operator: tianweir
Sample : ic6195-500 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:17 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.02min 480.872PPB

response 252199

(45) AR1016-E #2

8.24min 513.083PPB m

response 248957

(+) = Expected Retention Time
EF180975.D PCB6195.M Tue Mar 20 12:21:33 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:25 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.21	444066	616894	37.375	39.511
	Spiked Amount 40.000			Recovery	=	93.44%	98.78%
51) S	Decachlorobiphen	14.19	17.33	652309	782949	35.814m	35.701m
	Spiked Amount 40.000			Recovery	=	89.53%	89.25%
	Target Compounds						
41)	AR1016-A	3.71	5.16	309007	391153	925.183	986.073
42)	AR1016-B	4.26	5.99	527568	758620	906.503	946.576
43)	AR1016-C	5.04	6.93	1190267	1514148	889.104	941.189
44)	AR1016-D	5.28	7.23	463752	661840	929.914	966.007
45)	AR1016-E	6.03	8.24	474473	461519	904.686	951.159
46)	AR1260-A	9.65	12.35	1320334	1695643	919.855	949.041
47)	AR1260-B	9.91	12.55	635962	755113	933.027	933.491
48)	AR1260-C	10.43	13.23	598159	813208	939.068	946.197
49)	AR1260-D	11.11	13.79	1528754	1713365	915.188m	924.087
50)	AR1260-E	11.73	14.65	1528241	1839470	932.785m	956.642m

11.6.38
11

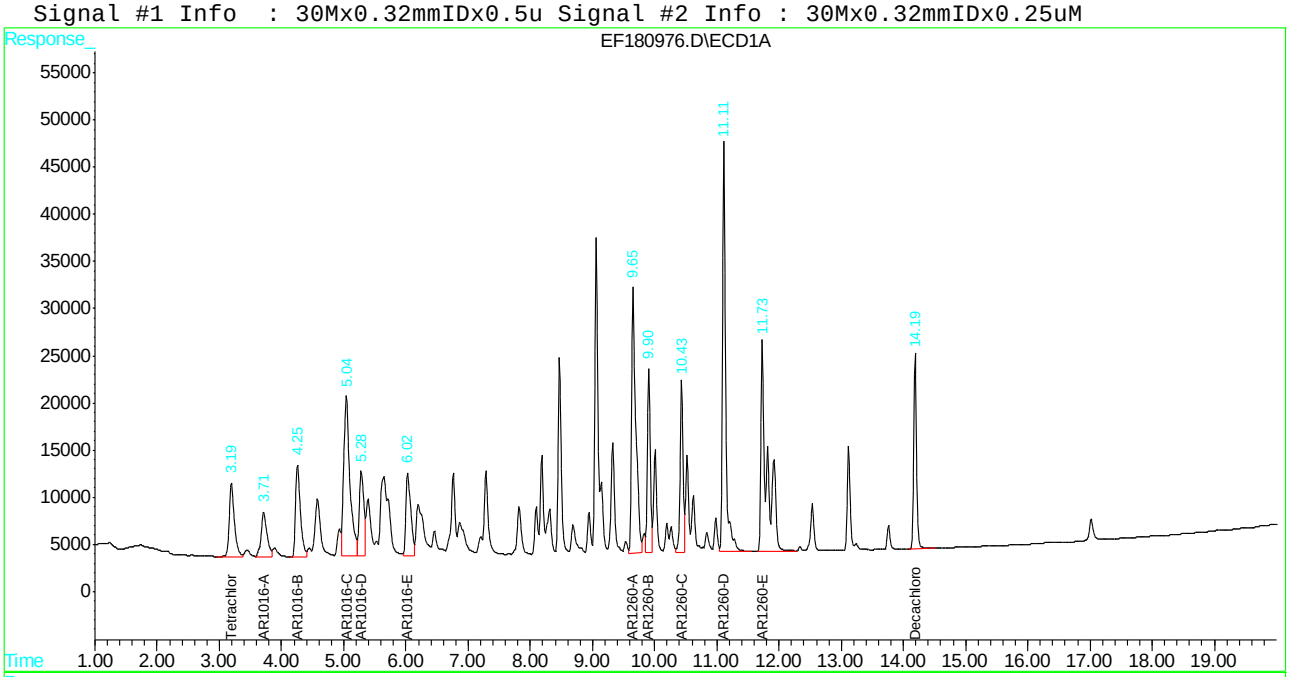
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180976.D PCB6195.M Tue Mar 20 12:25:15 2018 GCEF Page 1

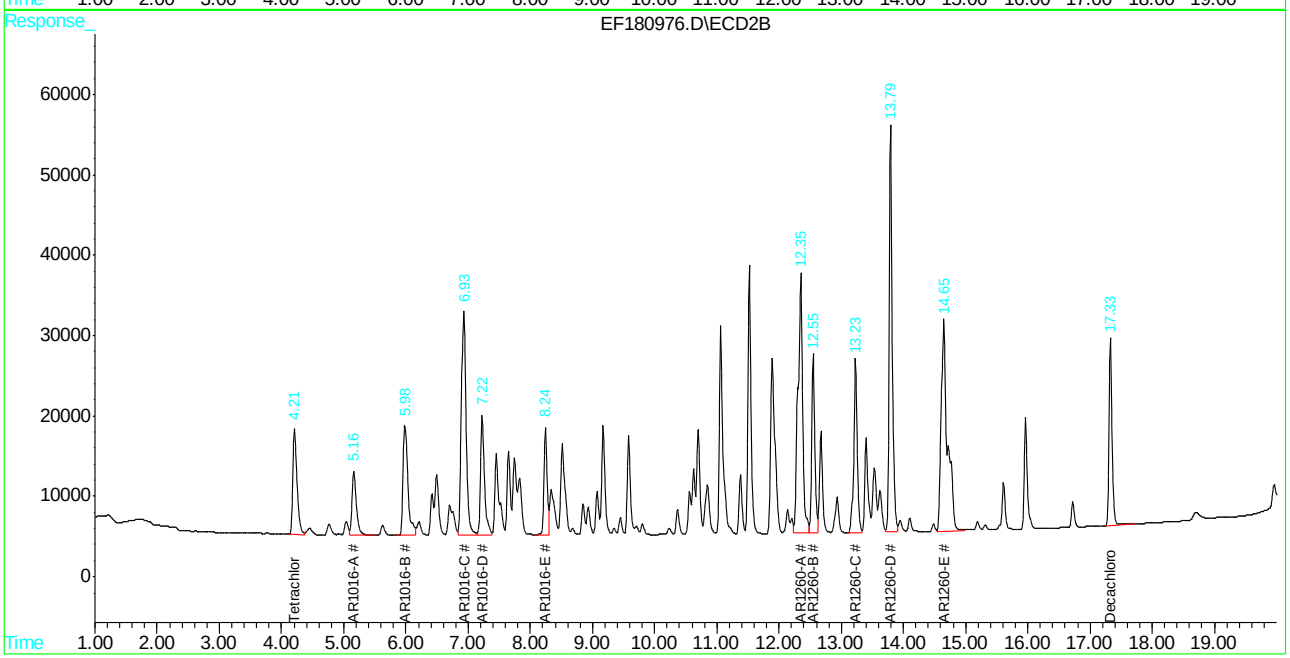
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:25 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62879

Manual Integration Approval Summary

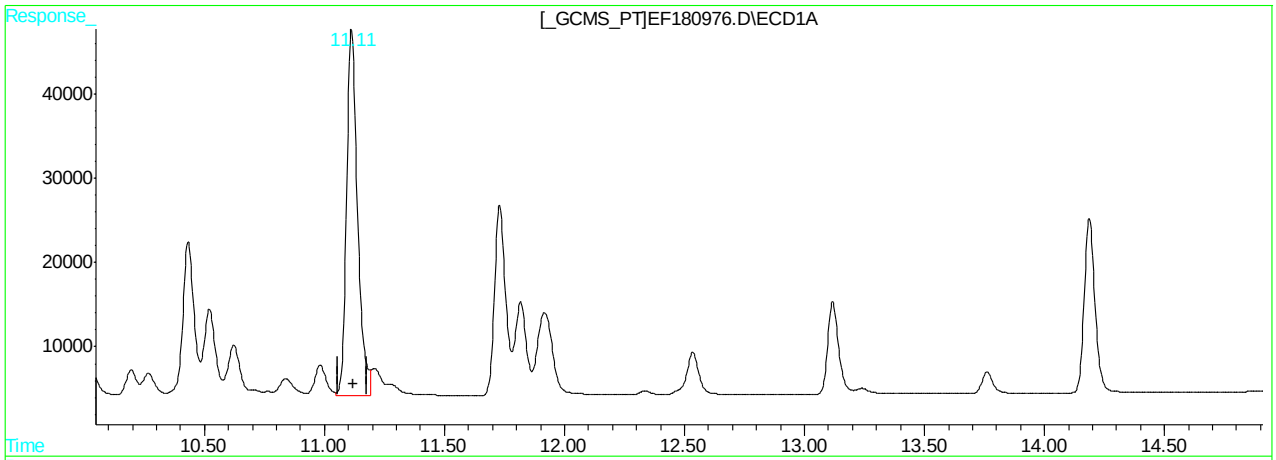
Sample Number:	GEF6195-ICC6195	**Method:**	SW846 8082A
Lab FileID:	EF180976.D	**Analyst approved:**	03/20/18 15:40 Tianwei Ruan
Injection Time:	03/19/18 18:39	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

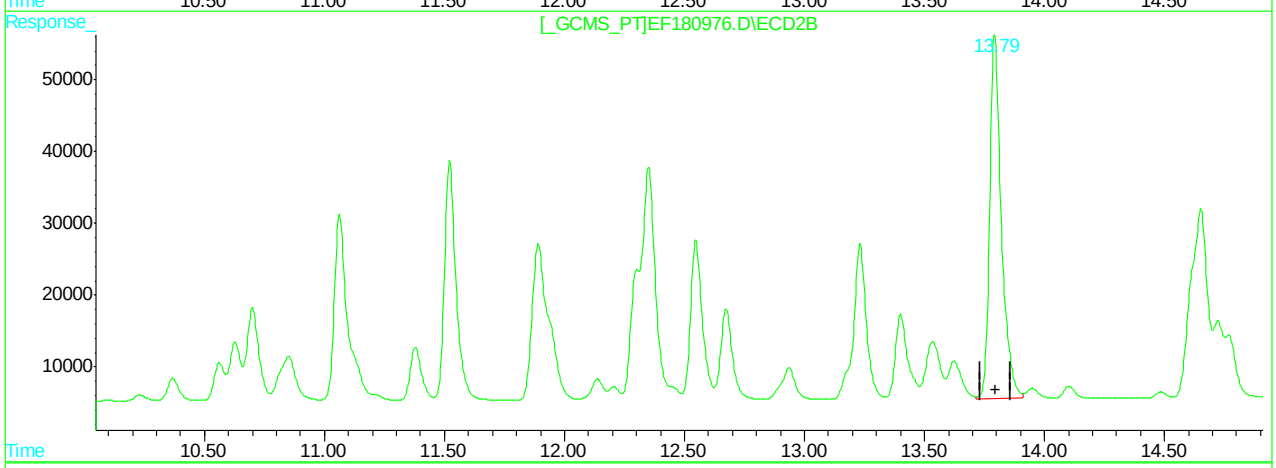
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-D		1	11.11	Split peak
AR1260-E		1	11.73	Split peak
Decachlorobiphenyl	2051-24-3	1	14.19	Poorly defined baseline
AR1260-E		2	14.65	Split peak
Decachlorobiphenyl	2051-24-3	2	17.33	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.11min 827.695PPB

response 1382604

(49) AR1260-D #2

13.79min 924.087PPB

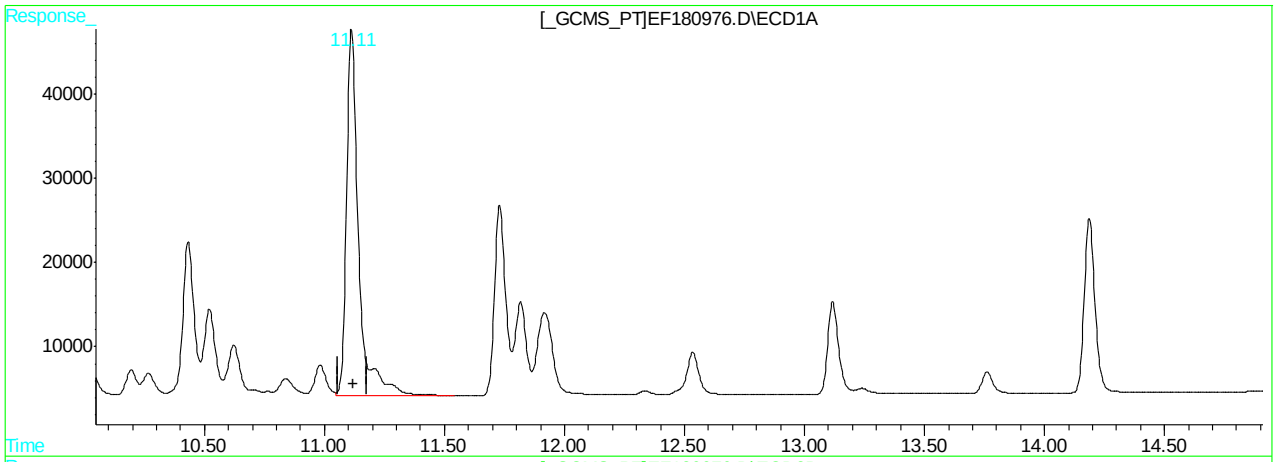
response 1713365

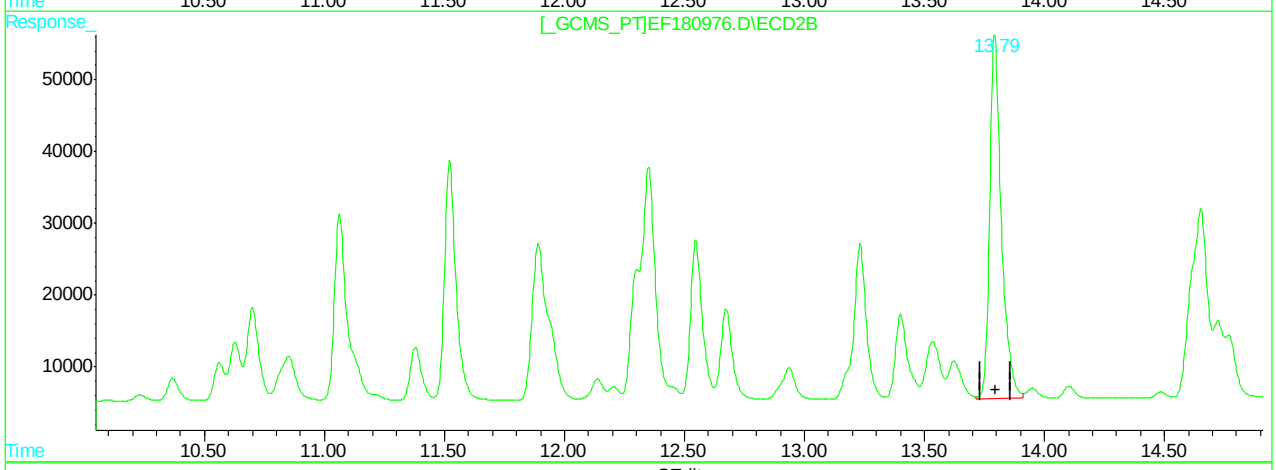
(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:23:27 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.11min 915.188PPB m

response 1528754

(49) AR1260-D #2

13.79min 924.087PPB

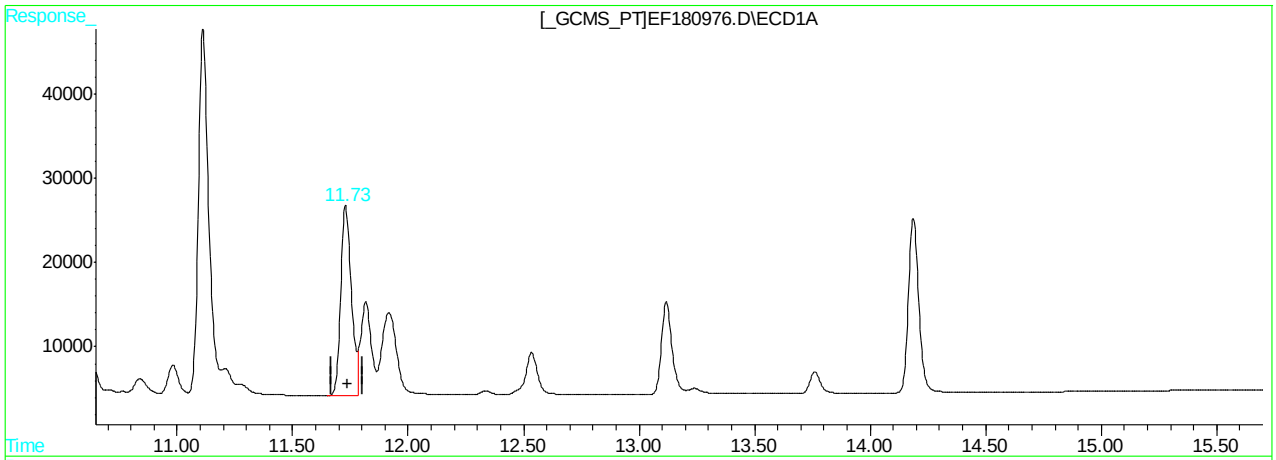
response 1713365

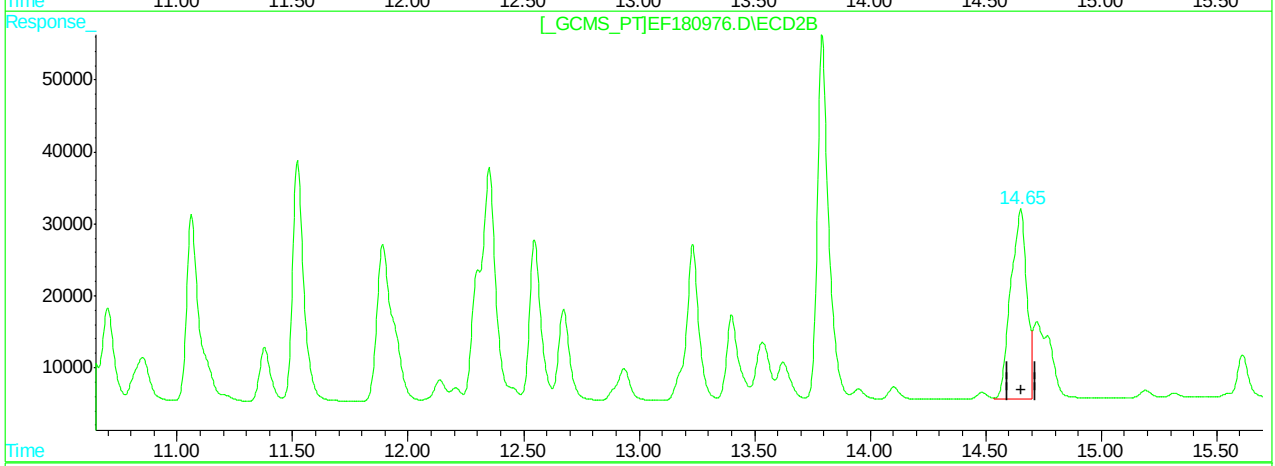
(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:23:56 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 437.592PPB

response 716935

(50) AR1260-E #2

14.65min 660.941PPB

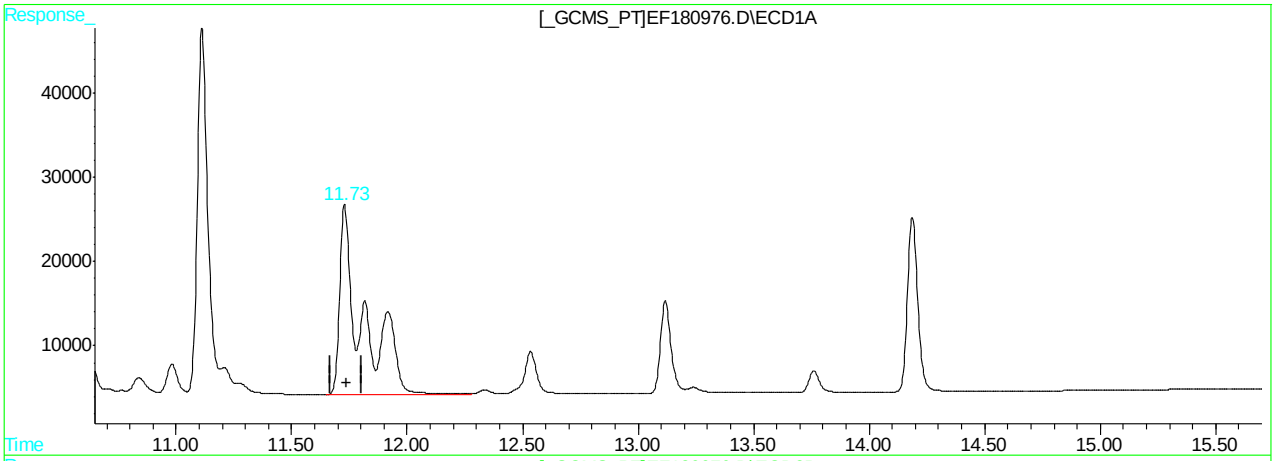
response 1270885

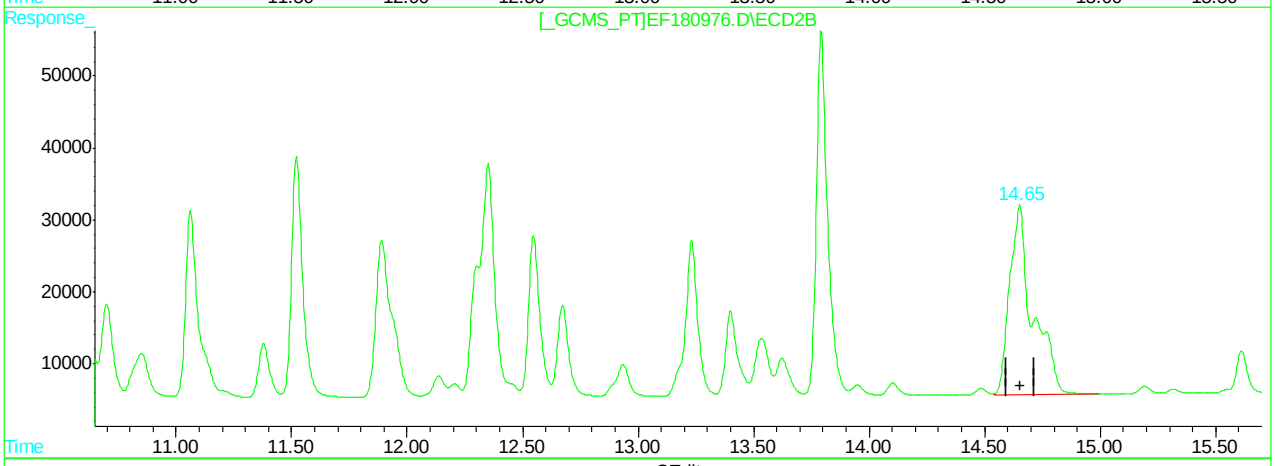
(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:24:00 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 932.785PPB m

response 1528241

(50) AR1260-E #2

14.65min 956.642PPB m

response 1839470

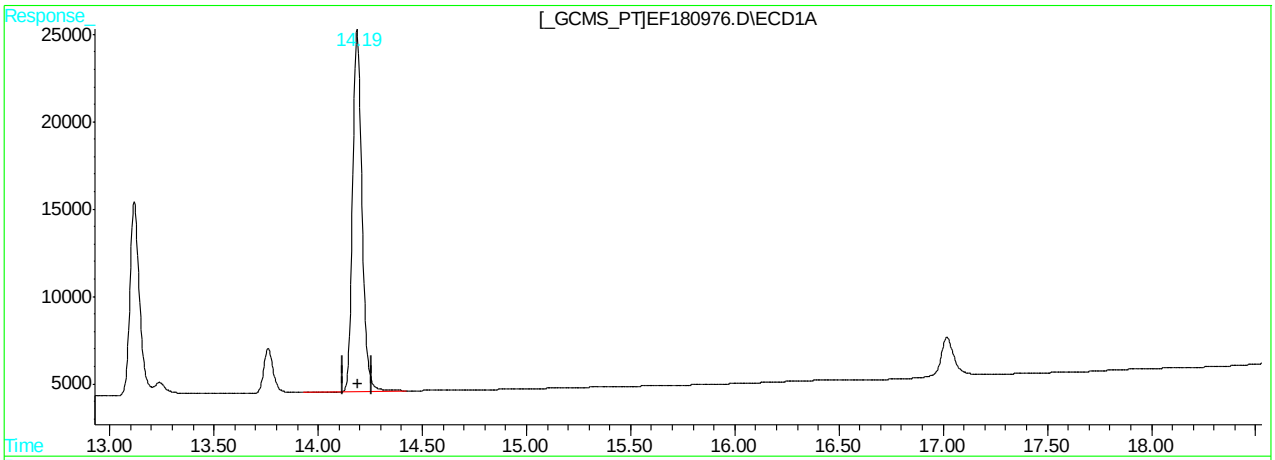
(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:24:42 2018 GCEF

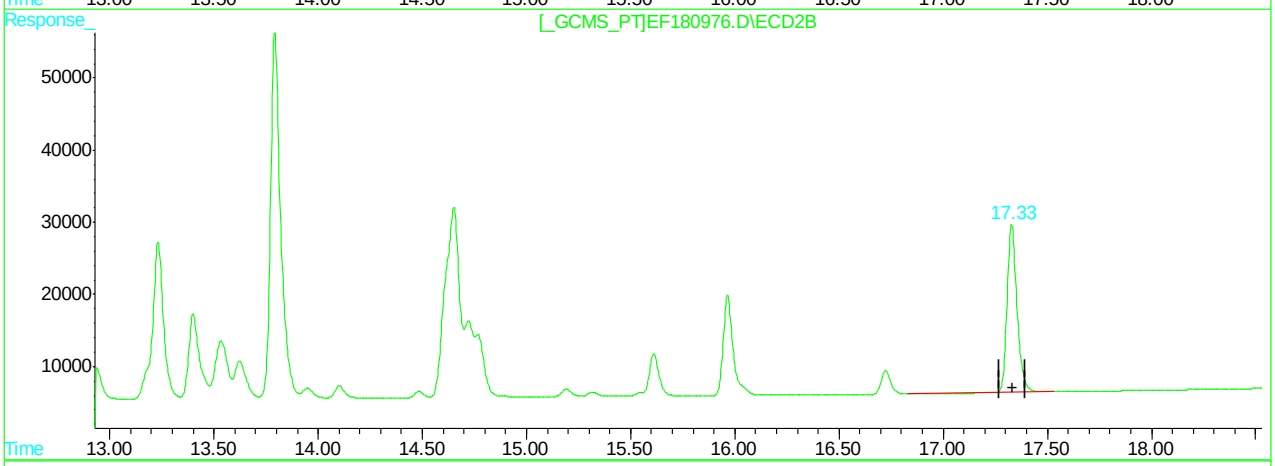
11.6.38.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 35.466PPB

response 645983

(51) Decachlorobiphenyl #2 (S)

17.33min 34.788PPB

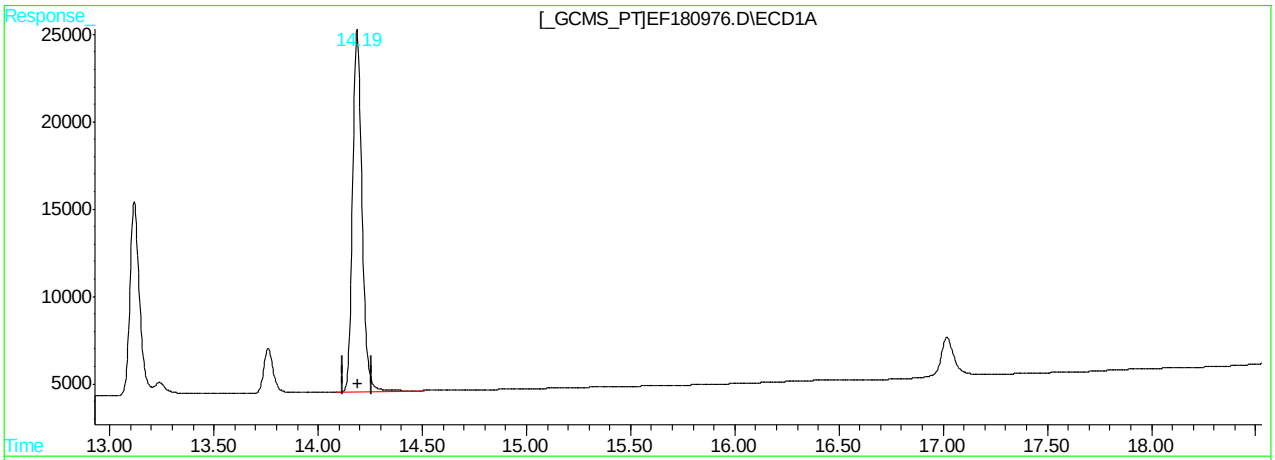
response 762934

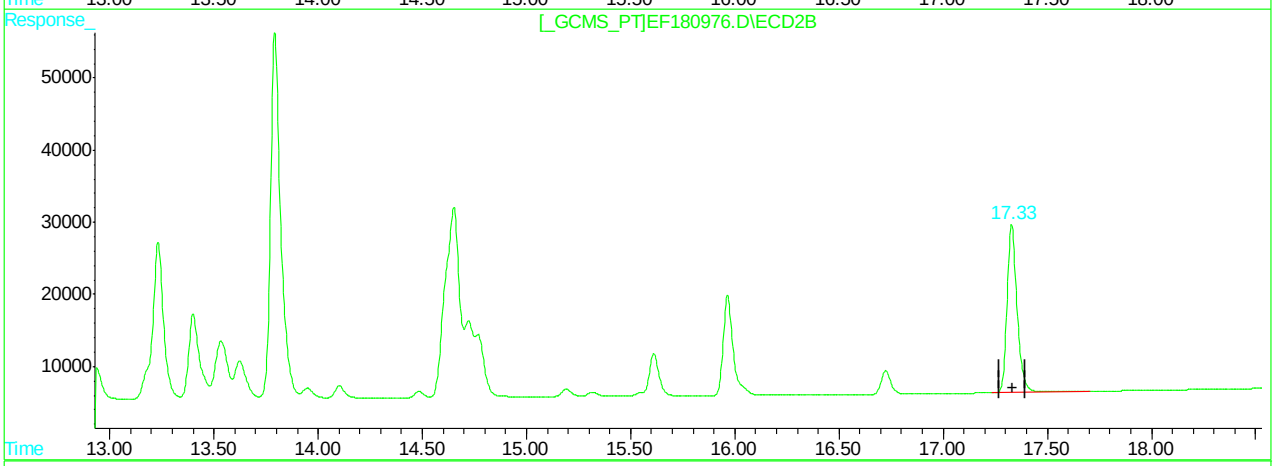
(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:24:48 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180976.D\ECD2B.CH
Acq On : 19 Mar 2018 6:39 pm Operator: tianweir
Sample : icc6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 12:22 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.19min 35.814PPB m

response 652309

(51) Decachlorobiphenyl #2 (S)

17.33min 35.701PPB m

response 782949

(+) = Expected Retention Time
EF180976.D PCB6195.M Tue Mar 20 12:25:07 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:27 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.21	929764	1276827	78.254	81.778
	Spiked Amount 40.000			Recovery	=	195.63%	204.45%
51) S	Decachlorobiphen	14.18	17.32	1220887	1480740	67.030m	67.519m
	Spiked Amount 40.000			Recovery	=	167.58%	168.80%
	Target Compounds						
41)	AR1016-A	3.71	5.16	582053	709007	1742.695	1787.365
42)	AR1016-B	4.25	5.98	967935	1369915	1663.170	1709.325
43)	AR1016-C	5.03f	6.93	2209403	2728494	1650.377	1696.023
44)	AR1016-D	5.27f	7.22	855727	1199985	1715.900	1751.471
45)	AR1016-E	6.02	8.24	888678	839810	1694.459	1730.791m
46)	AR1260-A	9.64	12.35	2447277	3133839	1704.979	1753.991
47)	AR1260-B	9.90	12.54	1151991	1361694	1690.097	1683.364
48)	AR1260-C	10.43	13.23	1111109	1508789	1744.364	1755.530
49)	AR1260-D	11.11	13.79	2904367	3199380	1738.698m	1725.556
50)	AR1260-E	11.72	14.65	2939304	3495842	1794.048m	1818.061m

11.6.39 11

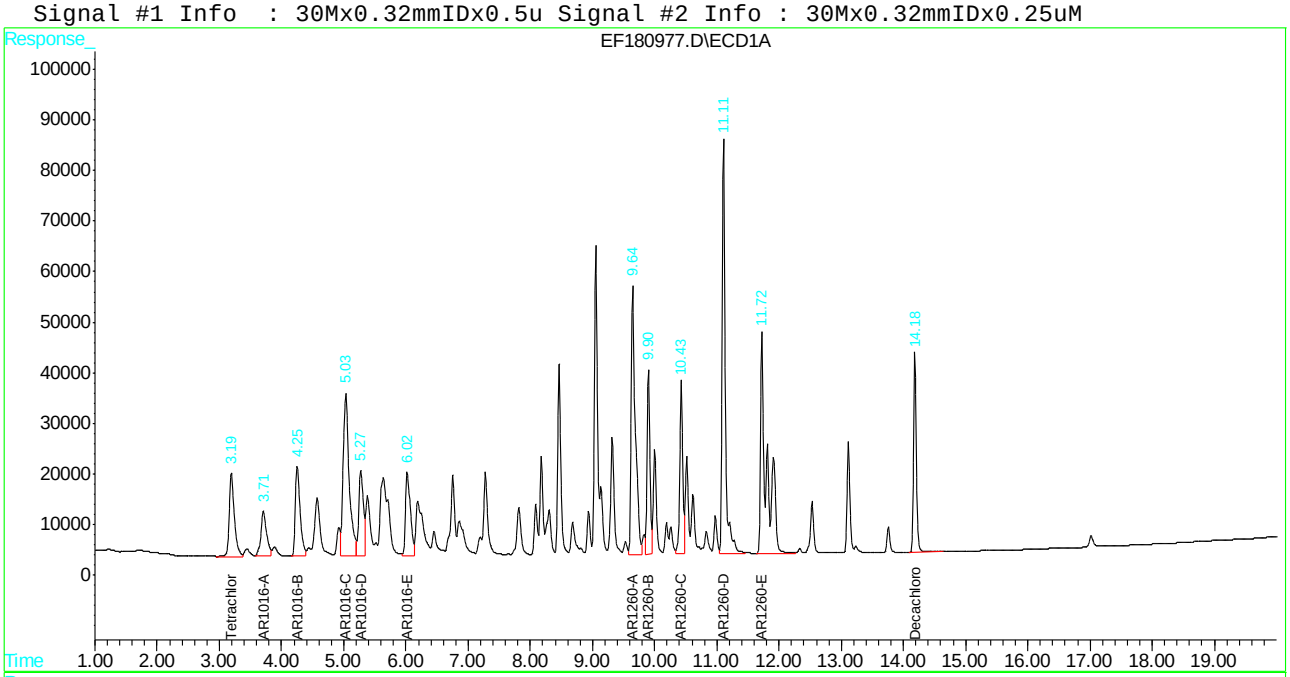
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180977.D PCB6195.M Tue Mar 20 13:27:21 2018 GCEF Page 1

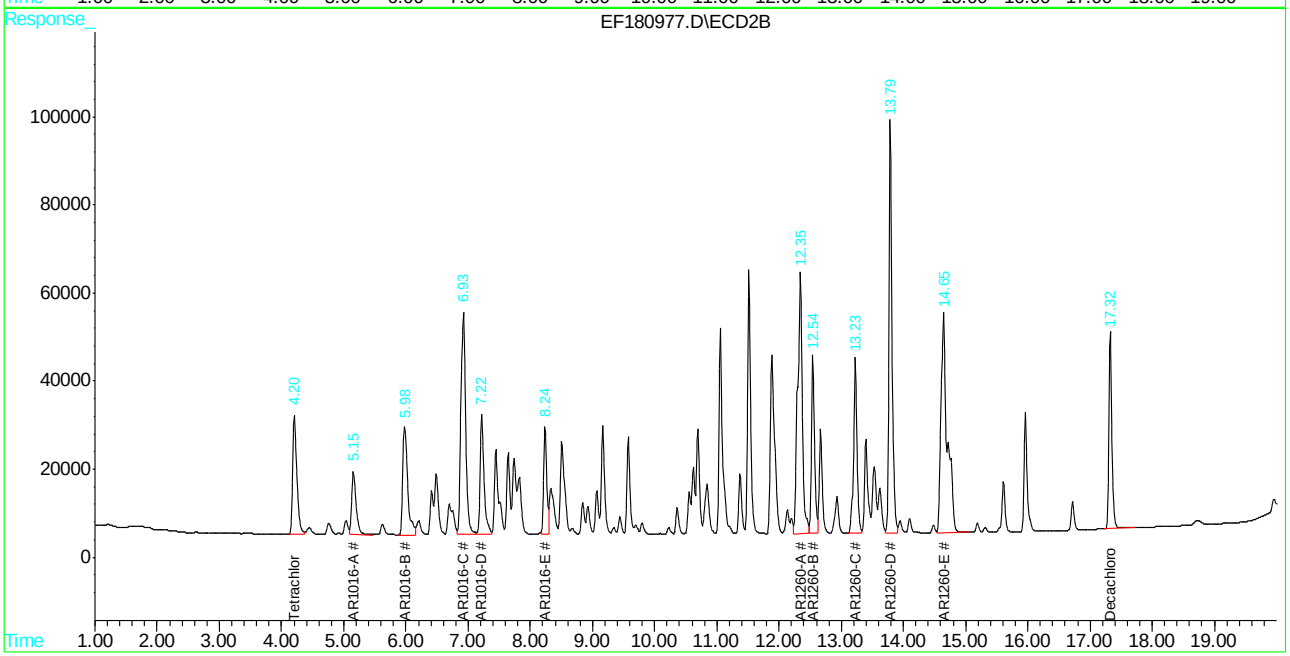
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:27 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62879

Manual Integration Approval Summary

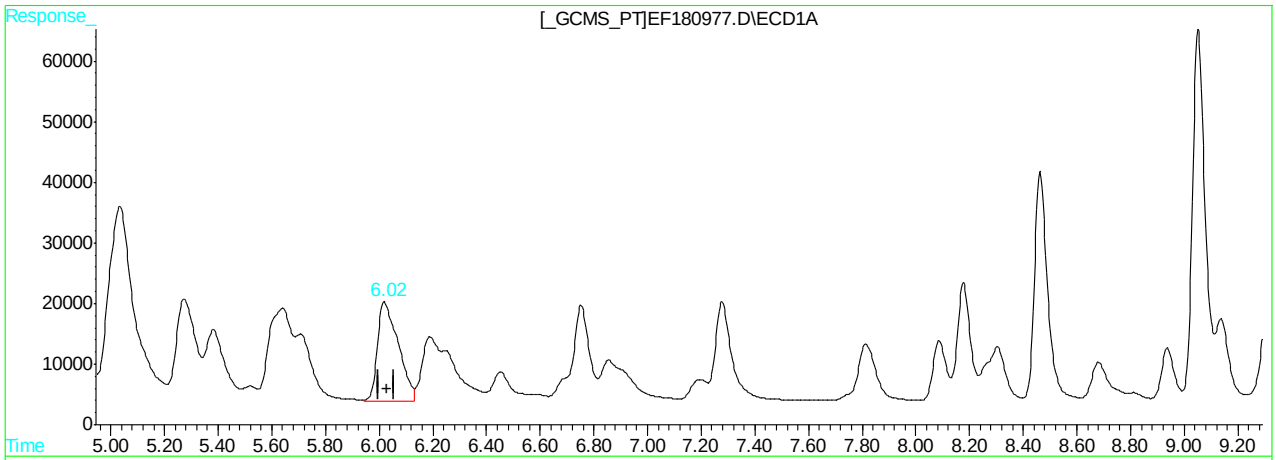
Sample Number:	GEF6195-IC6195	**Method:**	SW846 8082A
Lab FileID:	EF180977.D	**Analyst approved:**	03/20/18 15:40 Tianwei Ruan
Injection Time:	03/19/18 19:04	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

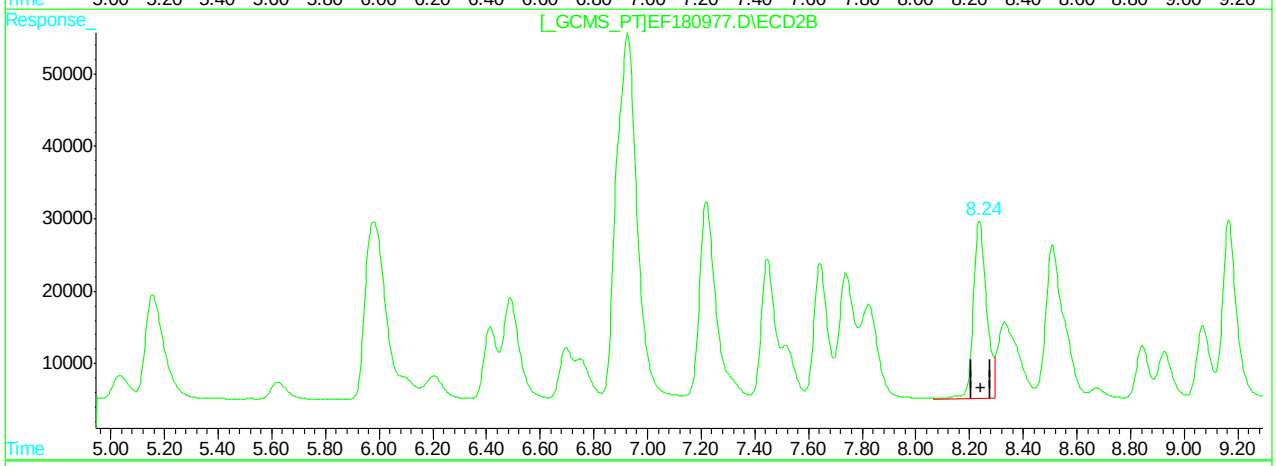
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		2	8.24	Split peak
AR1260-D		1	11.11	Split peak
AR1260-E		1	11.72	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
AR1260-E		2	14.65	Split peak
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.02min 1694.459PPB

response 888678

(45) AR1016-E #2

8.24min 1728.259PPB

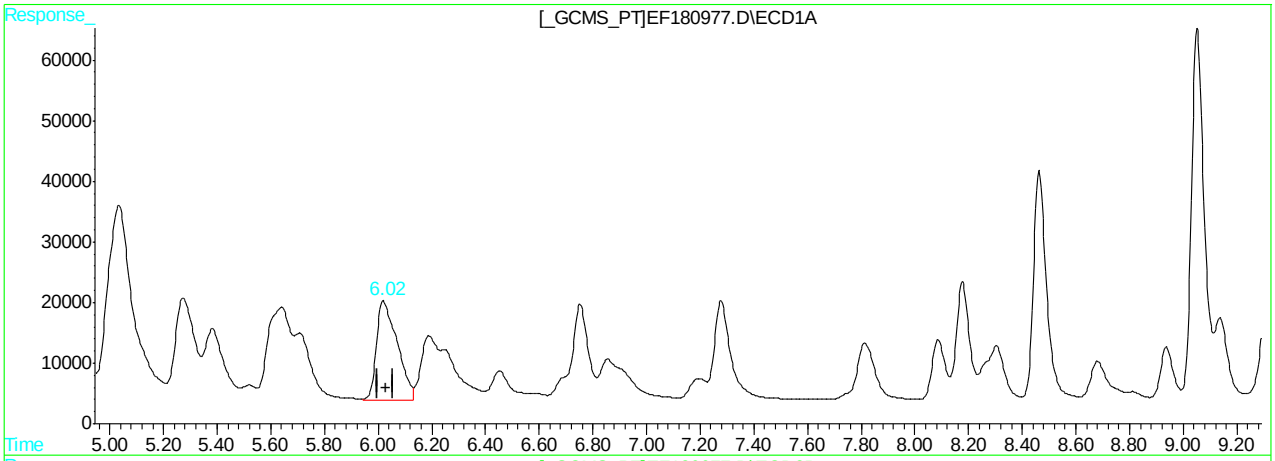
response 838582

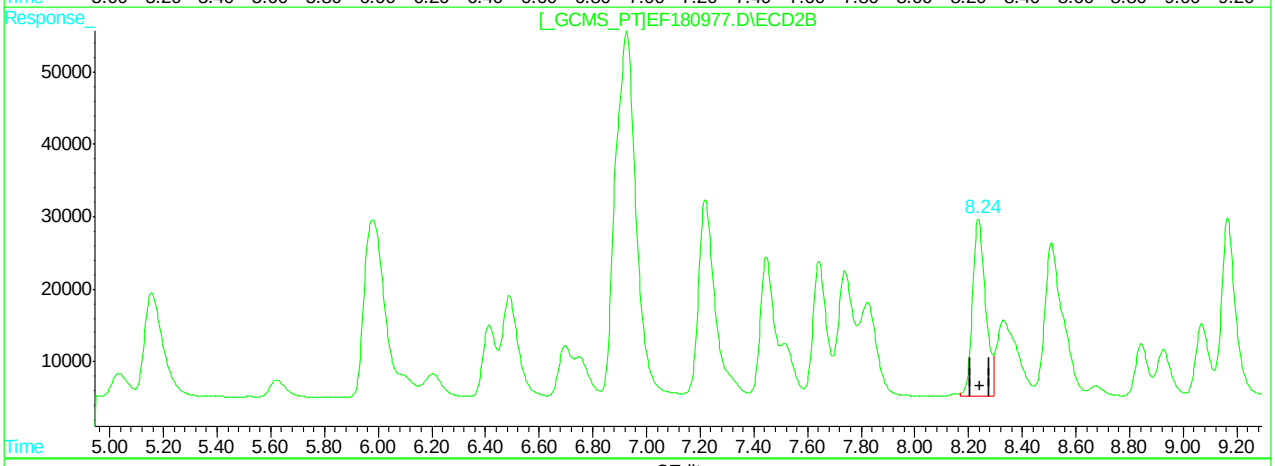
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:24:49 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.02min 1694.459PPB

response 888678

(45) AR1016-E #2

8.24min 1730.791PPB m

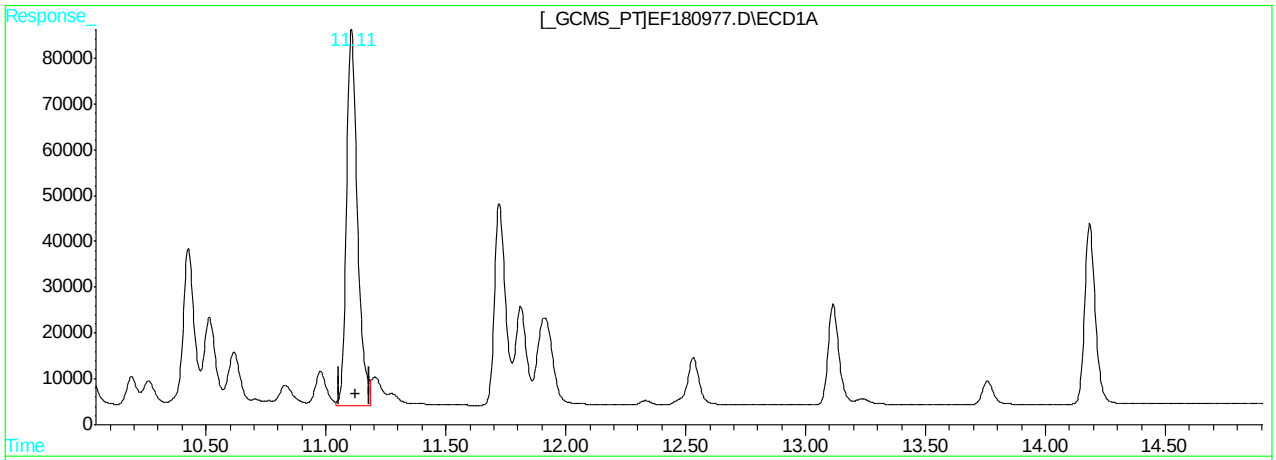
response 839810

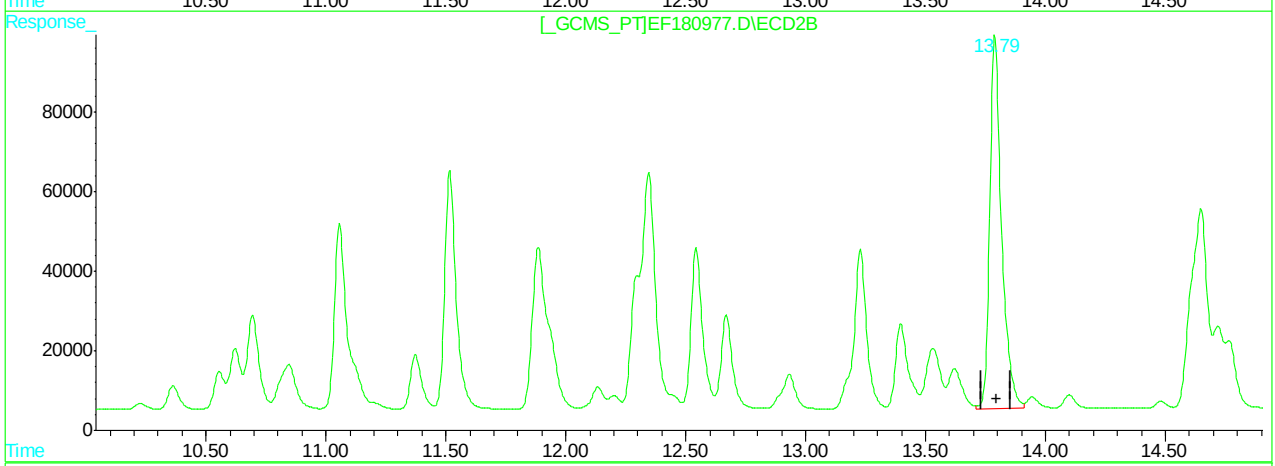
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:25:00 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.11min 1552.953PPB

response 2594094

(49) AR1260-D #2

13.79min 1725.556PPB

response 3199380

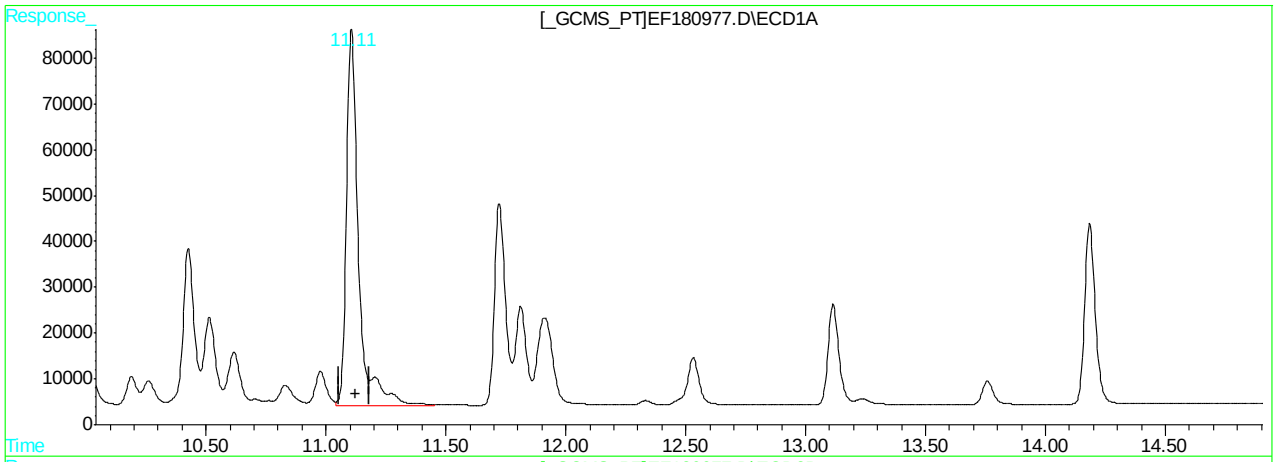
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:25:24 2018 GCEF

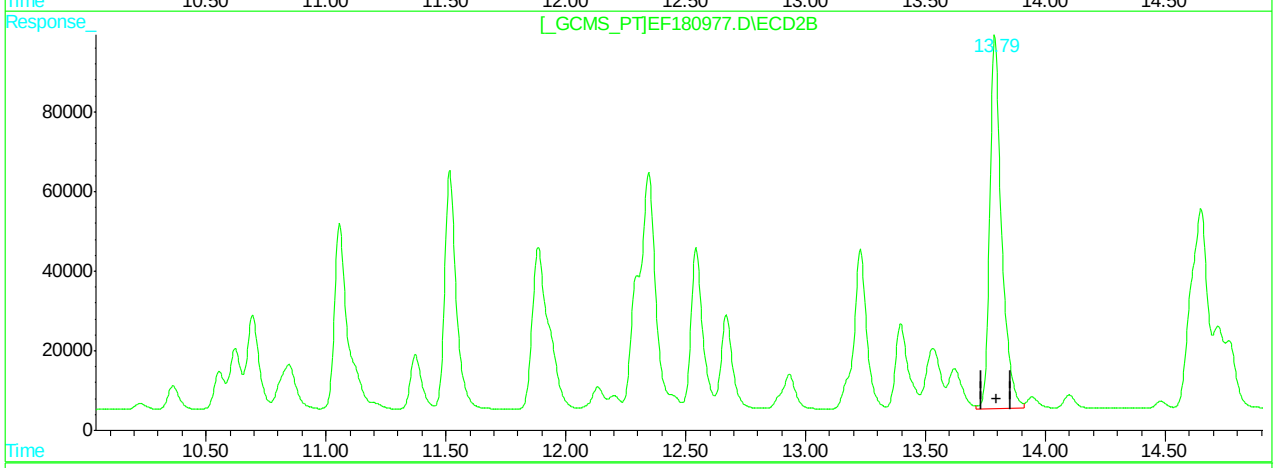
11.6.39.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.11min 1738.698PPB m

response 2904367

(49) AR1260-D #2

13.79min 1725.556PPB

response 3199380

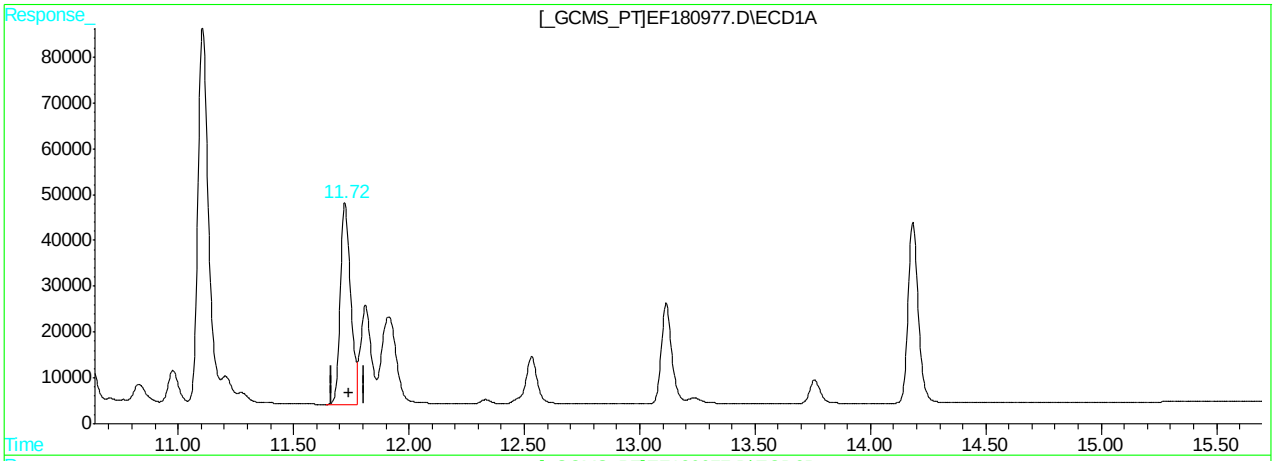
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:25:33 2018 GCEF

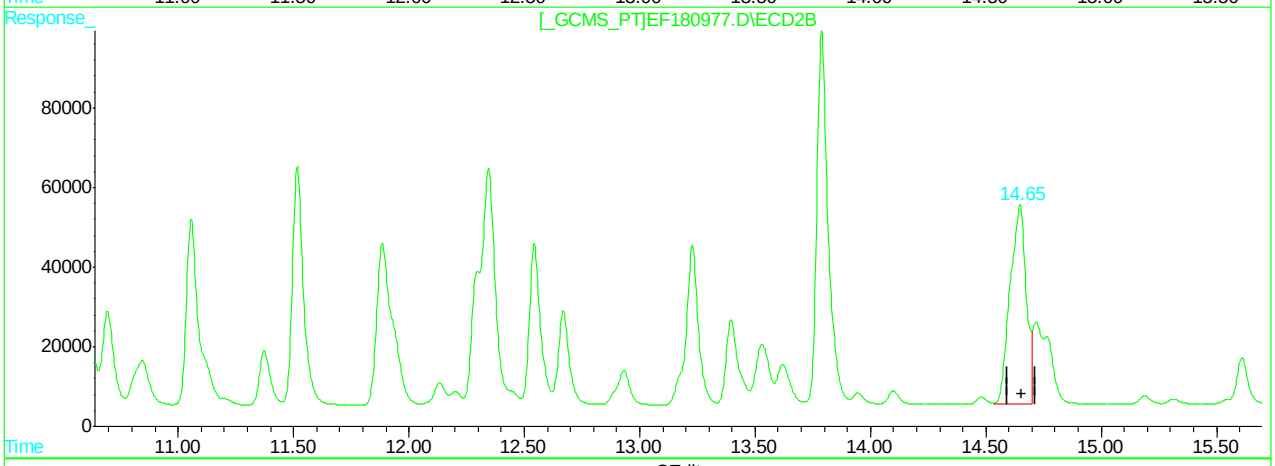
11.6.39.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.72min 836.859PPB

response 1371080

(50) AR1260-E #2

14.65min 1248.758PPB

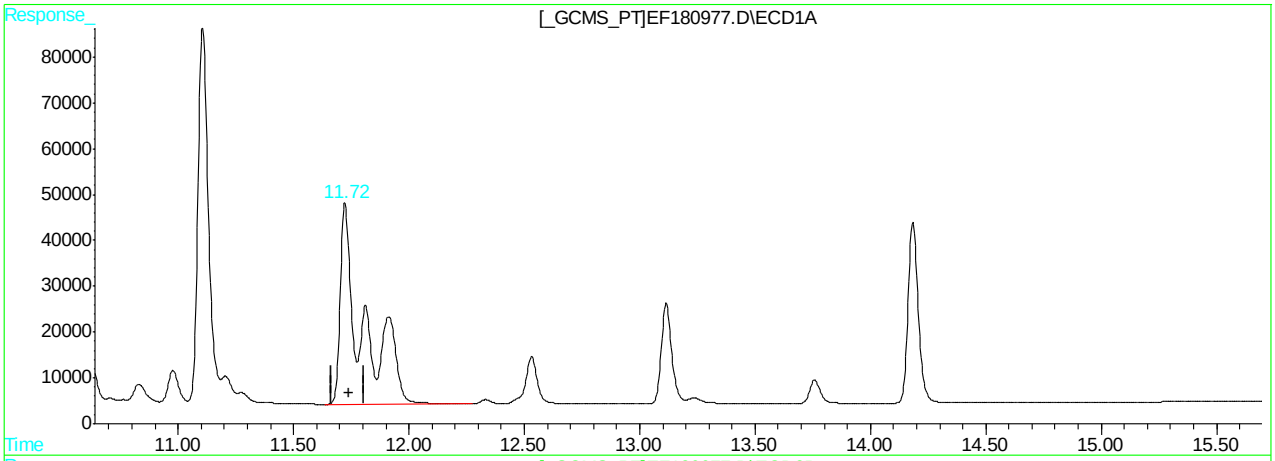
response 2401162

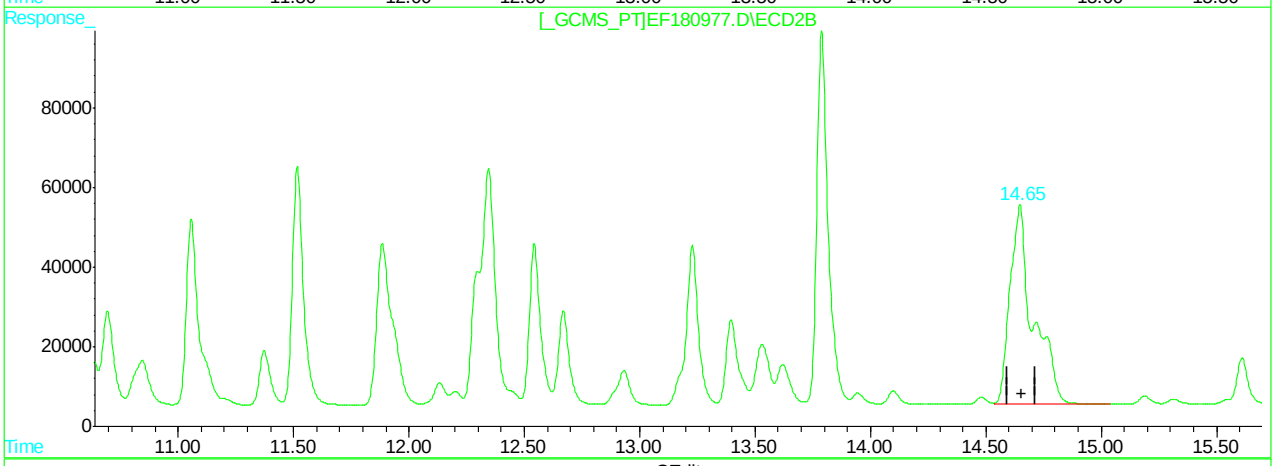
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:25:38 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.72min 1794.048PPB m

response 2939304

(50) AR1260-E #2

14.65min 1818.061PPB m

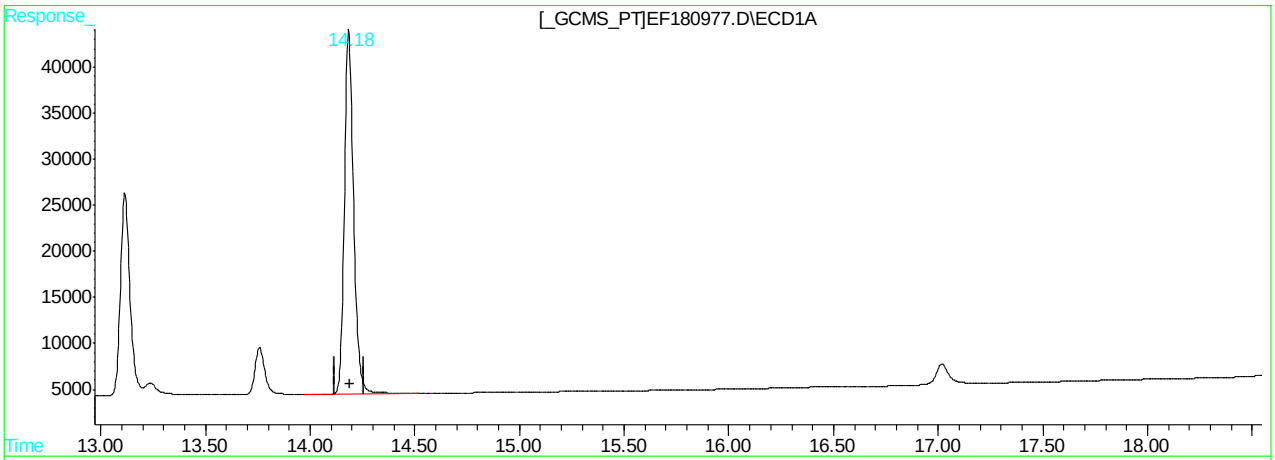
response 3495842

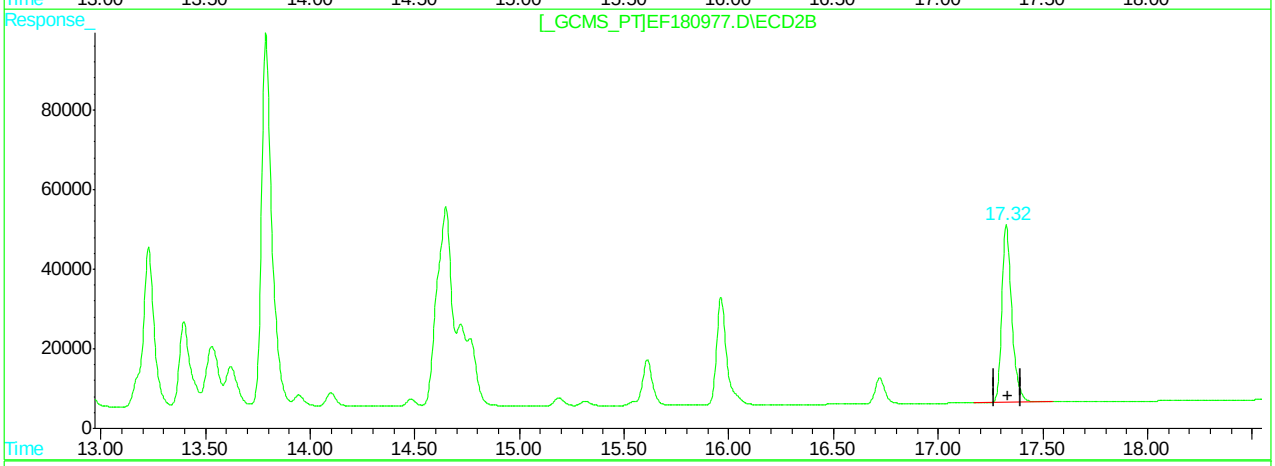
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:26:45 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 66.749PPB

response 1215763

(51) Decachlorobiphenyl #2 (S)

17.33min 67.025PPB

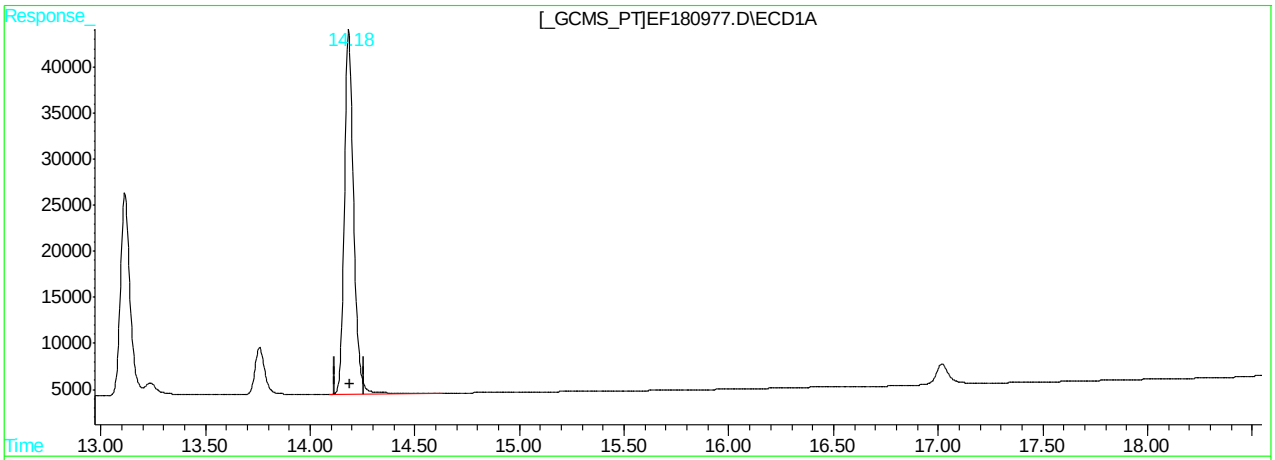
response 1469911

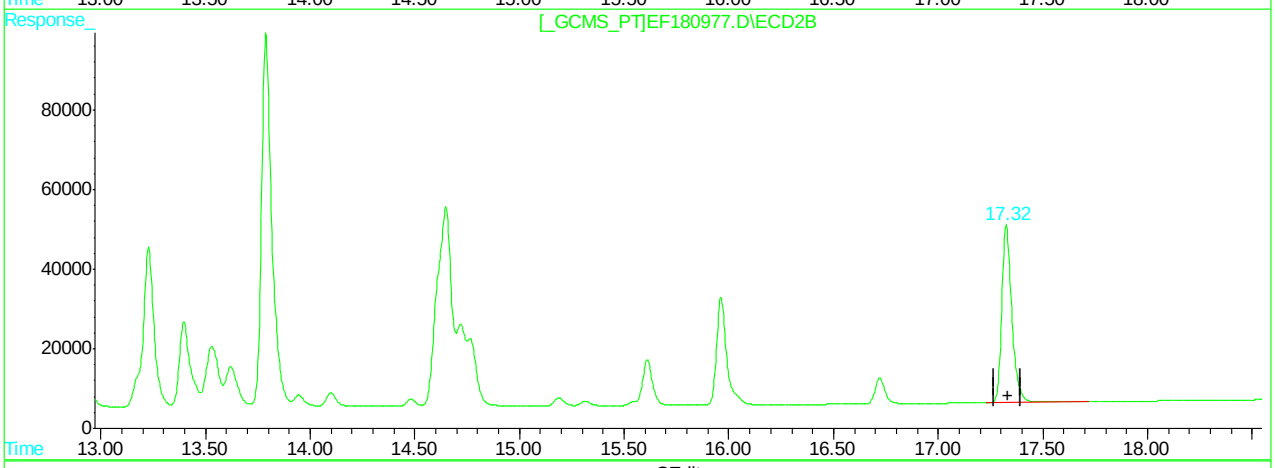
(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:26:52 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180977.D\ECD2B.CH
Acq On : 19 Mar 2018 7:04 pm Operator: tianweir
Sample : ic6195-2000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:24 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 67.030PPB m

response 1220887

(51) Decachlorobiphenyl #2 (S)

17.32min 67.519PPB m

response 1480740

(+) = Expected Retention Time
EF180977.D PCB6195.M Tue Mar 20 13:27:13 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:30 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.19	4.20	1411880	1917405	118.832	122.805
	Spiked Amount 40.000			Recovery	=	297.08%	307.01%
51)	S Decachlorobiphen	14.18	17.32	1735151	2101116	95.265m	95.807
	Spiked Amount 40.000			Recovery	=	238.16%	239.52%
	Target Compounds						
41)	AR1016-A	3.70	5.15	836734	998596	2505.225	2517.402
42)	AR1016-B	4.25	5.98	1371994	1925330	2357.452	2402.350
43)	AR1016-C	5.03f	6.92	3139749	3843282	2345.325	2388.972
44)	AR1016-D	5.27f	7.22	1214150	1696715	2434.609	2476.487
45)	AR1016-E	6.02	8.23	1271747	1180032	2424.864	2431.963m
46)	AR1260-A	9.64	12.34	3507842	4483401	2443.858	2509.332
47)	AR1260-B	9.90	12.54	1651866	1937145	2423.469	2394.752
48)	AR1260-C	10.43	13.23	1597030	2160958	2507.225	2514.352
49)	AR1260-D	11.10	13.79	4163206	4613634	2492.301m	2488.320
50)	AR1260-E	11.72	14.64	4267376	5074780	2604.656m	2639.210m

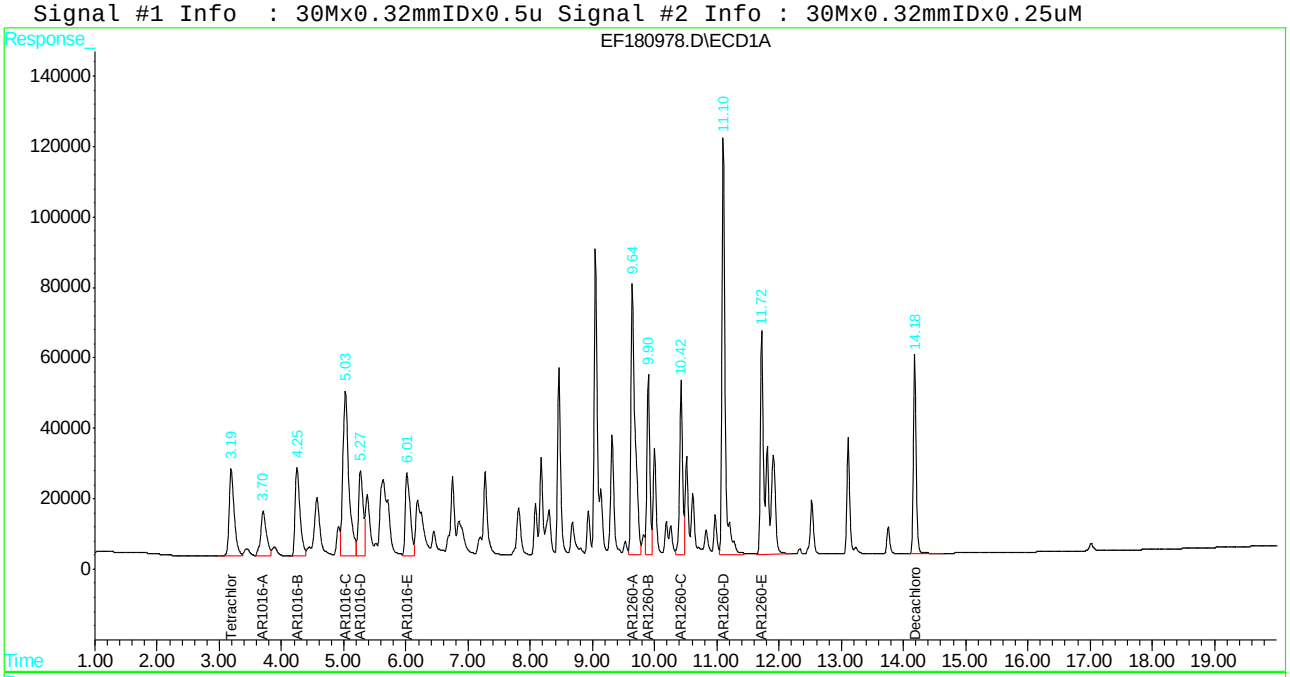
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

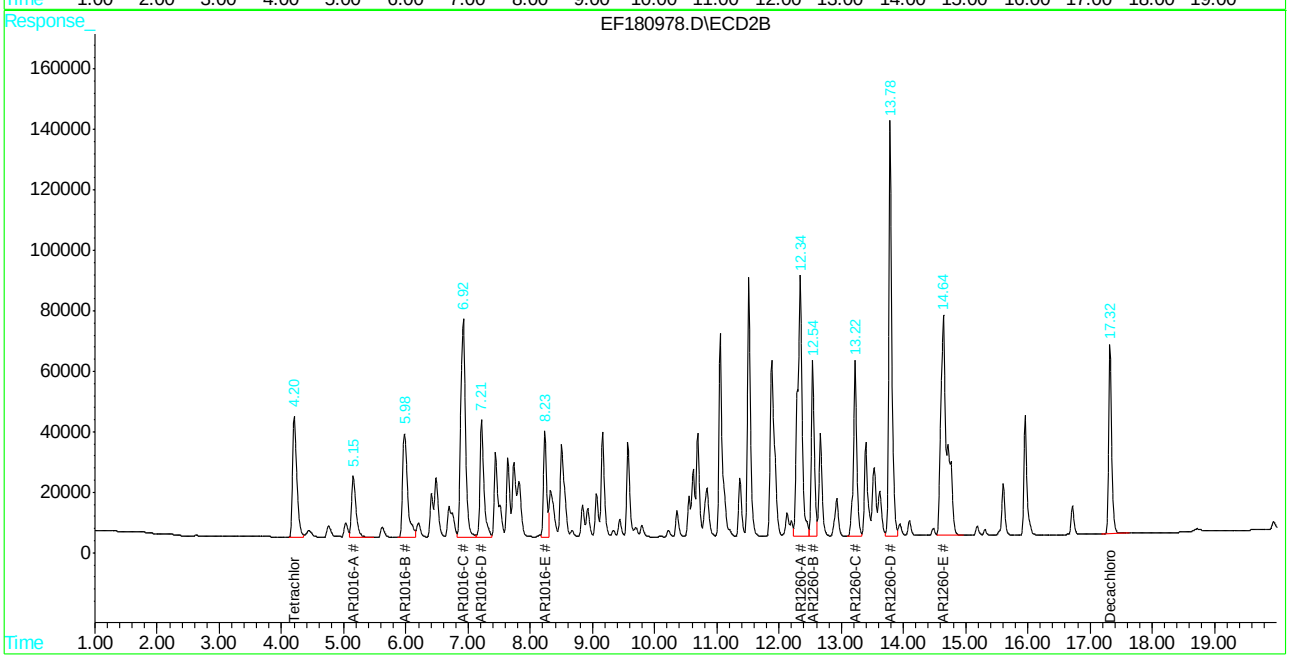
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:30 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

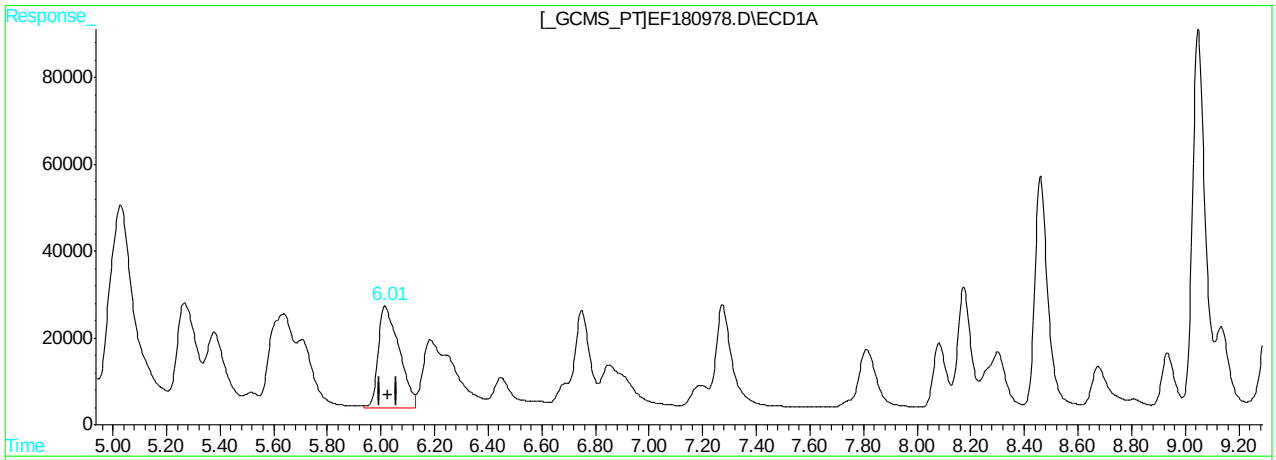
Sample Number:	GEF6195-IC6195	**Method:**	SW846 8082A
Lab FileID:	EF180978.D	**Analyst approved:**	03/20/18 15:40 Tianwei Ruan
Injection Time:	03/19/18 19:29	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

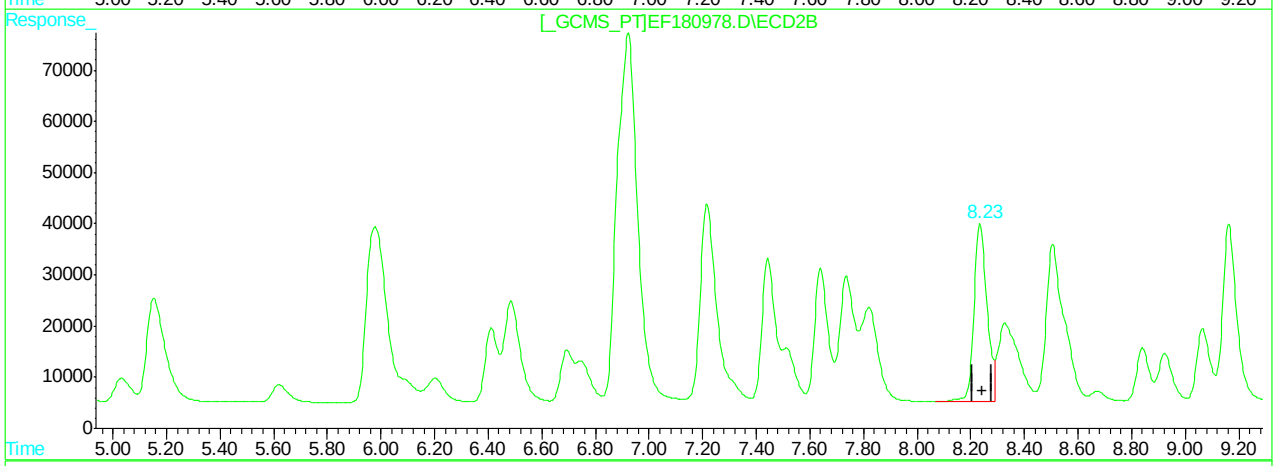
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		2	8.23	Split peak
AR1260-D		1	11.10	Split peak
AR1260-E		1	11.72	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
AR1260-E		2	14.64	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.02min 2424.864PPB

response 1271747

(45) AR1016-E #2

8.23min 2448.640PPB

response 1188123

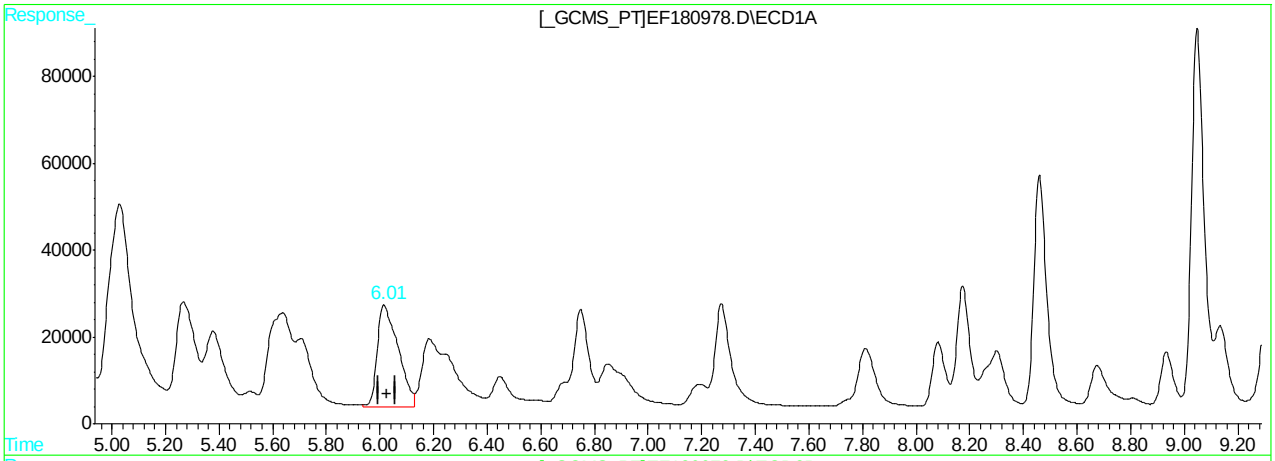
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:28:54 2018 GCEF

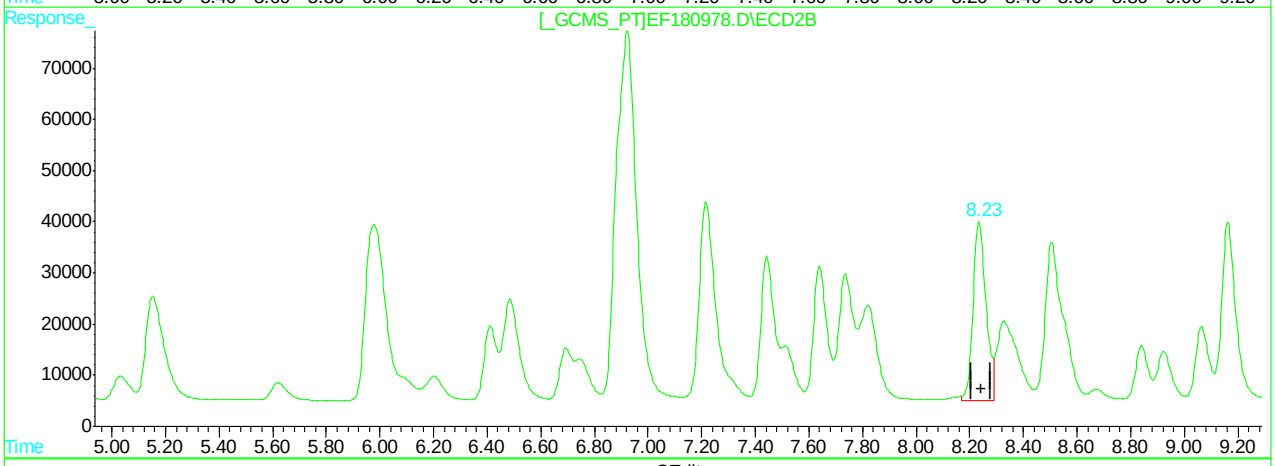
11.6.40.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.02min 2424.864PPB

response 1271747

(45) AR1016-E #2

8.23min 2431.963PPB m

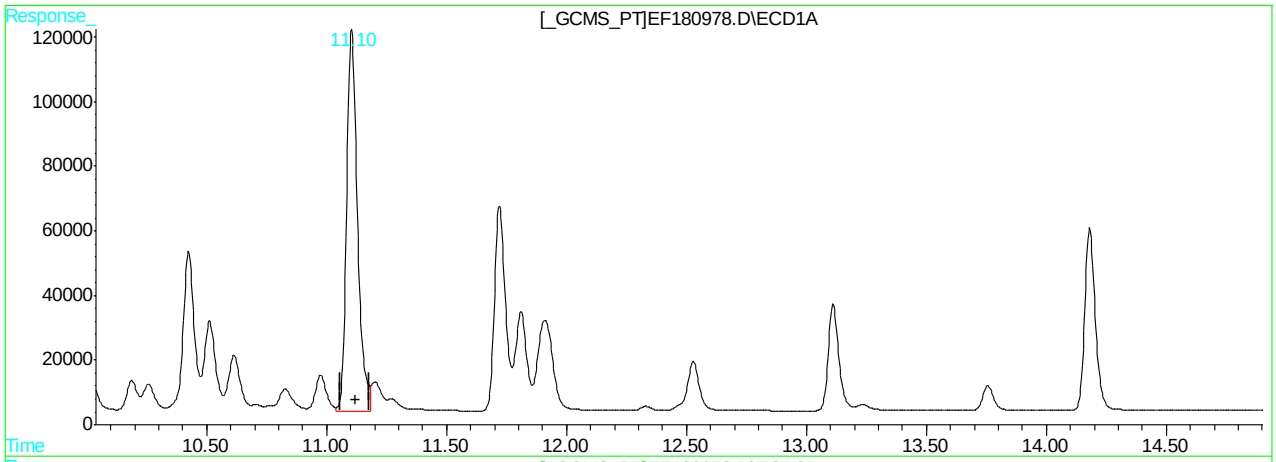
response 1180032

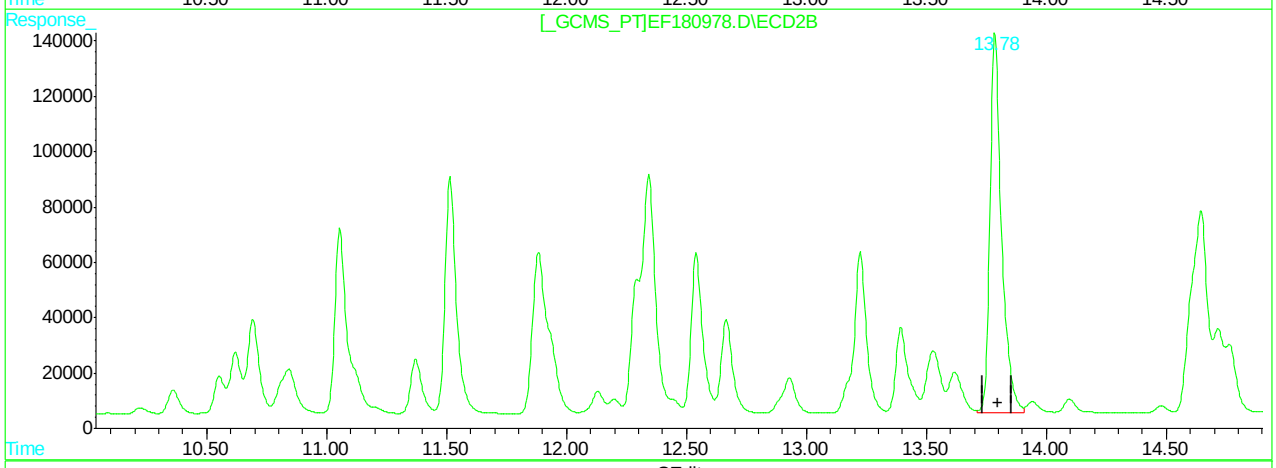
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:03 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.10min 2231.078PPB

response 3726852

(49) AR1260-D #2

13.79min 2488.320PPB

response 4613634

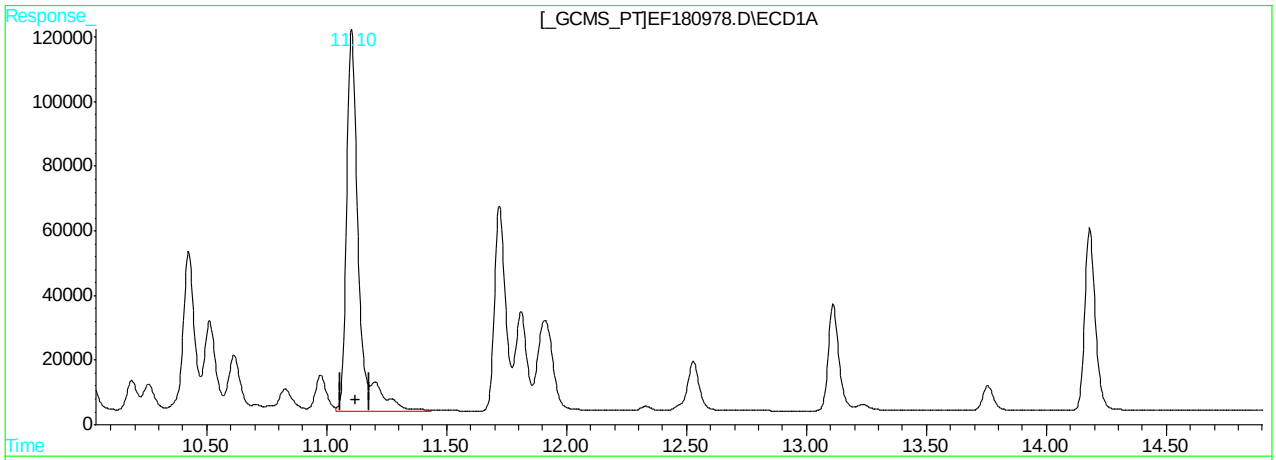
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:11 2018 GCEF

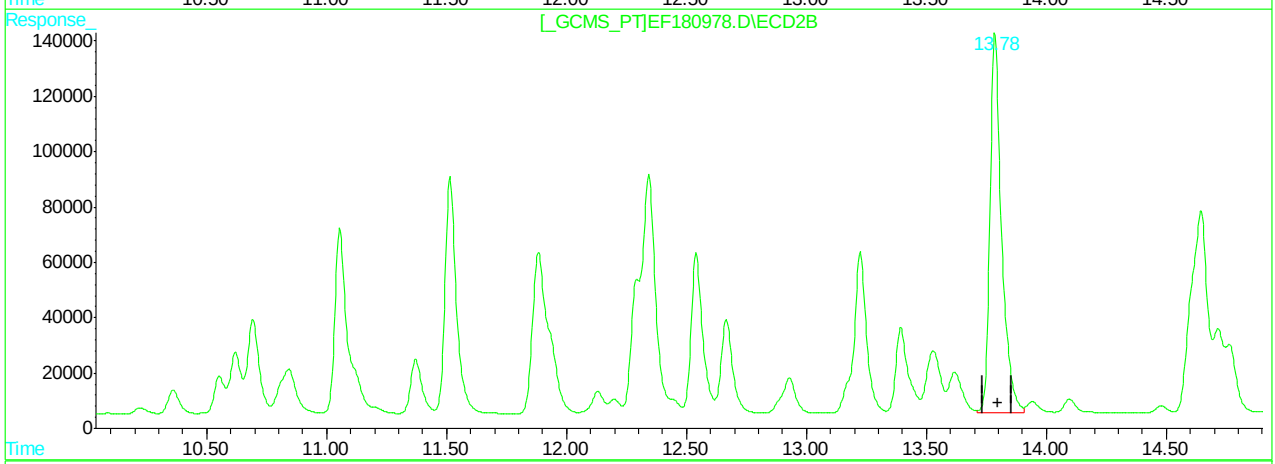
11.6.40.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.10min 2492.301PPB m

response 4163206

(49) AR1260-D #2

13.79min 2488.320PPB

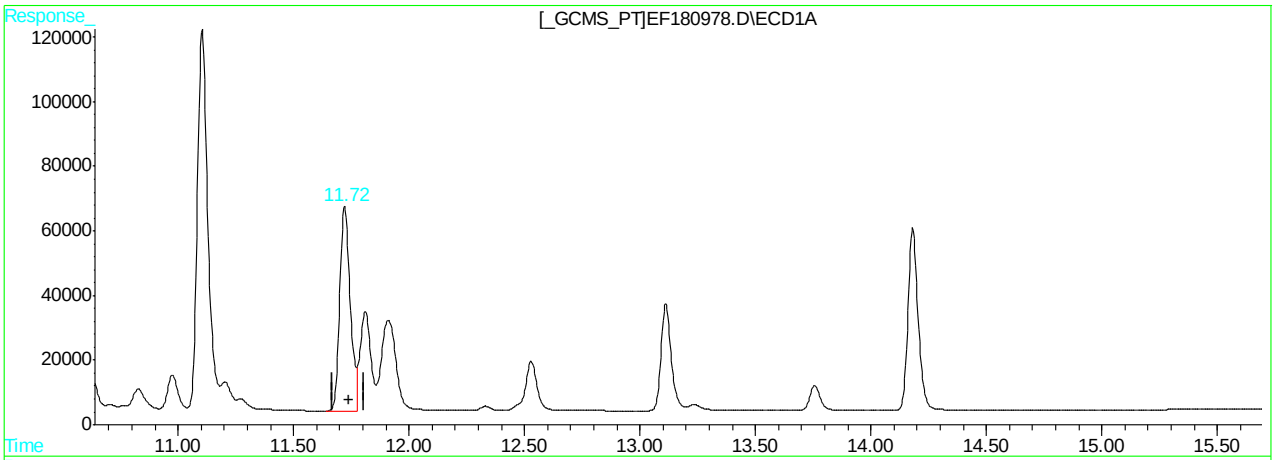
response 4613634

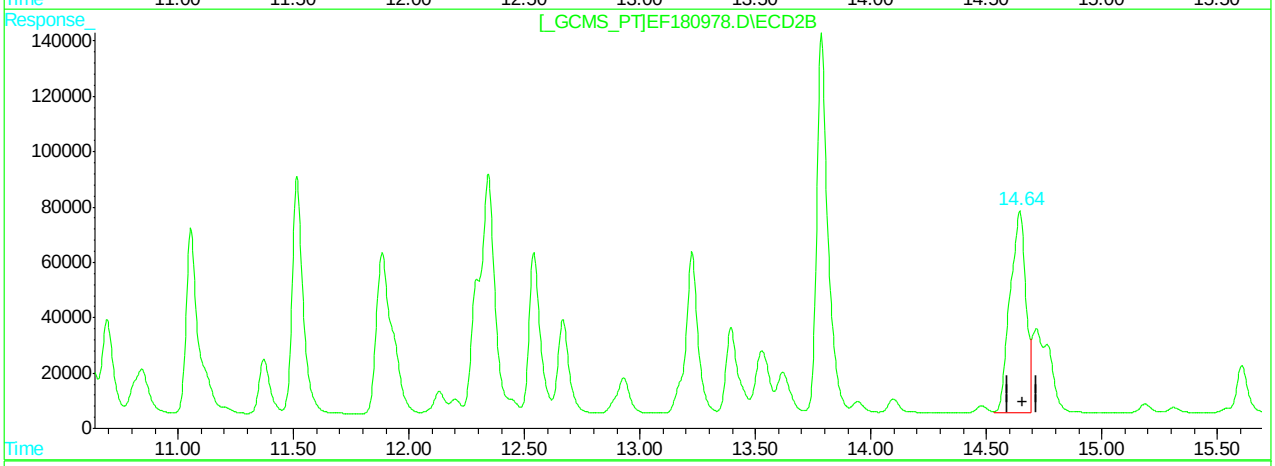
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:20 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.72min 1216.786PPB

response 1993539

(50) AR1260-E #2

14.65min 1798.798PPB

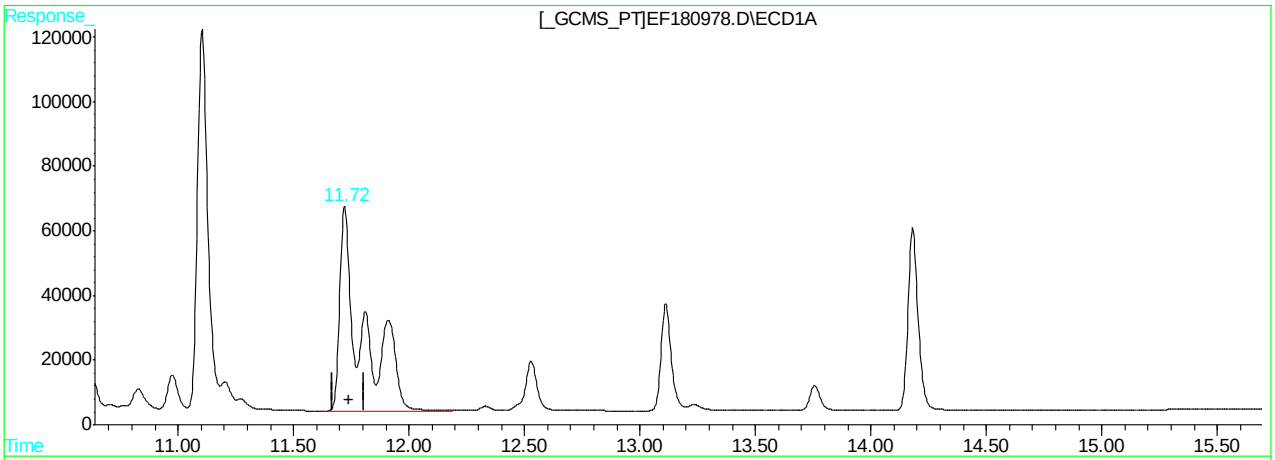
response 3458802

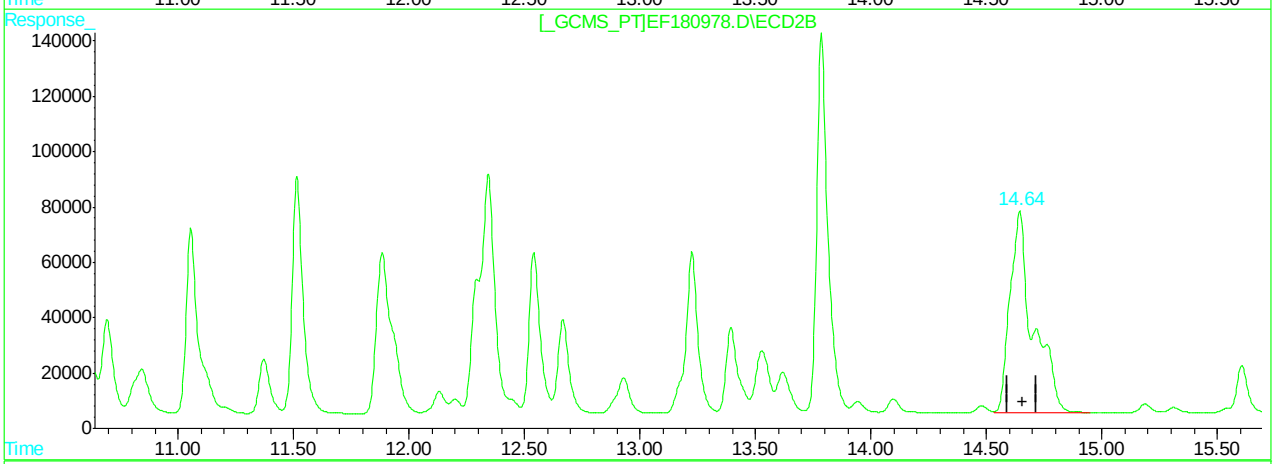
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:25 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.72min 2604.656PPB m

response 4267376

(50) AR1260-E #2

14.64min 2639.210PPB m

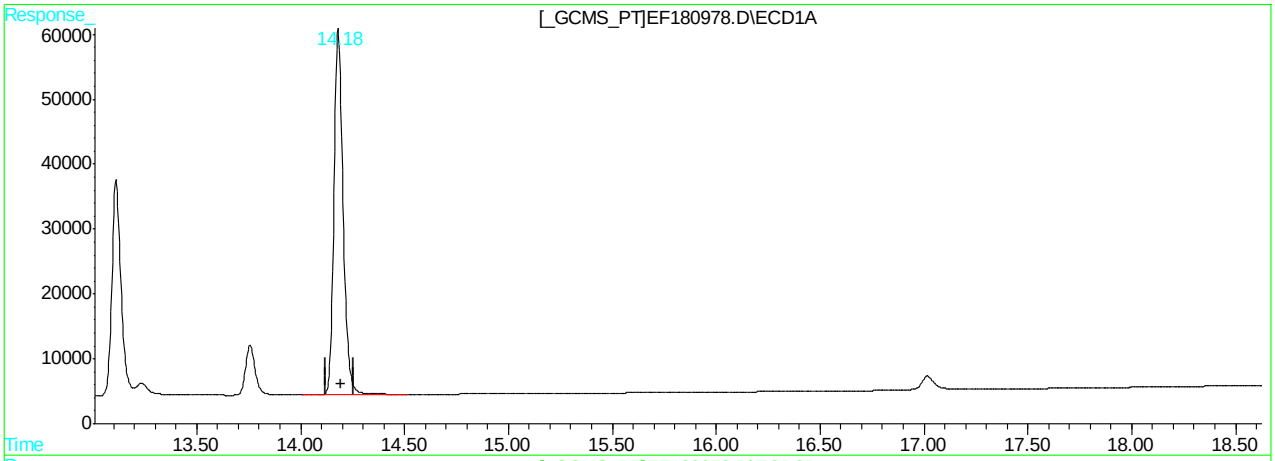
response 5074780

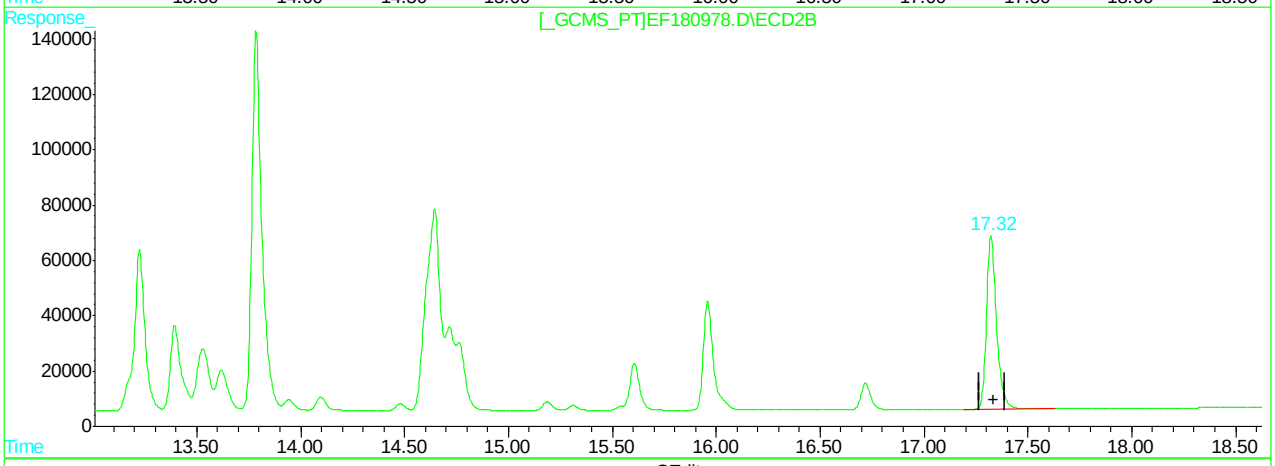
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:47 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 95.171PPB

response 1733442

(51) Decachlorobiphenyl #2 (S)

17.32min 95.807PPB

response 2101116

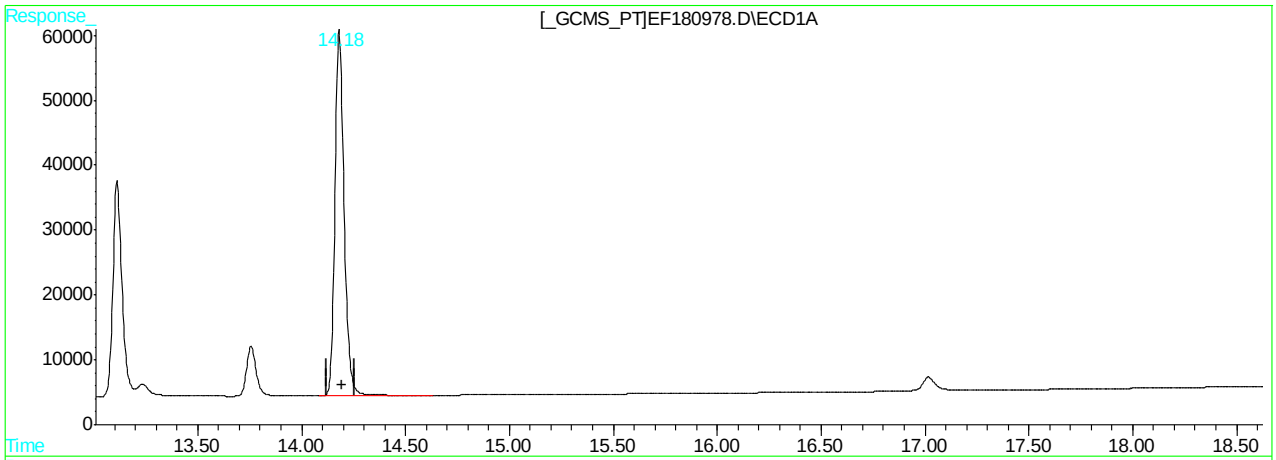
(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:29:57 2018 GCEF

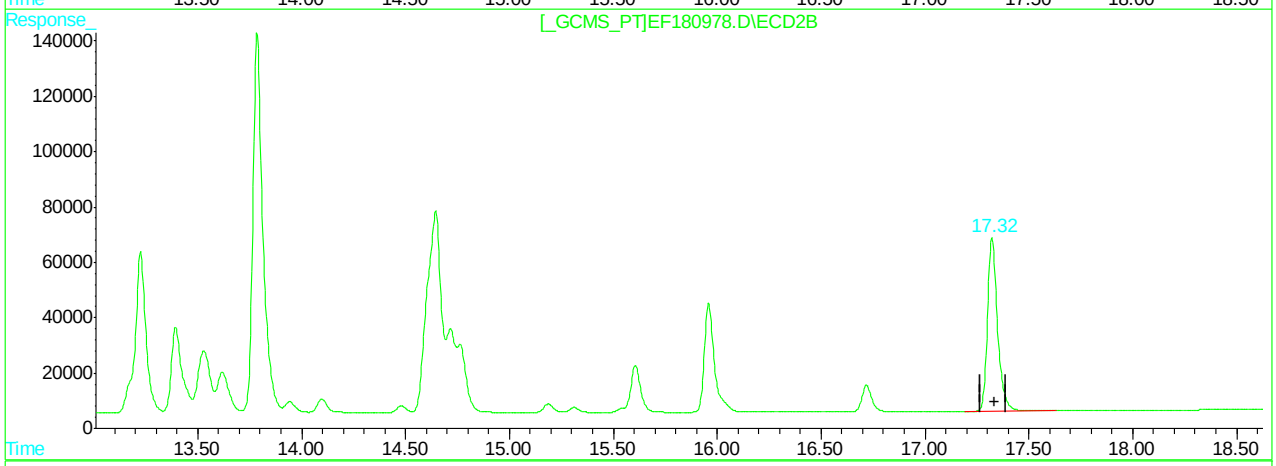
11.6.40.8 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180978.D\ECD2B.CH
Acq On : 19 Mar 2018 7:29 pm Operator: tianweir
Sample : ic6195-3000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 13:28 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 12:06:08 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 95.265PPB m

response 1735151

(51) Decachlorobiphenyl #2 (S)

17.32min 95.807PPB

response 2101116

(+) = Expected Retention Time
EF180978.D PCB6195.M Tue Mar 20 13:30:09 2018 GCEF

11.6.40.9 11

EF180979.D

Manual Integrations APPROVED (compounds with "m" flag)

Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	532043	669180	44.780m	42.859
	Spiked Amount 40.000			Recovery =		111.95%	107.15%
51) S	Decachlorobiphen	14.18	17.32	697471	844886	38.293m	38.525m
	Spiked Amount 40.000			Recovery =		95.73%	96.31%
	Target Compounds						
2)	AR1221-A	2.56	3.43	126056	160898	995.783	1002.279
3)	AR1221-B	3.44	4.76	164608	234434	933.037	992.890
4)	AR1221-C	3.70	5.15	562318	618180	934.996	994.451
5)	AR1221-D	4.26	5.97	59345	132079	936.141	983.748
6)	AR1221-E	4.57	6.10	120744	127522	955.485	980.397
24)	AR1254-A	6.75	9.16	556970	779263	937.548	998.965
25)	AR1254-B	7.27	9.57	712084	822851	930.593	989.024
26)	AR1254-C	7.83	10.36	521535	602713	941.171	982.352
27)	AR1254-D	8.08	10.62	970110	1271381	933.779m	936.877
28)	AR1254-E	8.67	11.12	863799	1022397	938.606	976.203
29)	AR1254-F	9.05	11.93	720837	1005324	936.415	997.223m
30)	AR1254-G	9.65	12.35	950863	1191987	941.058	967.388

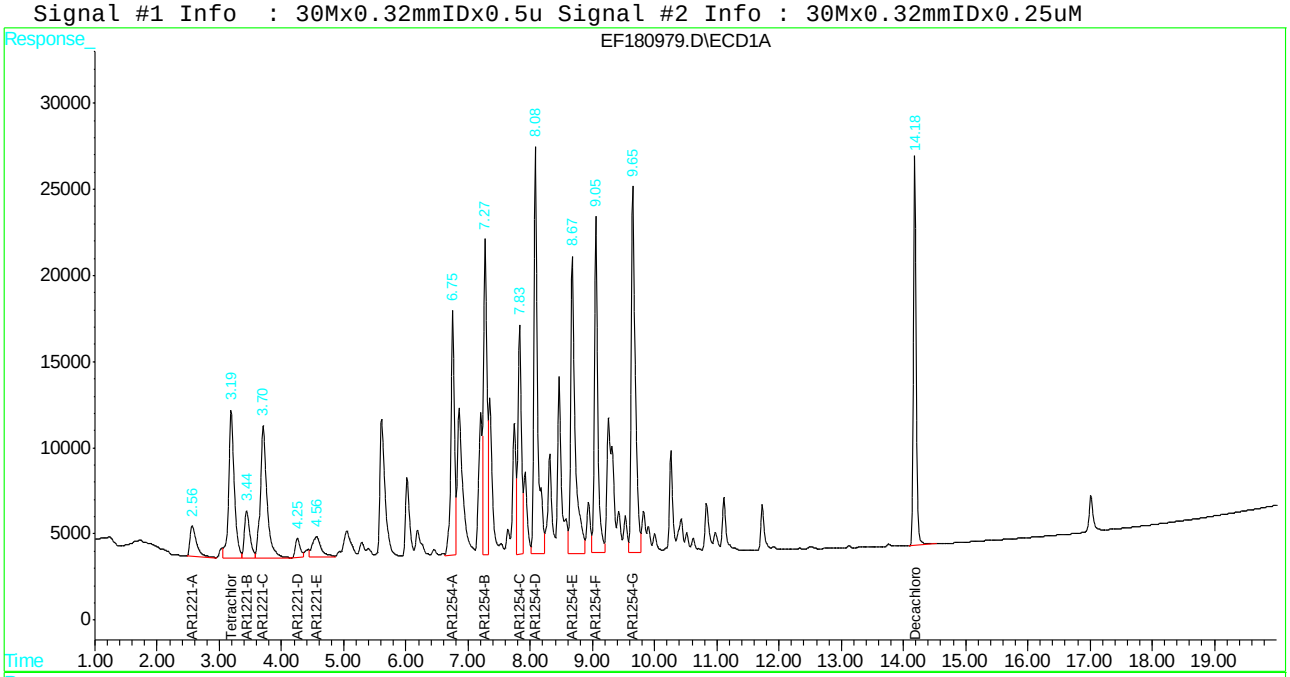
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

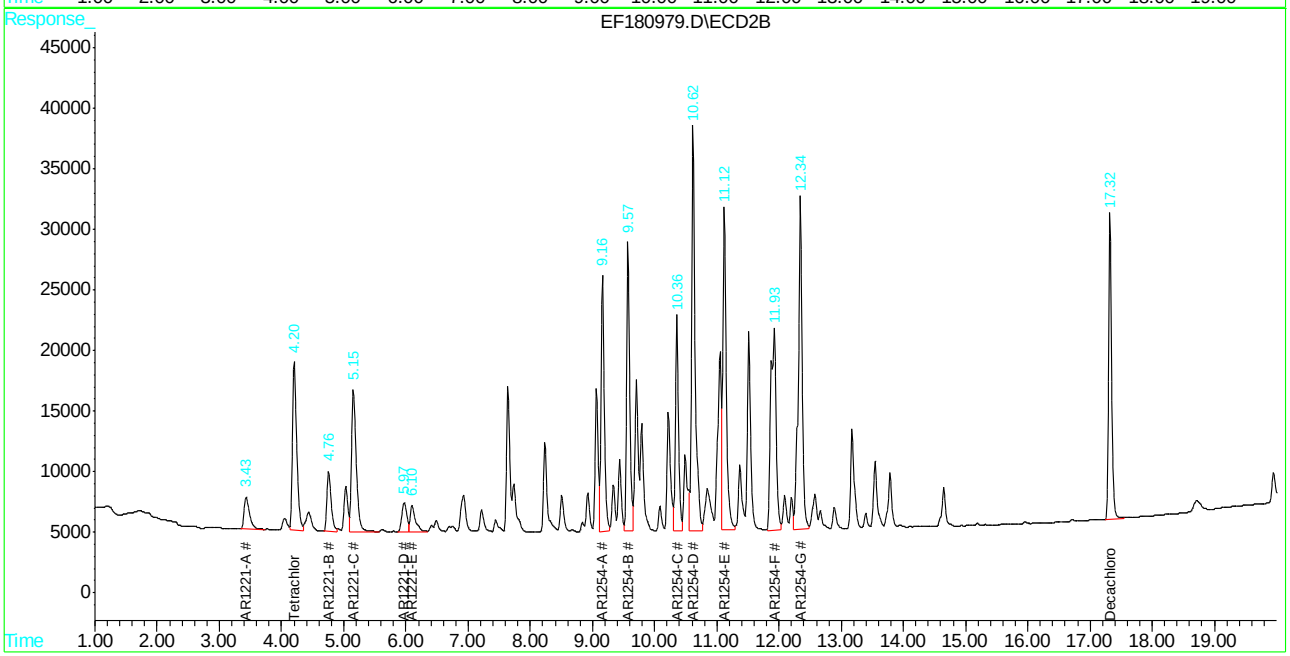
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

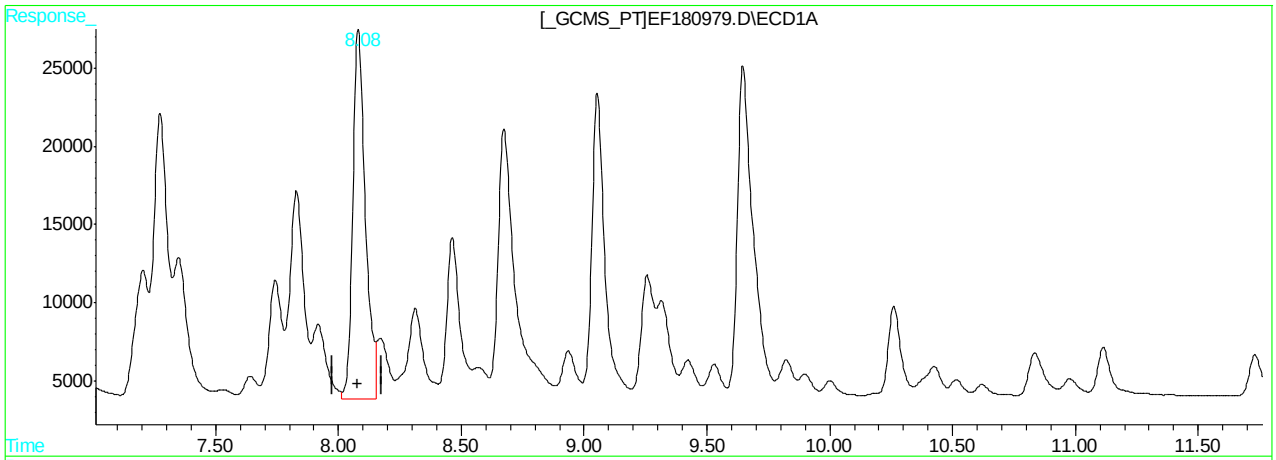
Sample Number: GEF6195-IC6195
Lab FileID: EF180979.D
Injection Time: 03/19/18 19:54
Method: SW846 8082A
Analyst approved: 03/20/18 15:40 Tianwei Ruan
Supervisor approved: 03/21/18 11:23 Gwendolyn Burns

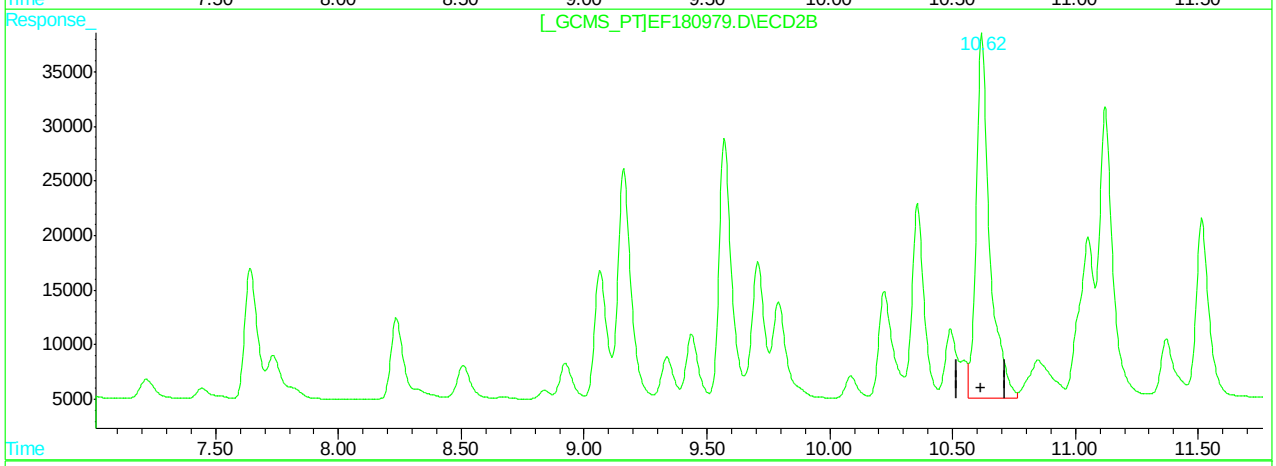
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.19	Poorly defined baseline
AR1254-D		1	8.08	Split peak
AR1254-F		2	11.93	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Single Level Calibration





QEdit

(27) AR1254-D

8.08min 814.618PPB

response 846312

(27) AR1254-D #2

10.62min 936.877PPB

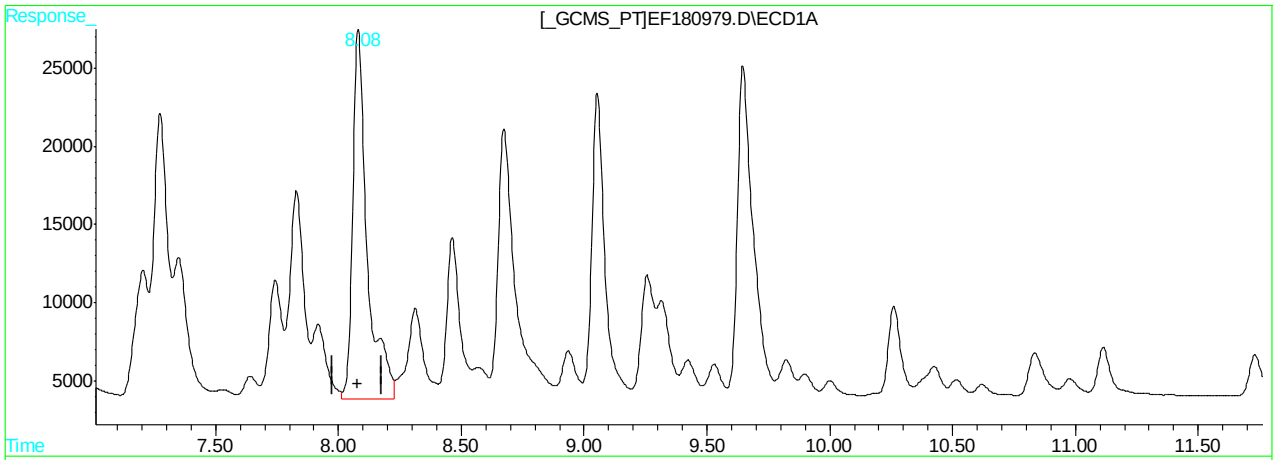
response 1271381

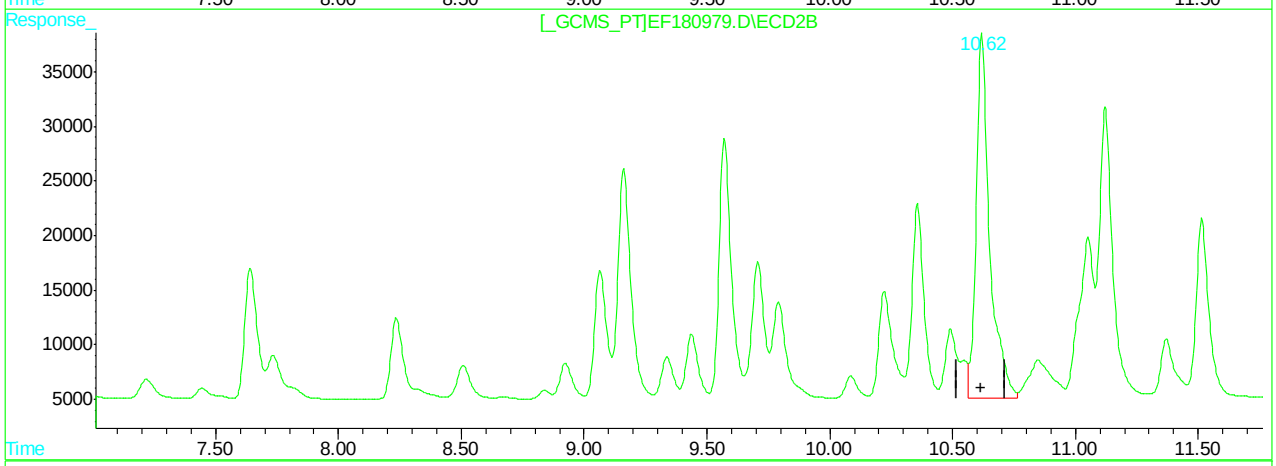
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:45:43 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Single Level Calibration





QEdit

(27) AR1254-D

8.08min 933.779PPB m

response 970110

(27) AR1254-D #2

10.62min 936.877PPB

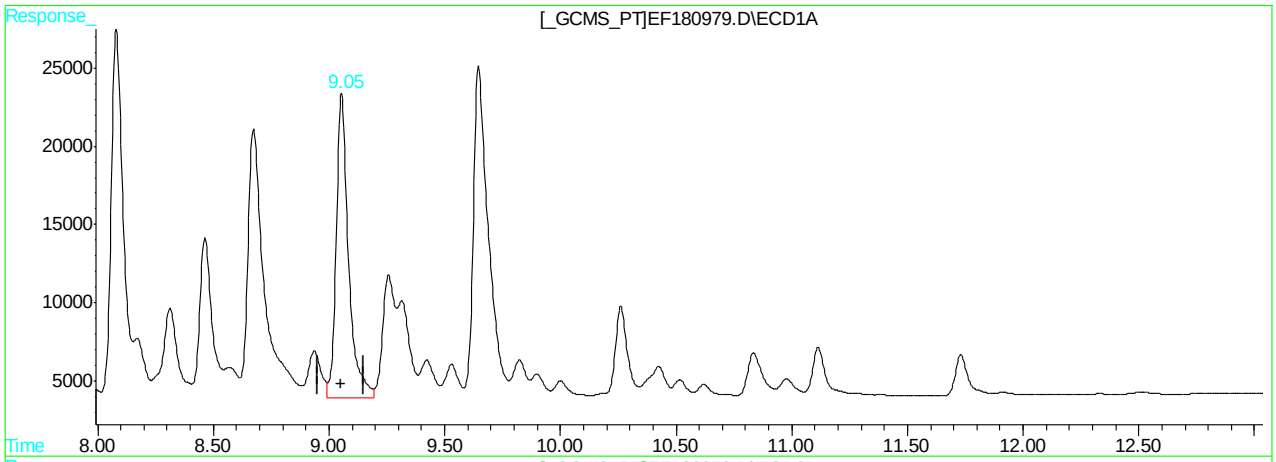
response 1271381

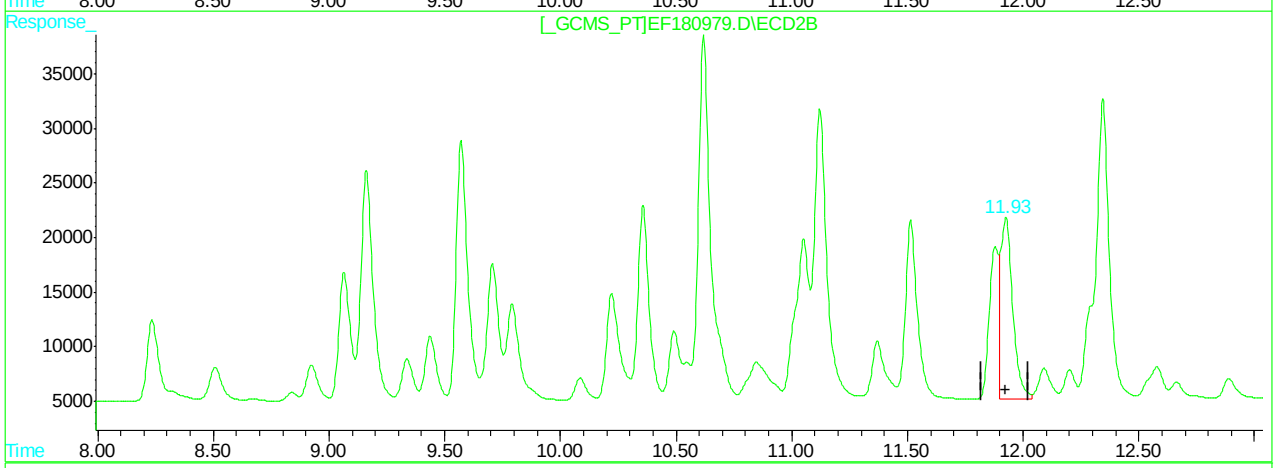
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:46:00 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.05min 936.415PPB

response 720837

(29) AR1254-F #2

11.93min 618.981PPB

response 624009

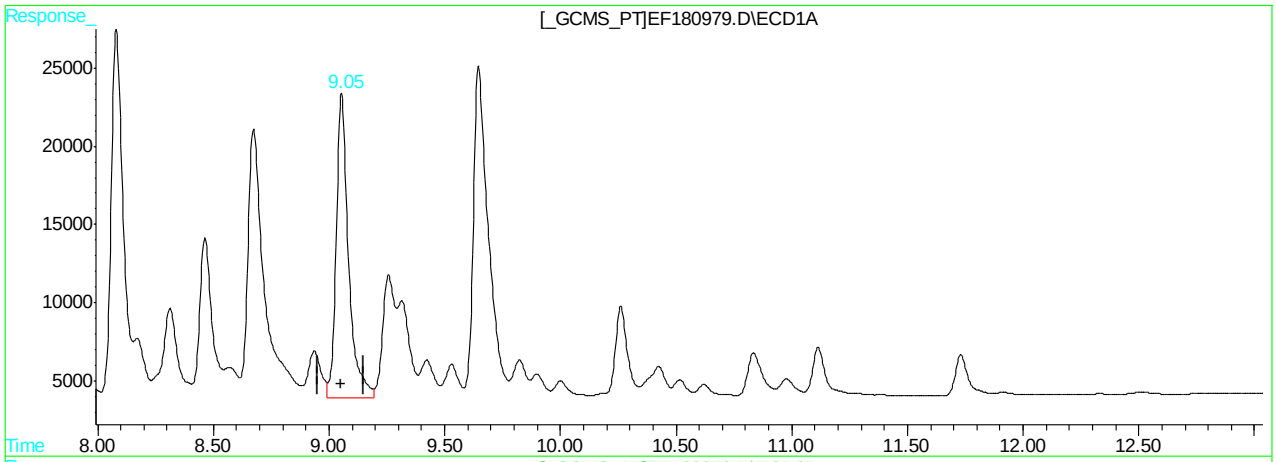
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:46:10 2018 GCEF

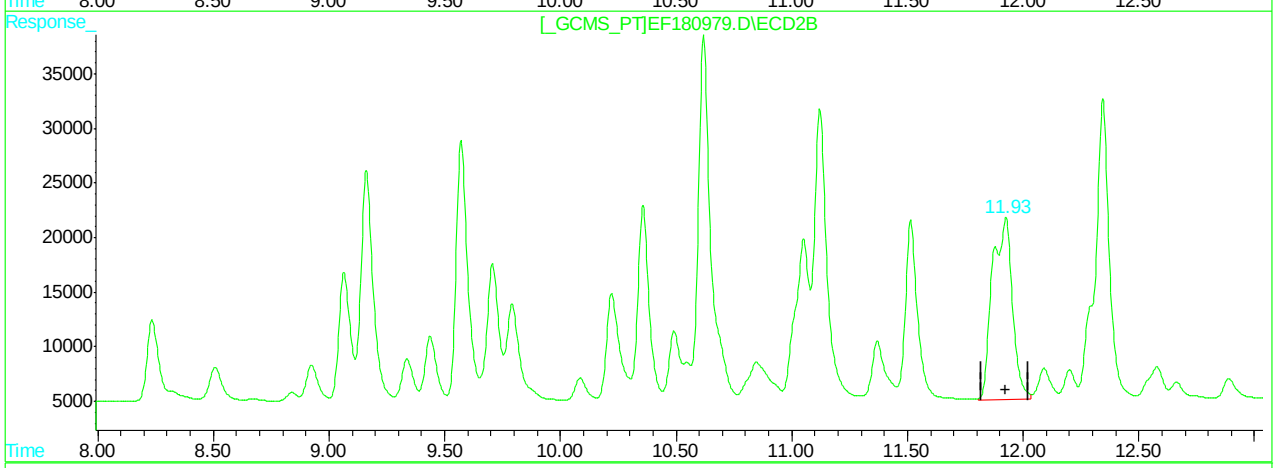
11.6.41.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.05min 936.415PPB

response 720837

(29) AR1254-F #2

11.93min 997.223PPB m

response 1005324

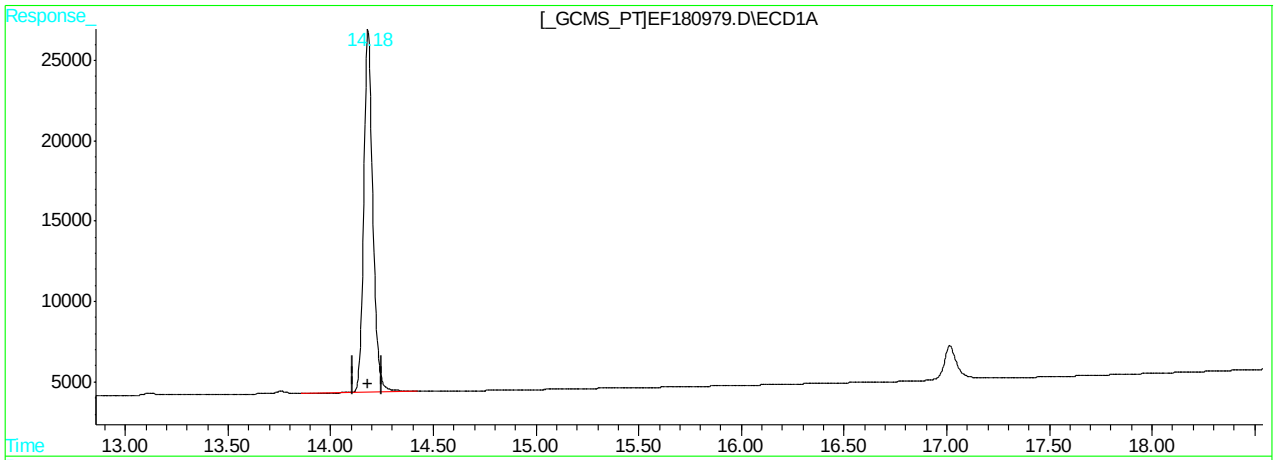
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:46:17 2018 GCEF

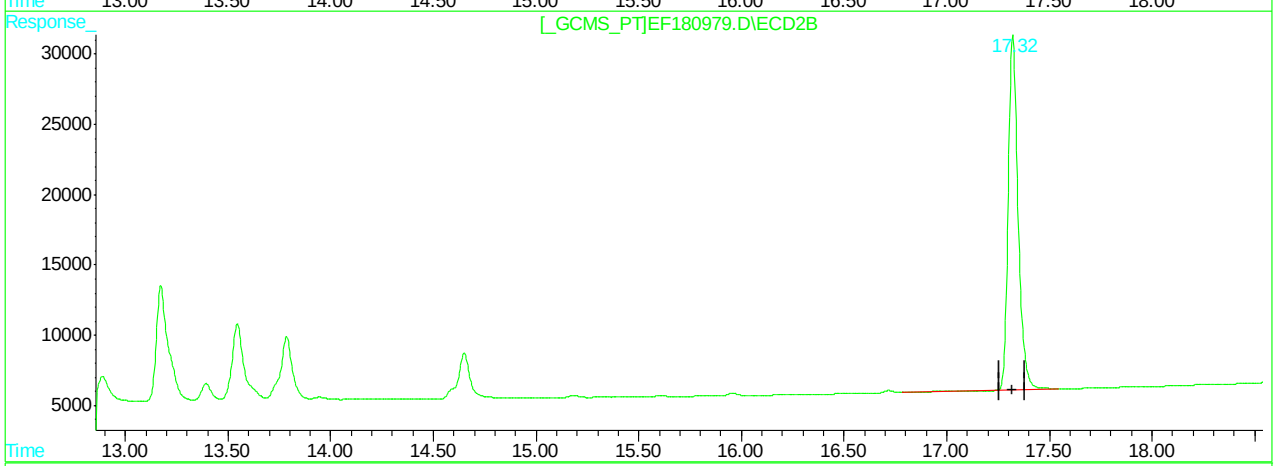
11.6.41.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 38.107PPB

response 694081

(51) Decachlorobiphenyl #2 (S)

17.32min 38.177PPB

response 837244

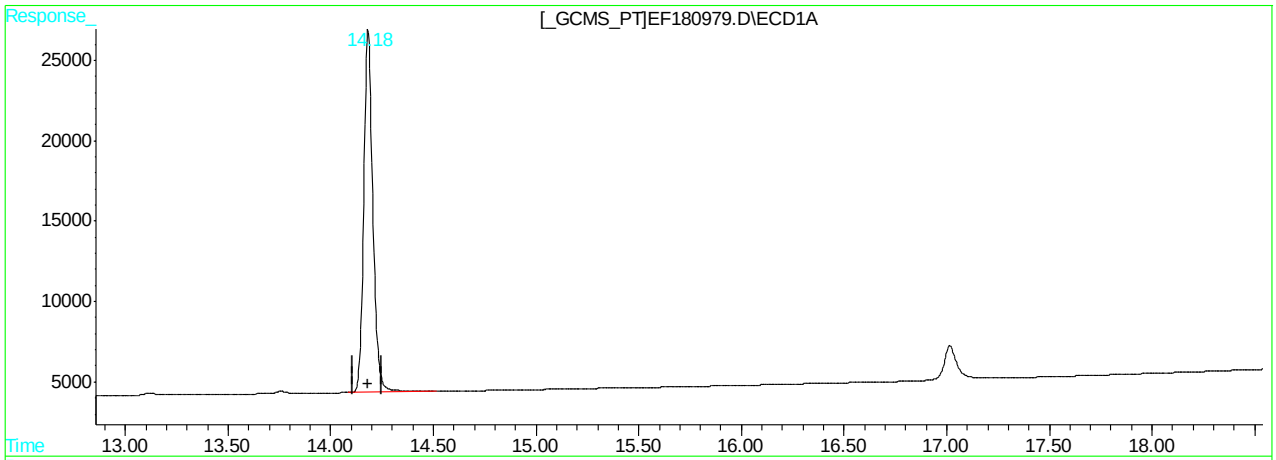
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:46:29 2018 GCEF

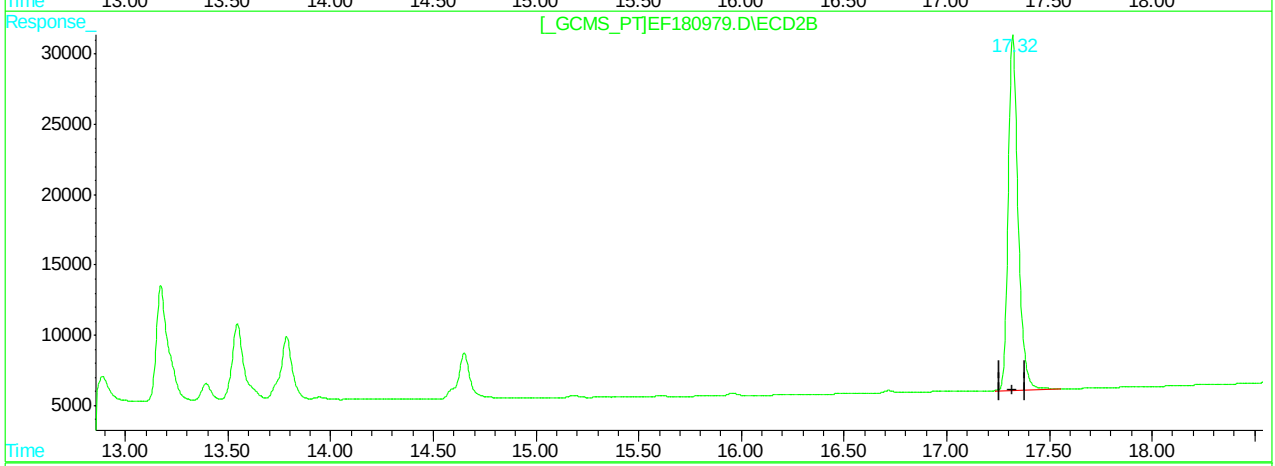
11.6.41.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 38.293PPB m

response 697471

(51) Decachlorobiphenyl #2 (S)

17.32min 38.525PPB m

response 844886

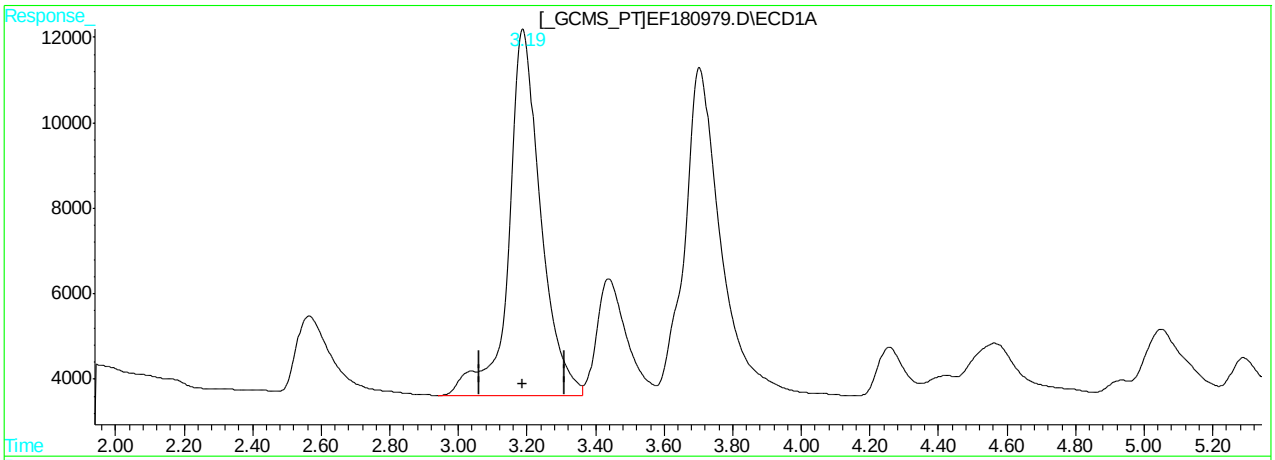
(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:46:51 2018 GCEF

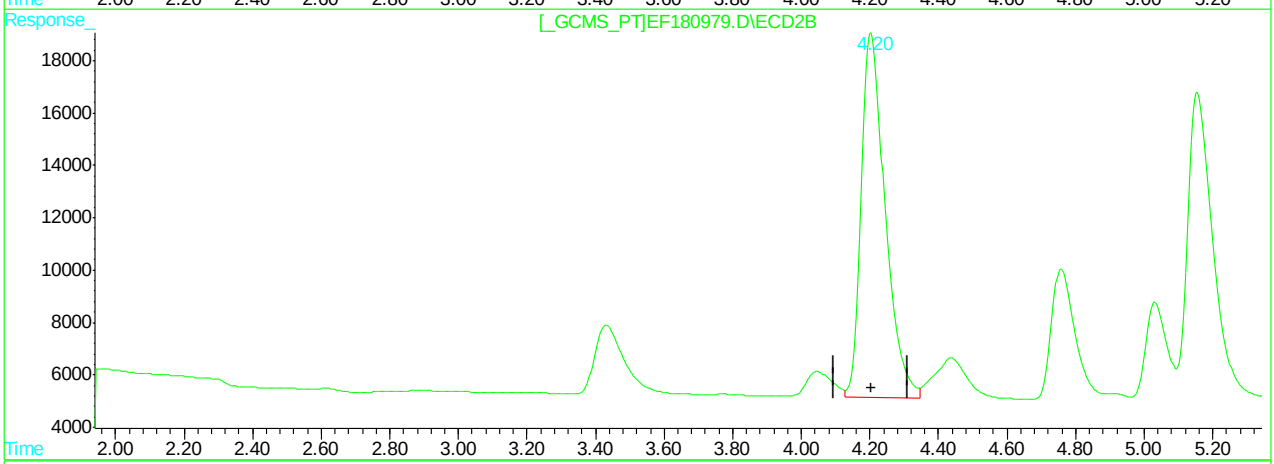
11.6.41.7 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.19min 46.359PPB

response 550807

(1) Tetrachloro-m-xylene #2 (S)

4.20min 42.859PPB

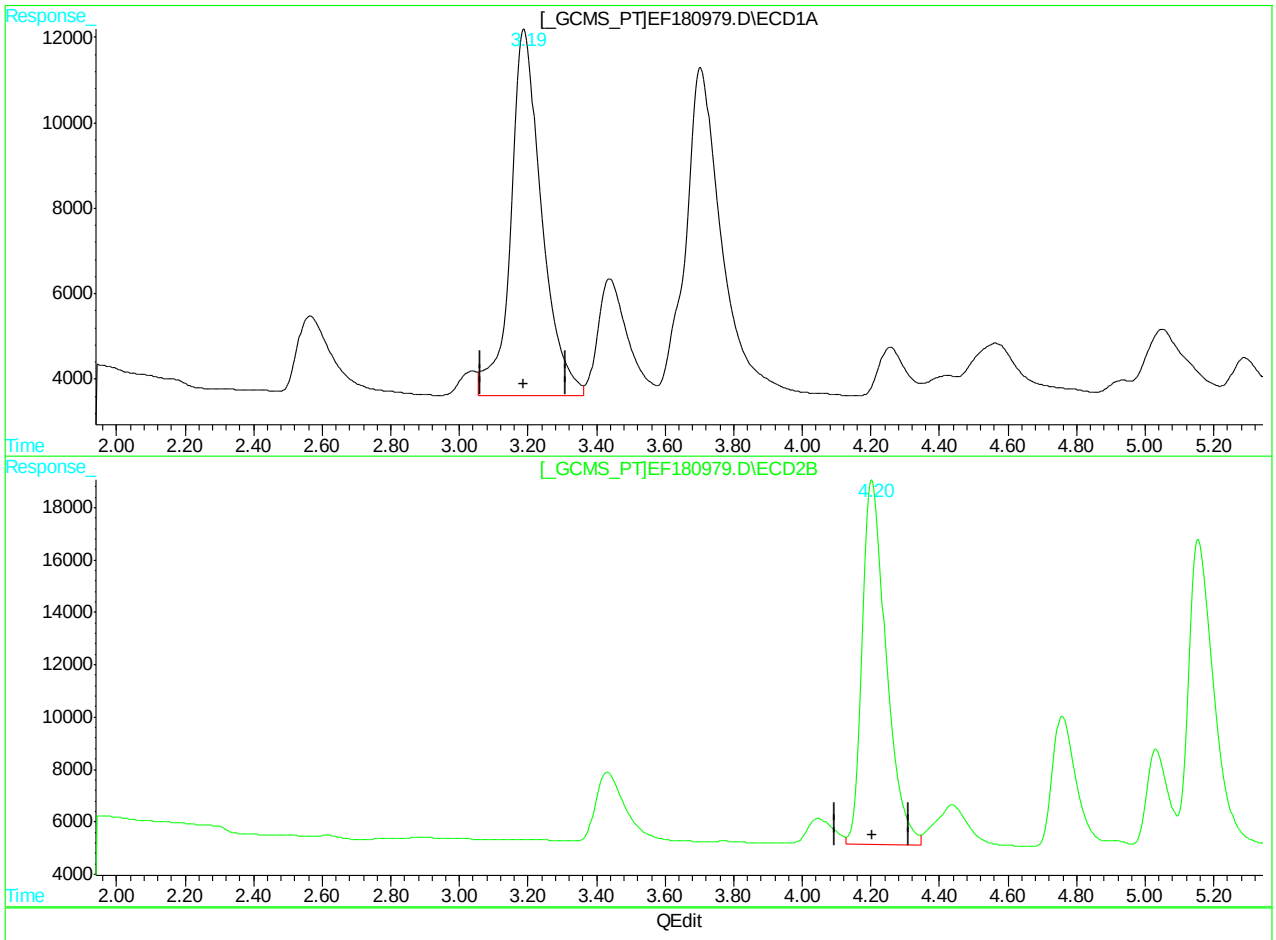
response 669180

(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:47:01 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180979.D\ECD2B.CH
Acq On : 19 Mar 2018 7:54 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:42:24 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 44.780PPB m

response 532043

(1) Tetrachloro-m-xylene #2 (S)

4.20min 42.859PPB

response 669180

(+) = Expected Retention Time
EF180979.D PCB6195.M Tue Mar 20 14:47:08 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:51 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.19	4.20	539539	720702	45.411m	46.159
	Spiked Amount 40.000			Recovery	=	113.53%	115.40%
51)	S Decachlorobiphen	14.18	17.32	746178	905635	40.967m	41.295m
	Spiked Amount 40.000			Recovery	=	102.42%	103.24%
	Target Compounds						
7)	AR1232-A	3.70	5.15	404407	483417	915.190m	985.815
8)	AR1232-B	4.25	5.98	264446	375015	921.228	964.740
9)	AR1232-C	5.04	6.93	578429	768128	912.924	976.718
10)	AR1232-D	5.28	7.22	221540	331656	938.869	983.439
11)	AR1232-E	6.02	8.24	206412	212228	933.193	963.072
31)	AR1262-A	9.05	11.51	755327	890638	949.101	963.837
32)	AR1262-B	9.90	12.54	1089935	1222039	955.545	965.090
33)	AR1262-C	10.43	13.22	837822	1046418	954.211	967.728
34)	AR1262-D	11.11	13.79	1999509	2191429	914.155	946.726
35)	AR1262-E	11.81	14.61	2424270	2883888	911.677m	935.870m

11.6.42 11

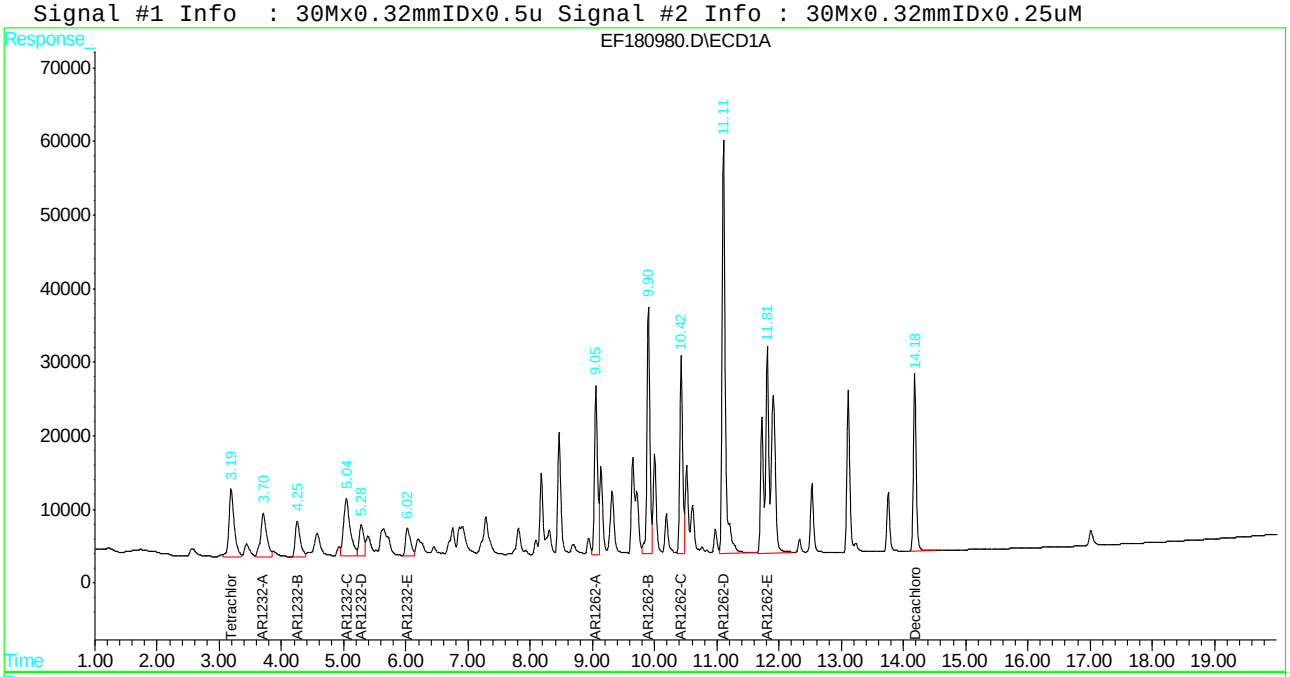
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180980.D PCB6195.M Tue Mar 20 14:52:08 2018 GCEF Page 1

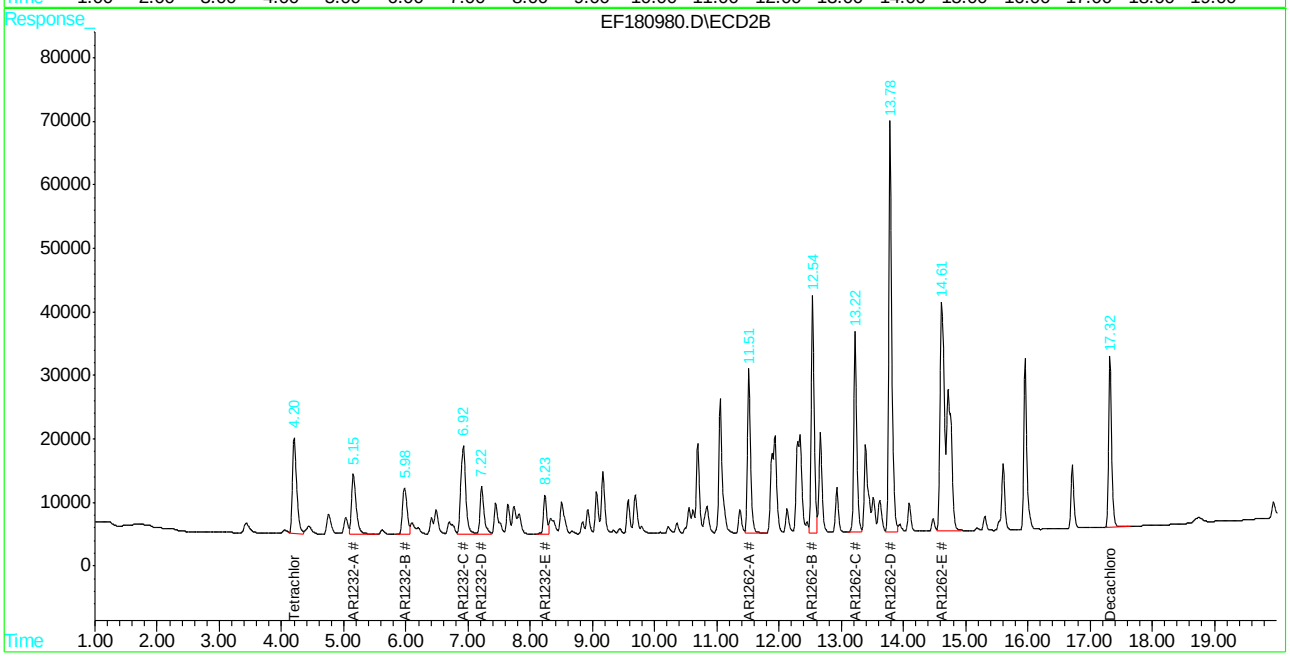
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:51 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62879

Manual Integration Approval Summary

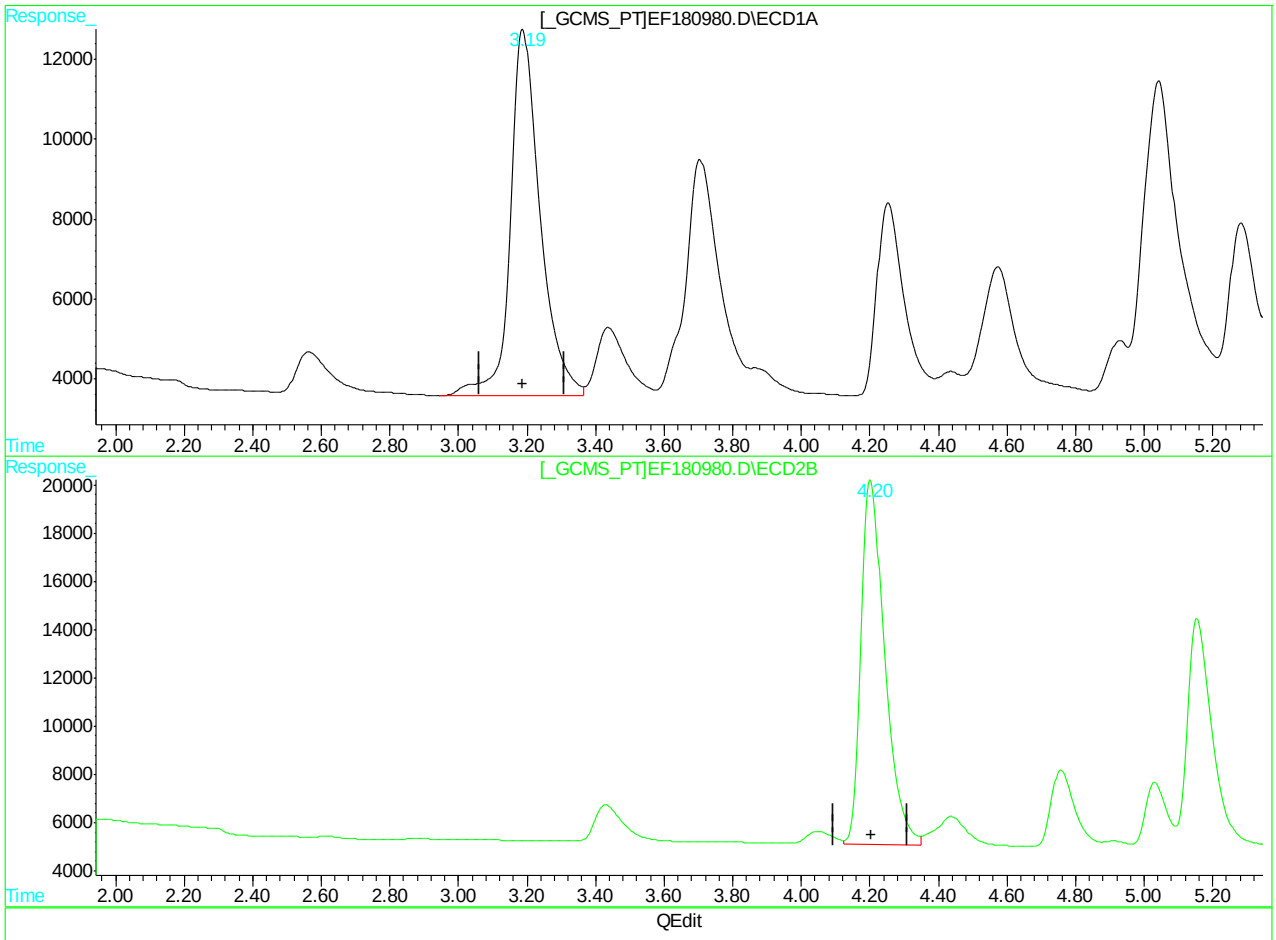
Sample Number: GEF6195-IC6195
Lab FileID: EF180980.D
Injection Time: 03/19/18 20:19
Method: SW846 8082A
Analyst approved: 03/20/18 15:40 Tianwei Ruan
Supervisor approved: 03/21/18 11:23 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.19	Poorly defined baseline
AR1232-A		1	3.70	Split peak
AR1262-E		1	11.81	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
AR1262-E		2	14.61	Split peak
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 46.119PPB

response 547954

(1) Tetrachloro-m-xylene #2 (S)

4.20min 46.159PPB

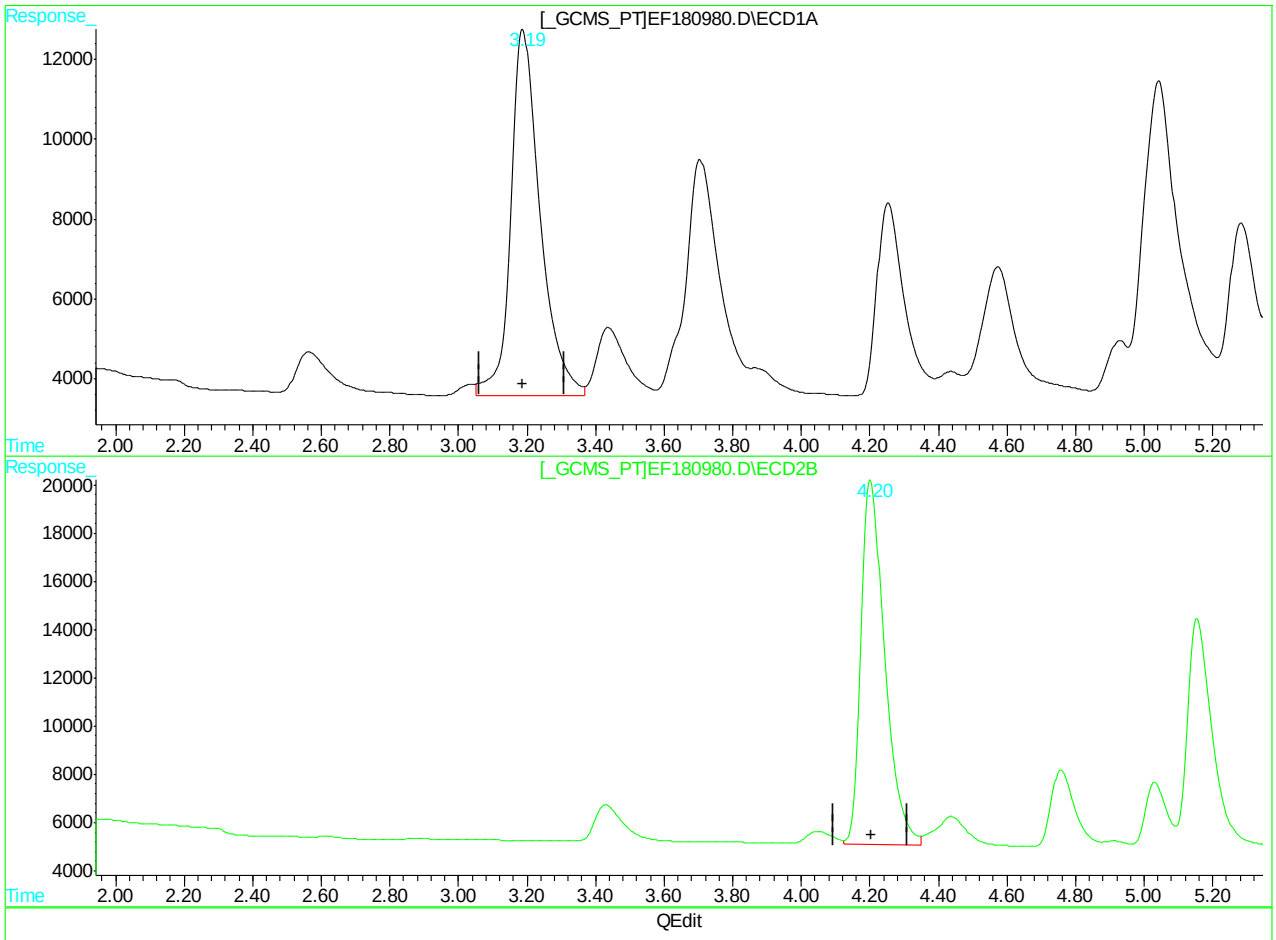
response 720702

(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:50:16 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 45.411PPB m

response 539539

(1) Tetrachloro-m-xylene #2 (S)

4.20min 46.159PPB

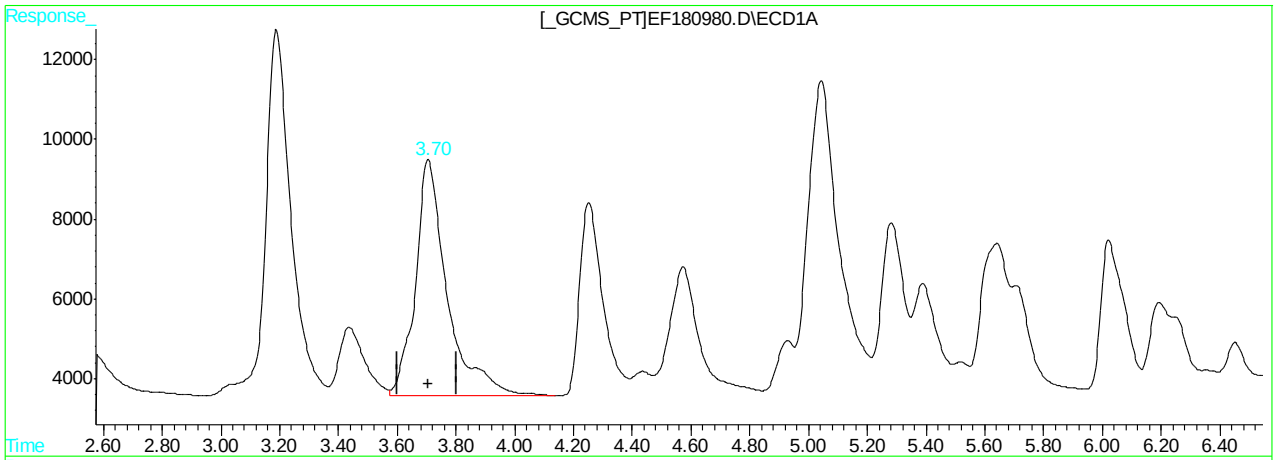
response 720702

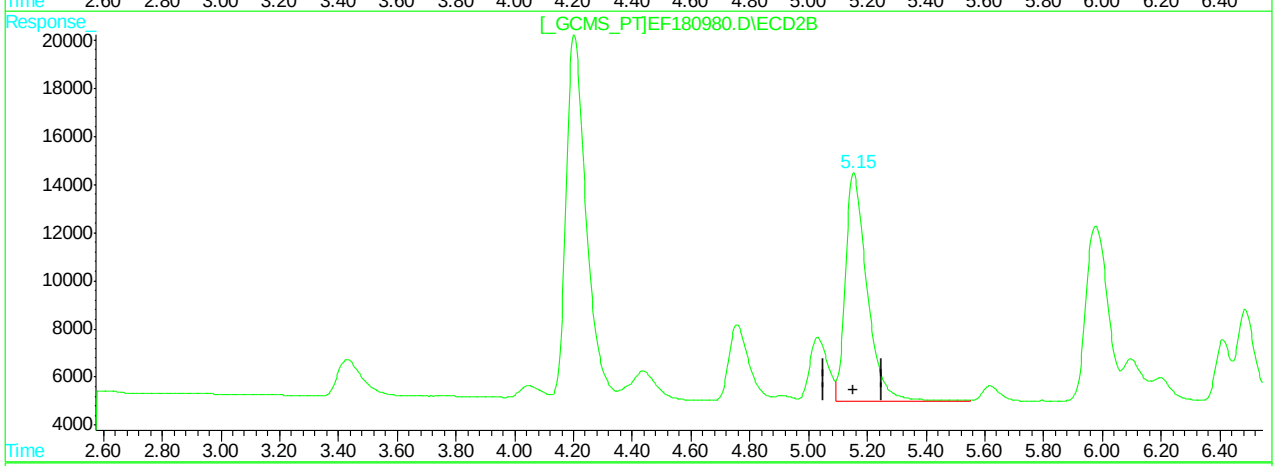
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:50:25 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Single Level Calibration





QEdit

(7) AR1232-A

3.71min 1001.596PPB

response 442589

(7) AR1232-A #2

5.15min 985.815PPB

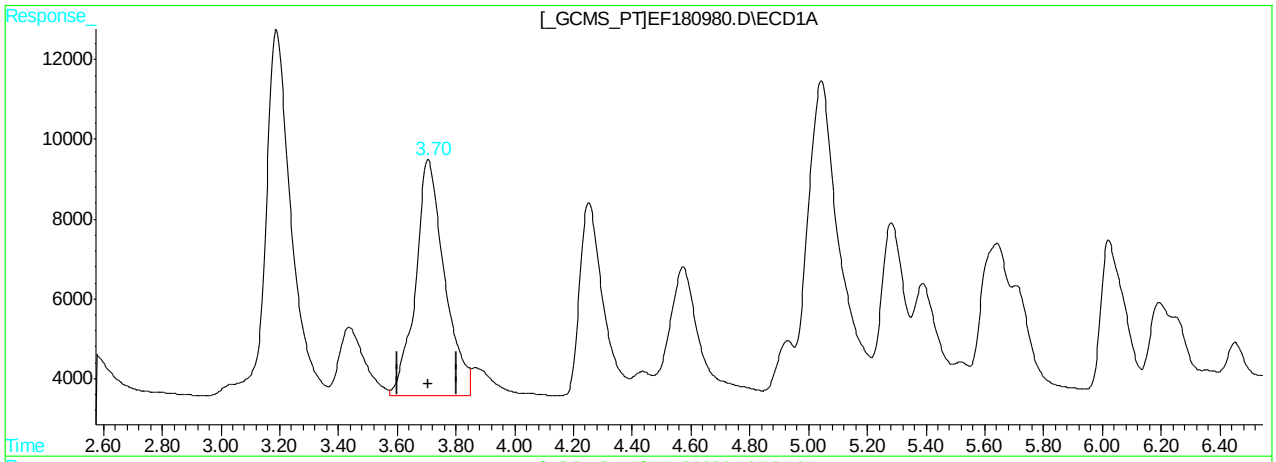
response 483417

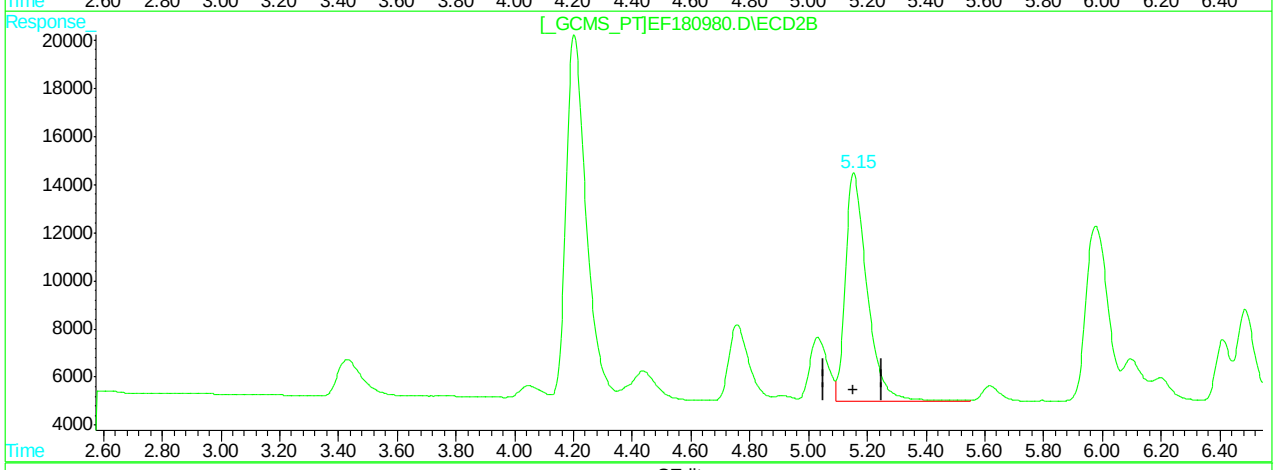
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:50:32 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Single Level Calibration





QEdit

(7) AR1232-A

3.70min 915.190PPB m

response 404407

(7) AR1232-A #2

5.15min 985.815PPB

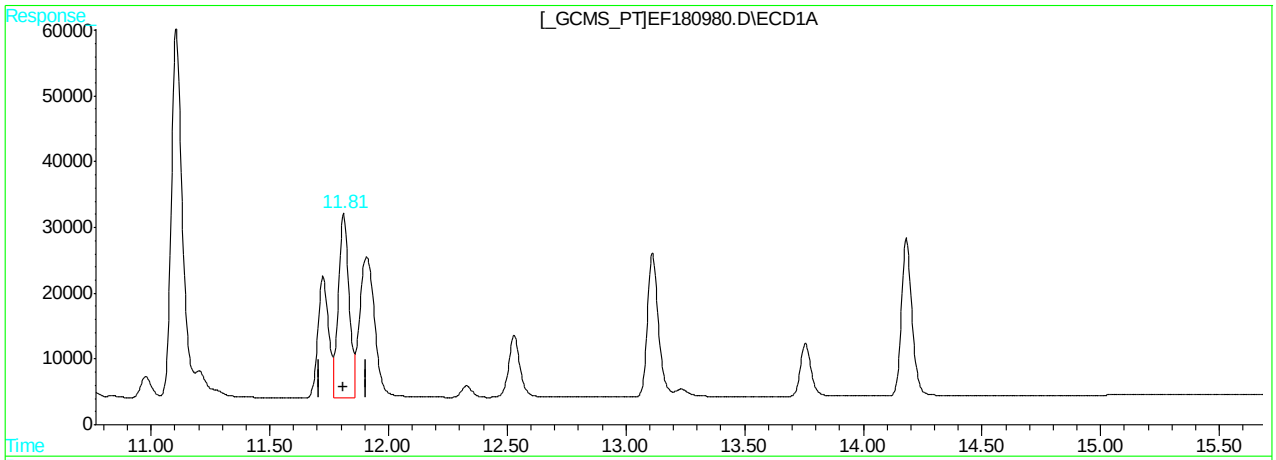
response 483417

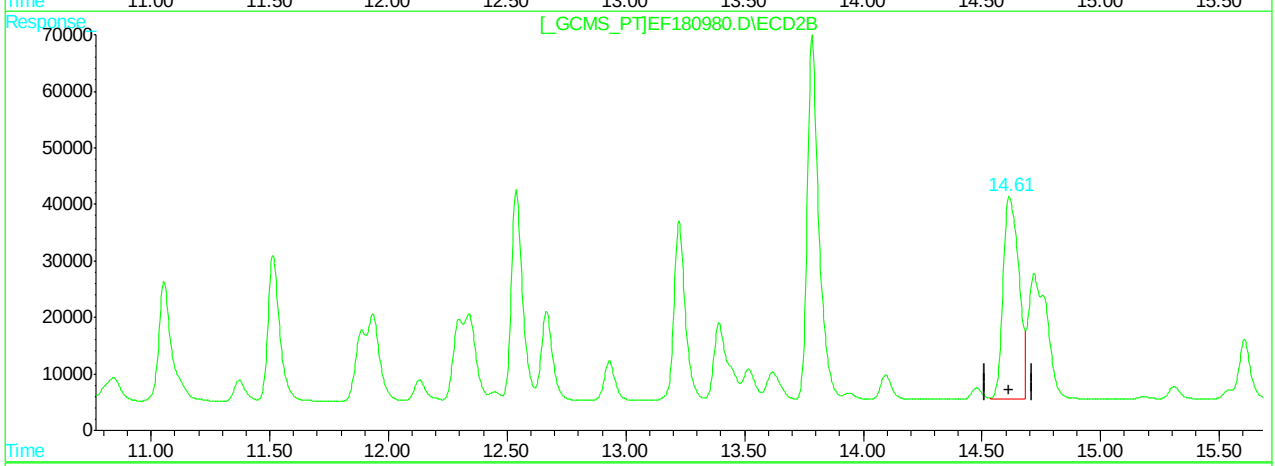
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:50:47 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Single Level Calibration





QEdit

(35) AR1262-E

11.81min 330.522PPB

response 878902

(35) AR1262-E #2

14.62min 538.670PPB

response 1659915

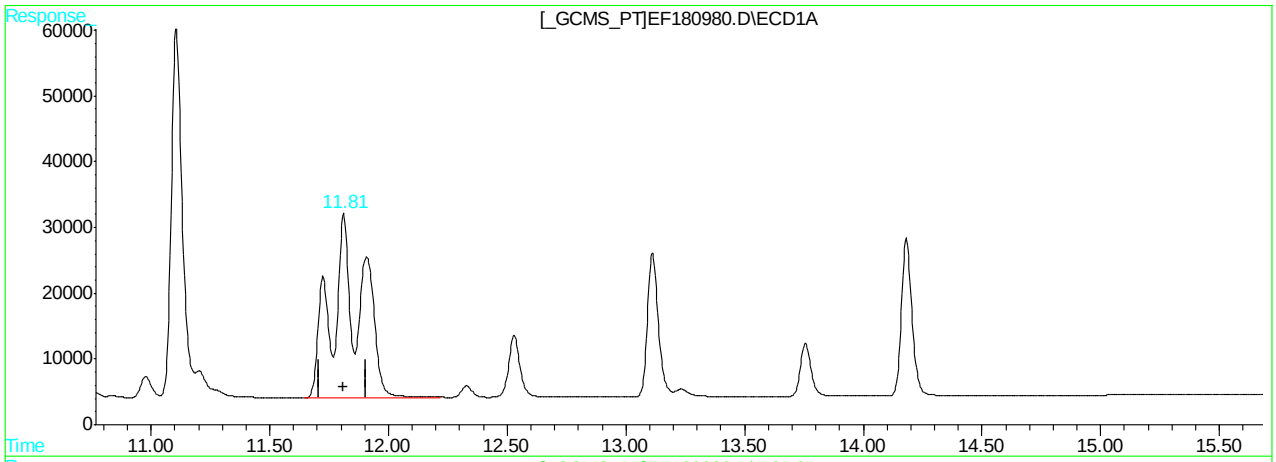
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:51:16 2018 GCEF

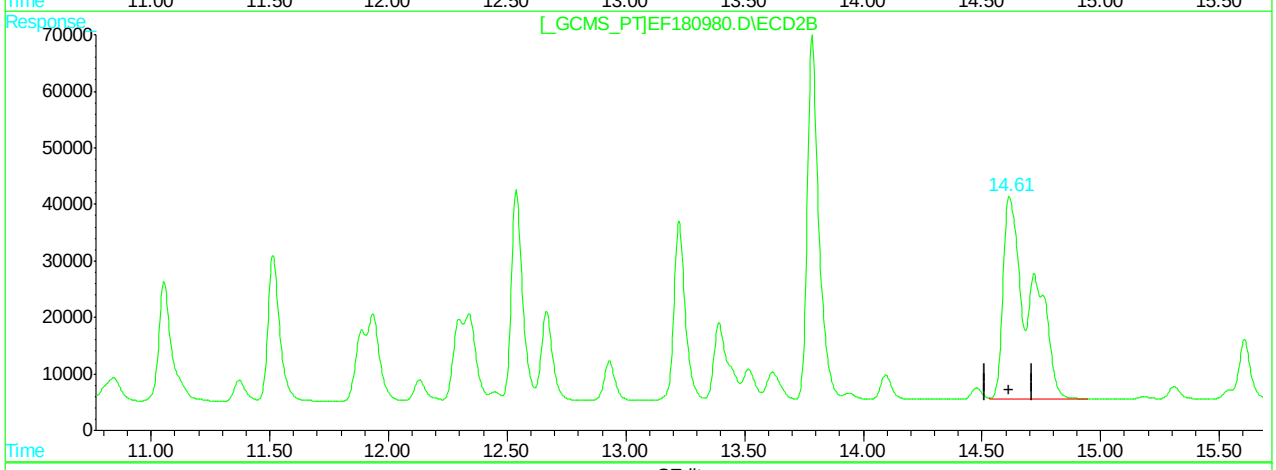
11.6.42.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Single Level Calibration





QEdit

(35) AR1262-E

11.81min 911.677PPB m

response 2424270

(35) AR1262-E #2

14.61min 935.870PPB m

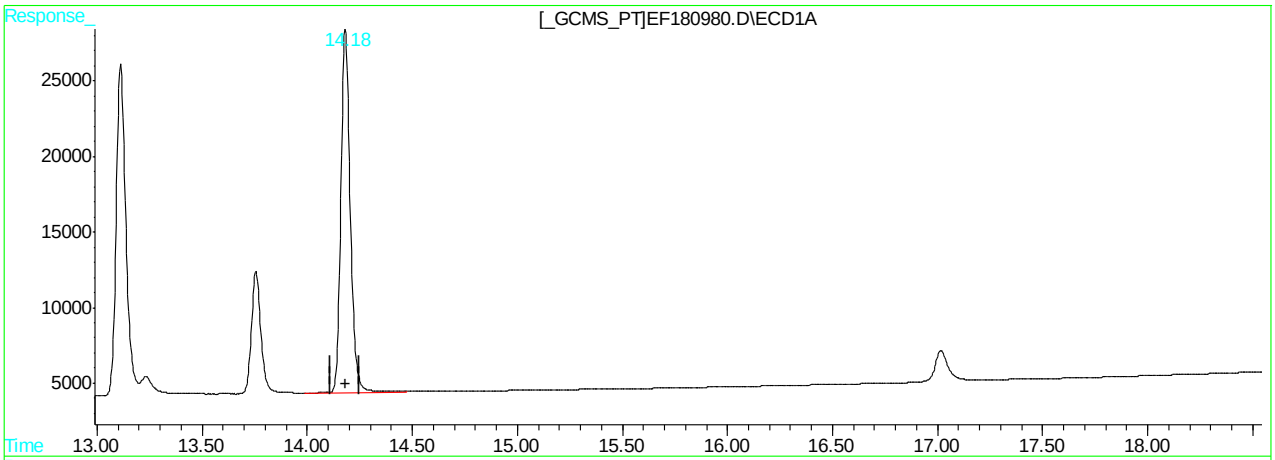
response 2883888

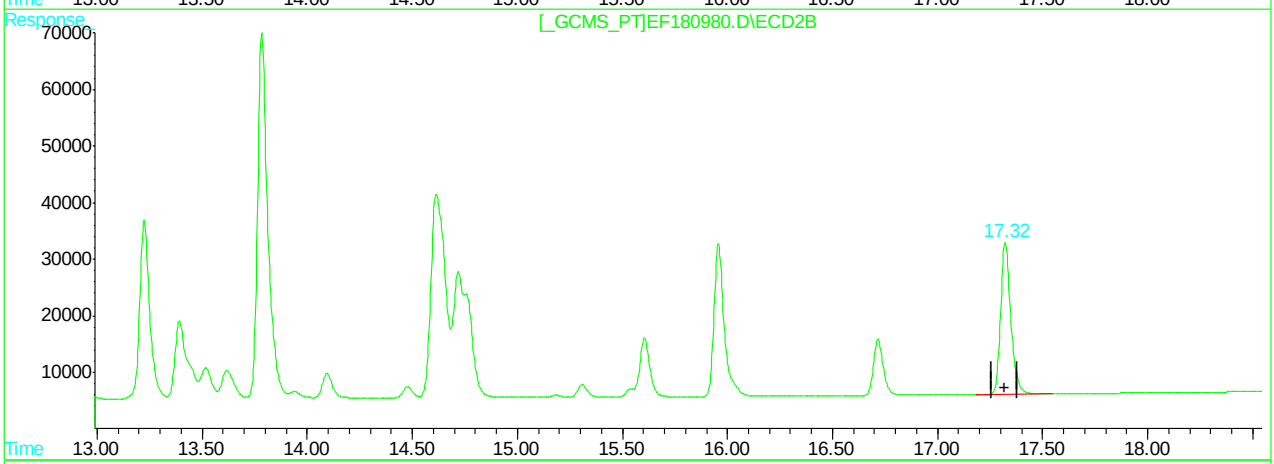
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:51:31 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 40.950PPB

response 745870

(51) Decachlorobiphenyl #2 (S)

17.32min 41.156PPB

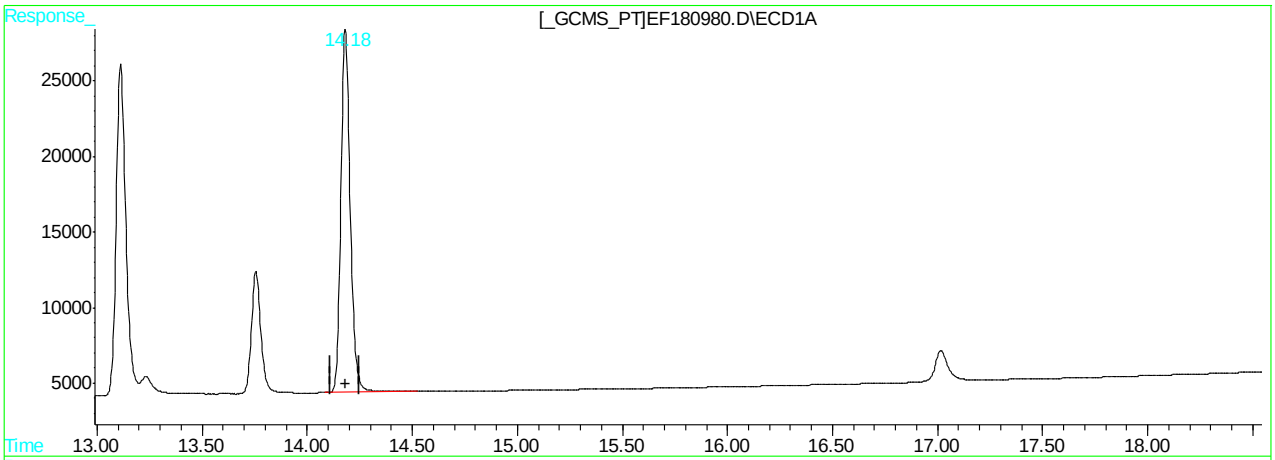
response 902575

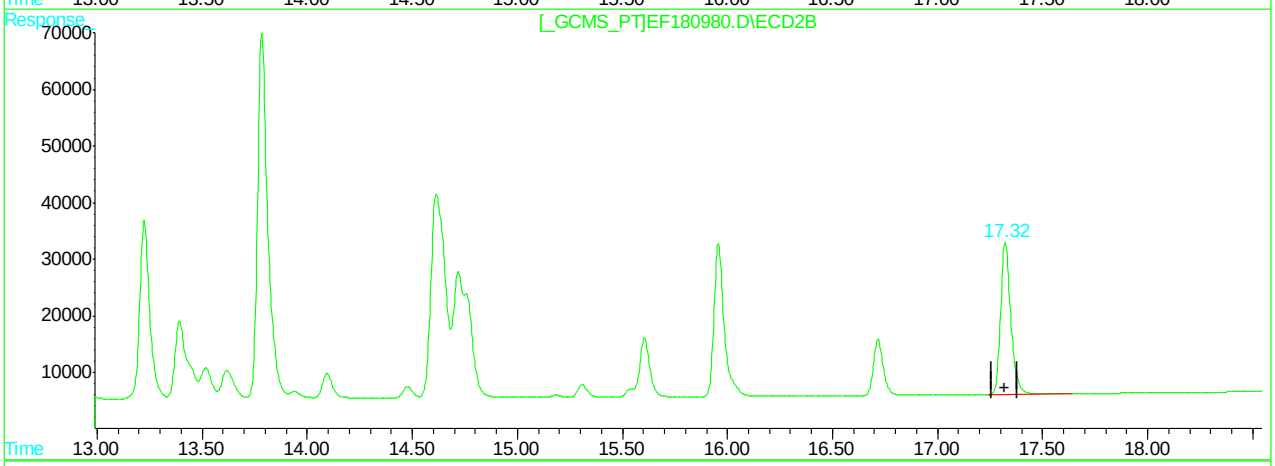
(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:51:40 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180980.D\ECD2B.CH
Acq On : 19 Mar 2018 8:19 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:47:42 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 40.967PPB m

response 746178

(51) Decachlorobiphenyl #2 (S)

17.32min 41.295PPB m

response 905635

(+) = Expected Retention Time
EF180980.D PCB6195.M Tue Mar 20 14:51:54 2018 GCEF

11.6.42.9 11

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180981.D\ECD1A.CH Vial: 25
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180981.D\ECD2B.CH
Acq On : 19 Mar 2018 8:44 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:53 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:52:22 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	497056	700464	41.835	44.863
	Spiked Amount 40.000			Recovery =		104.59%	112.16%
51) S	Decachlorobiphen	14.18	17.32	1772346	2122577	97.307	96.786
	Spiked Amount 40.000			Recovery =		243.27%	241.96%
	Target Compounds						
12)	AR1242-A	4.25	5.98	467930	680960	912.571	953.947
13)	AR1242-B	5.04	6.93	1036965	1341631	902.510	973.280
14)	AR1242-C	5.28	7.22	403731	586418	917.992	981.248
15)	AR1242-D	6.02	8.24	422603	414642	919.065	971.472
16)	AR1242-E	6.91	9.17	505265	551061	934.686	977.006
36)	AR1268-A	11.81	14.61	2189015	2553354	952.451	937.820
37)	AR1268-B	11.90	14.72	2277820	2735608	867.554	896.218
38)	AR1268-C	12.33	15.31	1827935	2210113	907.361	925.978
39)	AR1268-D	13.11	15.96	798448	962393	903.739	905.471
40)	AR1268-E	13.75	16.72	4914889	6029381	865.858	892.710

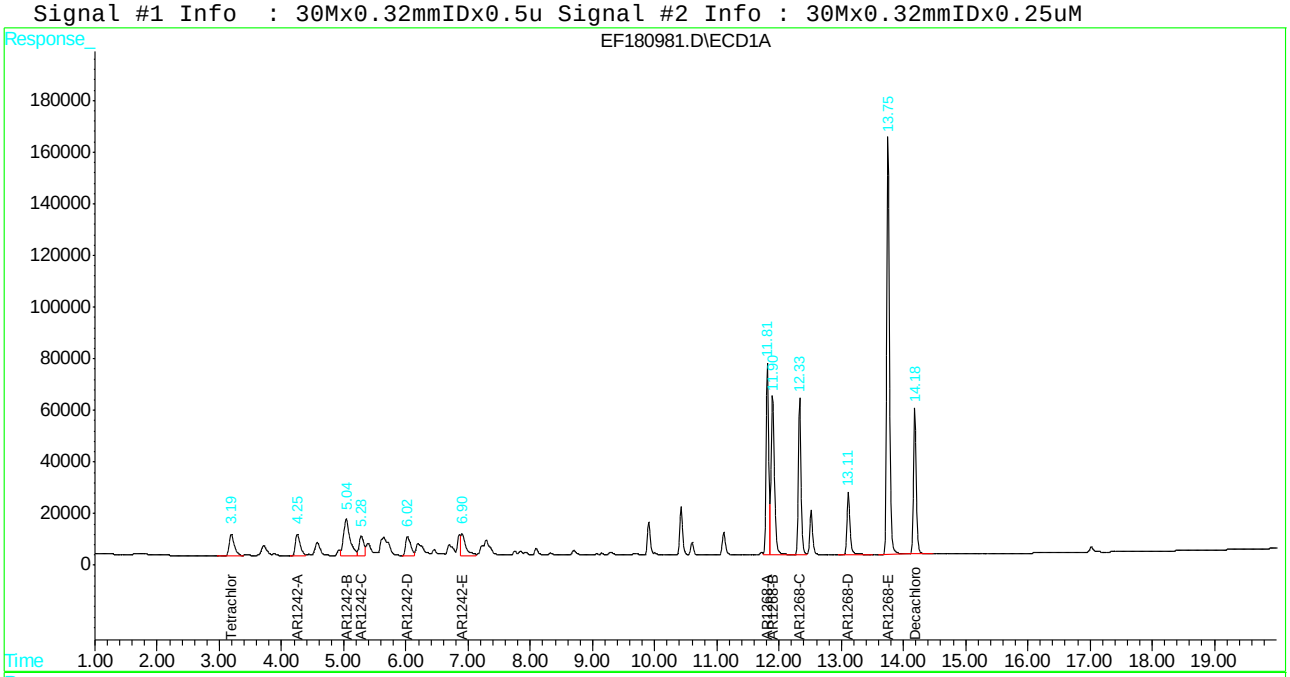
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180981.D PCB6195.M Tue Mar 20 14:55:30 2018 GCEF Page 1

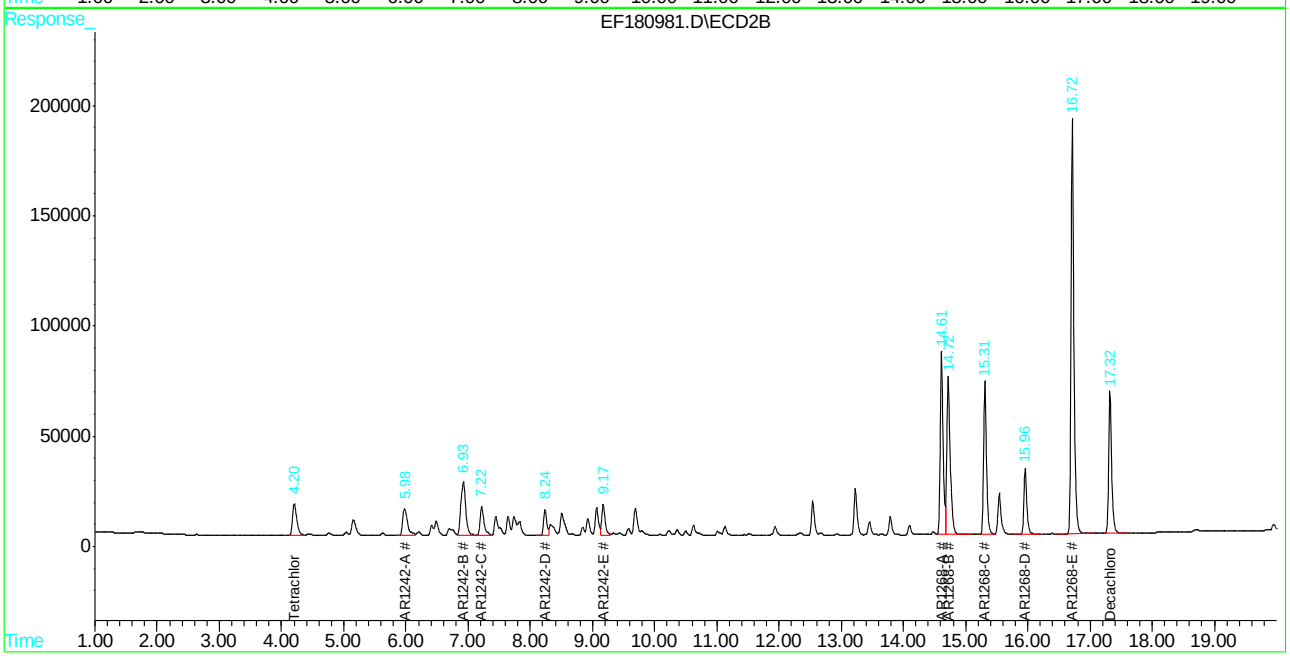
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180981.D\ECD1A.CH Vial: 25
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180981.D\ECD2B.CH
Acq On : 19 Mar 2018 8:44 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:53 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:52:22 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:58 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.21	482241	709989	40.588	45.473
	Spiked Amount 40.000			Recovery =		101.47%	113.68%
51) S	Decachlorobiphen	14.18	17.32	731654	888784	40.170m	40.527m
	Spiked Amount 40.000			Recovery =		100.43%	101.32%
	Target Compounds						
17)	AR1248-A	4.25	5.98	245800	348145	906.926	952.945
18)	AR1248-B	5.05	6.92	698707	881505	899.923	960.349
19)	AR1248-C	5.64	7.64	689945	504455	967.935m	952.575
20)	AR1248-D	6.02	8.24	624750	609081	911.805	951.339
21)	AR1248-E	6.19	8.51	538162	675931	907.594m	965.094
22)	AR1248-F	6.90	9.17	707574	881937	891.876	973.220
23)	AR1248-G	7.28	9.69	500560	766598	898.305m	973.609

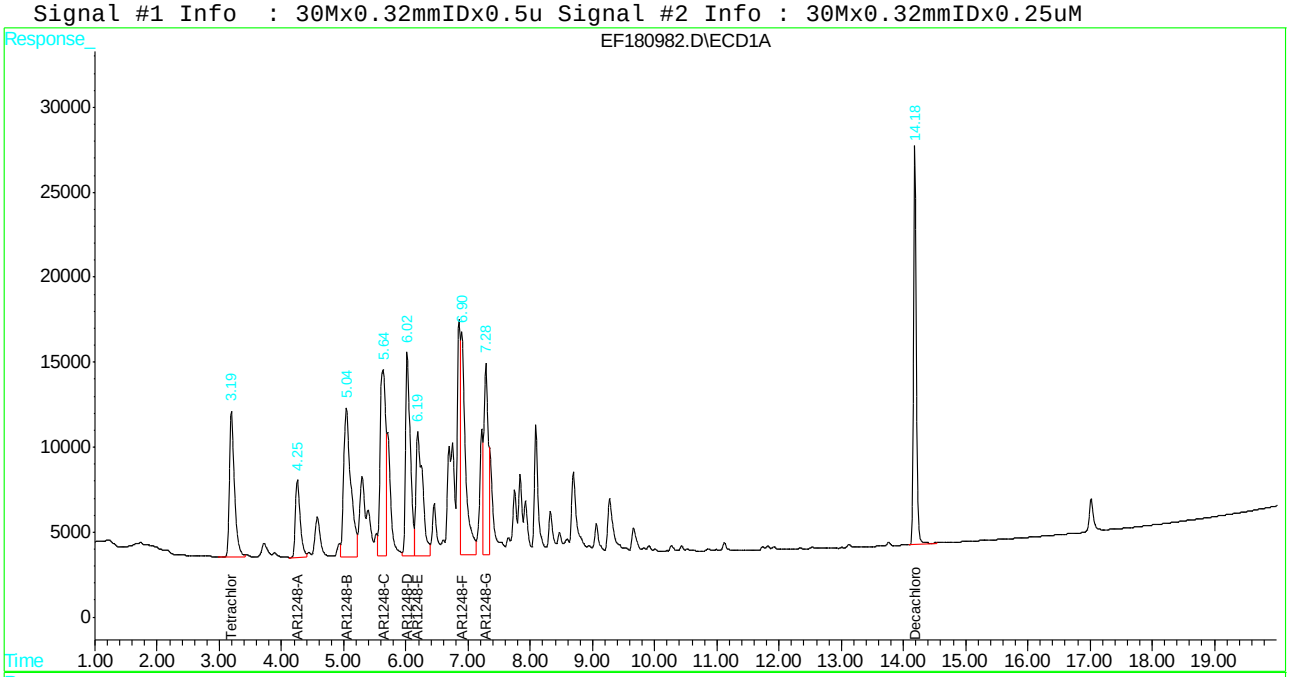
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180982.D PCB6195.M Tue Mar 20 14:58:27 2018 GCEF Page 1

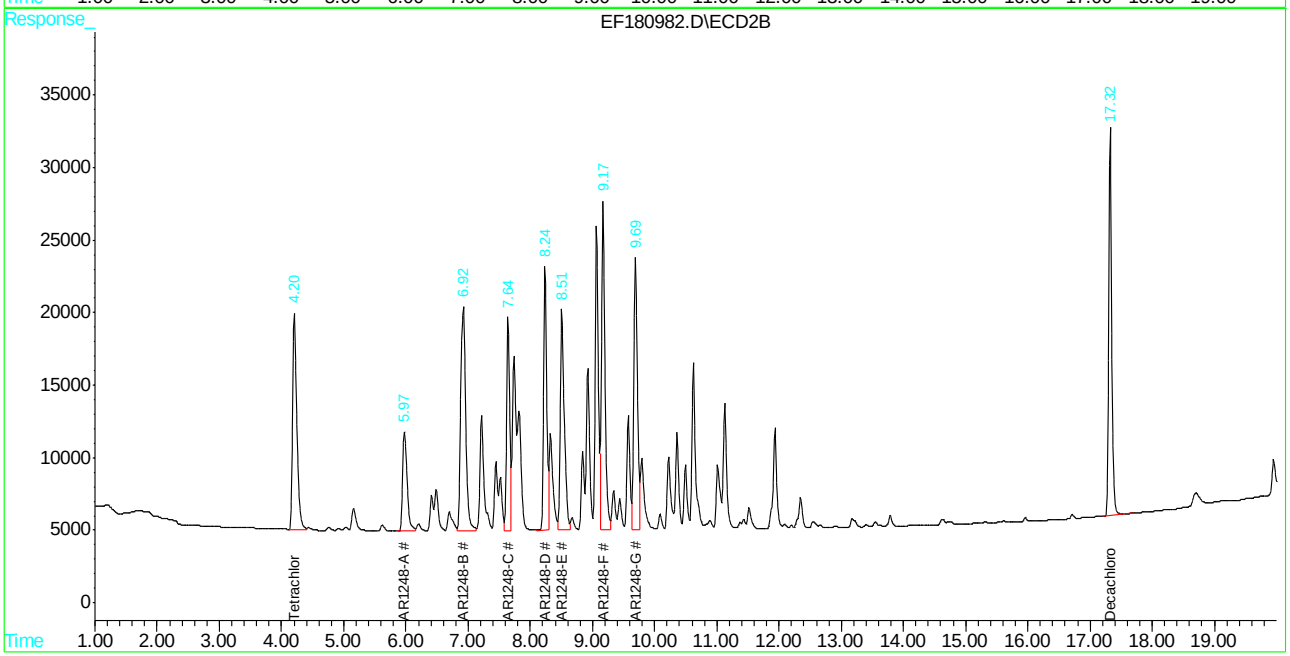
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:58 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

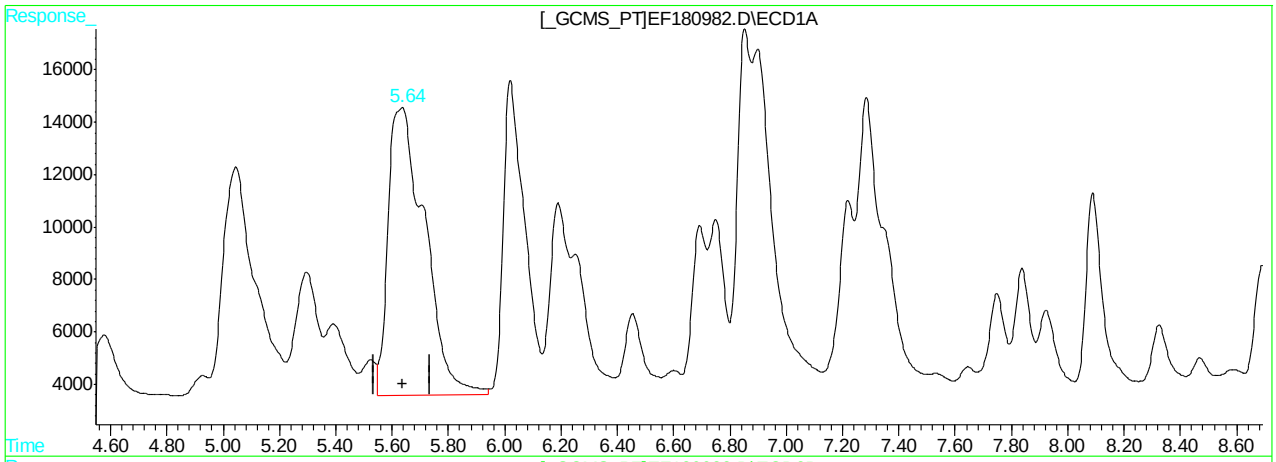
Sample Number:	GEF6195-IC6195	**Method:**	SW846 8082A
Lab FileID:	EF180982.D	**Analyst approved:**	03/20/18 15:40 Tianwei Ruan
Injection Time:	03/19/18 21:09	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

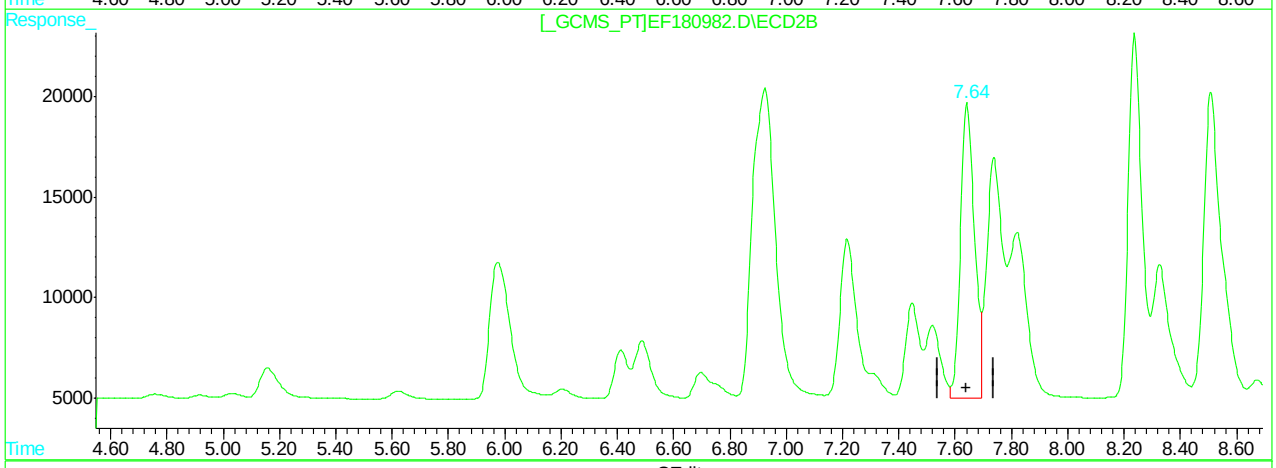
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-C		1	5.64	Split peak
AR1248-E		1	6.19	Split peak
Ar1248-G		1	7.28	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(19) AR1248-C

5.64min 1392.618PPB

response 992659

(19) AR1248-C #2

7.64min 952.575PPB

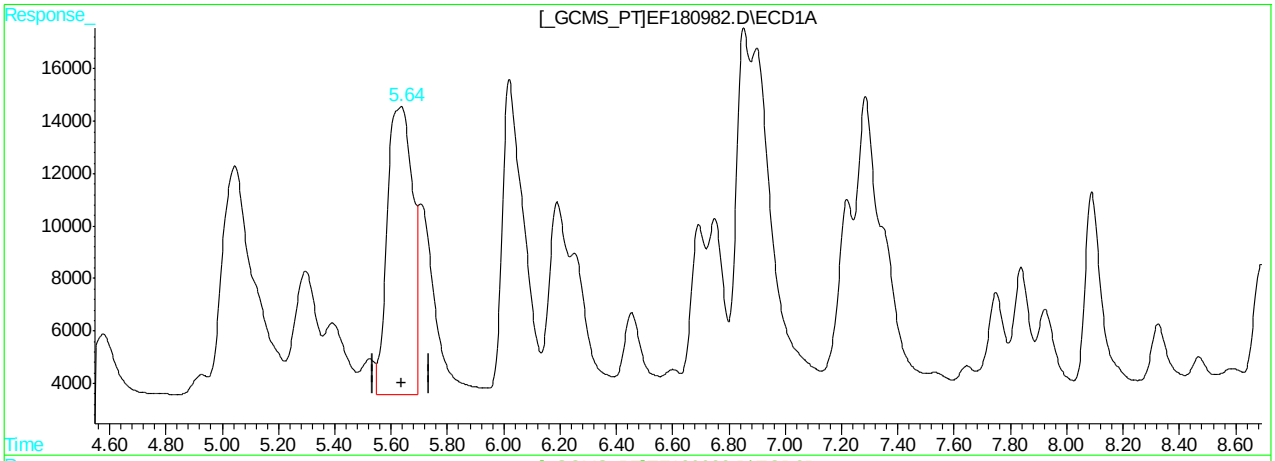
response 504455

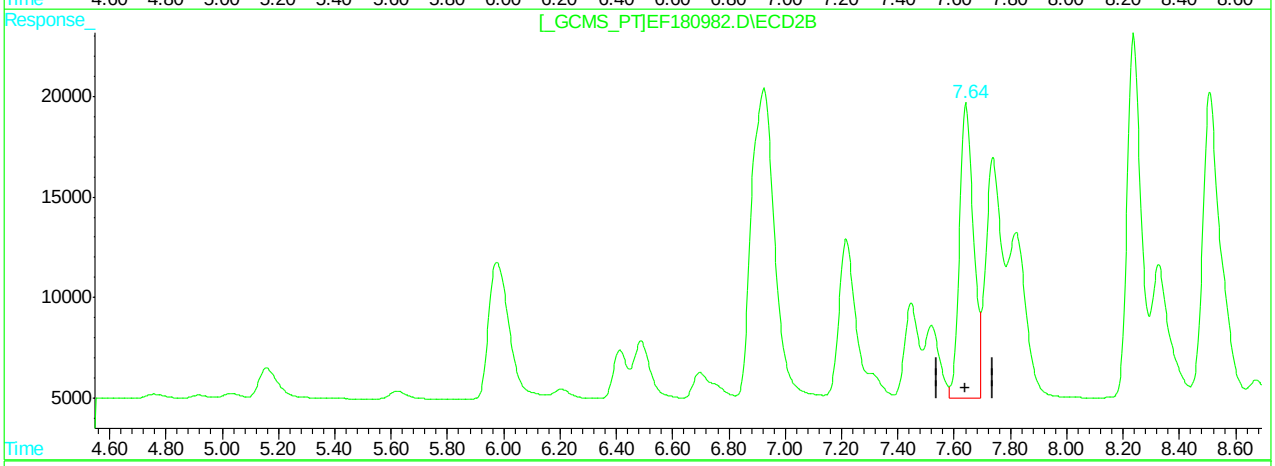
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:56:57 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(19) AR1248-C

5.64min 967.935PPB m

response 689945

(19) AR1248-C #2

7.64min 952.575PPB

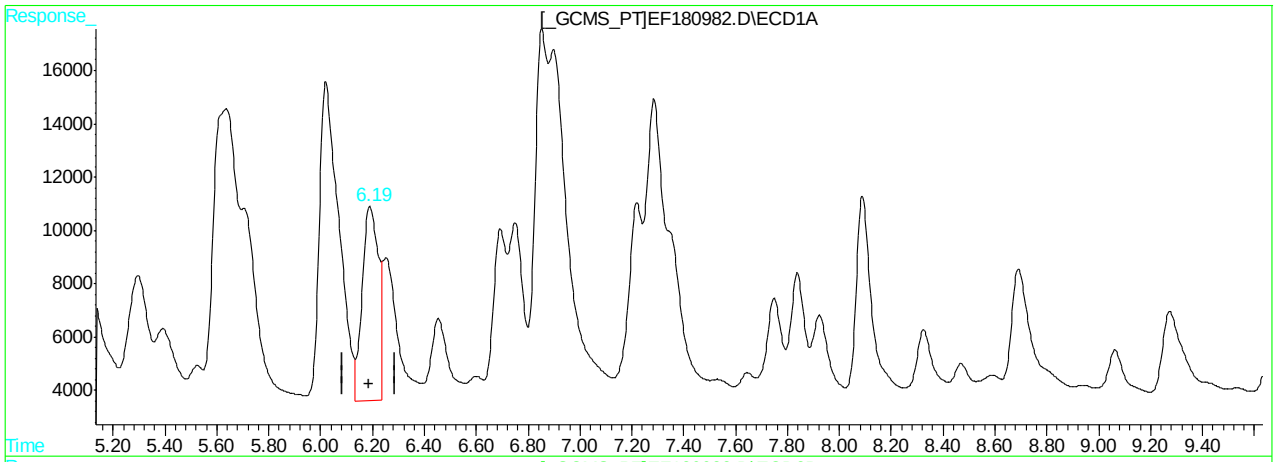
response 504455

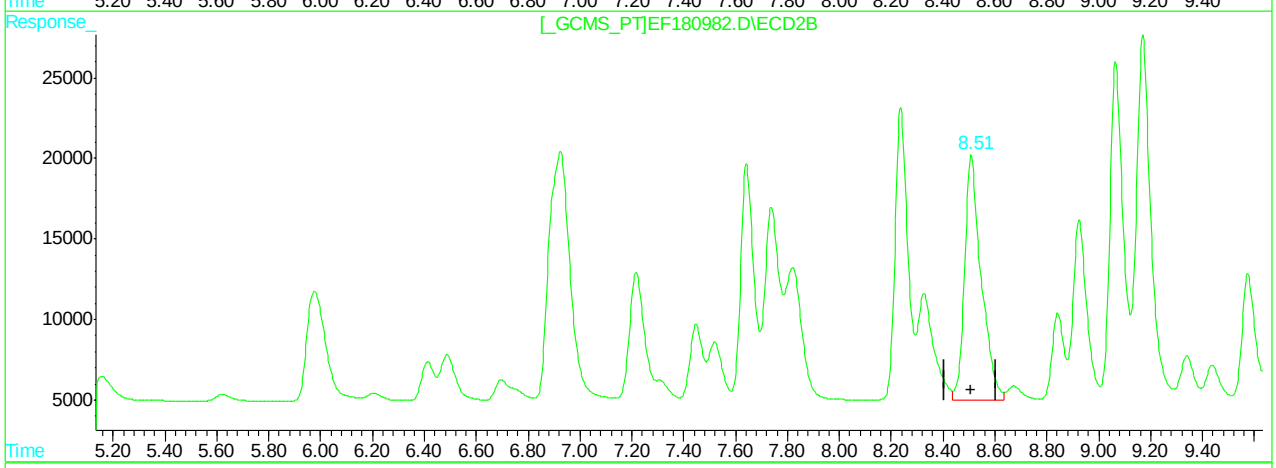
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(21) AR1248-E

6.19min 536.470PPB

response 318102

(21) AR1248-E #2

8.51min 965.094PPB

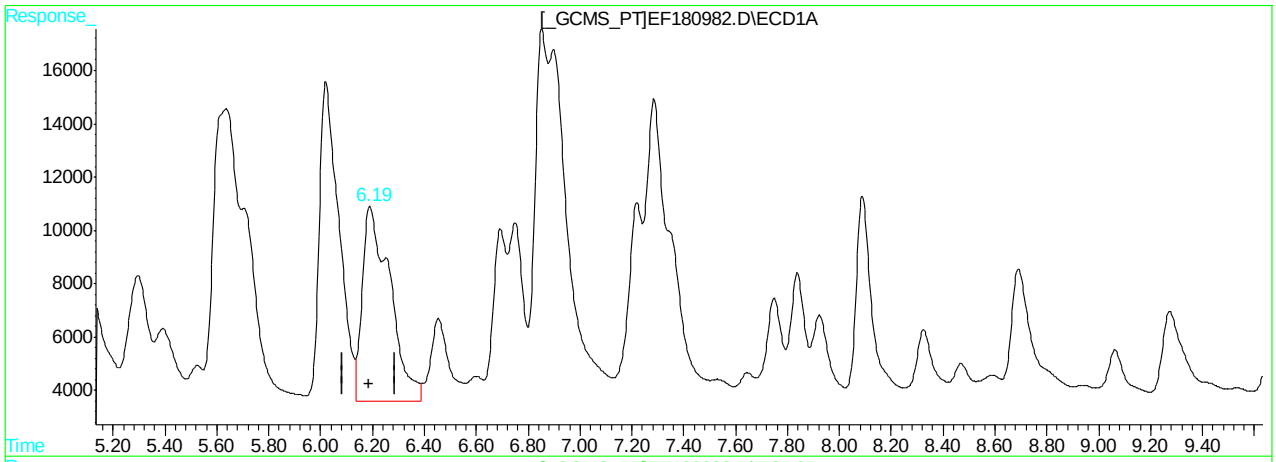
response 675931

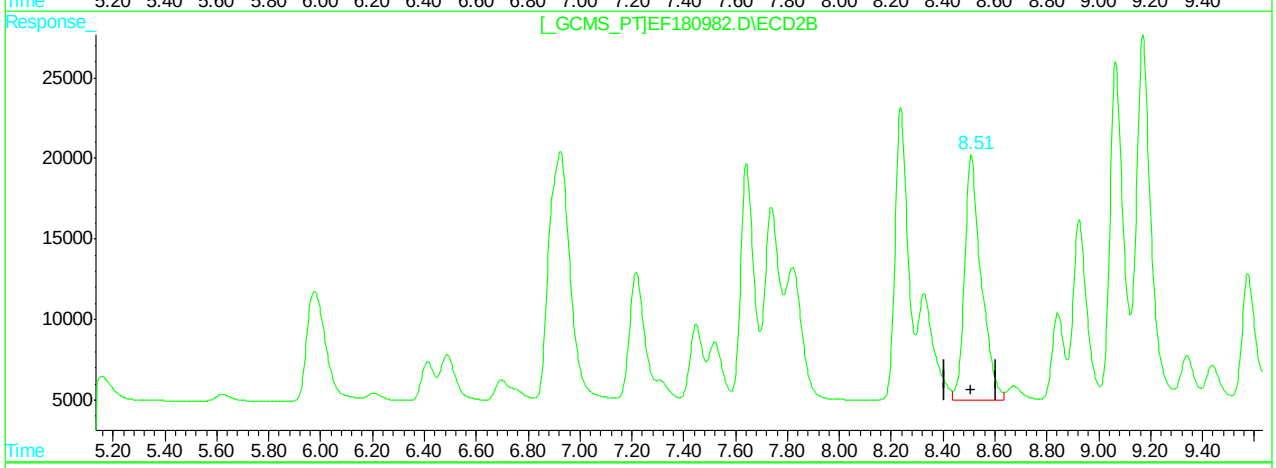
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:20 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(21) AR1248-E

6.19min 907.594PPB m

response 538162

(21) AR1248-E #2

8.51min 965.094PPB

response 675931

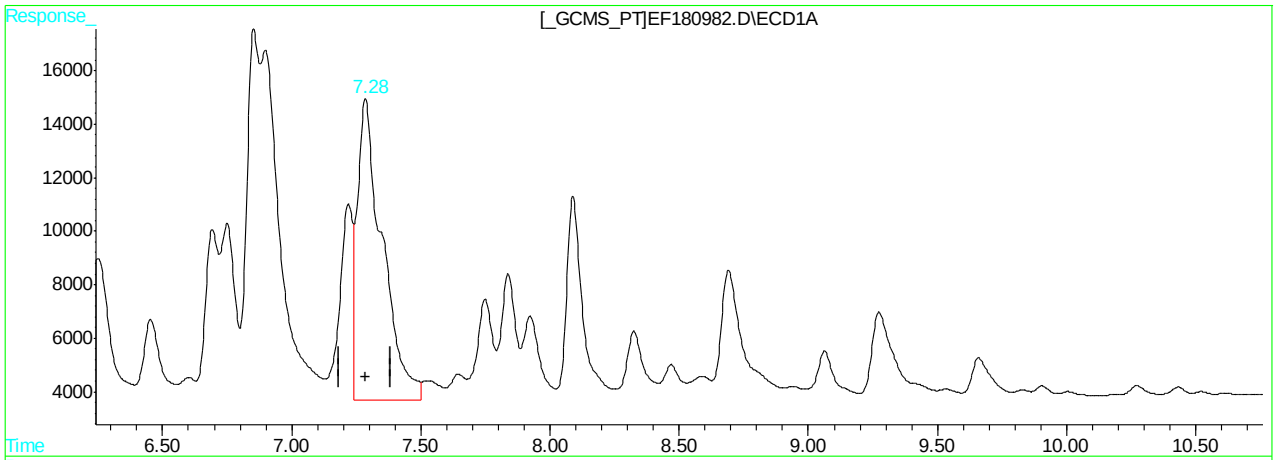
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:32 2018 GCEF

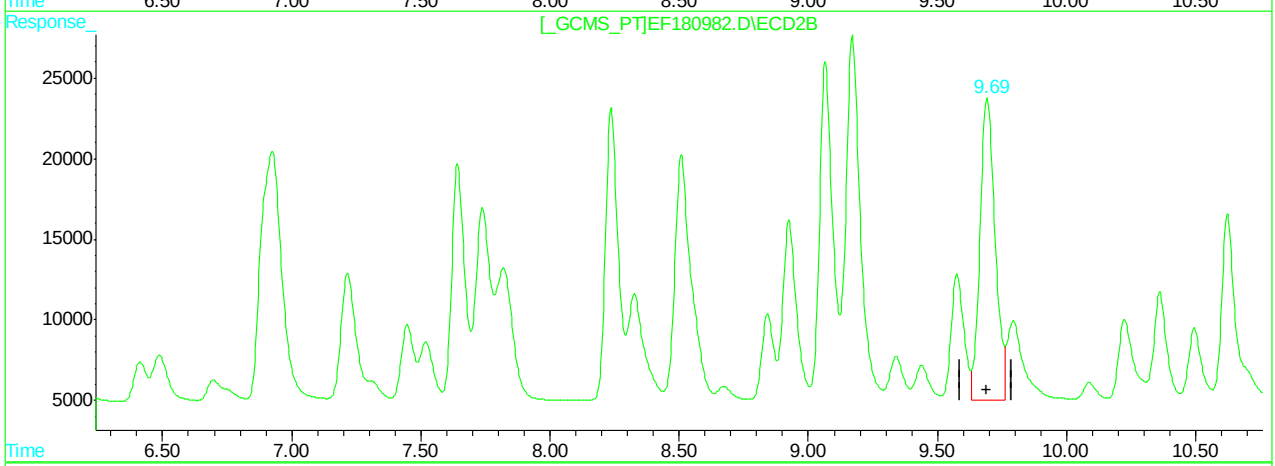
11.6.44.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(23) AR1248-G

7.29min 1357.283PPB

response 756315

(23) AR1248-G #2

9.69min 973.609PPB

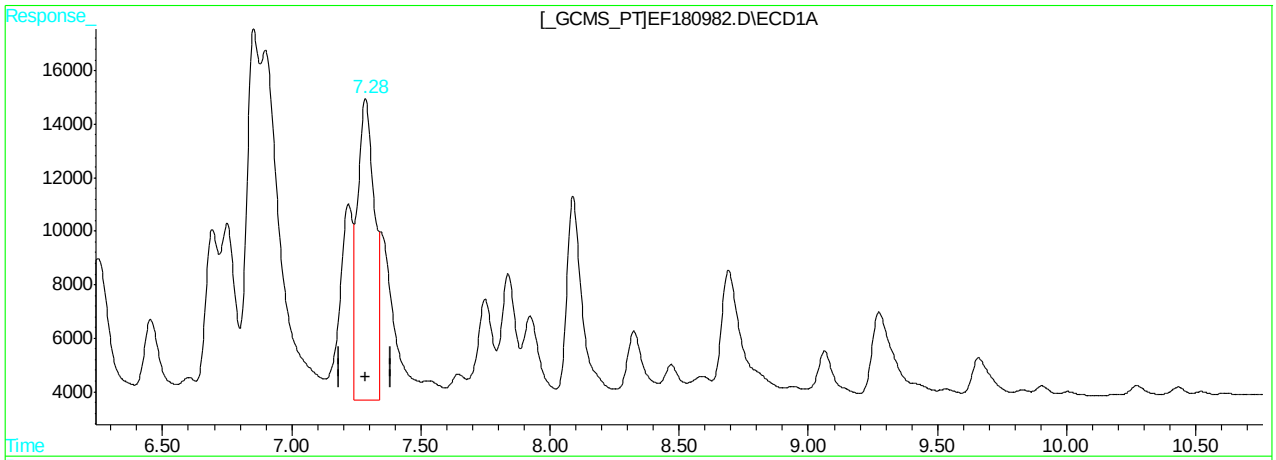
response 766598

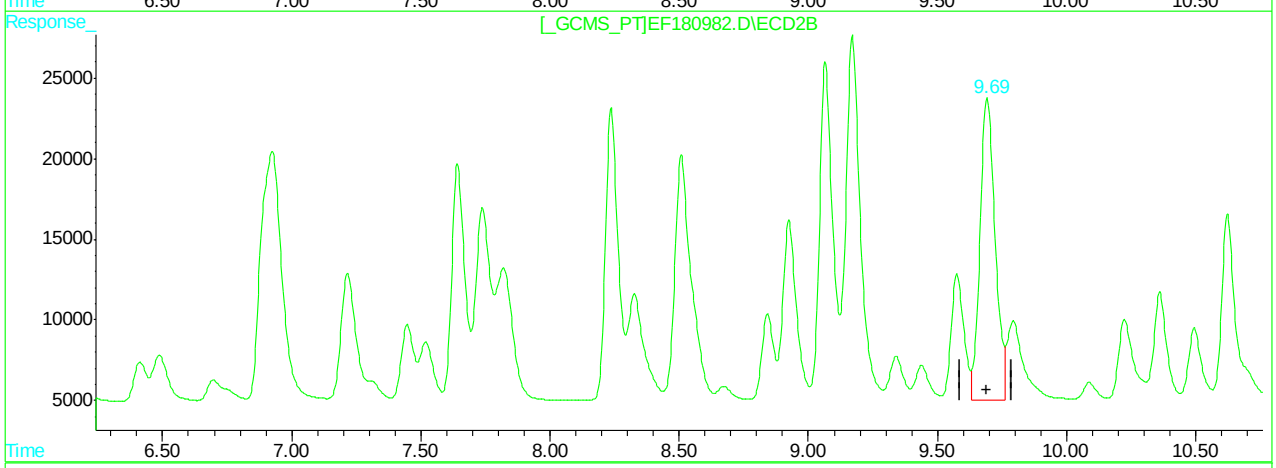
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:39 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Single Level Calibration





QEdit

(23) AR1248-G

7.28min 898.305PPB m

response 500560

(23) AR1248-G #2

9.69min 973.609PPB

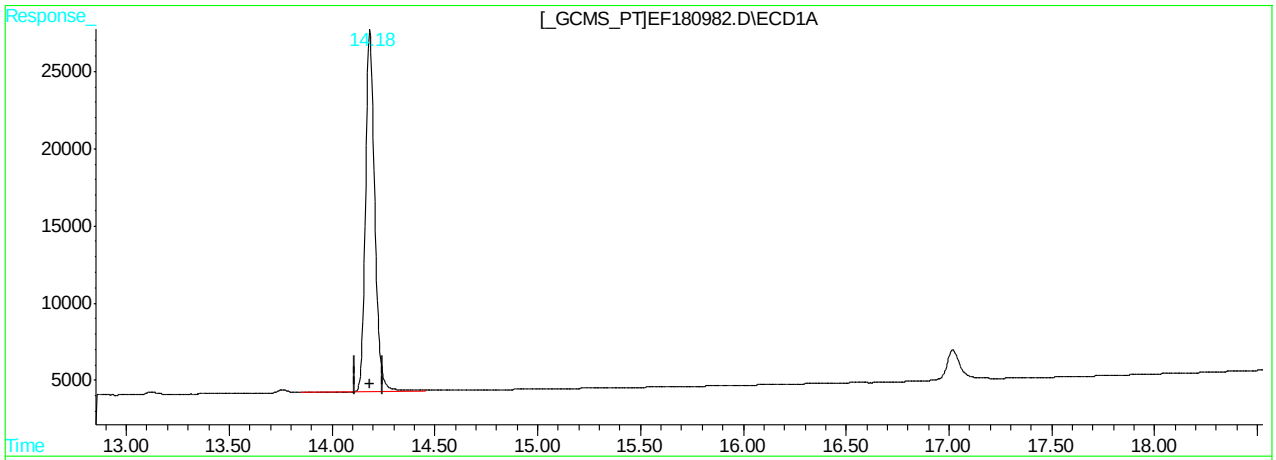
response 766598

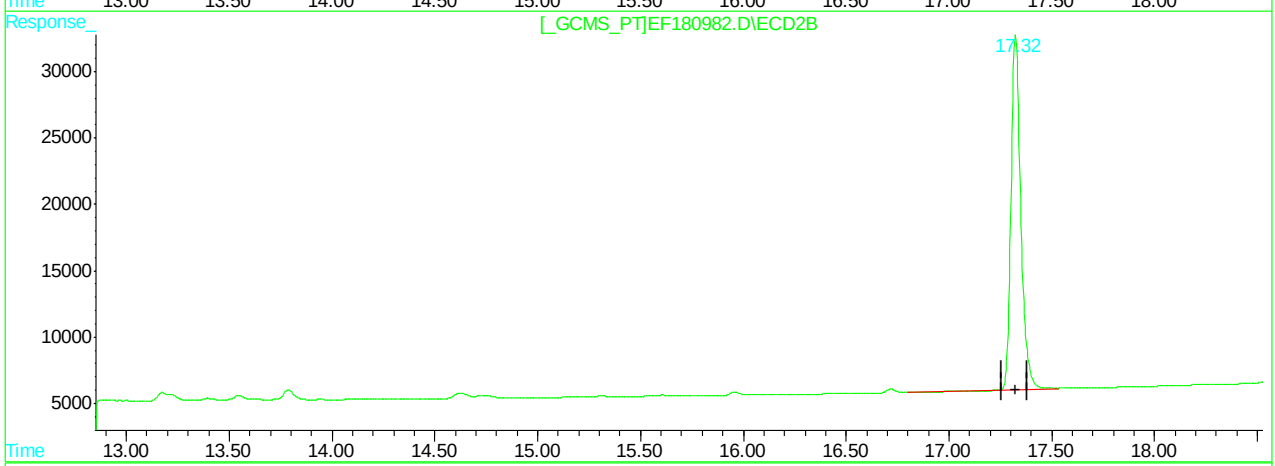
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:52 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 39.917PPB

response 727041

(51) Decachlorobiphenyl #2 (S)

17.32min 40.020PPB

response 877674

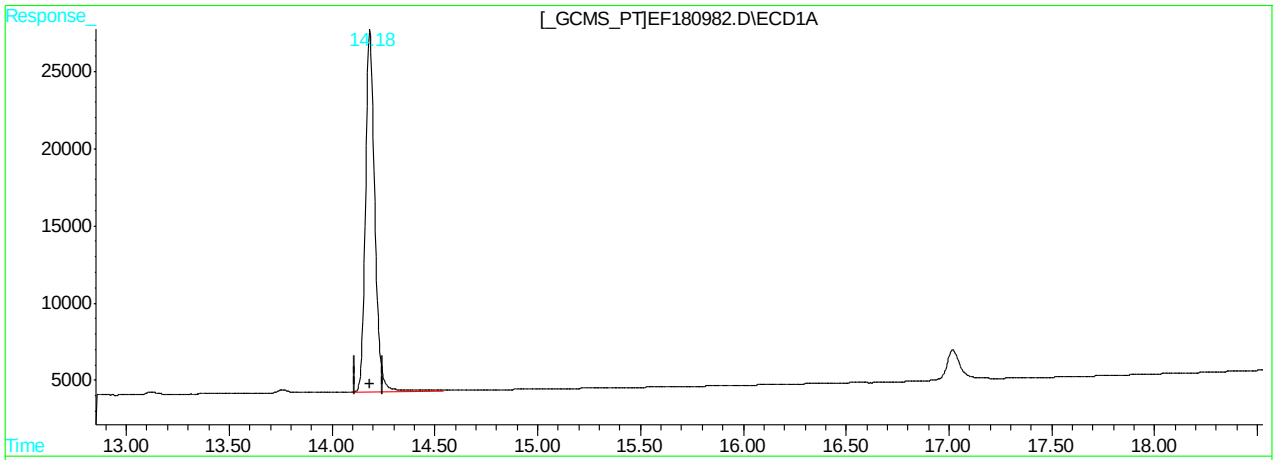
(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:57:59 2018 GCEF

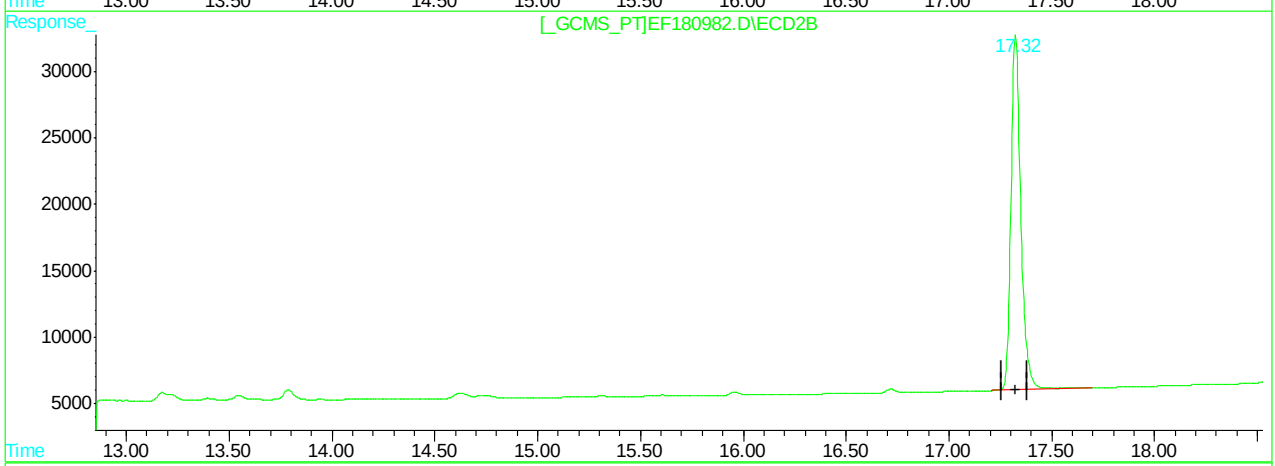
11.6.44.8 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180982.D\ECD2B.CH
Acq On : 19 Mar 2018 9:09 pm Operator: tianweir
Sample : ic6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 14:56 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 14:56:28 2018
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.18min 40.170PPB m

response 731654

(51) Decachlorobiphenyl #2 (S)

17.32min 40.527PPB m

response 888784

(+) = Expected Retention Time
EF180982.D PCB6195.M Tue Mar 20 14:58:17 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	488907	685488	42.290	44.029
	Spiked Amount 40.000			Recovery =		105.73%	110.07%
51) S	Decachlorobiphen	14.18	17.32	654669	795978	38.248	37.916
	Spiked Amount 40.000			Recovery =		95.62%	94.79%
	Target Compounds						
41)	AR1016-A	3.71	5.15	309406	398131	976.619	971.569
42)	AR1016-B	4.25	5.98	561120	806851	1017.595	1001.835
43)	AR1016-C	5.04	6.92	1256818	1604773	1023.741	999.015
44)	AR1016-D	5.28	7.22	489003	701220	1027.065	1020.986
45)	AR1016-E	6.02	8.23	493626	477766	998.745	995.127
46)	AR1260-A	9.65	12.34	1284828	1664026	943.583	933.773
47)	AR1260-B	9.90	12.54	668843	790890	1017.463	981.464
48)	AR1260-C	10.43	13.22	628445	844364	1022.133	981.022
49)	AR1260-D	11.11	13.78	1614221	1814619	1029.989m	1012.039
50)	AR1260-E	11.72	14.64	1584786	1929171	1026.835m	1034.067m

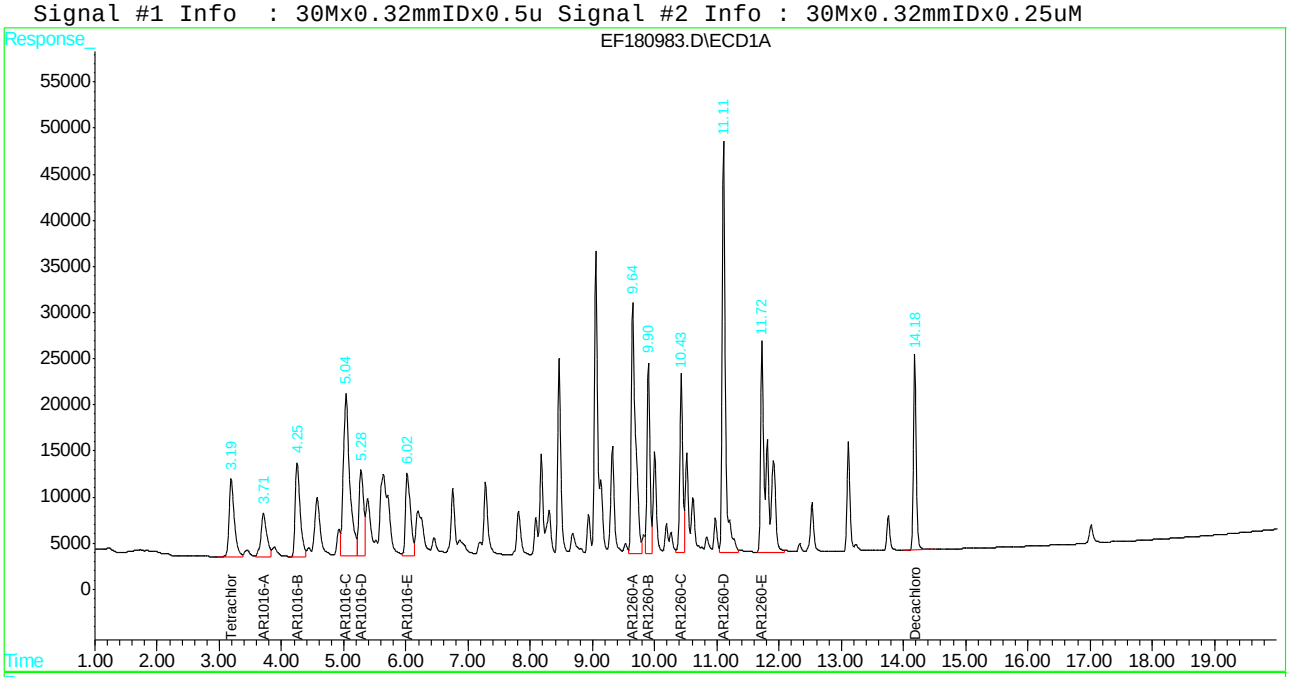
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180983.D PCB6195.M Tue Mar 20 15:44:48 2018 GCEF Page 1

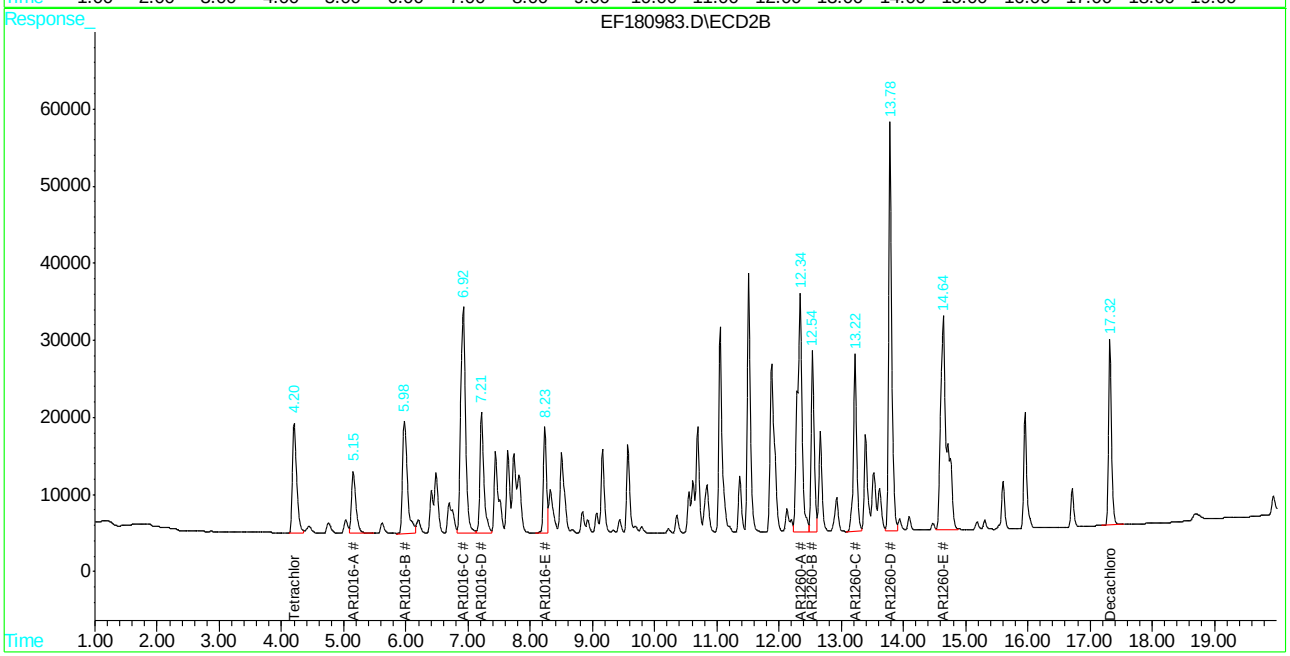
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62879

Manual Integration Approval Summary

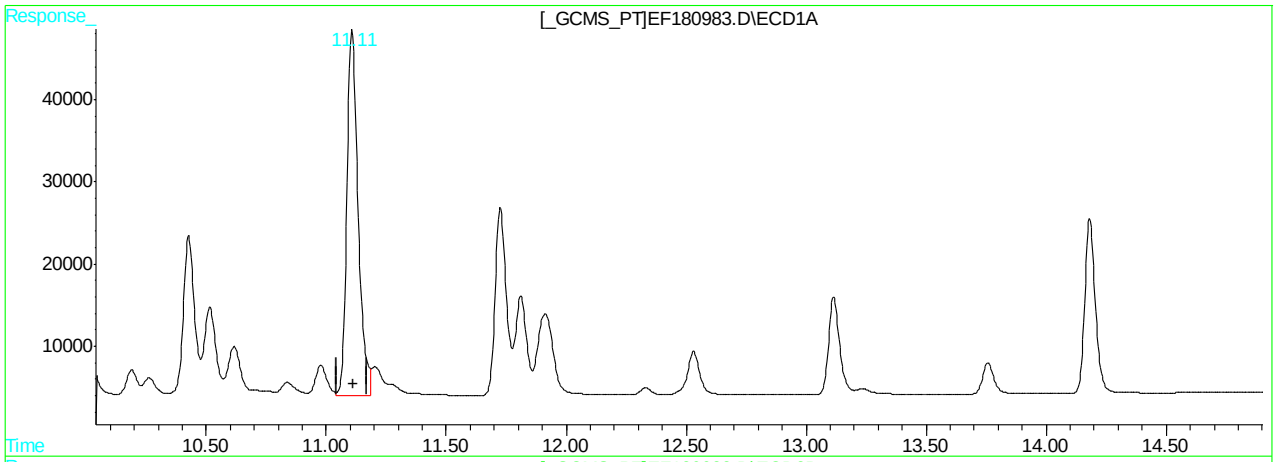
Sample Number:	GEF6195-ICV6195	**Method:**	SW846 8082A
Lab FileID:	EF180983.D	**Analyst approved:**	03/20/18 16:10 Tianwei Ruan
Injection Time:	03/19/18 21:34	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

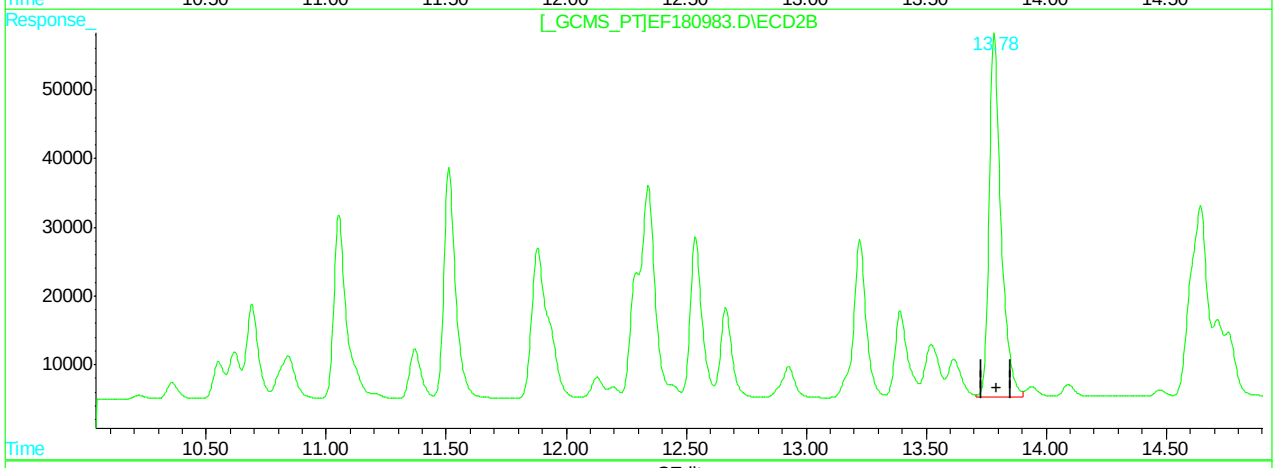
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-D		1	11.11	Split peak
AR1260-E		1	11.72	Split peak
AR1260-E		2	14.64	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:41 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.11min 927.428PPB

response 1453485

(49) AR1260-D #2

13.78min 1012.039PPB

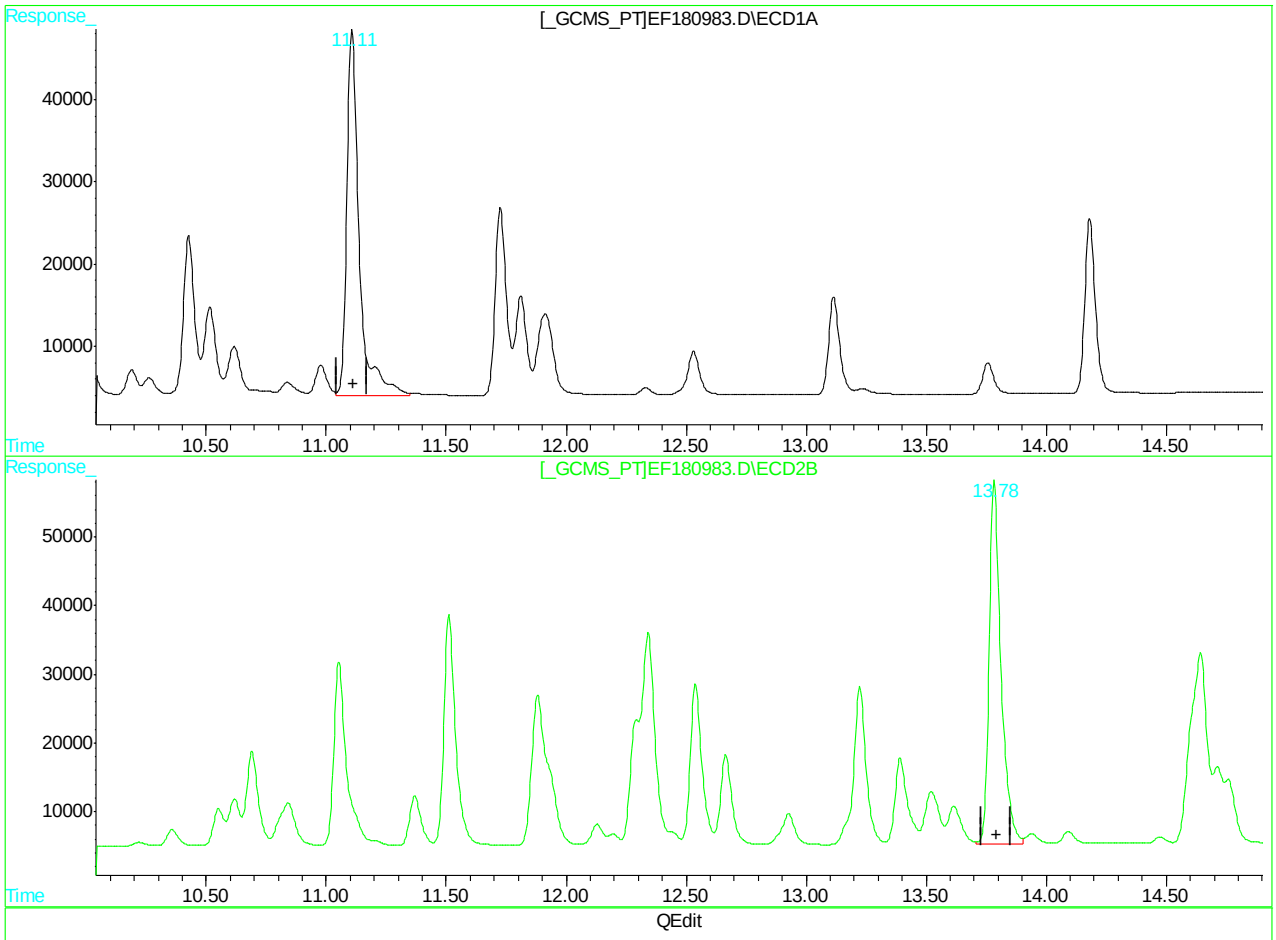
response 1814619

(+) = Expected Retention Time
EF180983.D PCB6195.M Tue Mar 20 15:43:46 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:41 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(49) AR1260-D

11.11min 1029.989PPB m

response 1614221

(49) AR1260-D #2

13.78min 1012.039PPB

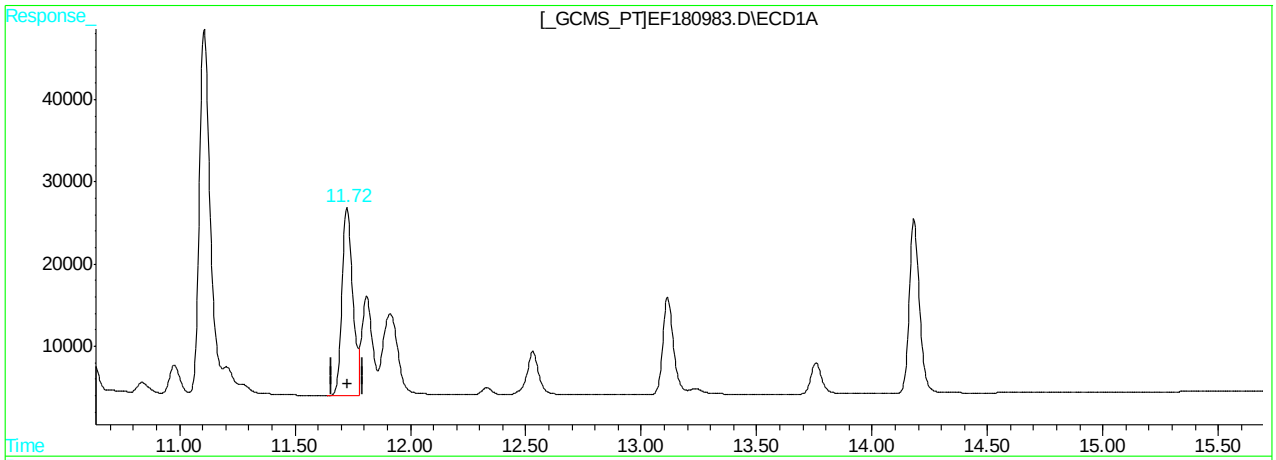
response 1814619

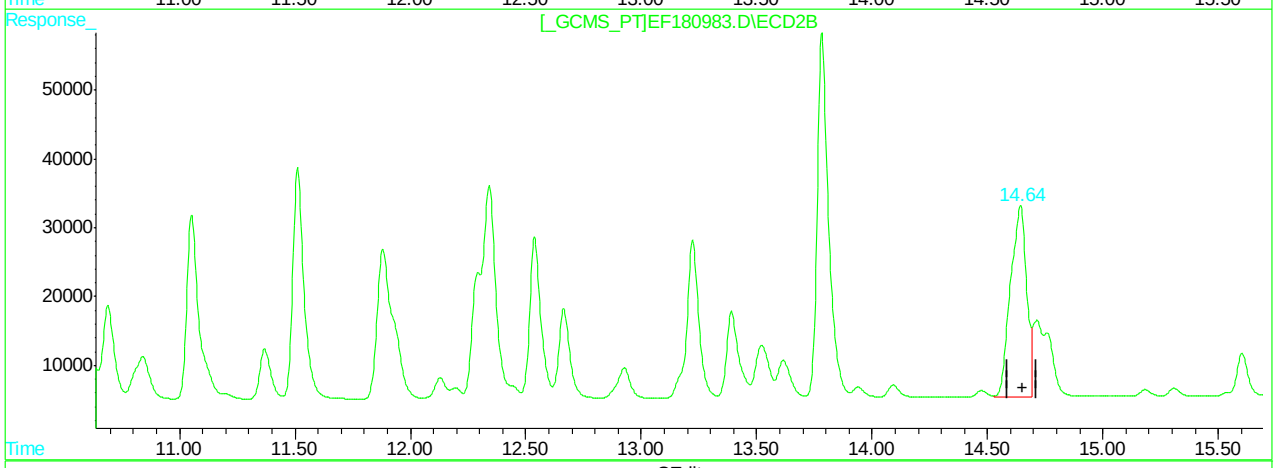
(+) = Expected Retention Time
EF180983.D PCB6195.M Tue Mar 20 15:43:58 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:41 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 471.988PPB

response 728452

(50) AR1260-E #2

14.64min 720.779PPB

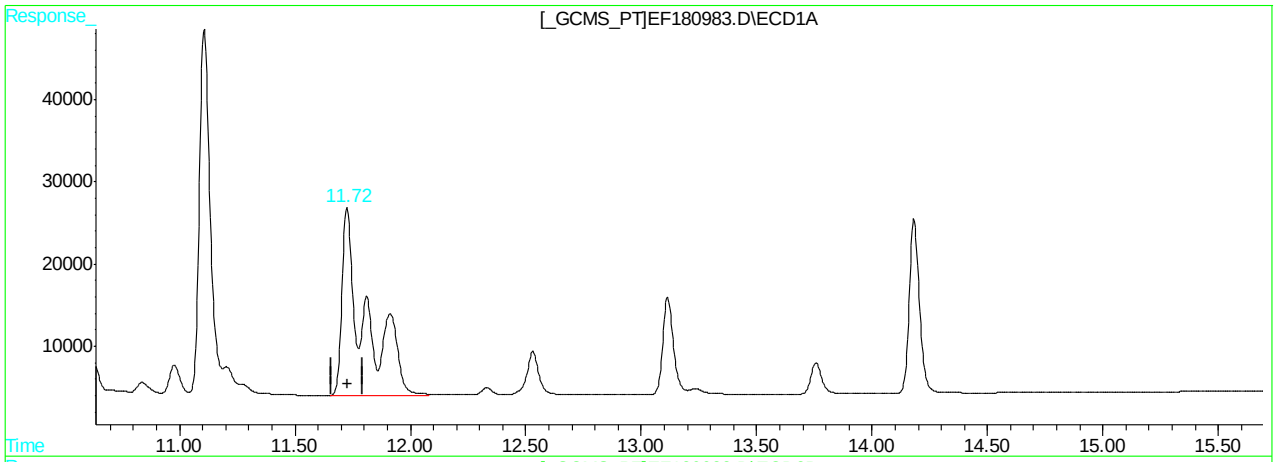
response 1344697

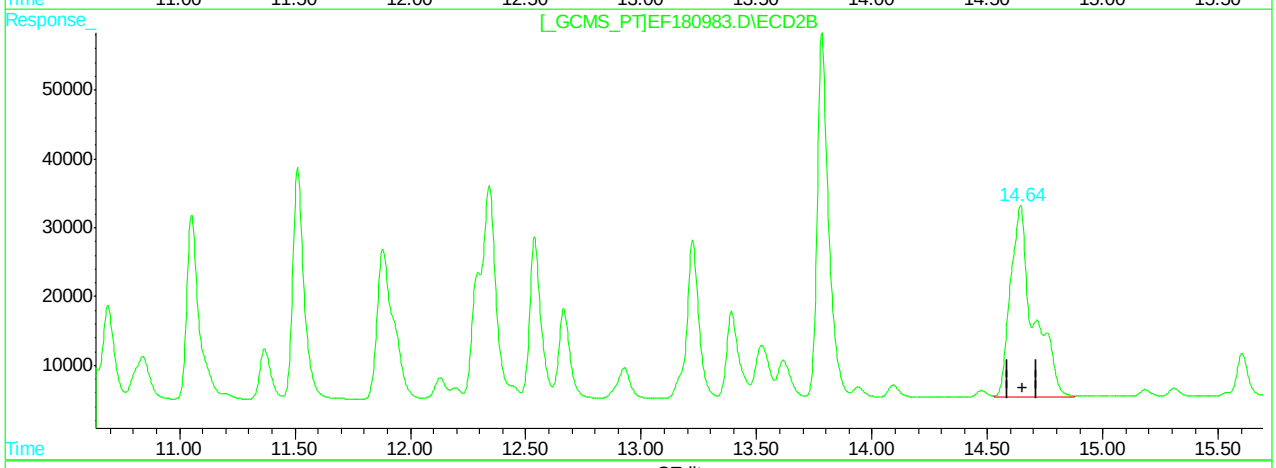
(+) = Expected Retention Time
EF180983.D PCB6195.M Tue Mar 20 15:44:02 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180983.D\ECD2B.CH
Acq On : 19 Mar 2018 9:34 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:41 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.72min 1026.835PPB m

response 1584786

(50) AR1260-E #2

14.64min 1034.067PPB m

response 1929171

(+) = Expected Retention Time
EF180983.D PCB6195.M Tue Mar 20 15:44:15 2018 GCEF

11.6.45.5 11

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:51 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	462244	586231	39.983m	37.654
	Spiked Amount 40.000			Recovery =		99.96%	94.14%
51) S	Decachlorobiphen	14.18	17.32	549275	674305	32.091m	32.120m
	Spiked Amount 40.000			Recovery =		80.23%	80.30%
	Target Compounds						
2)	AR1221-A	2.56	3.43	122976	162899	975.567	1012.438
3)	AR1221-B	3.44	4.76	145221	213027	882.223	908.686
4)	AR1221-C	3.70	5.15	500891	558957	890.761	904.198
5)	AR1221-D	4.25	5.97	48286	112348	813.655m	850.607m
6)	AR1221-E	4.56	6.10	107610	123741	891.226	970.348
24)	AR1254-A	6.75	9.16	543387	770234	975.612	988.413
25)	AR1254-B	7.27	9.57	700171	812435	983.270	987.341
26)	AR1254-C	7.83	10.36	512333	594810	982.357	986.888
27)	AR1254-D	8.08	10.62	956789	1257529	986.268m	989.105
28)	AR1254-E	8.68	11.12	845674	1015304	979.018	993.063
29)	AR1254-F	9.06	11.93	709799	965363	984.687	960.251m
30)	AR1254-G	9.65	12.35	925780	1176430	973.621	986.949

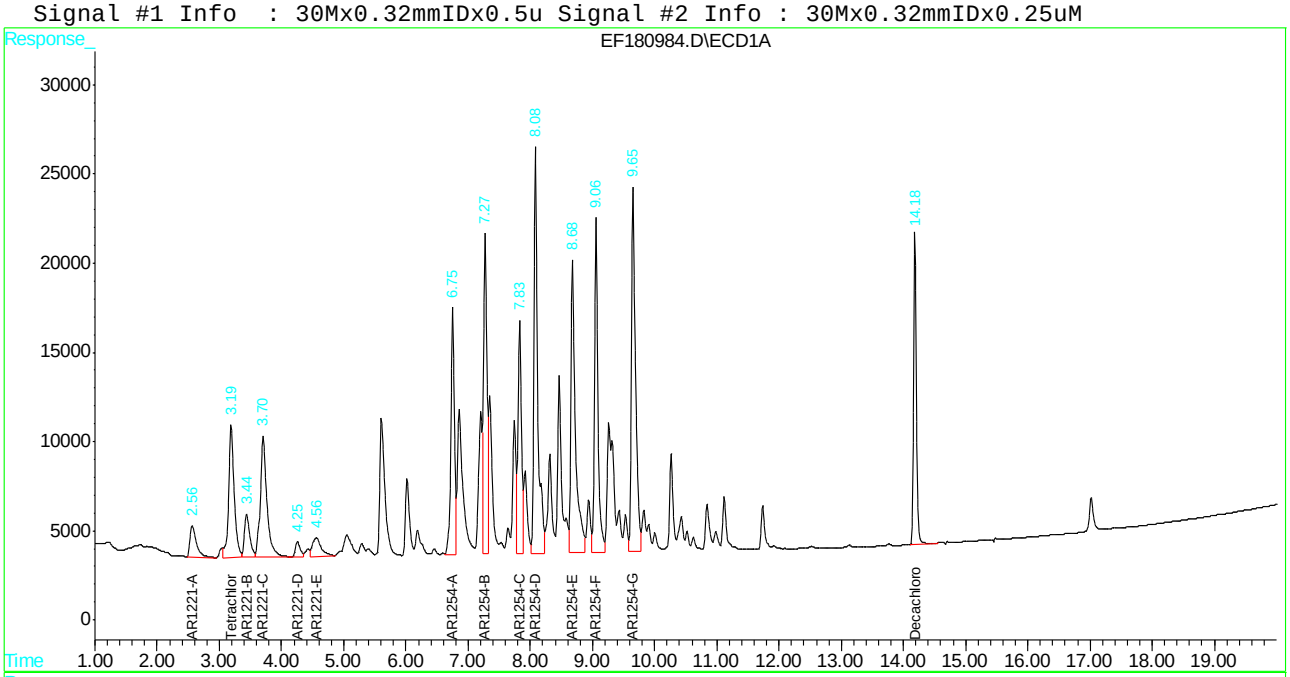
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180984.D PCB6195.M Tue Mar 20 15:53:45 2018 GCEF Page 1

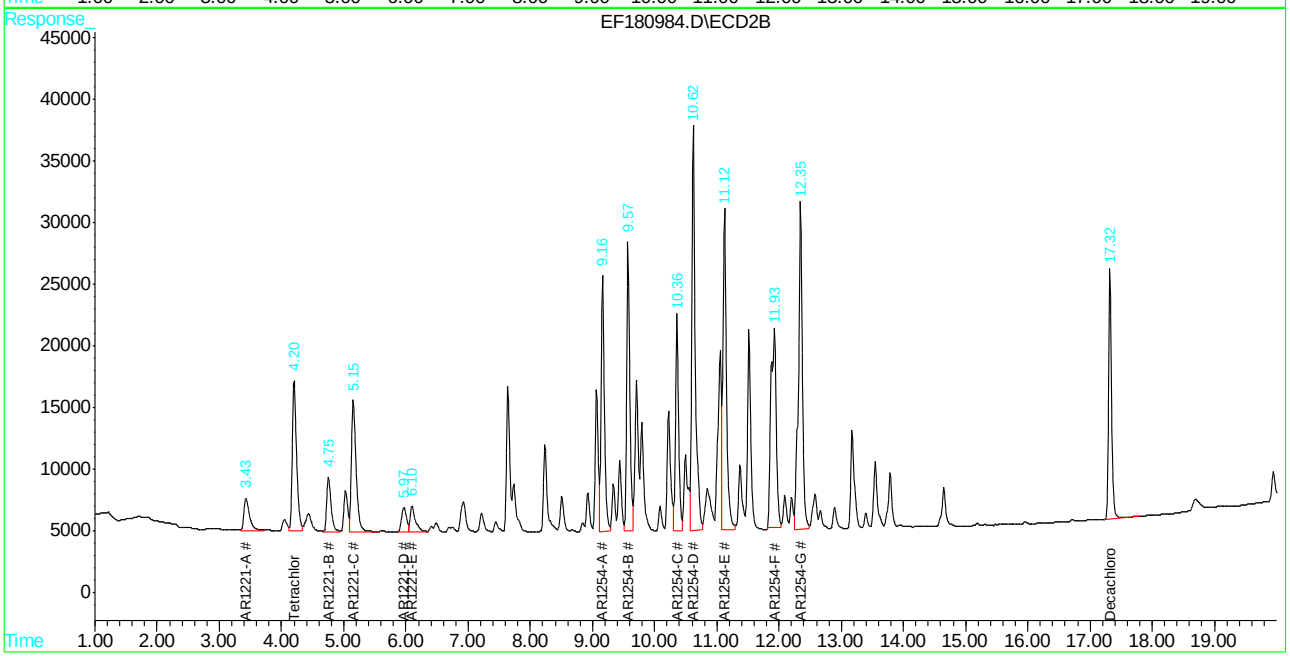
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:51 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

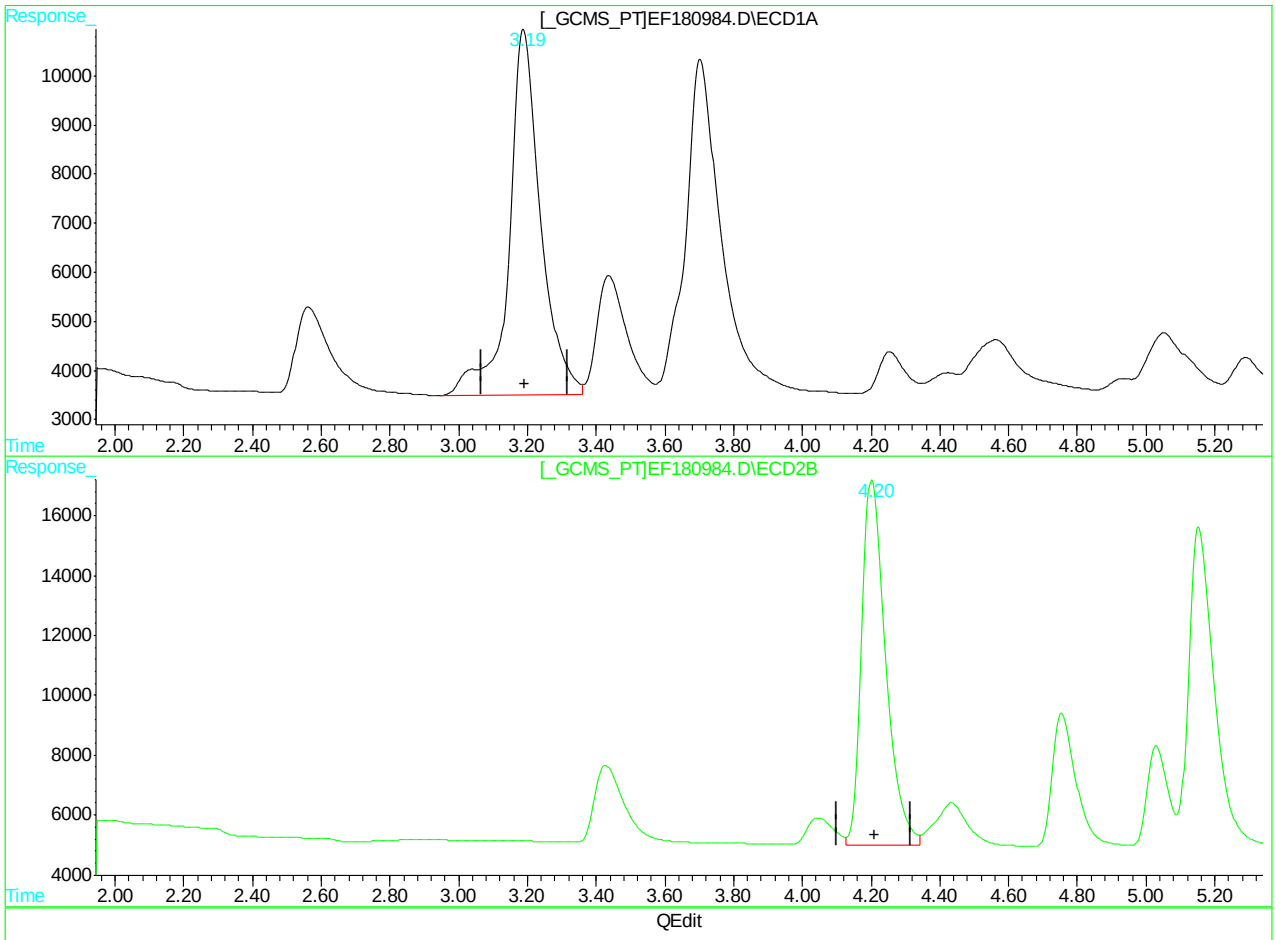
Sample Number: GEF6195-ICV6195 **Method:** SW846 8082A
Lab FileID: EF180984.D **Analyst approved:** 03/20/18 16:10 Tianwei Ruan
Injection Time: 03/19/18 21:59 **Supervisor approved:** 03/21/18 11:23 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.19	Poorly defined baseline
AR1221-D		1	4.25	Split peak
AR1221-D		2	5.97	Split peak
AR1254-D		1	8.08	Split peak
AR1254-F		2	11.93	Split peak
Decachlorobiphenyl	2051-24-3	1	14.18	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.32	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 41.427PPB

response 478937

(1) Tetrachloro-m-xylene #2 (S)

4.20min 37.654PPB

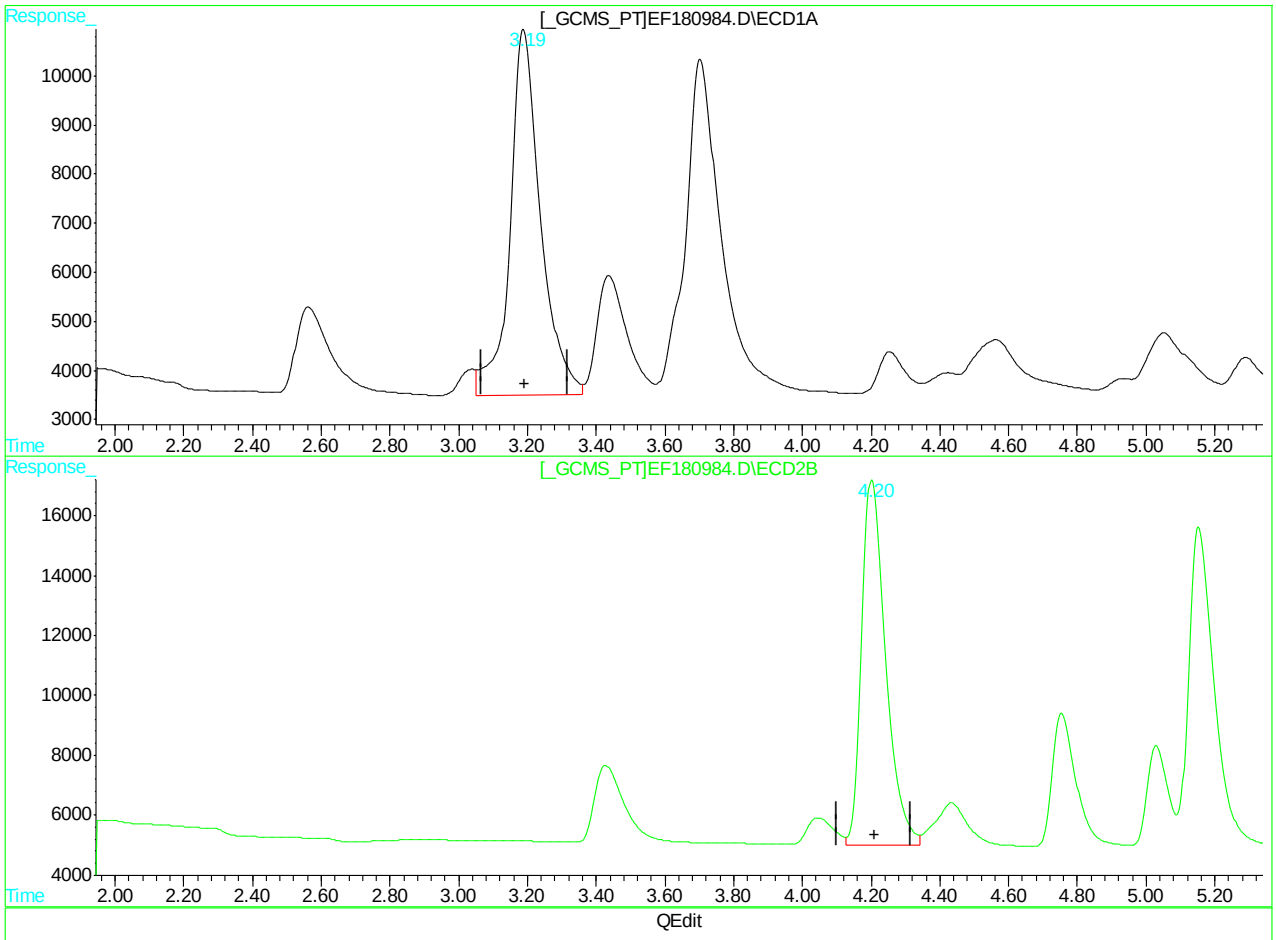
response 586231

(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:45:50 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 39.983PPB m

response 462244

(1) Tetrachloro-m-xylene #2 (S)

4.20min 37.654PPB

response 586231

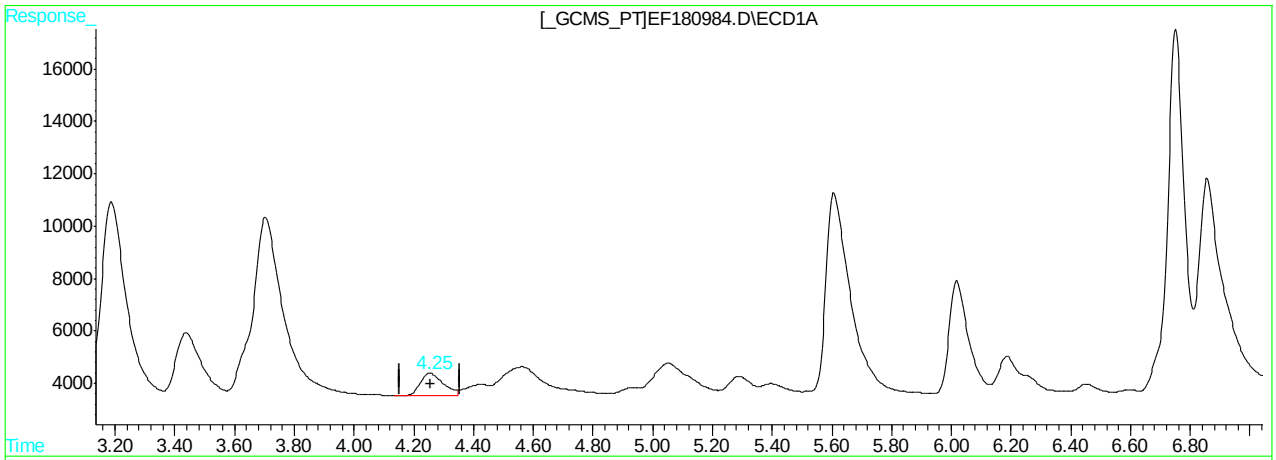
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:46:00 2018 GCEF

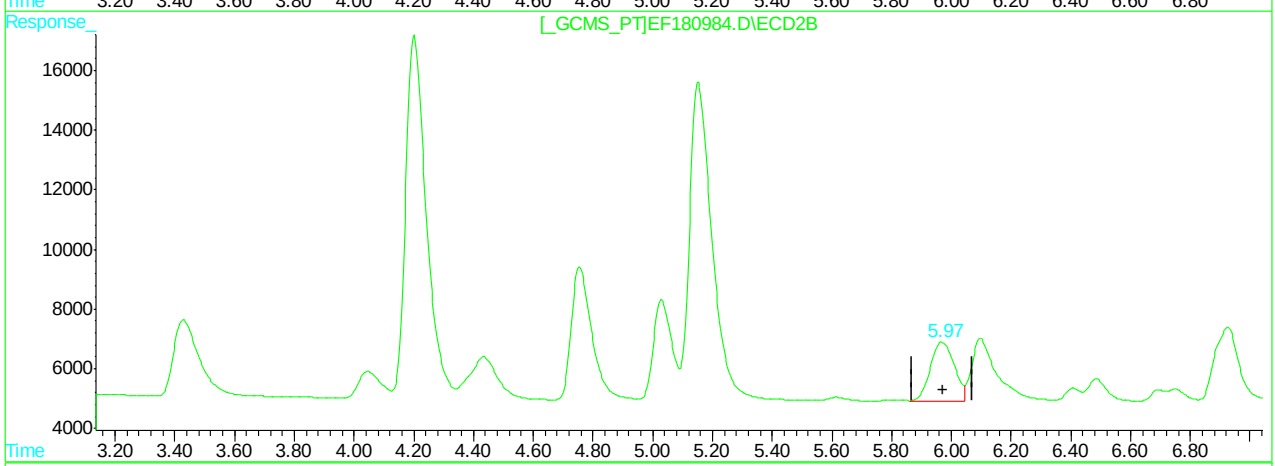
11.6.46.3

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(5) AR1221-D

4.25min 749.652PPB

response 44488

(5) AR1221-D #2

5.97min 837.851PPB

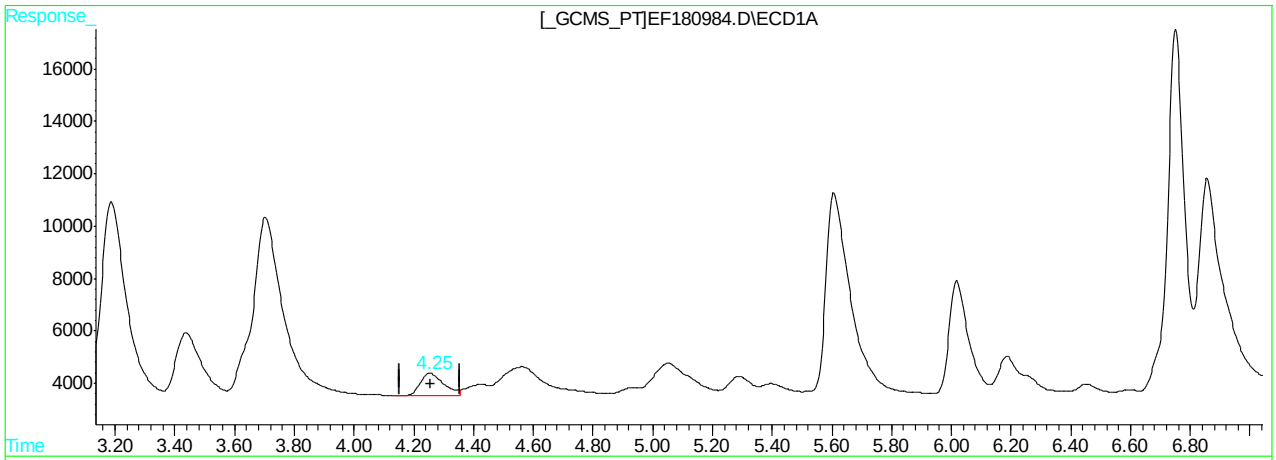
response 110663

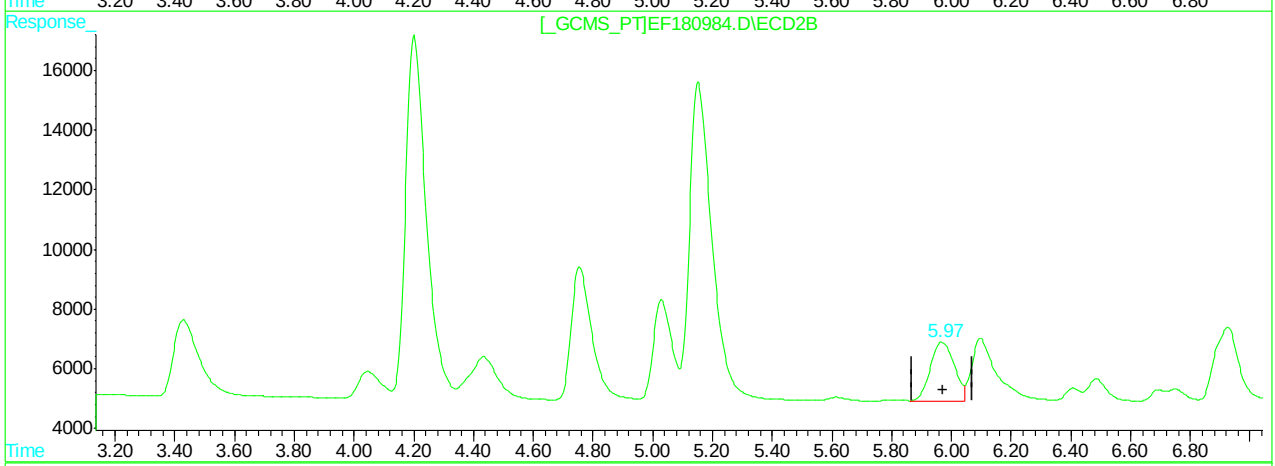
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:46:49 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(5) AR1221-D

4.25min 813.655PPB m

response 48286

(5) AR1221-D #2

5.97min 850.607PPB m

response 112348

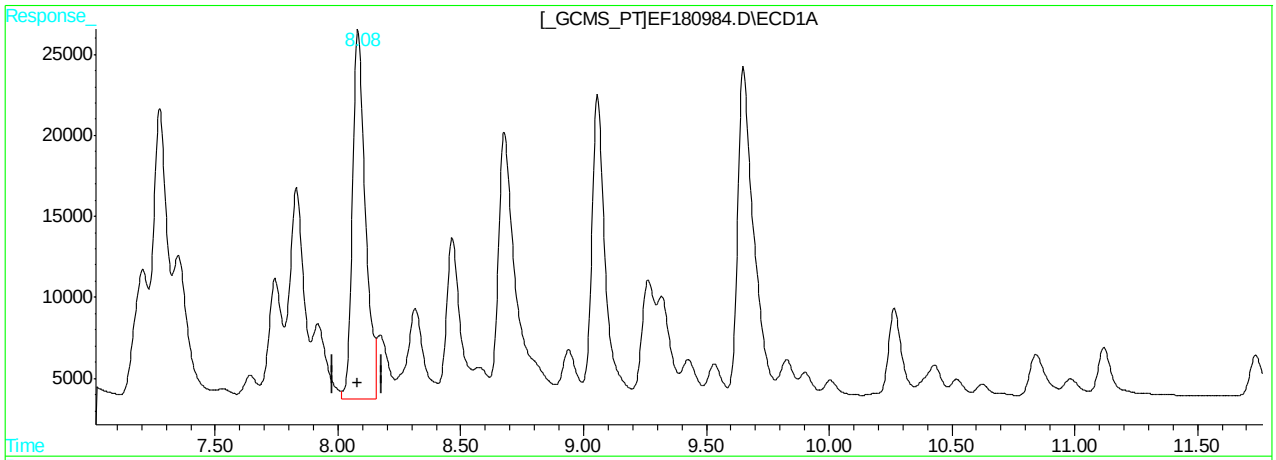
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:48:48 2018 GCEF

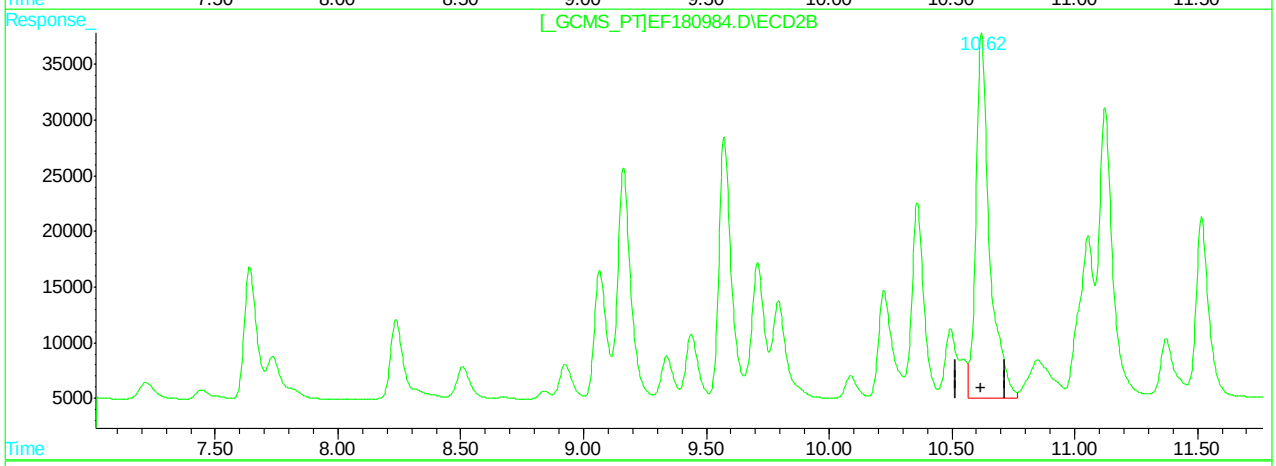
11.6.46.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(27) AR1254-D

8.08min 857.748PPB

response 832110

(27) AR1254-D #2

10.62min 989.105PPB

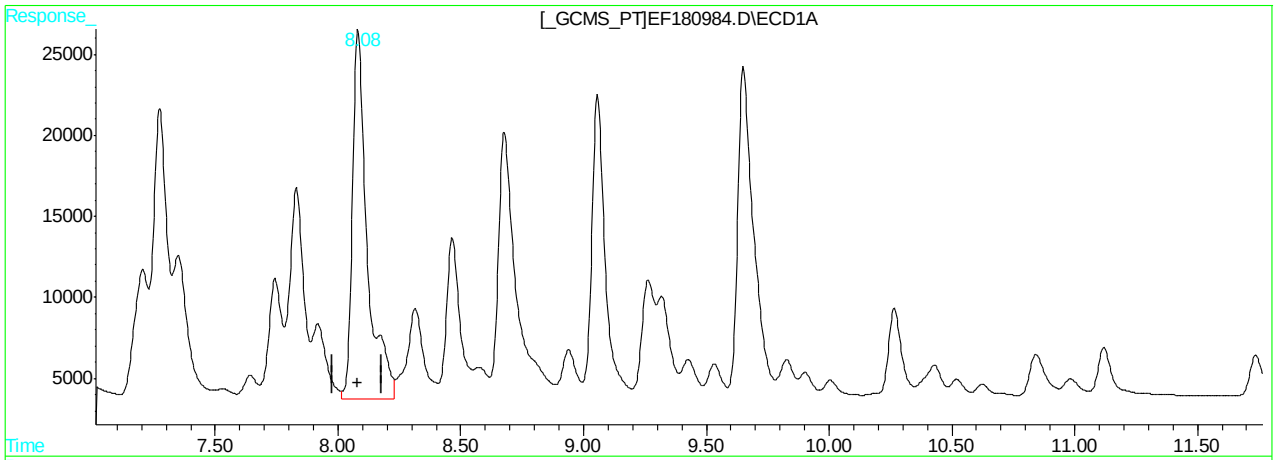
response 1257529

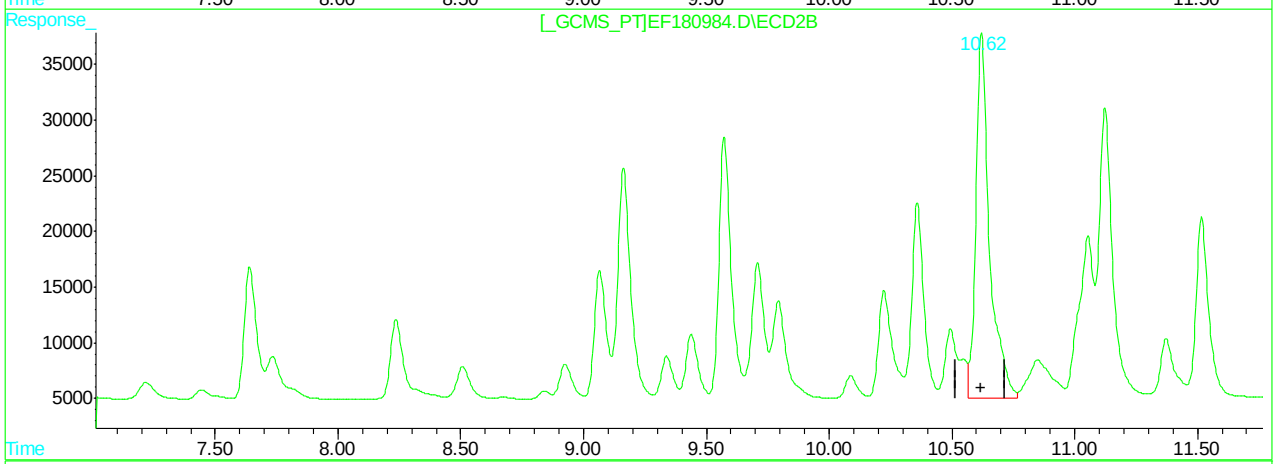
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:49:04 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(27) AR1254-D

8.08min 986.268PPB m

response 956789

(27) AR1254-D #2

10.62min 989.105PPB

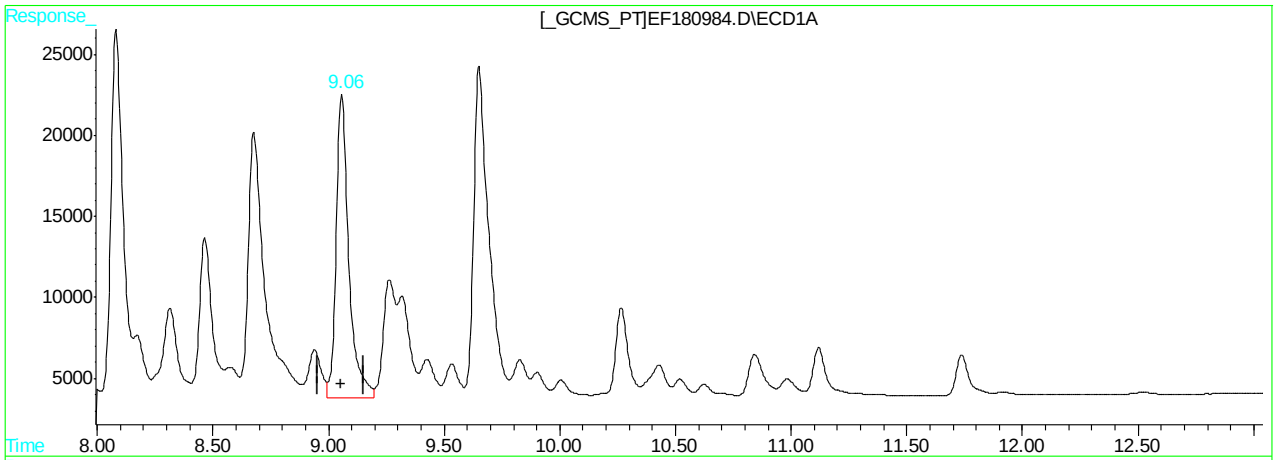
response 1257529

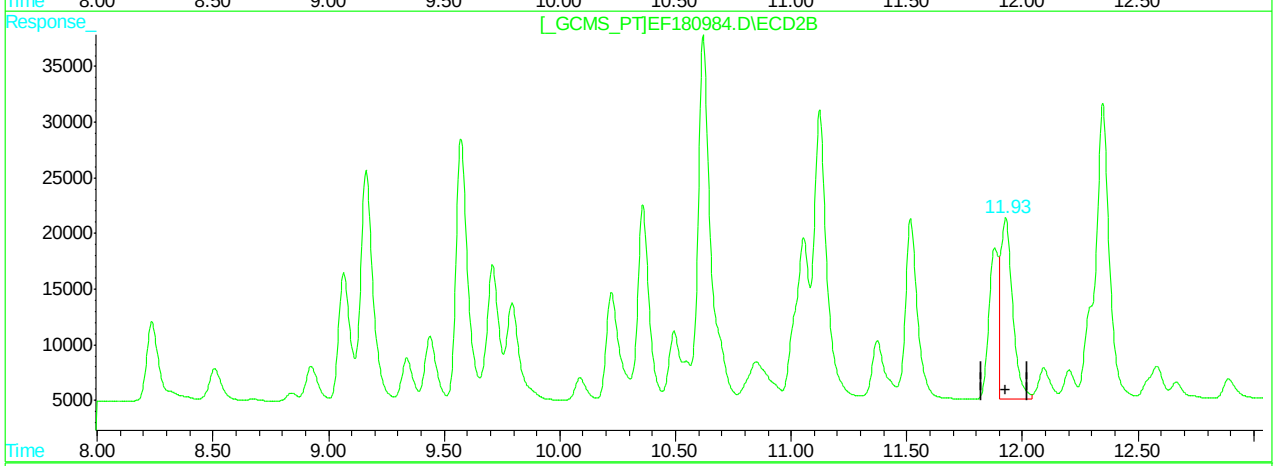
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:49:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.06min 984.687PPB

response 709799

(29) AR1254-F #2

11.93min 604.947PPB

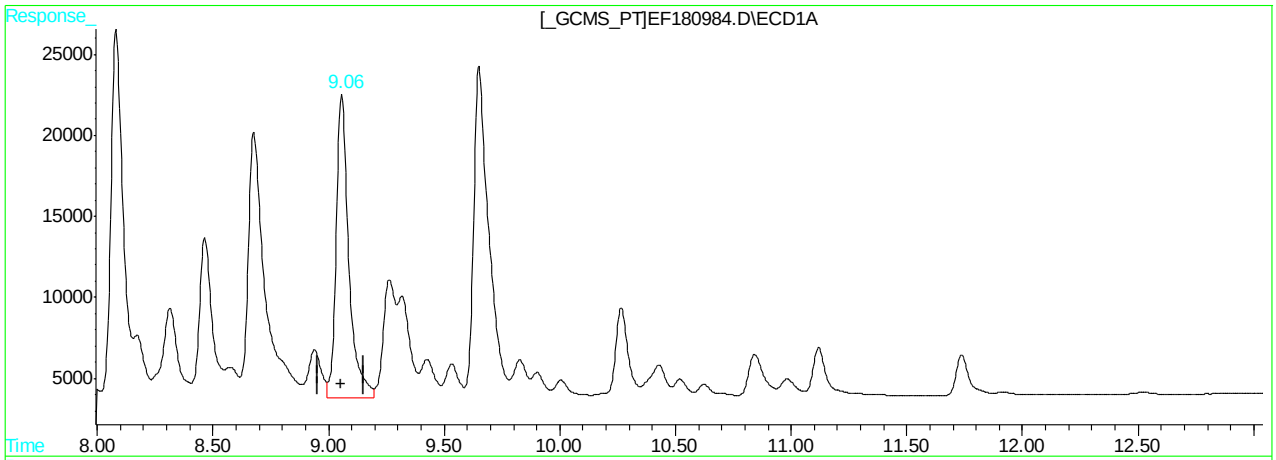
response 608168

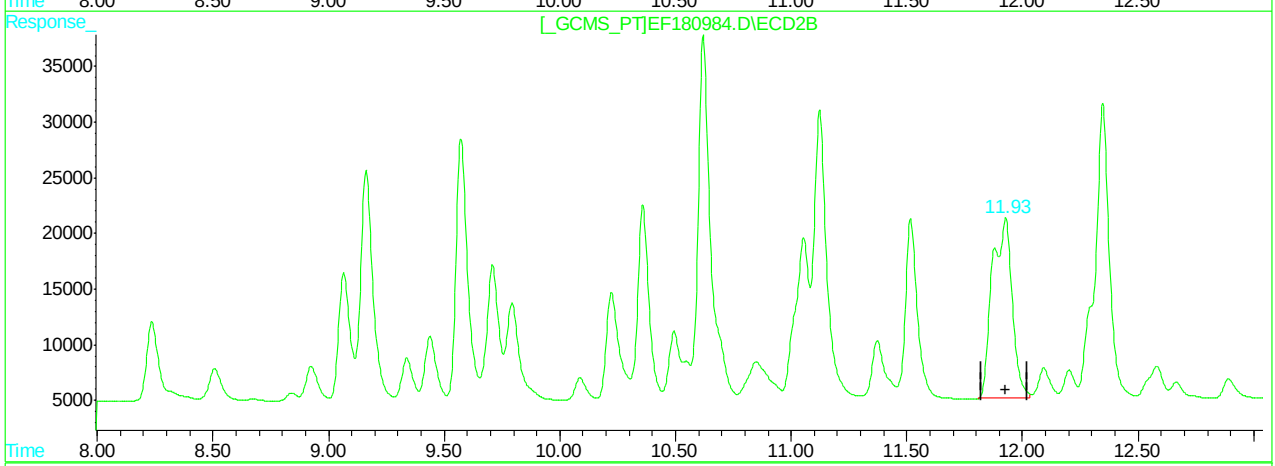
(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:49:19 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.06min 984.687PPB

response 709799

(29) AR1254-F #2

11.93min 960.251PPB m

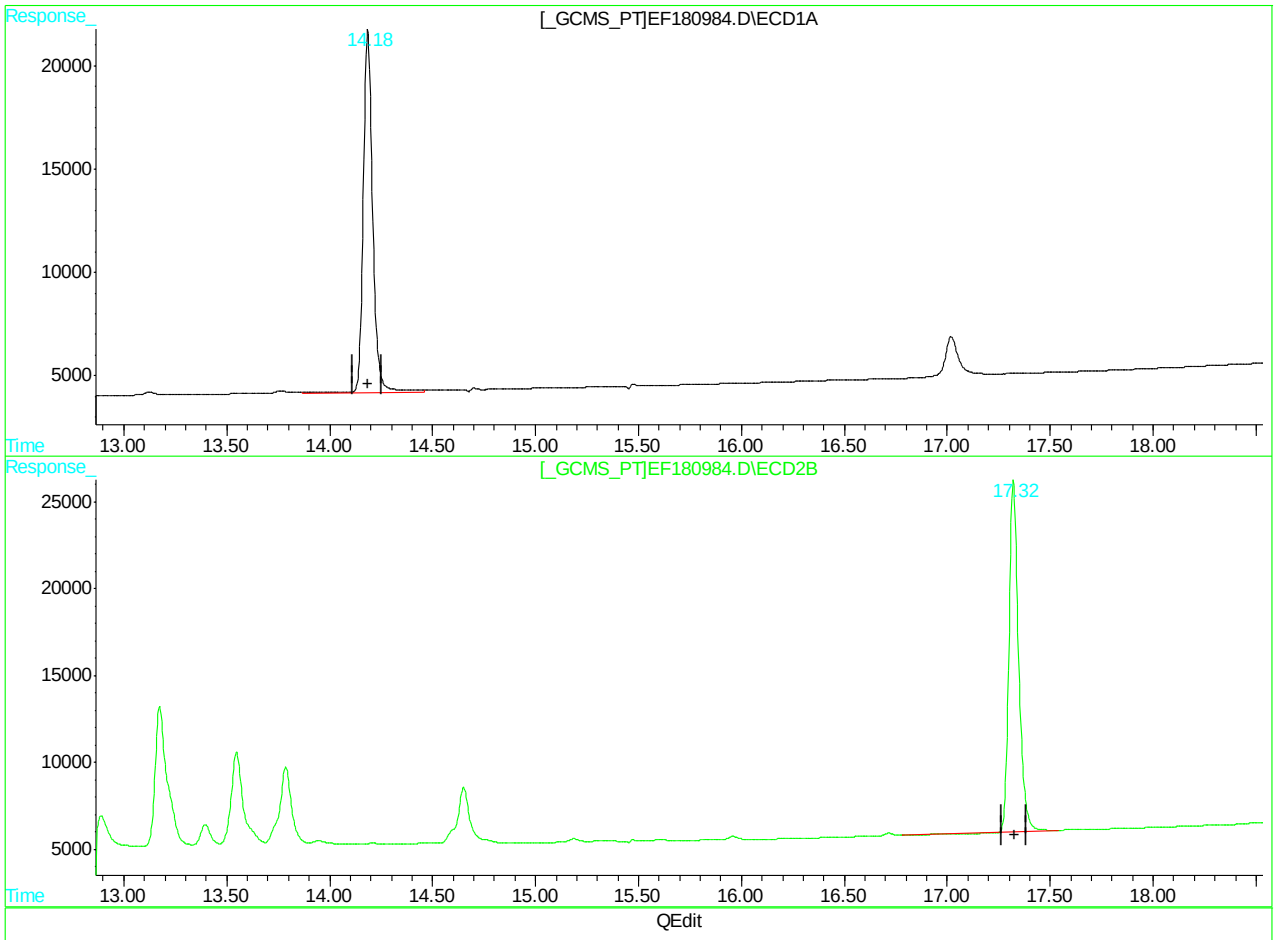
response 965363

(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:49:25 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:44 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.19min 32.824PPB

response 561819

(51) Decachlorobiphenyl #2 (S)

17.32min 31.230PPB

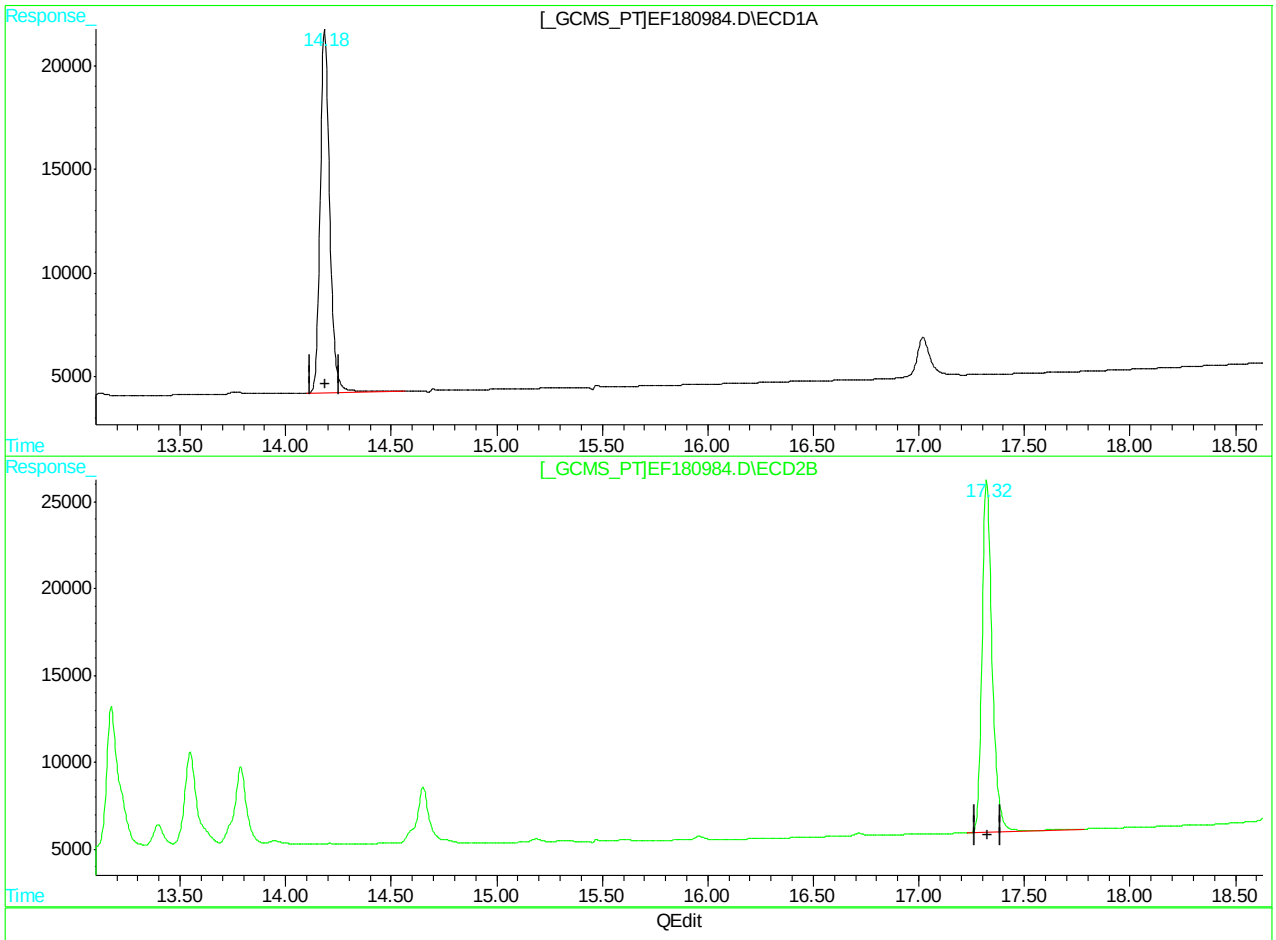
response 655625

(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:49:36 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD1A.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180984.D\ECD2B.CH
Acq On : 19 Mar 2018 9:59 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:49 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.18min 32.091PPB m

response 549275

(51) Decachlorobiphenyl #2 (S)

17.32min 32.120PPB m

response 674305

(+) = Expected Retention Time
EF180984.D PCB6195.M Tue Mar 20 15:51:48 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:56 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.19	4.20	524475	703383	45.366m	45.179
	Spiked Amount 40.000			Recovery	=	113.41%	112.95%
51)	S Decachlorobiphen	14.18	17.32	673605	825831	39.355	39.338
	Spiked Amount 40.000			Recovery	=	98.39%	98.34%
	Target Compounds						
7)	AR1232-A	3.70	5.15	395321	477984	977.532m	988.763
8)	AR1232-B	4.25	5.98	260887	371666	986.541	991.070
9)	AR1232-C	5.04	6.92	568466	758875	982.776	987.953
10)	AR1232-D	5.28	7.22	218232	328461	985.068	990.366
11)	AR1232-E	6.02	8.23	203538	210348	986.076	991.144
31)	AR1262-A	9.05	11.51	758700	891501	1004.465	1000.968
32)	AR1262-B	9.90	12.54	1094690	1228458	1004.362	1005.253
33)	AR1262-C	10.42	13.22	844948	1056373	1008.505	1009.514
34)	AR1262-D	11.10	13.78	2014912	2205641	1007.704	1006.485
35)	AR1262-E	11.81	14.61	2428147	2912782	1001.599m	1010.019m

11.6.47 11

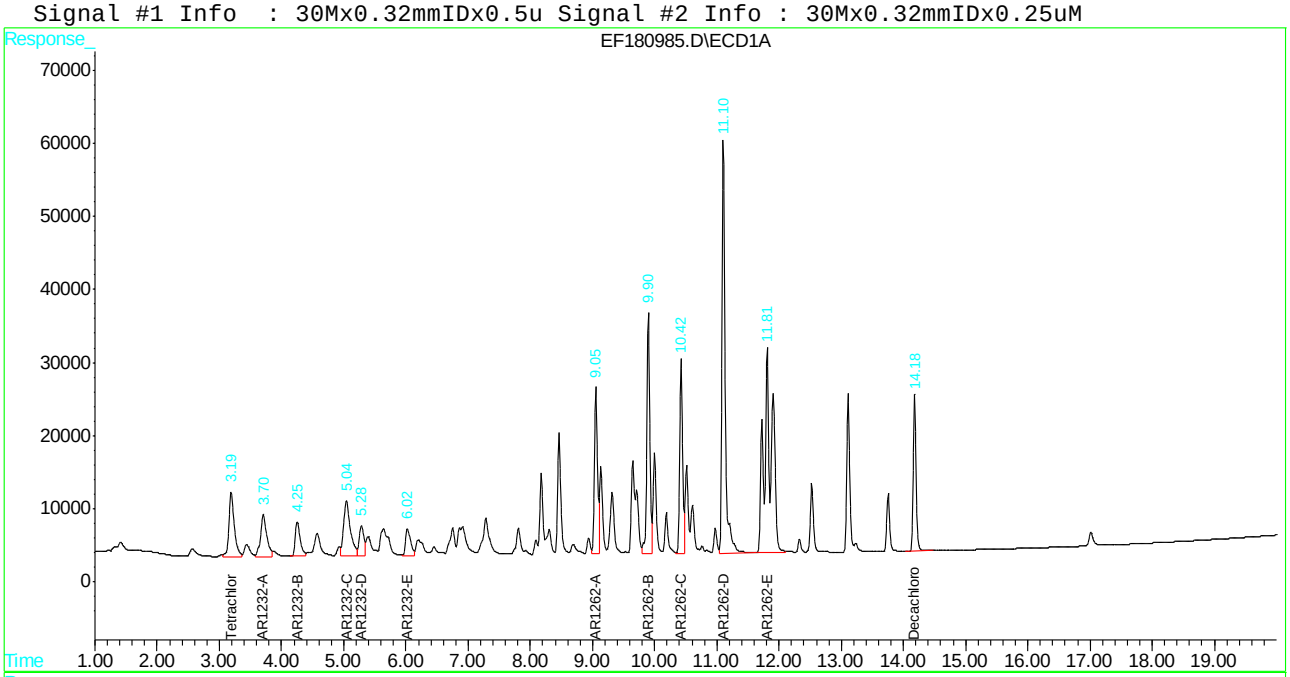
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180985.D PCB6195.M Tue Mar 20 15:58:10 2018 GCEF Page 1

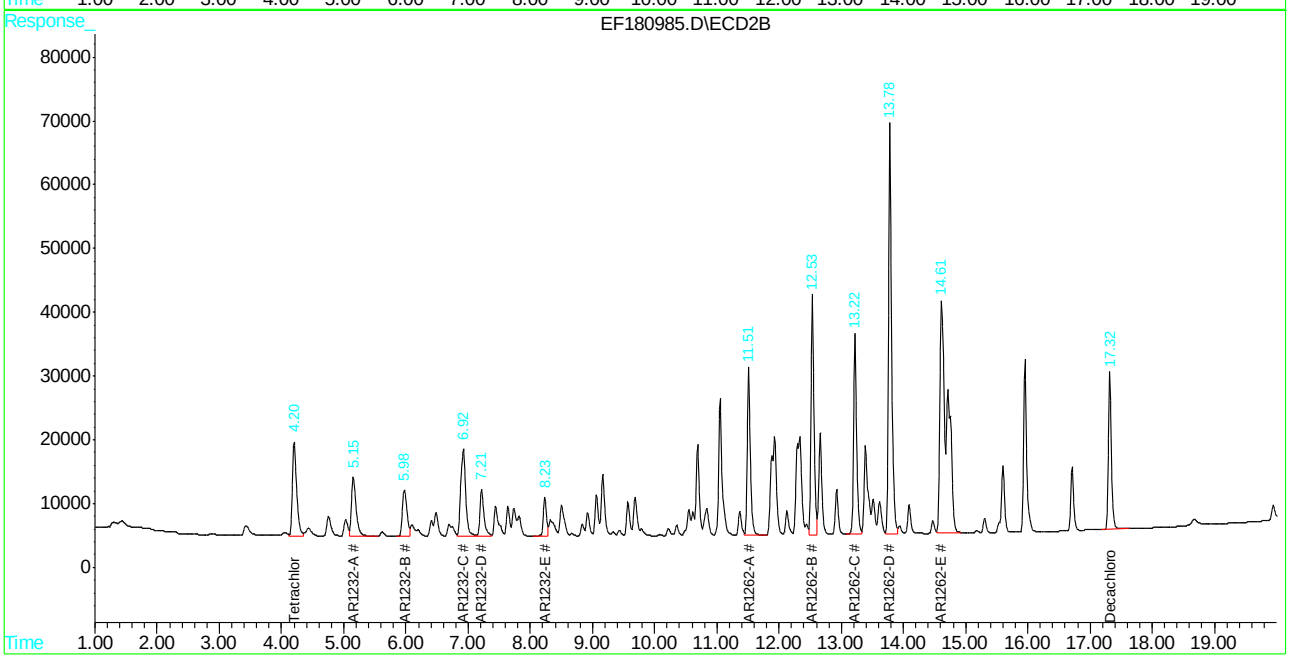
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:56 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

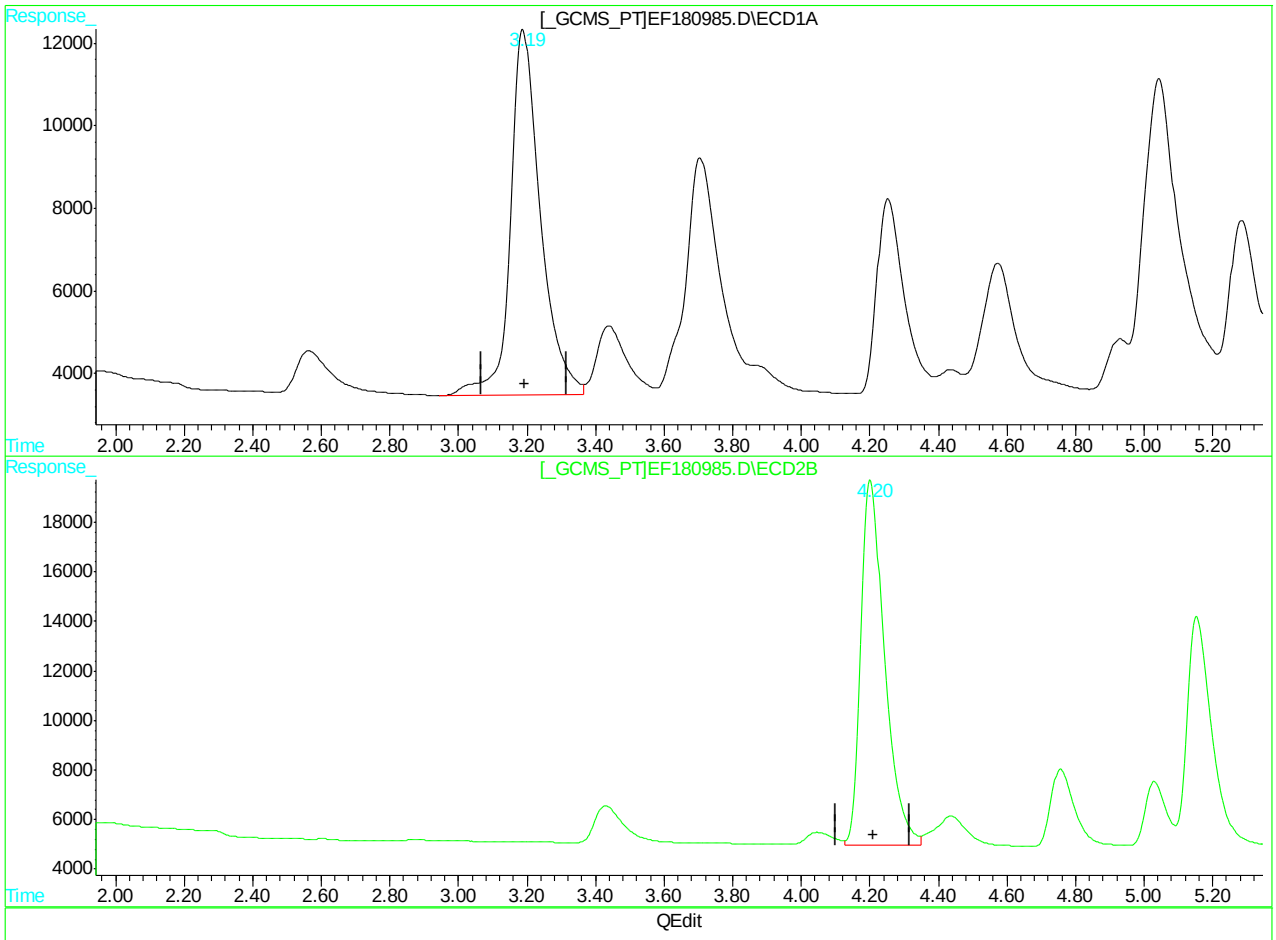
Sample Number:	GEF6195-ICV6195	**Method:**	SW846 8082A
Lab FileID:	EF180985.D	**Analyst approved:**	03/20/18 16:10 Tianwei Ruan
Injection Time:	03/19/18 22:24	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.19	Poorly defined baseline
AR1232-A		1	3.70	Split peak
AR1262-E		1	11.81	Split peak
AR1262-E		2	14.61	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 46.102PPB

response 532978

(1) Tetrachloro-m-xylene #2 (S)

4.20min 45.179PPB

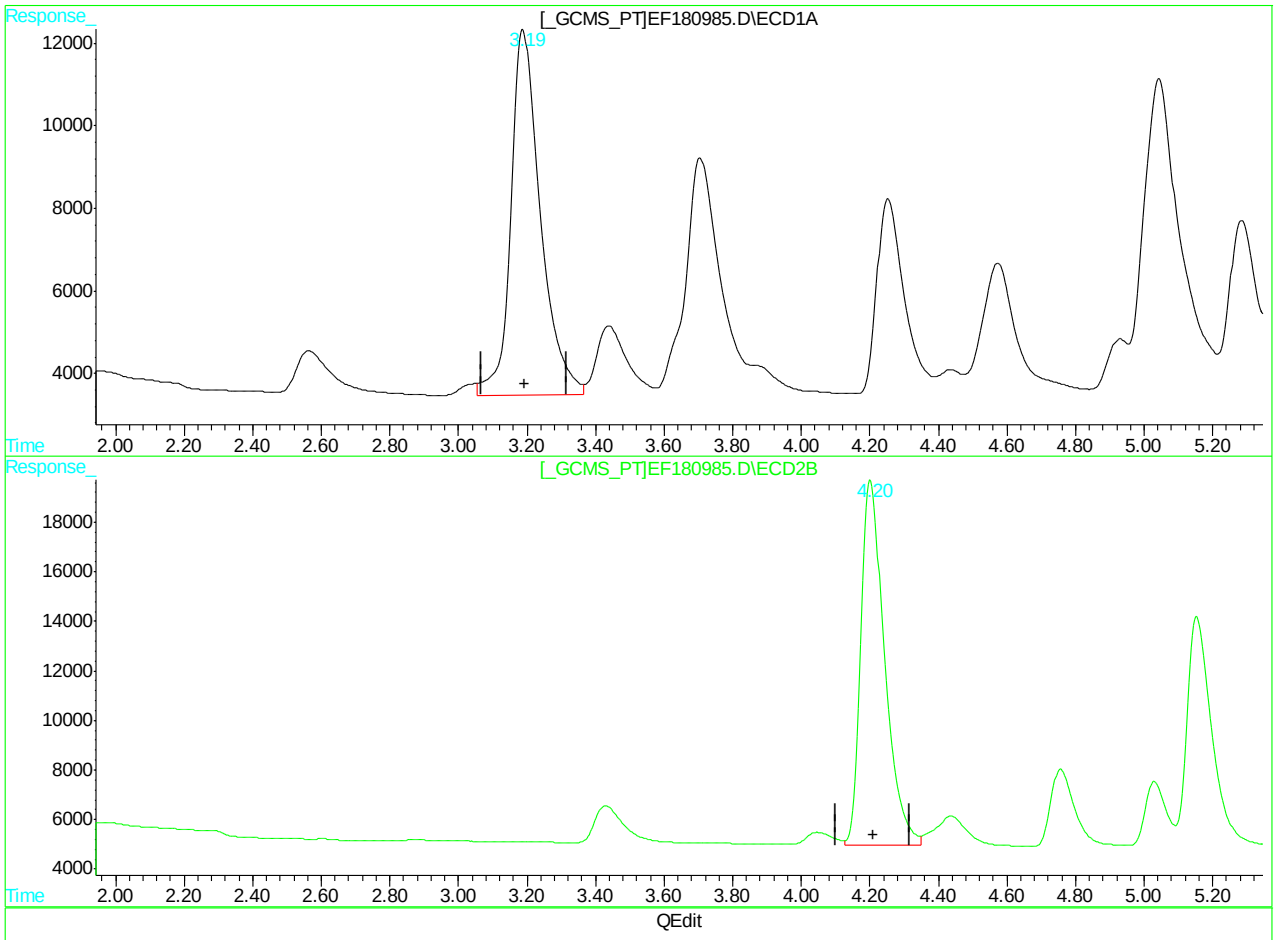
response 703383

(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:55:18 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration



(1) Tetrachloro-m-xylene (S)

3.19min 45.366PPB m

response 524475

(1) Tetrachloro-m-xylene #2 (S)

4.20min 45.179PPB

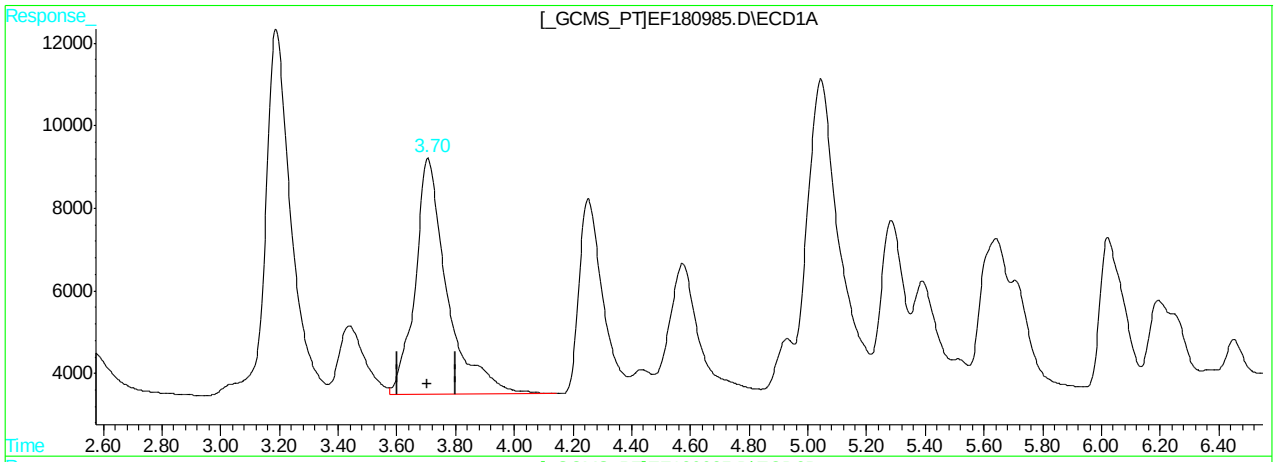
response 703383

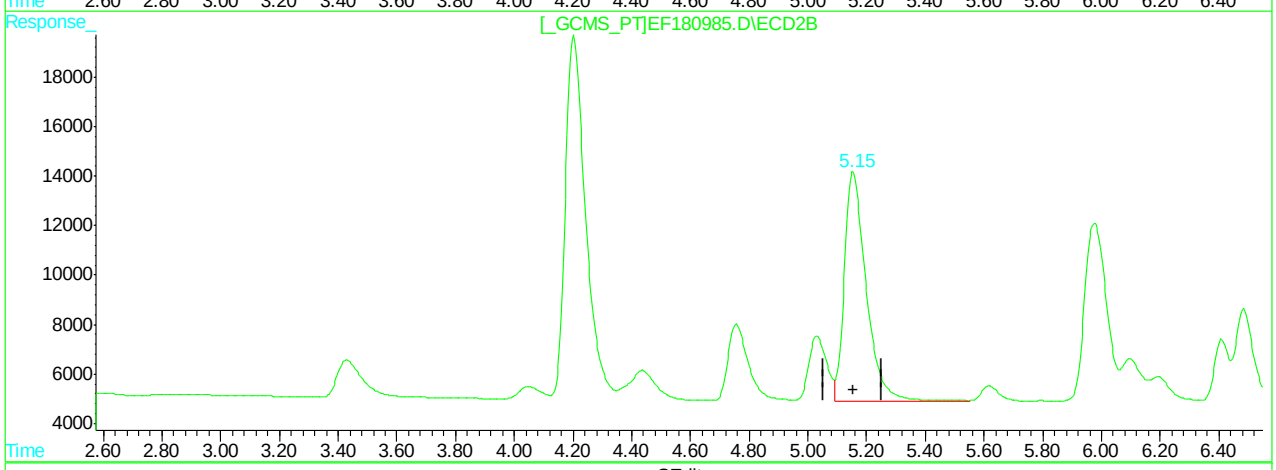
(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:55:30 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(7) AR1232-A

3.71min 1079.334PPB

response 436491

(7) AR1232-A #2

5.15min 988.763PPB

response 477984

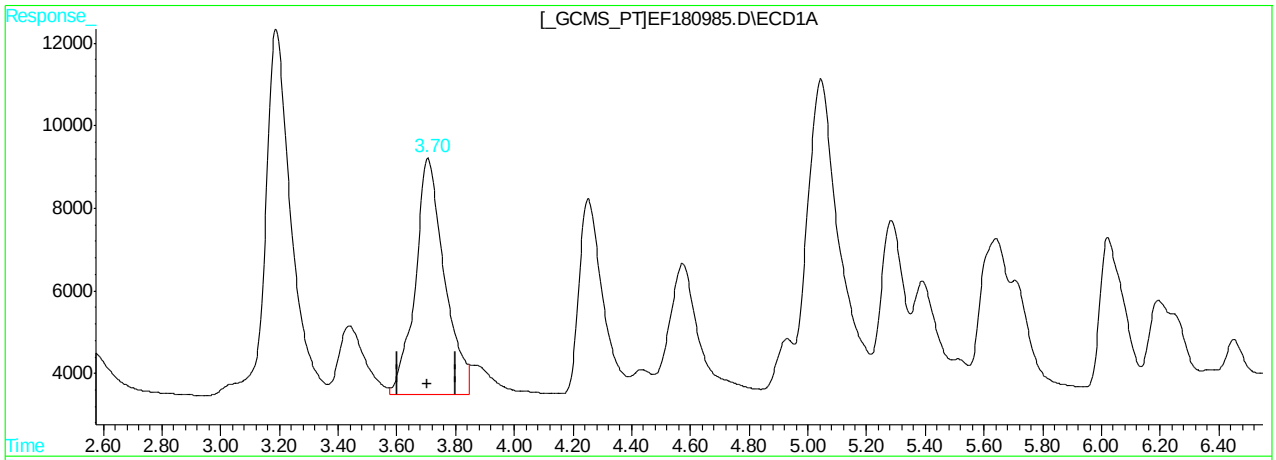
(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:55:52 2018 GCEF

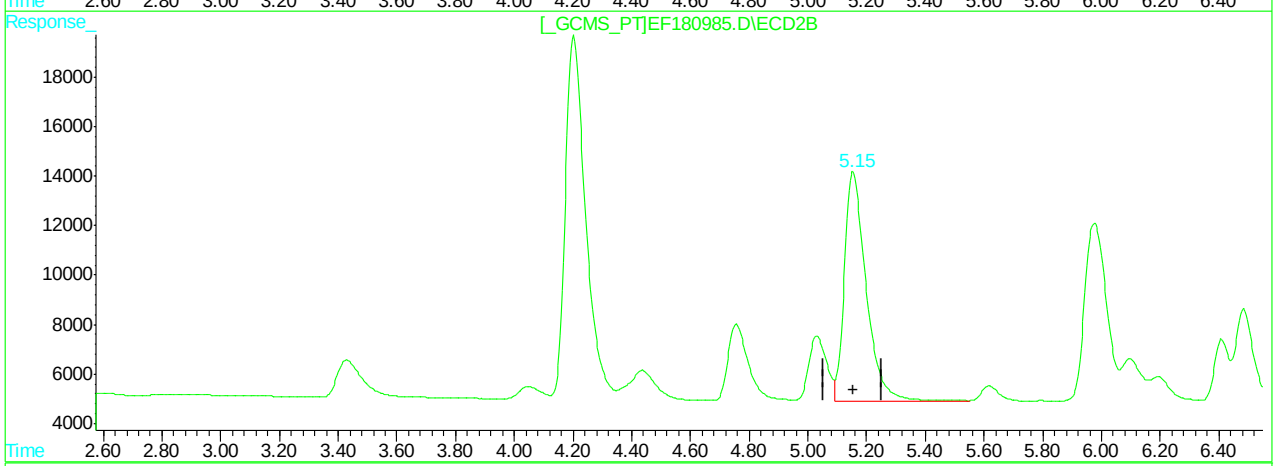
11.6.47.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(7) AR1232-A

3.70min 977.532PPB m

response 395321

(7) AR1232-A #2

5.15min 988.763PPB

response 477984

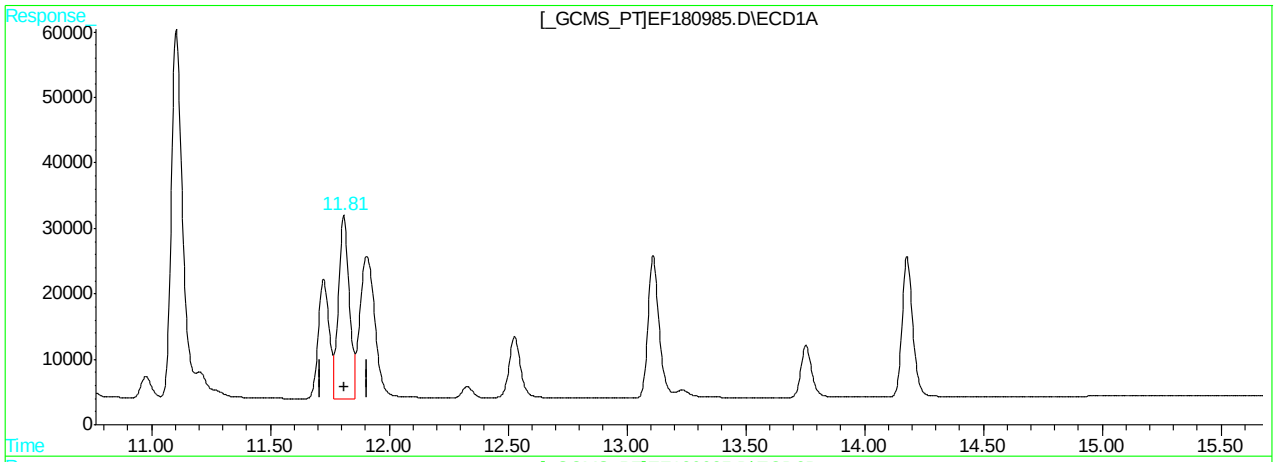
(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:56:00 2018 GCEF

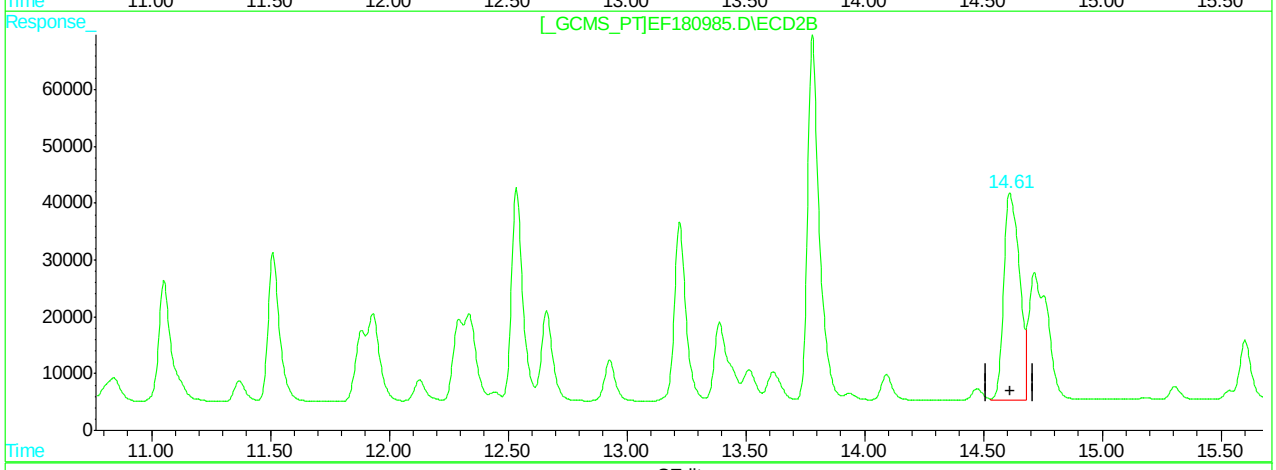
11.6.47.5 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(35) AR1262-E

11.81min 367.376PPB

response 890617

(35) AR1262-E #2

14.61min 577.917PPB

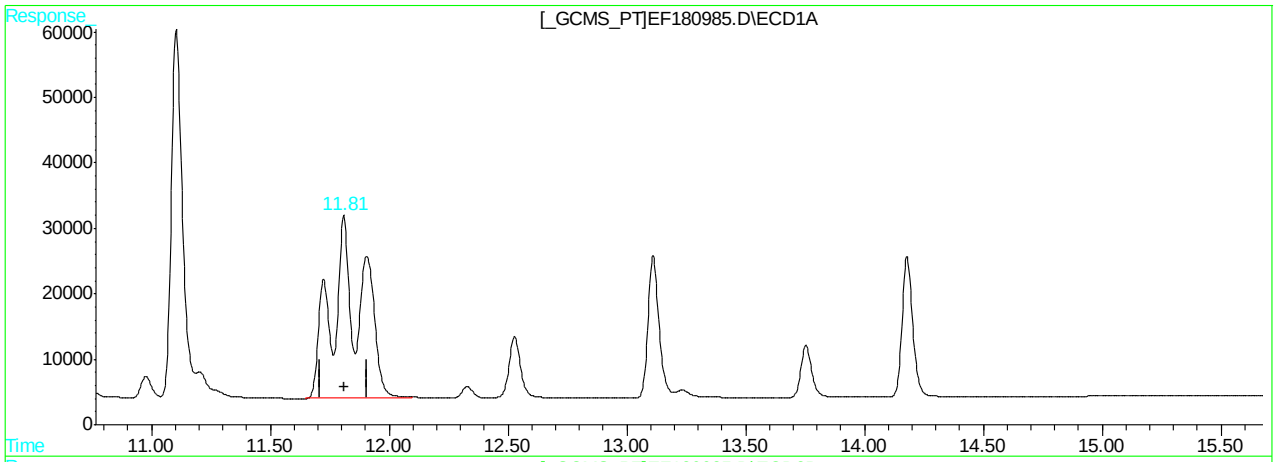
response 1666648

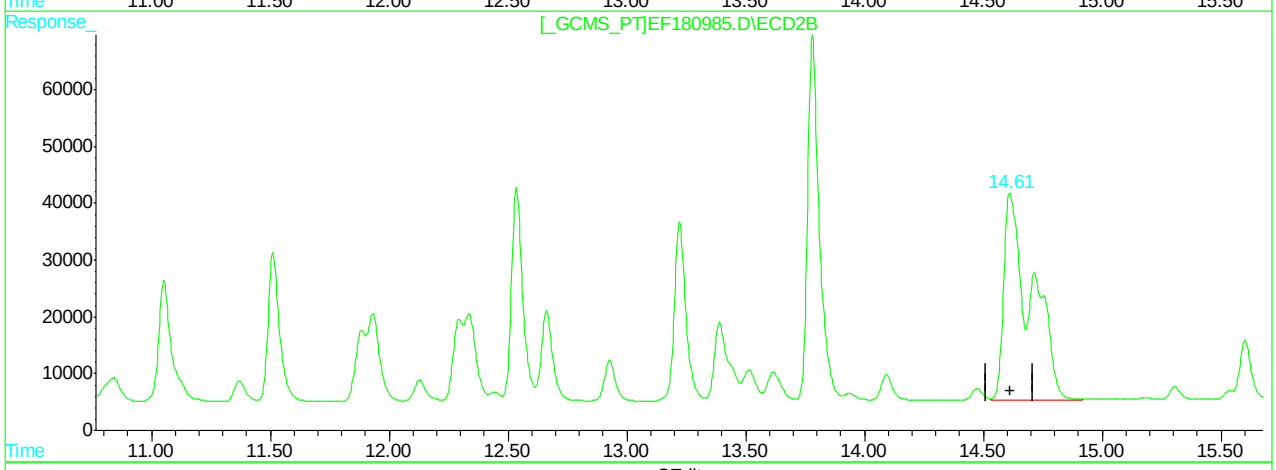
(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:56:21 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180985.D\ECD2B.CH
Acq On : 19 Mar 2018 10:24 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:54 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(35) AR1262-E

11.81min 1001.599PPB m

response 2428147

(35) AR1262-E #2

14.61min 1010.019PPB m

response 2912782

(+) = Expected Retention Time
EF180985.D PCB6195.M Tue Mar 20 15:56:34 2018 GCEF

11.6.47.7 11

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD1A.CH Vial: 30
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD2B.CH
Acq On : 19 Mar 2018 10:49 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:58 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.19	4.20	511368	722172	44.232	46.385
	Spiked Amount 40.000			Recovery	=	110.58%	115.96%
51) S	Decachlorobiphen	14.18	17.32	1704184	2052856	99.566	97.785
	Spiked Amount 40.000			Recovery	=	248.91%	244.46%
	Target Compounds						
12)	AR1242-A	4.25	5.98	448898	660002	959.325	969.222
13)	AR1242-B	5.04	6.92	996795	1290438	961.262	961.843
14)	AR1242-C	5.28	7.22	389150	564055	963.885	961.865
15)	AR1242-D	6.02	8.23	398757	390799	943.574	942.497
16)	AR1242-E	6.91	9.17	470247	514728	930.693	934.066
36)	AR1268-A	11.81	14.61	2123209	2490961	969.938	975.564
37)	AR1268-B	11.89	14.71	2224029	2688074	976.385	982.624
38)	AR1268-C	12.33	15.31	1767784	2146177	967.093	971.071
39)	AR1268-D	13.11	15.95	777585	946845	973.871	983.845
40)	AR1268-E	13.75	16.71	4747816	5868684	966.007	973.348

11.6.48 11

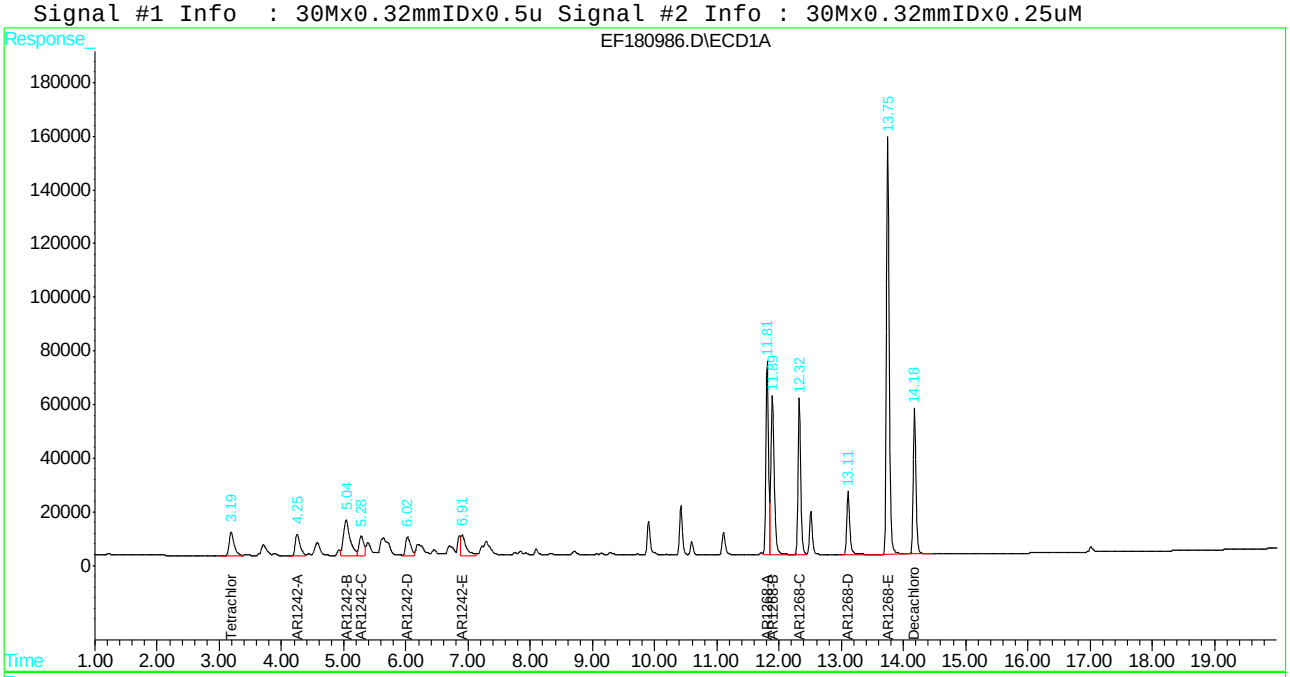
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180986.D PCB6195.M Tue Mar 20 15:59:42 2018 GCEF Page 1

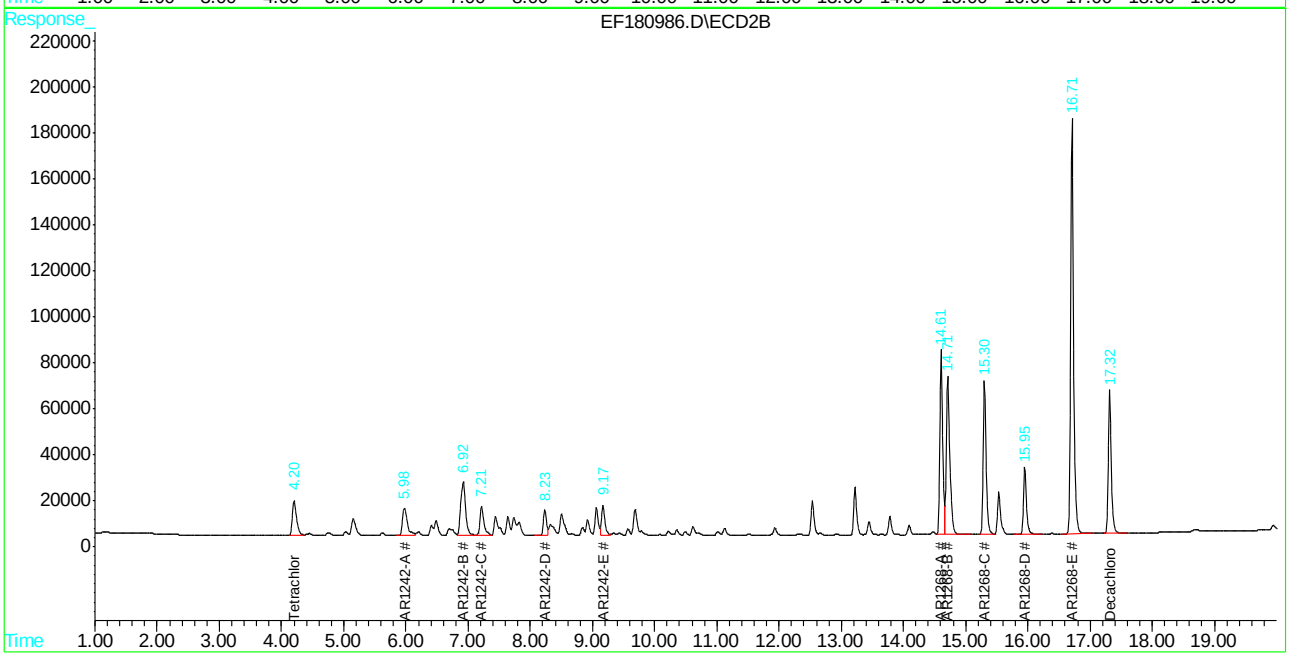
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD1A.CH Vial: 30
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180986.D\ECD2B.CH
Acq On : 19 Mar 2018 10:49 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:58 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/18 11:23

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 16:00 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.19	4.20	497552	736993	43.037	47.337
	Spiked Amount 40.000			Recovery =		107.59%	118.34%
51)	S Decachlorobiphen	14.18	17.32	704118	860316	41.138	40.980
	Spiked Amount 40.000			Recovery =		102.84%	102.45%
	Target Compounds						
17)	AR1248-A	4.25	5.97	227637	321735	926.106	924.139
18)	AR1248-B	5.04	6.92	679849	864093	973.009	980.247
19)	AR1248-C	5.63	7.64	678423	503158	983.300m	997.429
20)	AR1248-D	6.02	8.23	627783	611724	1004.855	1004.339
21)	AR1248-E	6.18	8.50	535719	693518	995.460m	1026.019
22)	AR1248-F	6.90	9.16	757058	919702	1069.934	1042.821
23)	AR1248-G	7.28	9.69	526907	811006	1052.635m	1057.929

11.6.49 11

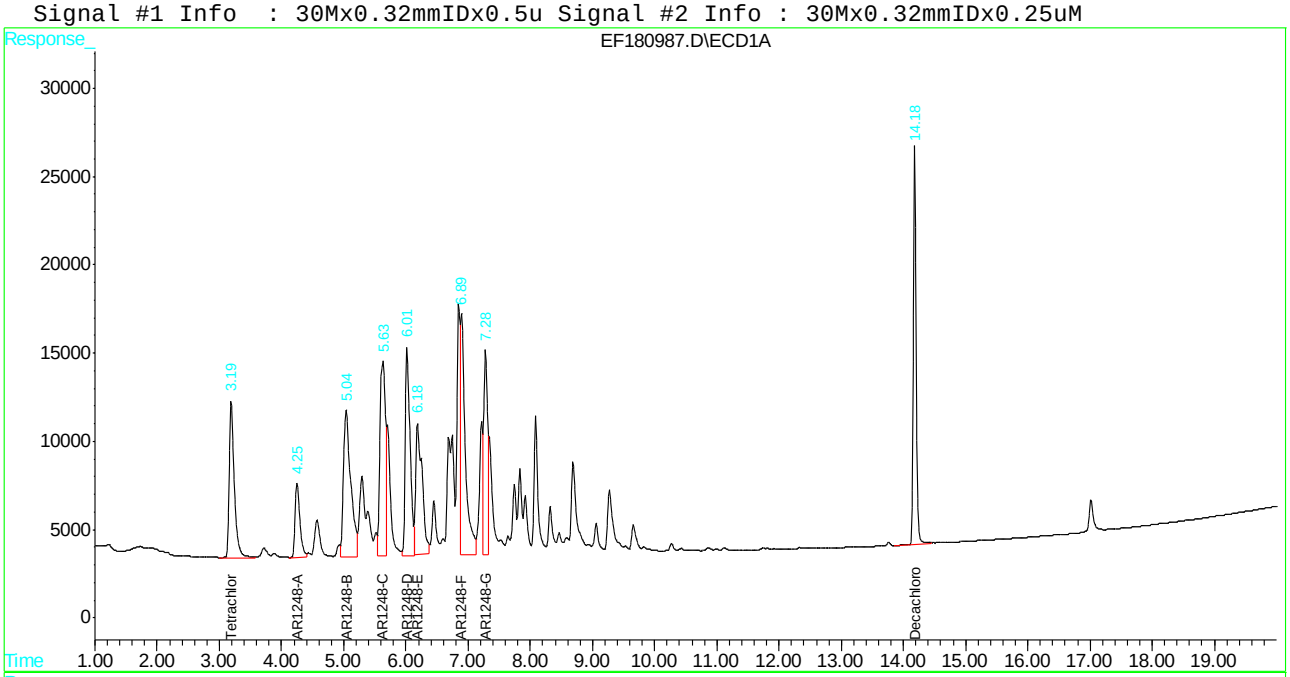
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF180987.D PCB6195.M Tue Mar 20 16:01:06 2018 GCEF Page 1

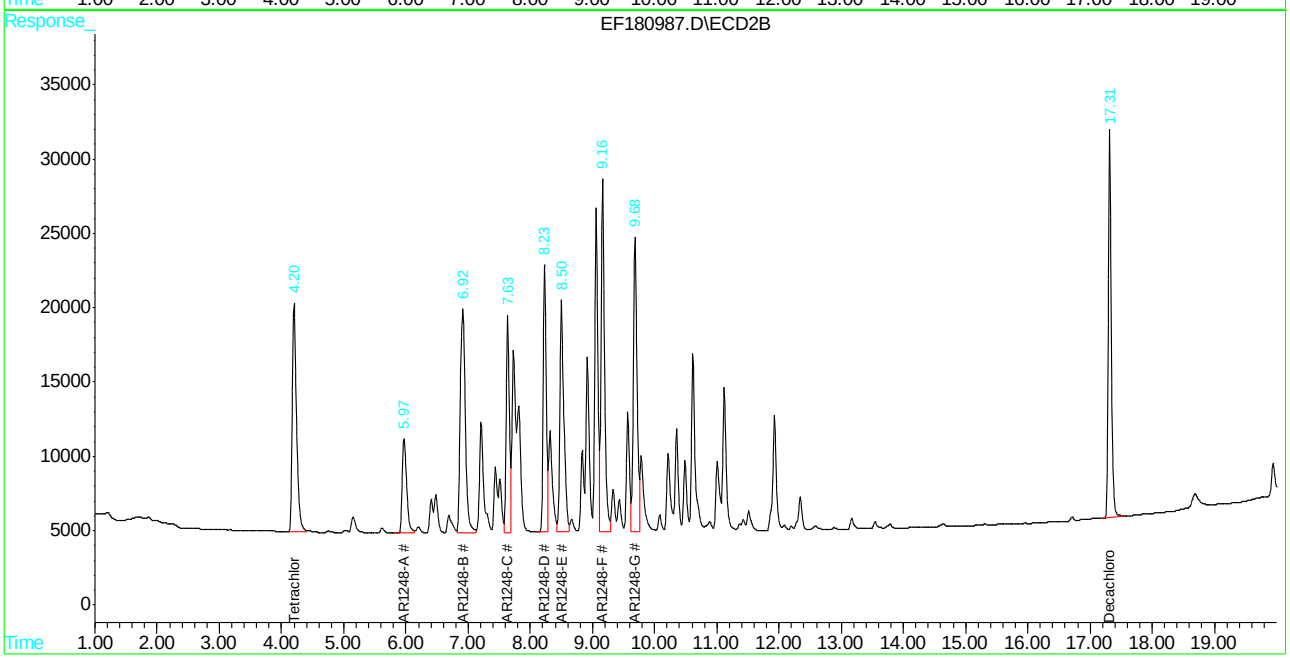
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 16:00 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

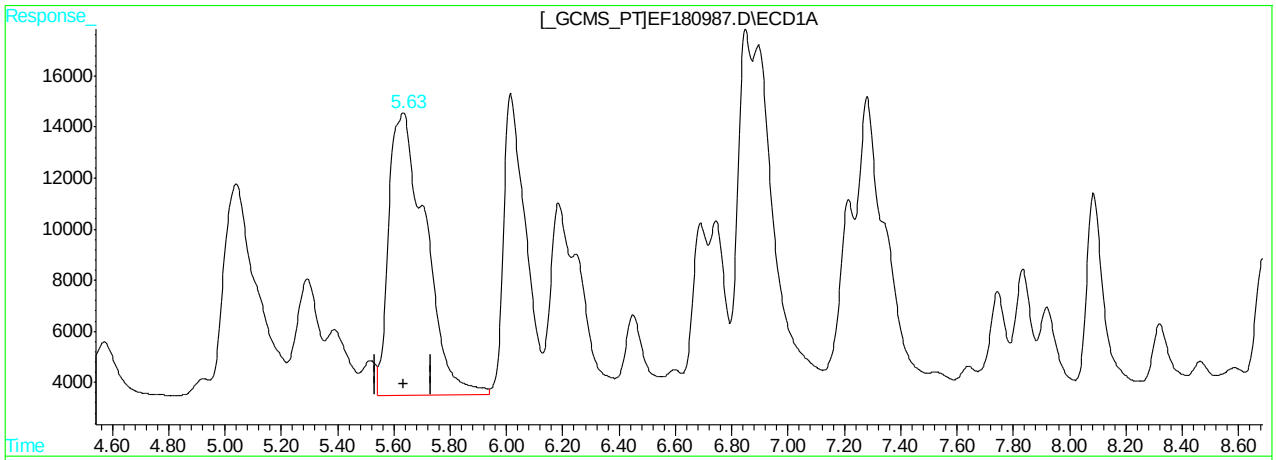
Sample Number:	GEF6195-ICV6195	**Method:**	SW846 8082A
Lab FileID:	EF180987.D	**Analyst approved:**	03/20/18 16:10 Tianwei Ruan
Injection Time:	03/19/18 23:14	**Supervisor approved:**	03/21/18 11:23 Gwendolyn Burns

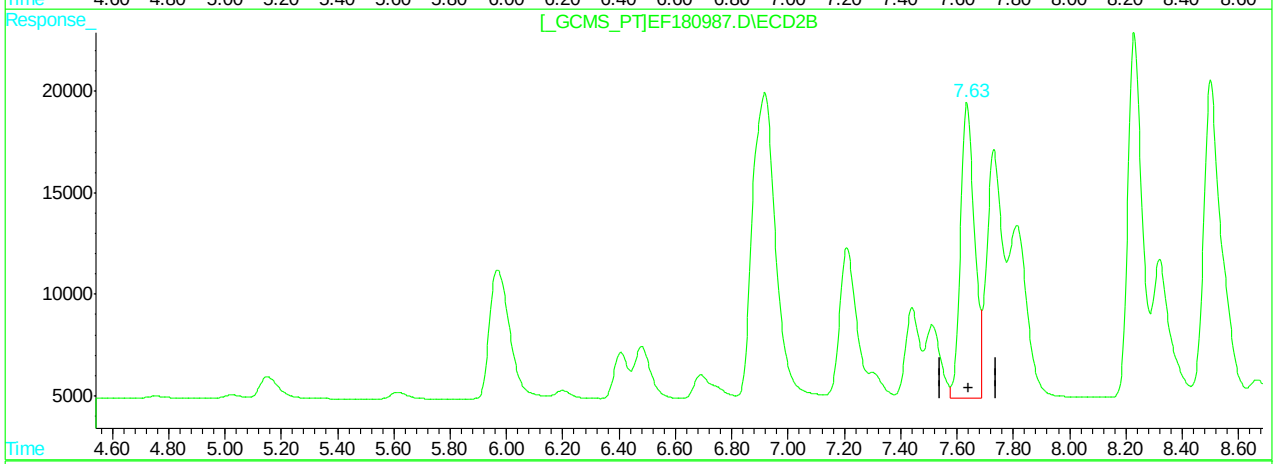
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-C		1	5.63	Split peak
AR1248-E		1	6.18	Split peak
Ar1248-G		1	7.28	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(19) AR1248-C

5.63min 1456.143PPB

response 1004659

(19) AR1248-C #2

7.64min 997.429PPB

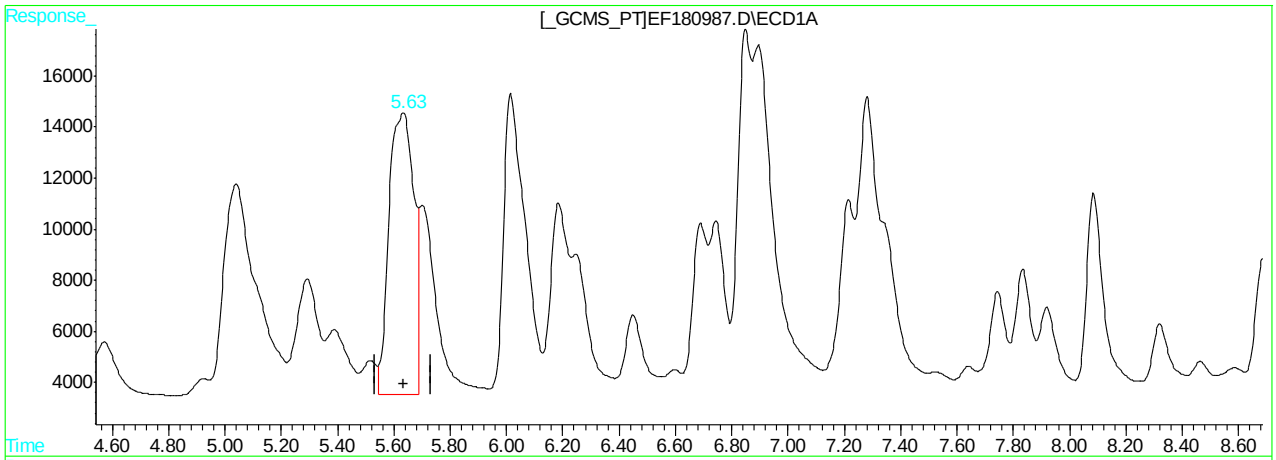
response 503158

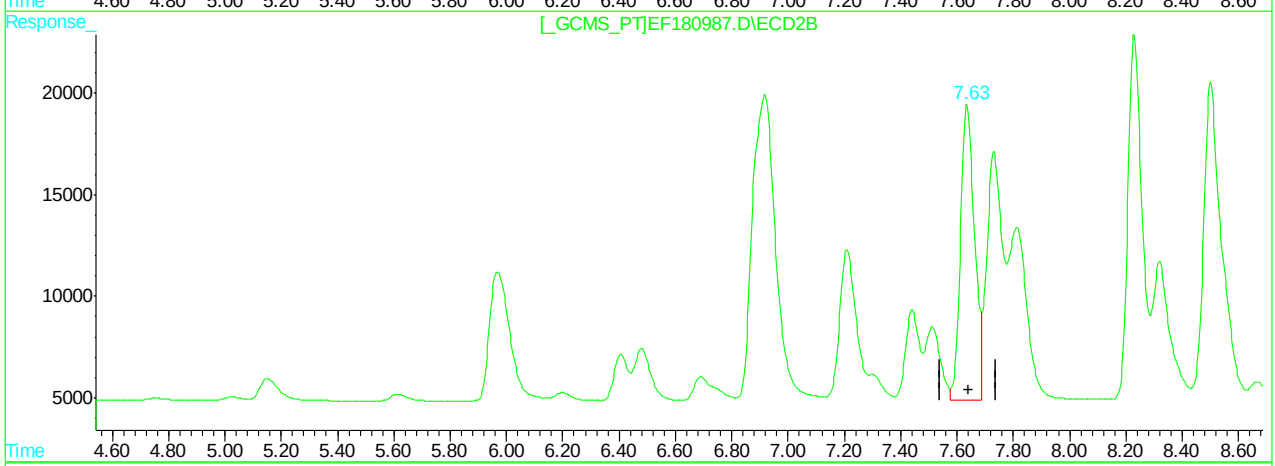
(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(19) AR1248-C

5.63min 983.300PPB m

response 678423

(19) AR1248-C #2

7.64min 997.429PPB

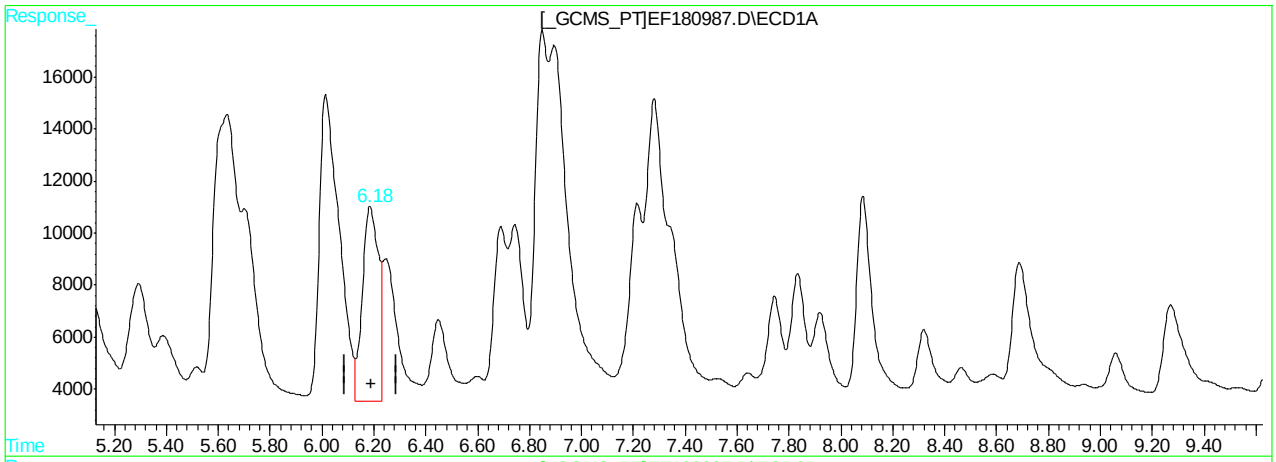
response 503158

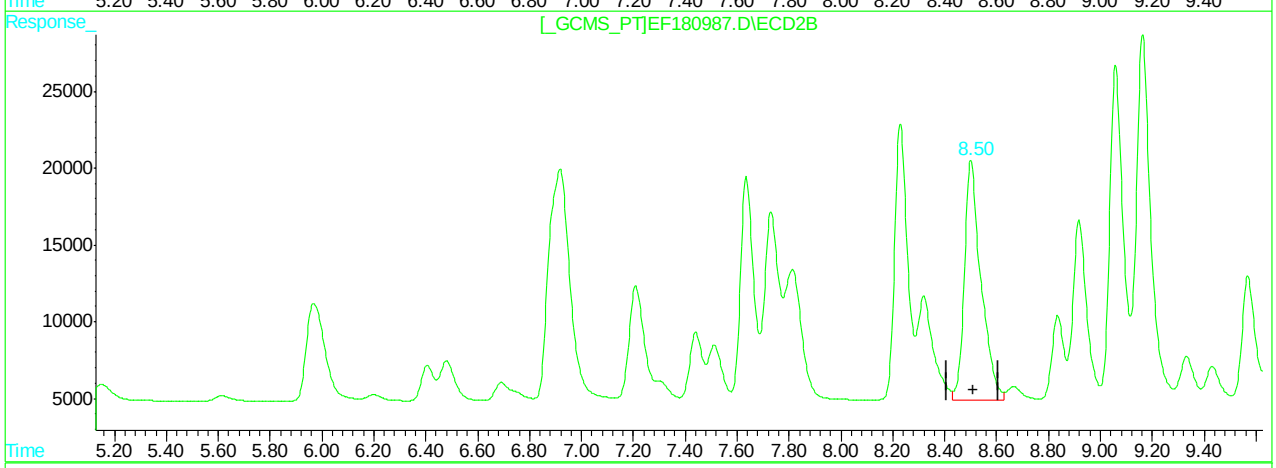
(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:23 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(21) AR1248-E

6.19min 608.192PPB

response 327306

(21) AR1248-E #2

8.50min 1026.019PPB

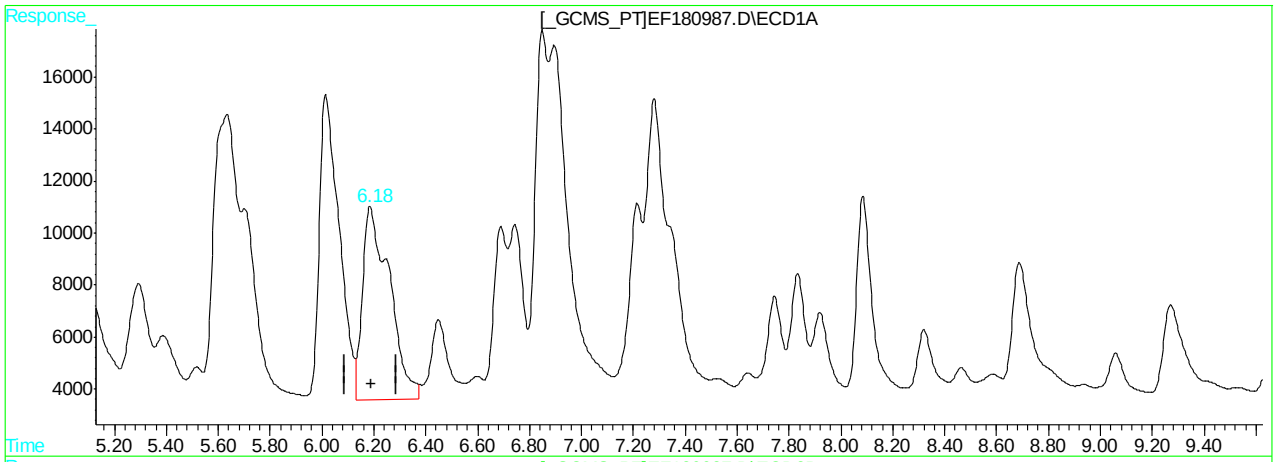
response 693518

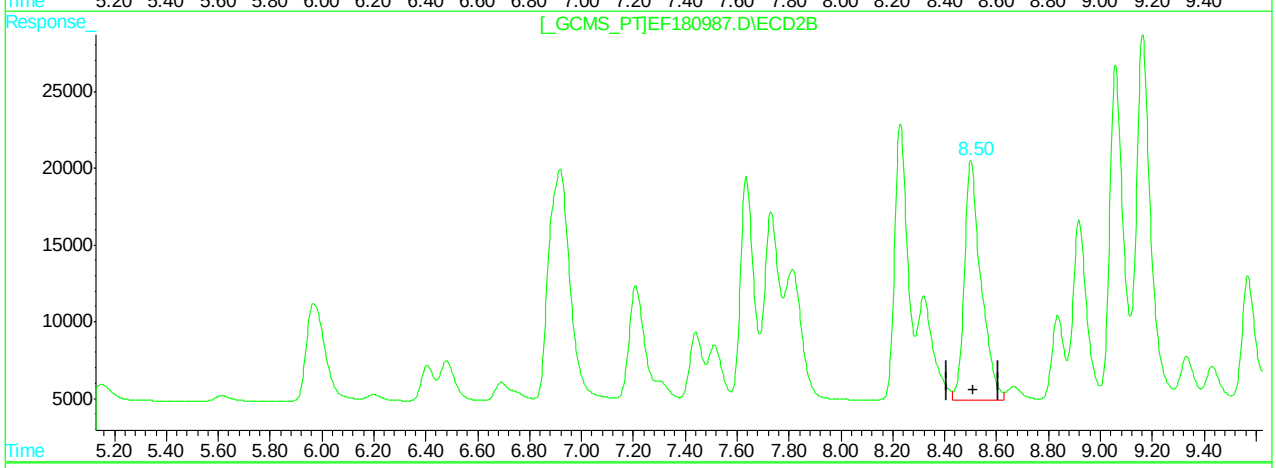
(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:30 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(21) AR1248-E

6.18min 995.460PPB m

response 535719

(21) AR1248-E #2

8.50min 1026.019PPB

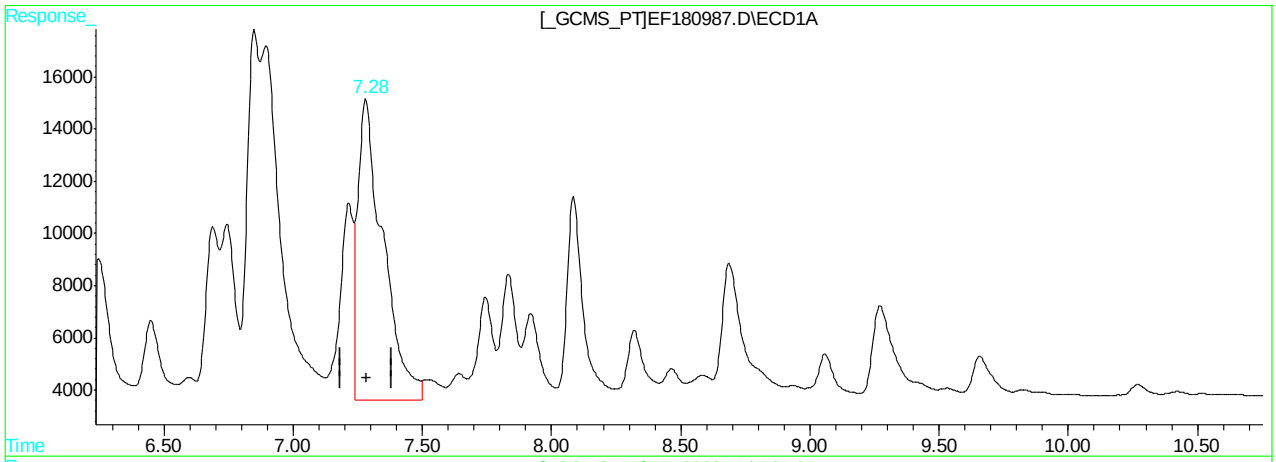
response 693518

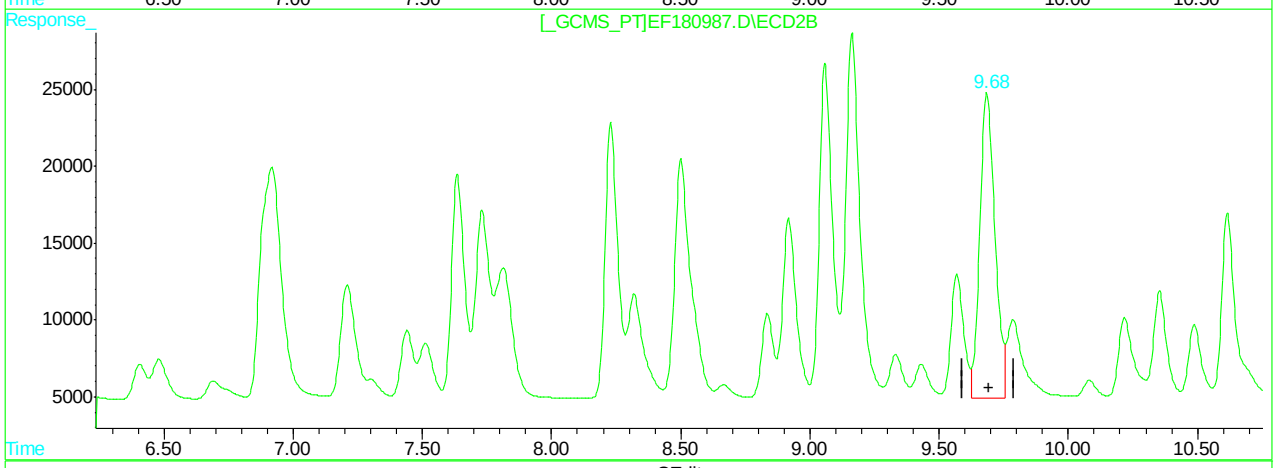
(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:38 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(23) AR1248-G

7.28min 1585.937PPB

response 793857

(23) AR1248-G #2

9.69min 1057.929PPB

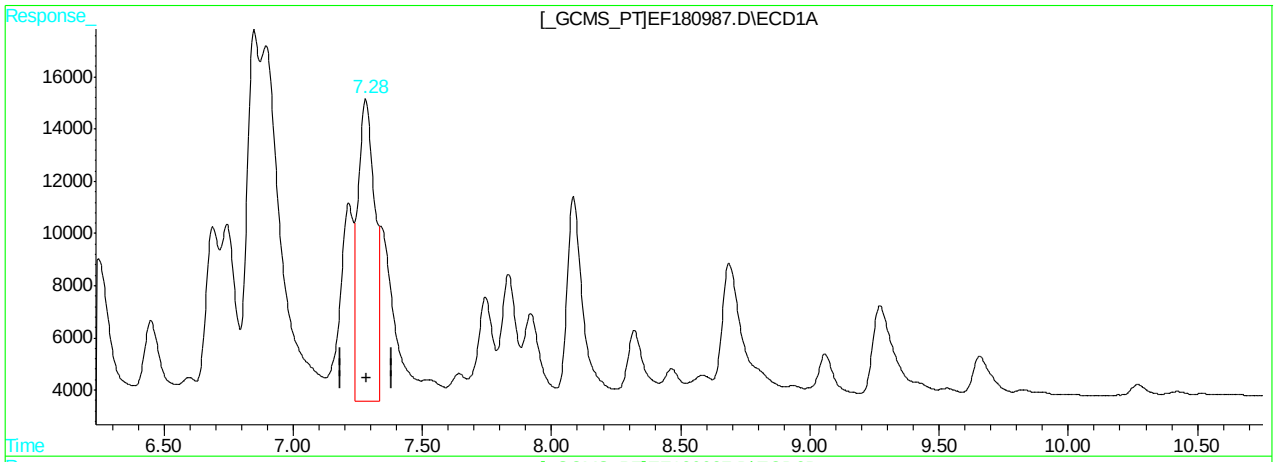
response 811006

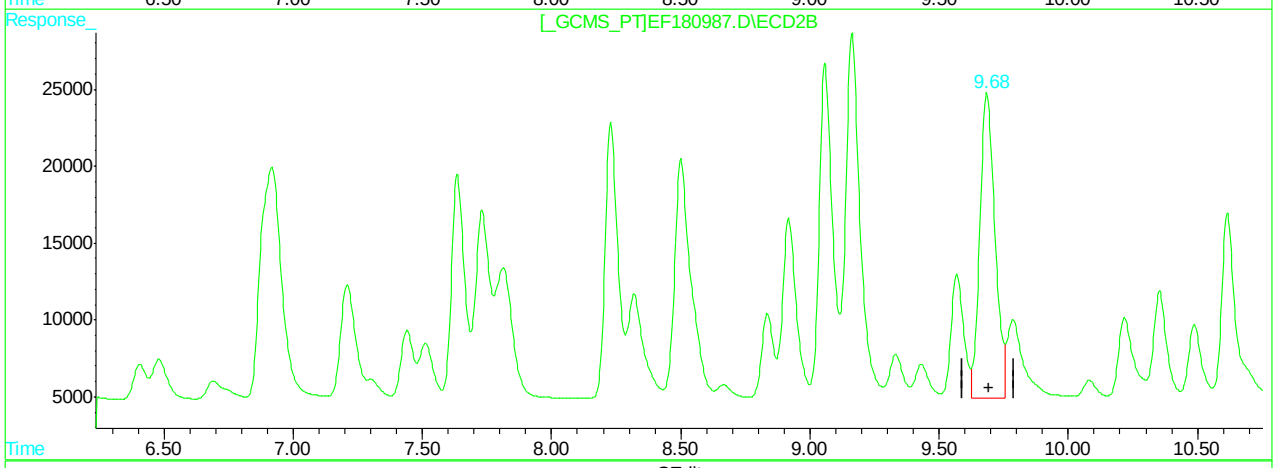
(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:45 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6195\EF180987.D\ECD2B.CH
Acq On : 19 Mar 2018 11:14 pm Operator: tianweir
Sample : icv6195-1000 Inst : gcef
Misc : op10670,GEF6195,16.3,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 20 15:59 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Single Level Calibration





QEdit

(23) AR1248-G

7.28min 1052.635PPB m

response 526907

(23) AR1248-G #2

9.69min 1057.929PPB

response 811006

(+) = Expected Retention Time
EF180987.D PCB6195.M Tue Mar 20 16:00:59 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/27/18 13:49

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181177.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181177.D\ECD2B.CH
Acq On : 27 Mar 2018 12:11 pm Operator: humarahb
Sample : cc 6195-1000 Inst : gcef
Misc : op10818,GEF6202,15.6,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 12:33 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.20	4.20	478135	653805	41.358	41.994
	Spiked Amount 40.000			Recovery =		103.40%	104.99%
51) S	Decachlorobiphen	14.18	17.30	733139	880028	42.833	41.919
	Spiked Amount 40.000			Recovery =		107.08%	104.80%
	Target Compounds						
41)	AR1016-A	3.74	5.16	305200	420560	963.343	1026.303
42)	AR1016-B	4.26	5.98f	571213	749607	1035.899	930.758
43)	AR1016-C	5.07f	6.92f	1207323	1585456	983.425	986.989
44)	AR1016-D	5.30f	7.22f	500028	727457	1050.221	1059.188
45)	AR1016-E	6.04	8.23f	524323	491024	1060.853	1022.741
46)	AR1260-A	9.66	12.33	1425597	1865218	1046.965	1046.672
47)	AR1260-B	9.90	12.53	715823	841768	1088.930	1044.601
48)	AR1260-C	10.43	13.21	640862	902726	1042.329	1048.829
49)	AR1260-D	11.11	13.77	1772484	1907261	1130.972	1063.707
50)	AR1260-E	11.73	14.63	1719999	2038683	1114.444m	1092.767

11.6.50 11

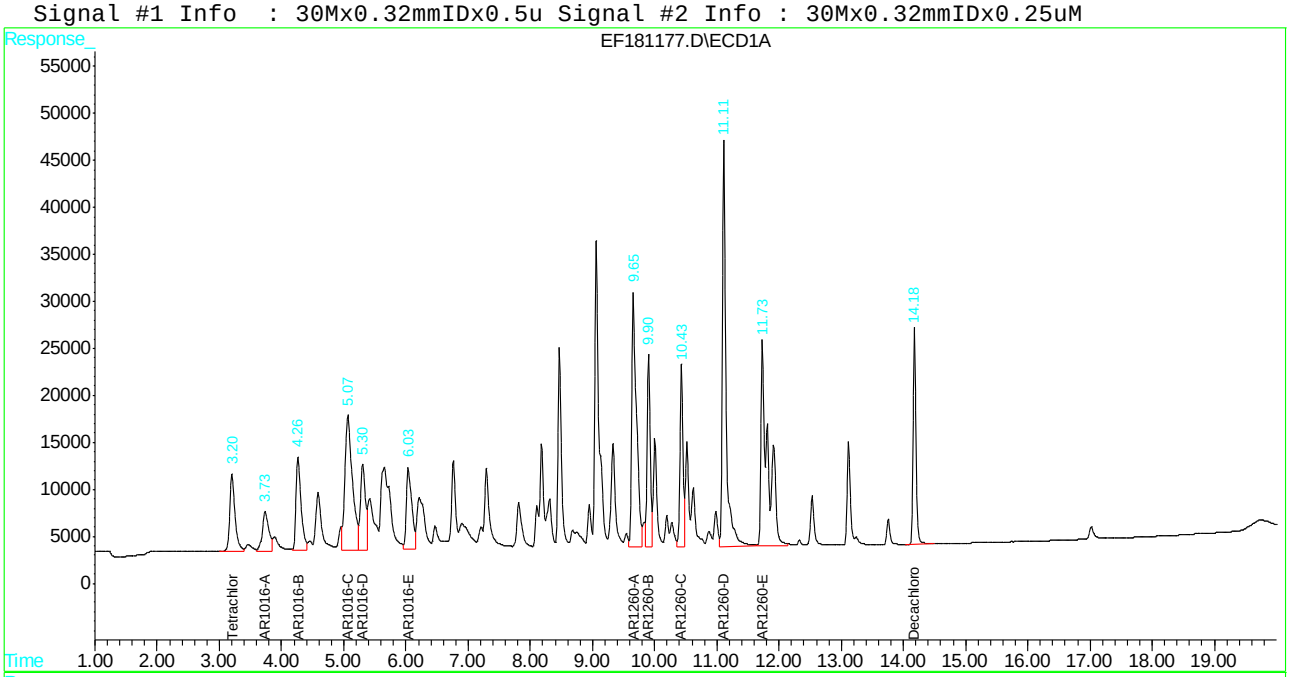
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181177.D PCB6195.M Tue Mar 27 12:33:26 2018 GCEF Page 1

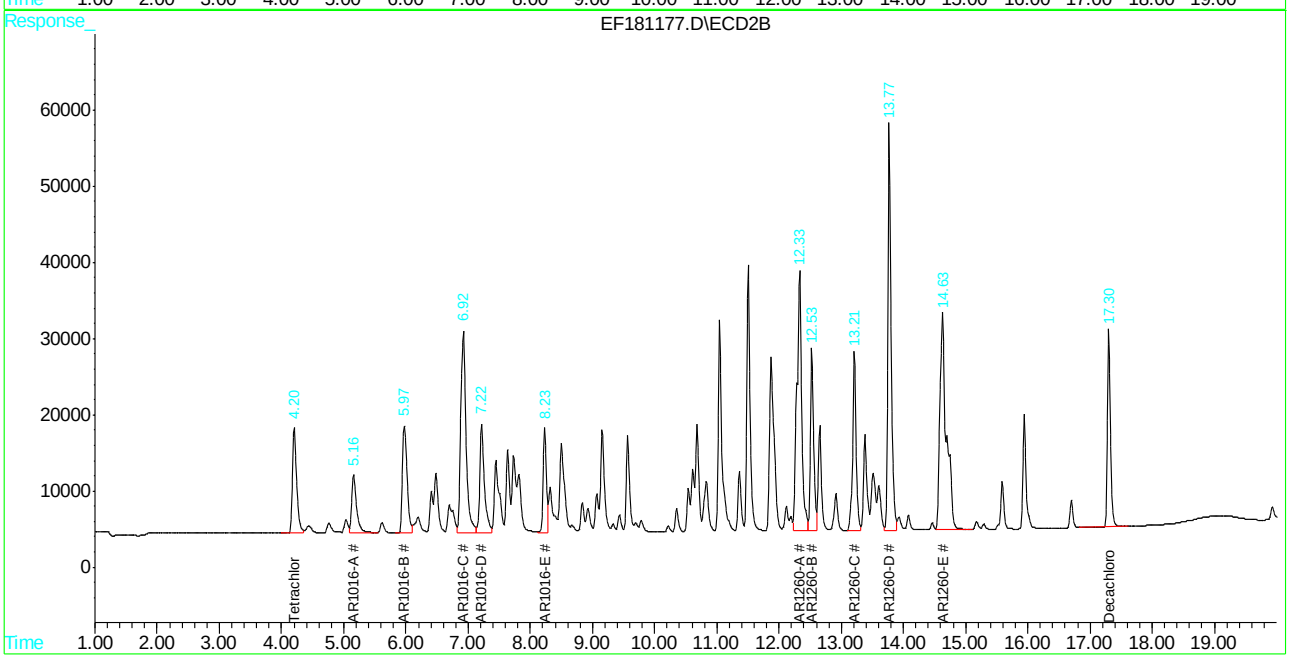
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181177.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181177.D\ECD2B.CH
Acq On : 27 Mar 2018 12:11 pm Operator: humarahb
Sample : cc 6195-1000 Inst : gcef
Misc : op10818,GEF6202,15.6,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 12:33 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62879

Manual Integration Approval Summary

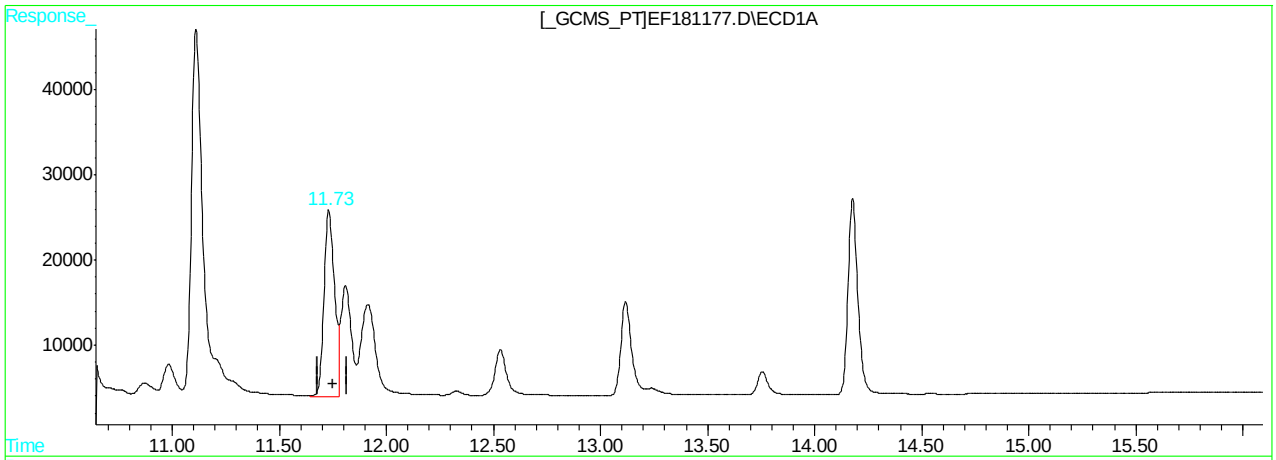
Sample Number:	GEF6202-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181177.D	**Analyst approved:**	03/27/18 12:48 Humarah Bano
Injection Time:	03/27/18 12:11	**Supervisor approved:**	03/27/18 13:49 Gwendolyn Burns

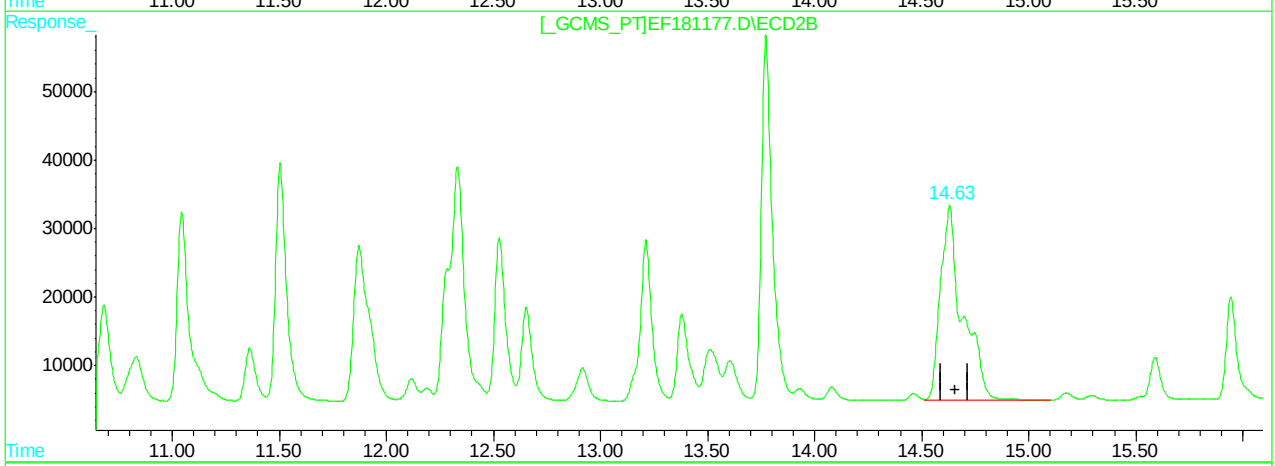
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	11.73	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181177.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181177.D\ECD2B.CH
Acq On : 27 Mar 2018 12:11 pm Operator: humarahb
Sample : cc 6195-1000 Inst : gcef
Misc : op10818,GEF6202,15.6,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 12:32 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 481.973PPB

response 743863

(50) AR1260-E #2

14.63min 1092.767PPB

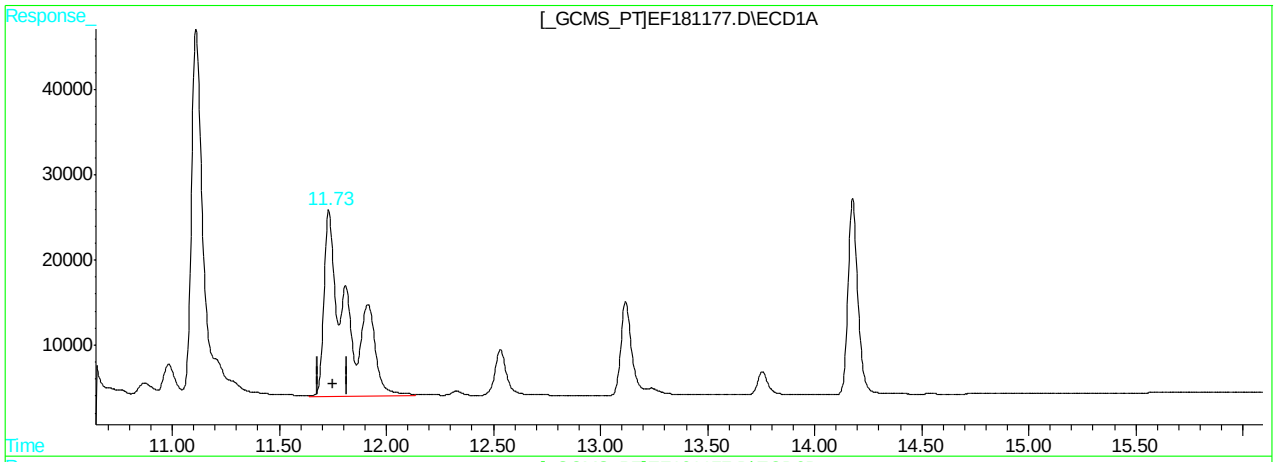
response 2038683

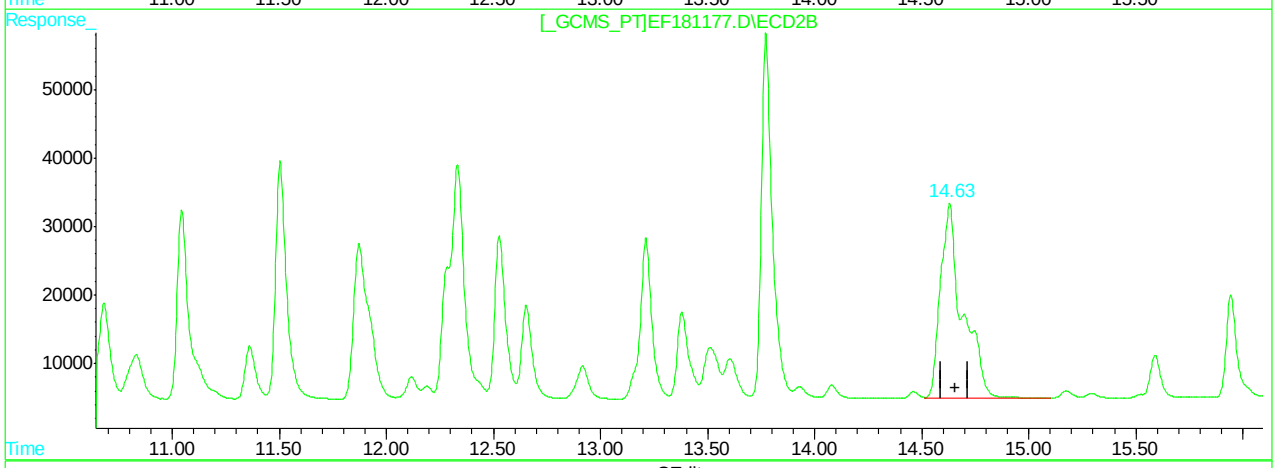
(+) = Expected Retention Time
EF181177.D PCB6195.M Tue Mar 27 12:33:04 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181177.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181177.D\ECD2B.CH
Acq On : 27 Mar 2018 12:11 pm Operator: humarahb
Sample : cc 6195-1000 Inst : gcef
Misc : op10818,GEF6202,15.6,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 12:32 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.73min 1114.444PPB m

response 1719999

(50) AR1260-E #2

14.63min 1092.767PPB

response 2038683

(+) = Expected Retention Time
EF181177.D PCB6195.M Tue Mar 27 12:33:11 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/28/18 16:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD2B.CH
Acq On : 27 Mar 2018 4:20 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10875,GEF6202,280,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 16:43 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.20	4.21	234136	318624	20.252	20.465
	Spiked Amount 40.000			Recovery =		50.63%	51.16%
51) S	Decachlorobiphen	14.19	17.31	385670	467967	22.532	22.291
	Spiked Amount 40.000			Recovery =		56.33%	55.73%
	Target Compounds						
41)	AR1016-A	3.74	5.17	147997	217877	467.142	531.691
42)	AR1016-B	4.27	5.98	295896	404926	536.609	502.781
43)	AR1016-C	5.09	6.94	594536	845471	484.279m	526.328
44)	AR1016-D	5.32	7.23	262201	381700	550.707	555.761
45)	AR1016-E	6.04	8.24	266260	254210	538.719	529.488
46)	AR1260-A	9.67	12.34	722657	973955	530.723	546.538
47)	AR1260-B	9.91	12.54	375986	450415	571.960	558.948
48)	AR1260-C	10.44	13.22	326126	472789	530.426	549.309
49)	AR1260-D	11.12	13.78	899468	980846	573.925	547.032
50)	AR1260-E	11.74	14.64	855703	1032186	554.438m	553.268m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181187.D PCB6195.M Tue Mar 27 16:43:50 2018 GCEF Page 1

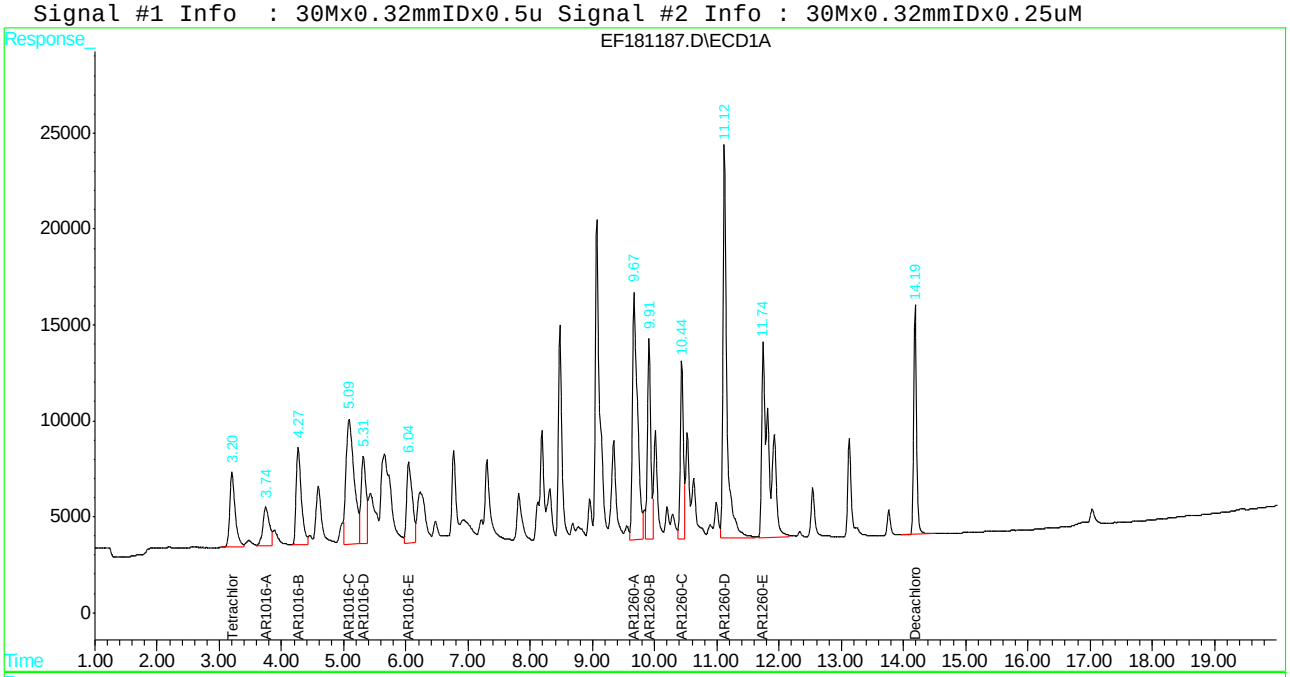
11.6.51
11

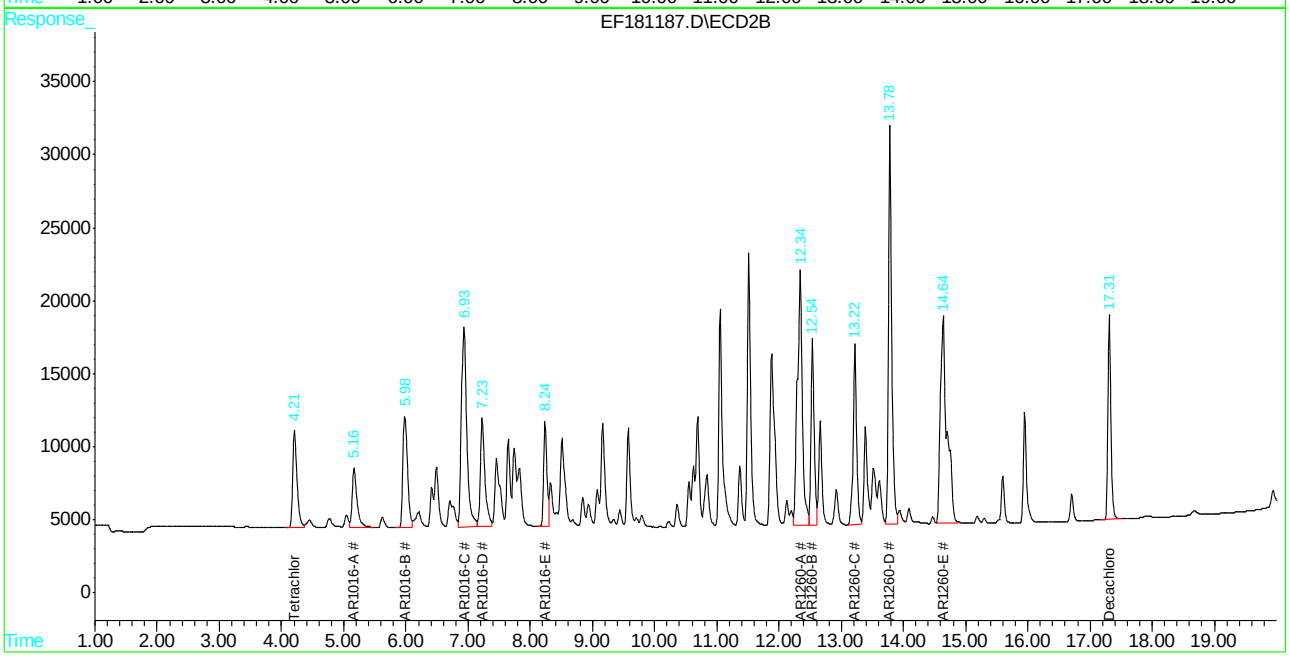
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD2B.CH
Acq On : 27 Mar 2018 4:20 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10875,GEF6202,280,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 16:43 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62879

Manual Integration Approval Summary

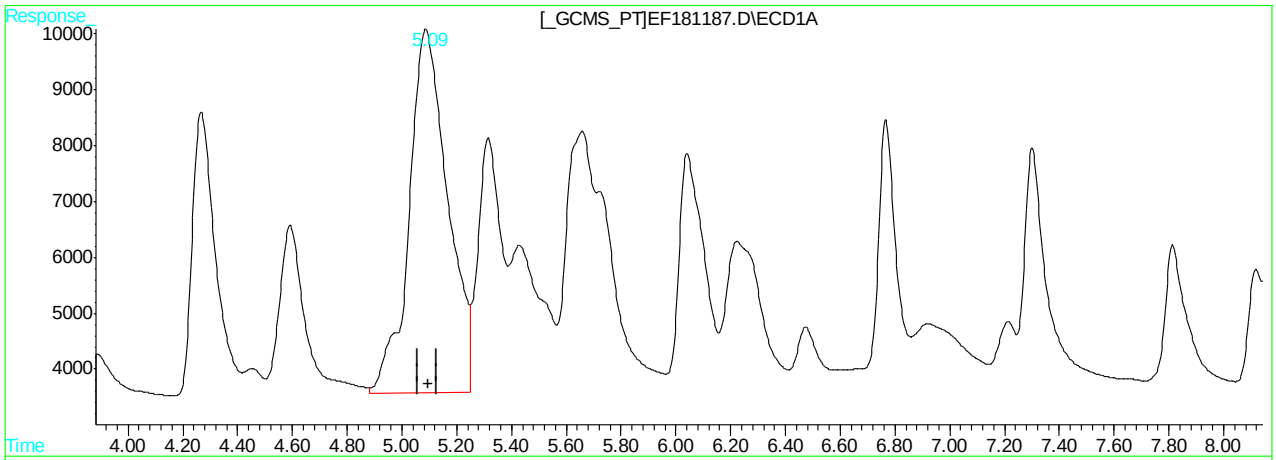
Sample Number:	GEF6202-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181187.D	**Analyst approved:**	03/27/18 16:52 Tianwei Ruan
Injection Time:	03/27/18 16:20	**Supervisor approved:**	03/28/18 16:47 Gwendolyn Burns

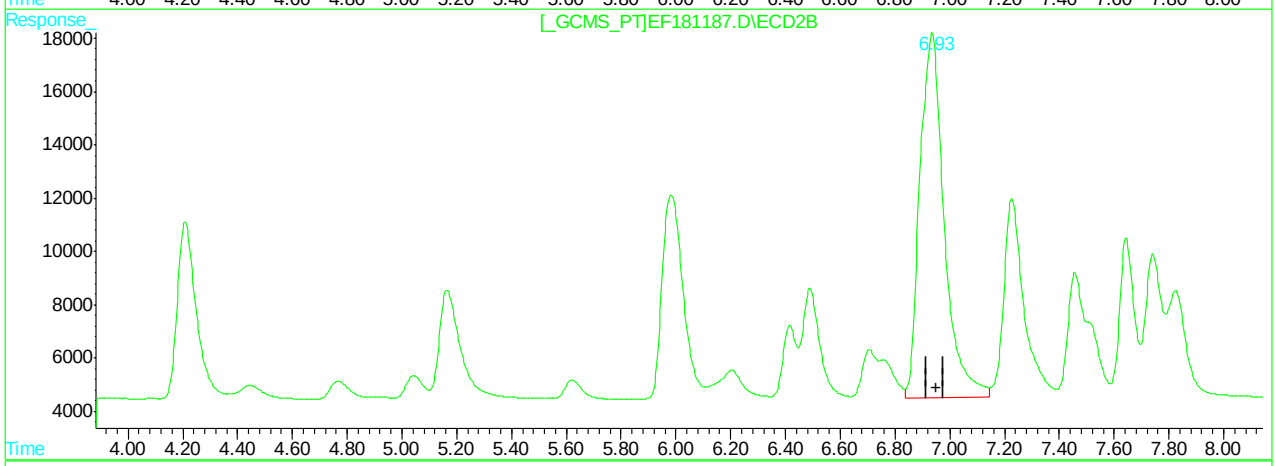
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		1	5.09	Split peak
AR1260-E		1	11.74	Split peak
AR1260-E		2	14.64	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD2B.CH
Acq On : 27 Mar 2018 4:20 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10875,GEF6202,280,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 16:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.09min 519.595PPB

response 637892

(43) AR1016-C #2

6.94min 526.328PPB

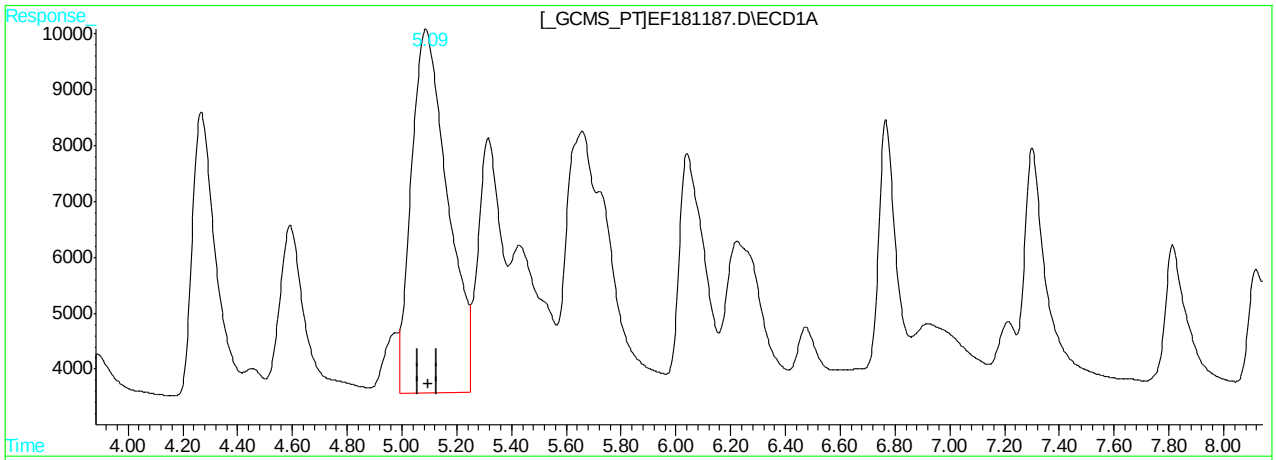
response 845471

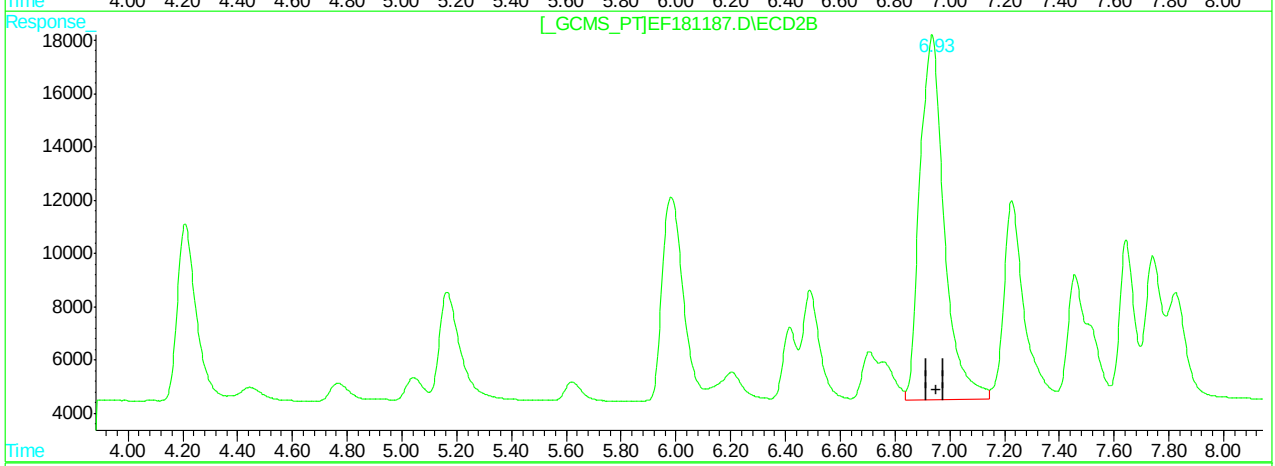
(+) = Expected Retention Time
EF181187.D PCB6195.M Tue Mar 27 16:43:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD2B.CH
Acq On : 27 Mar 2018 4:20 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10875,GEF6202,280,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 16:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.09min 484.279PPB m

response 594536

(43) AR1016-C #2

6.94min 526.328PPB

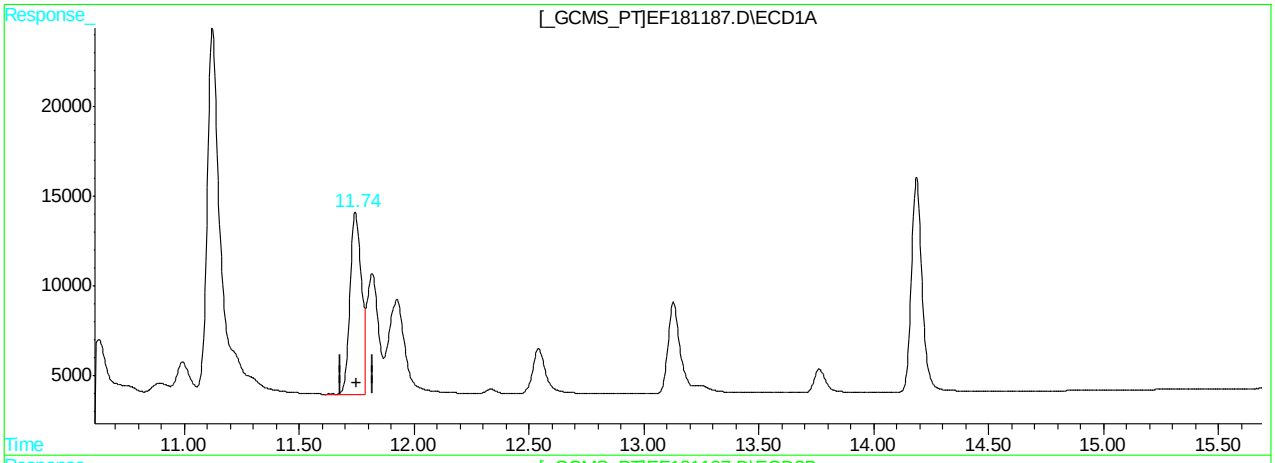
response 845471

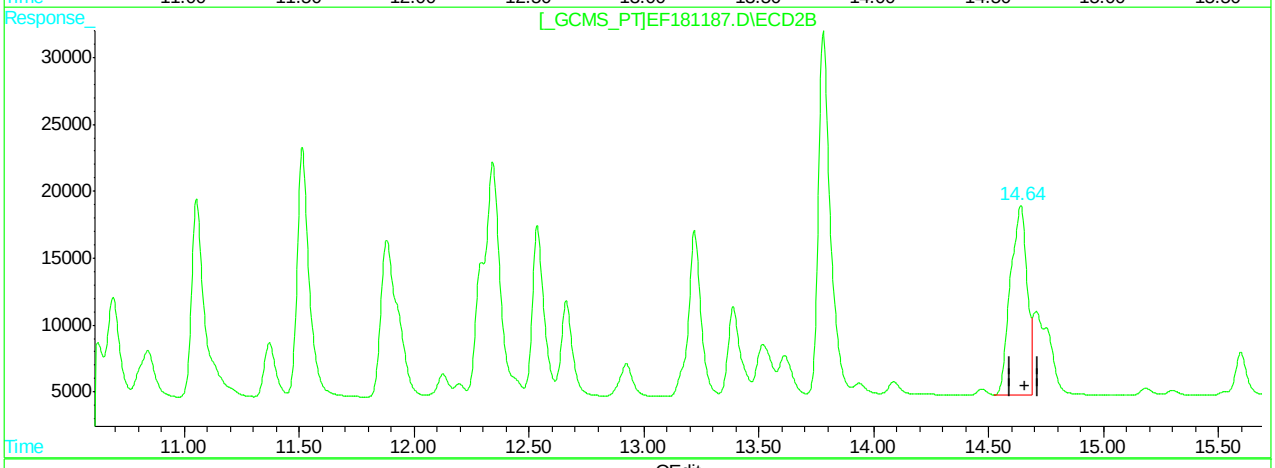
(+) = Expected Retention Time
EF181187.D PCB6195.M Tue Mar 27 16:43:20 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD2B.CH
Acq On : 27 Mar 2018 4:20 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10875,GEF6202,280,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 16:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 229.962PPB

response 354917

(50) AR1260-E #2

14.64min 382.411PPB

response 713432

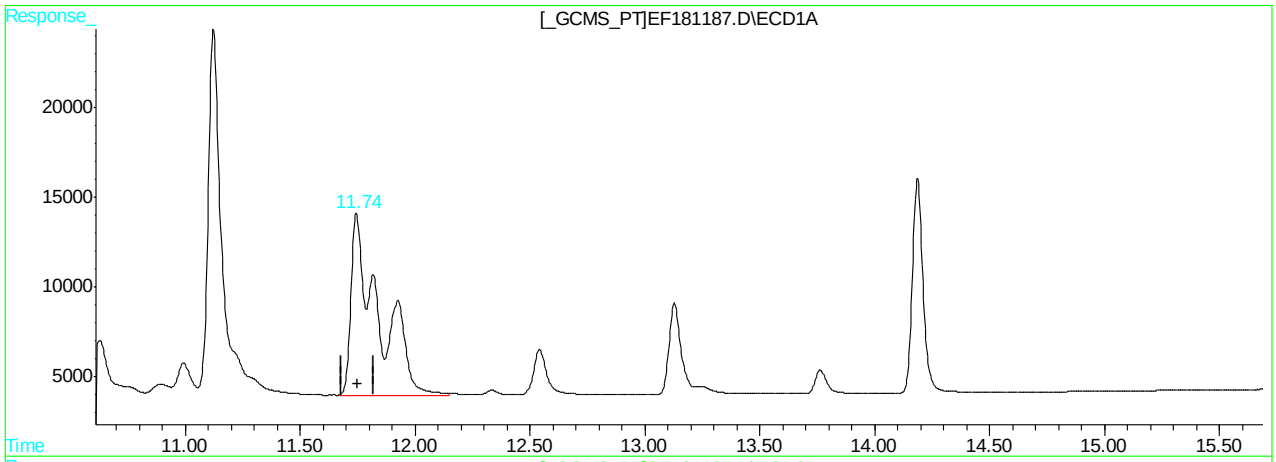
(+) = Expected Retention Time
EF181187.D PCB6195.M Tue Mar 27 16:43:29 2018 GCEF

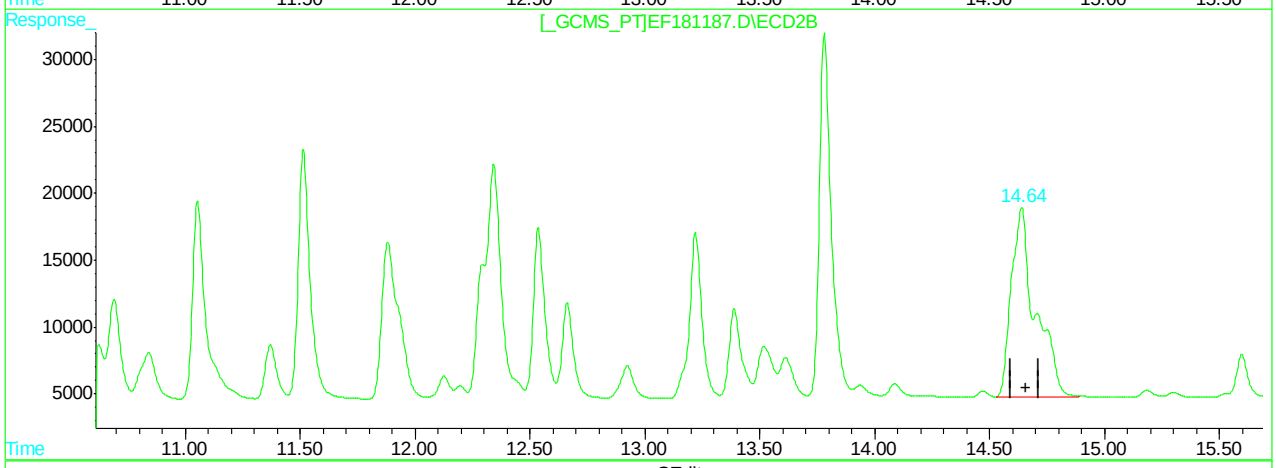
11.6.51.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181187.D\ECD2B.CH
Acq On : 27 Mar 2018 4:20 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10875,GEF6202,280,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 27 16:42 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 554.438PPB m

response 855703

(50) AR1260-E #2

14.64min 553.268PPB m

response 1032186

(+) = Expected Retention Time
EF181187.D PCB6195.M Tue Mar 27 16:43:40 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/28/18 16:47

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD2B.CH
Acq On : 27 Mar 2018 7:40 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10875,GEF6202,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:44 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.20	4.21	477008	646073	41.260	41.498
	Spiked Amount 40.000			Recovery	=	103.15%	103.75%
51) S	Decachlorobiphen	14.18	17.31	735237	888910	42.956	42.342
	Spiked Amount 40.000			Recovery	=	107.39%	105.85%
	Target Compounds						
41)	AR1016-A	3.74	5.16	291802	414742	921.054	1012.105
42)	AR1016-B	4.27	5.98	549887	739372	997.224	918.049
43)	AR1016-C	5.07f	6.93f	1152453	1574046	938.731m	979.886
44)	AR1016-D	5.31	7.22f	467882	718983	982.703	1046.849
45)	AR1016-E	6.04	8.24	453220	485255	916.990	1010.724
46)	AR1260-A	9.66	12.34	1383324	1824259	1015.919	1023.688
47)	AR1260-B	9.90	12.53	695069	822165	1057.358	1020.275
48)	AR1260-C	10.43	13.22	602544	881856	980.006	1024.582
49)	AR1260-D	11.12	13.78	1722200	1863161	1098.887	1039.112
50)	AR1260-E	11.74	14.64	1710019	2004700	1107.978m	1074.551m

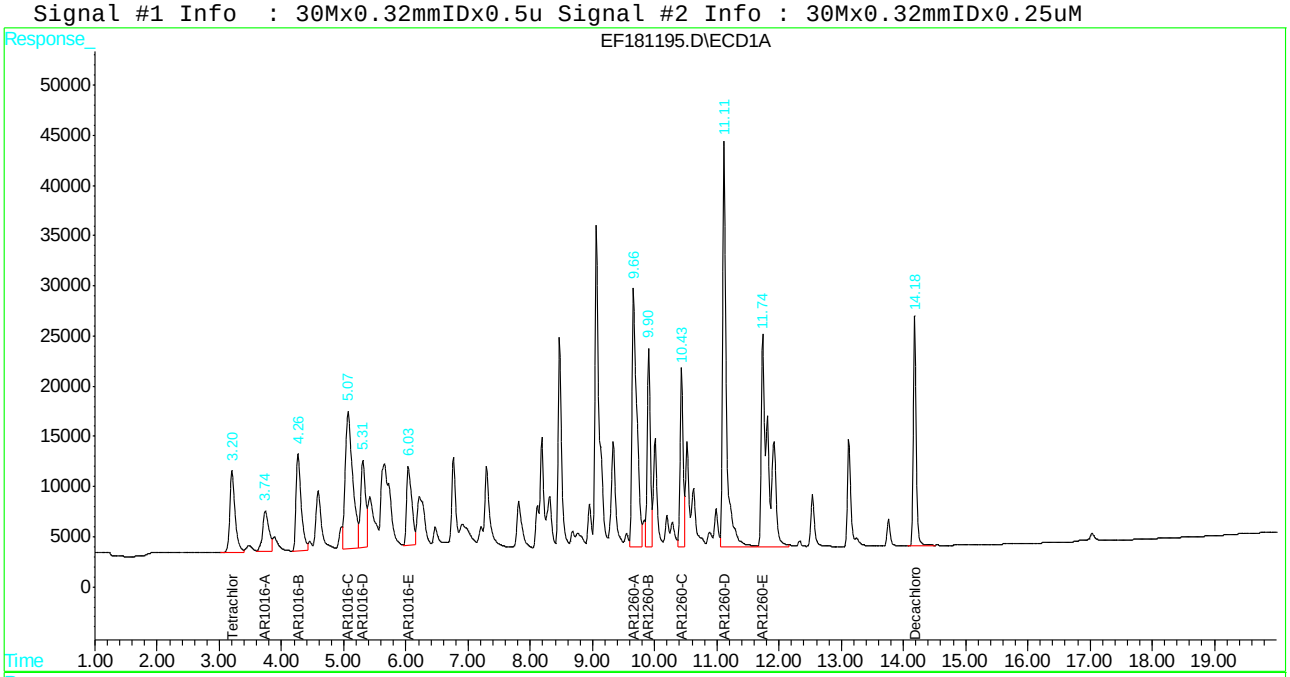
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181195.D PCB6195.M Wed Mar 28 08:44:37 2018 GCEF Page 1

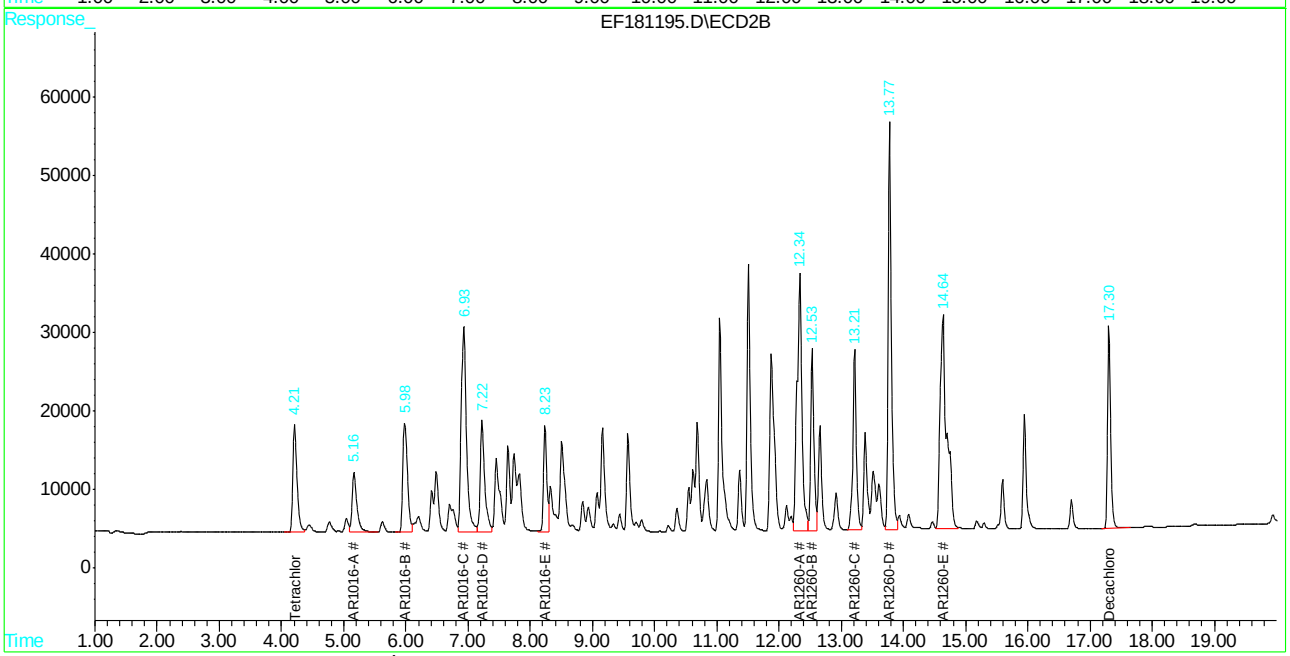
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD2B.CH
Acq On : 27 Mar 2018 7:40 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10875,GEF6202,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:44 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

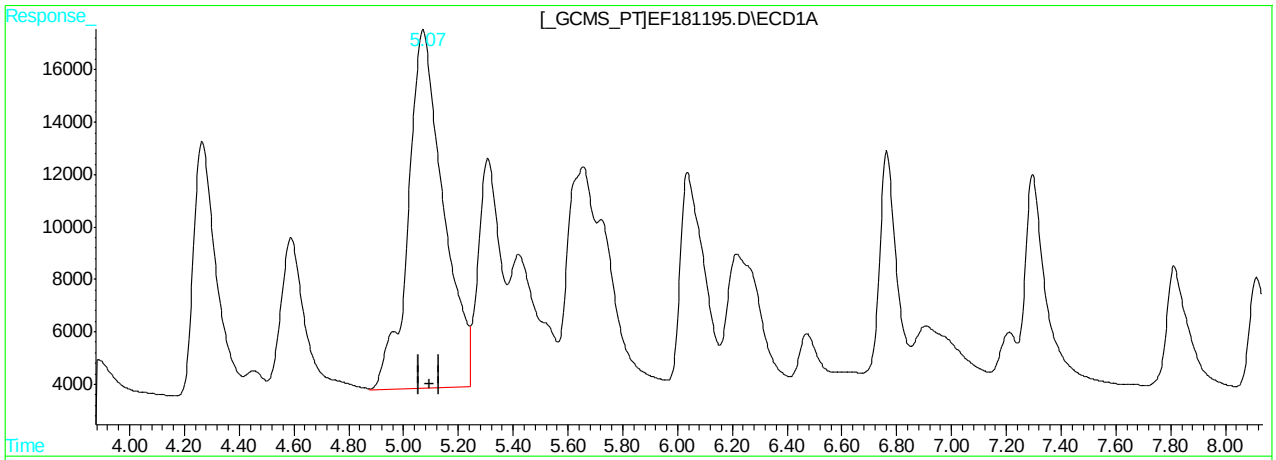
Sample Number:	GEF6202-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181195.D	**Analyst approved:**	03/28/18 09:27 Tianwei Ruan
Injection Time:	03/27/18 19:40	**Supervisor approved:**	03/28/18 16:47 Gwendolyn Burns

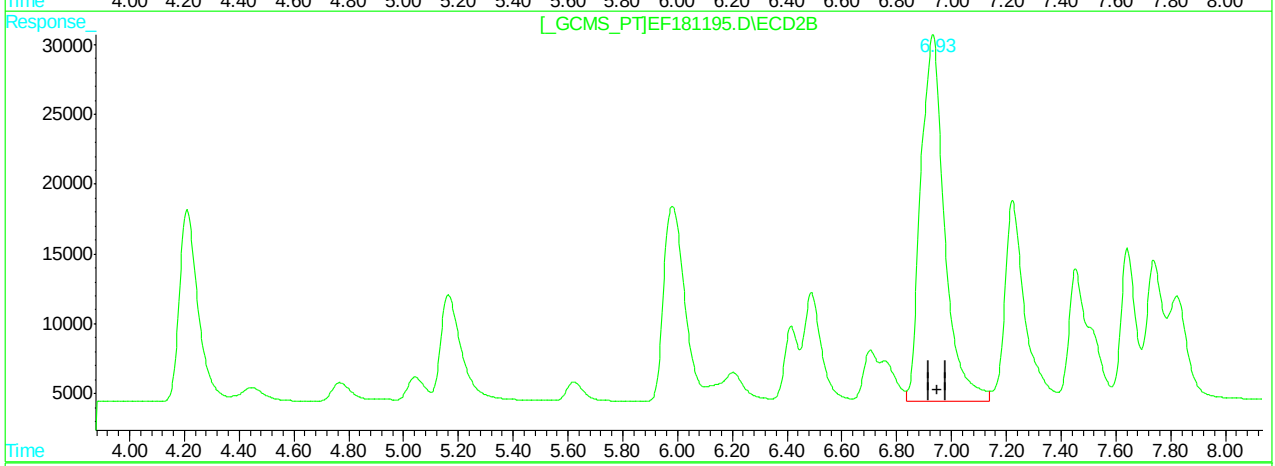
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		1	5.07	Split peak
AR1260-E		1	11.74	Split peak
AR1260-E		2	14.64	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD2B.CH
Acq On : 27 Mar 2018 7:40 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10875,GEF6202,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:43 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.07min 989.764PPB

response 1215106

(43) AR1016-C #2

6.93min 979.886PPB

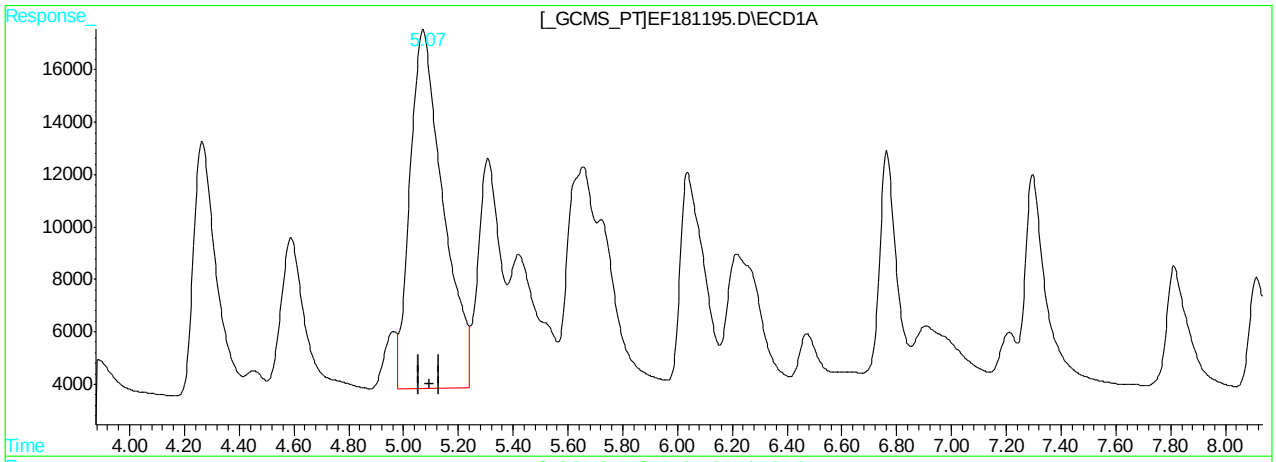
response 1574046

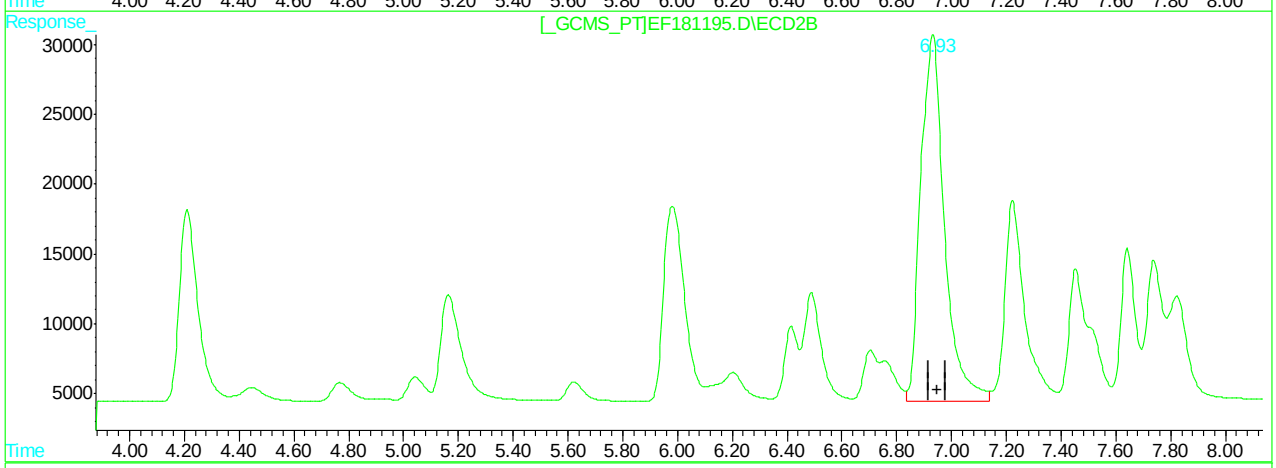
(+) = Expected Retention Time
EF181195.D PCB6195.M Wed Mar 28 08:43:52 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD2B.CH
Acq On : 27 Mar 2018 7:40 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10875,GEF6202,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:43 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.07min 938.731PPB m

response 1152453

(43) AR1016-C #2

6.93min 979.886PPB

response 1574046

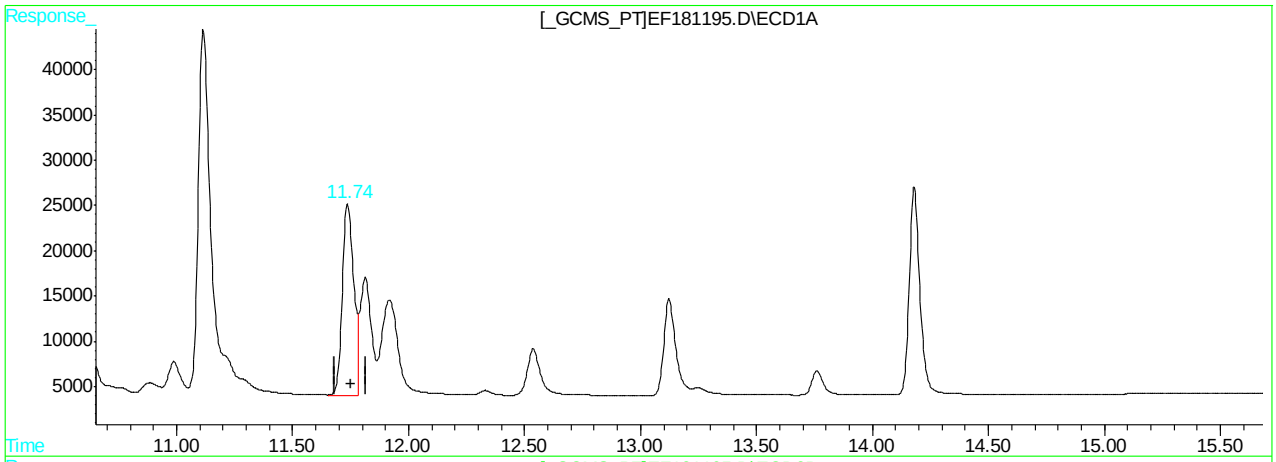
(+) = Expected Retention Time
EF181195.D PCB6195.M Wed Mar 28 08:44:06 2018 GCEF

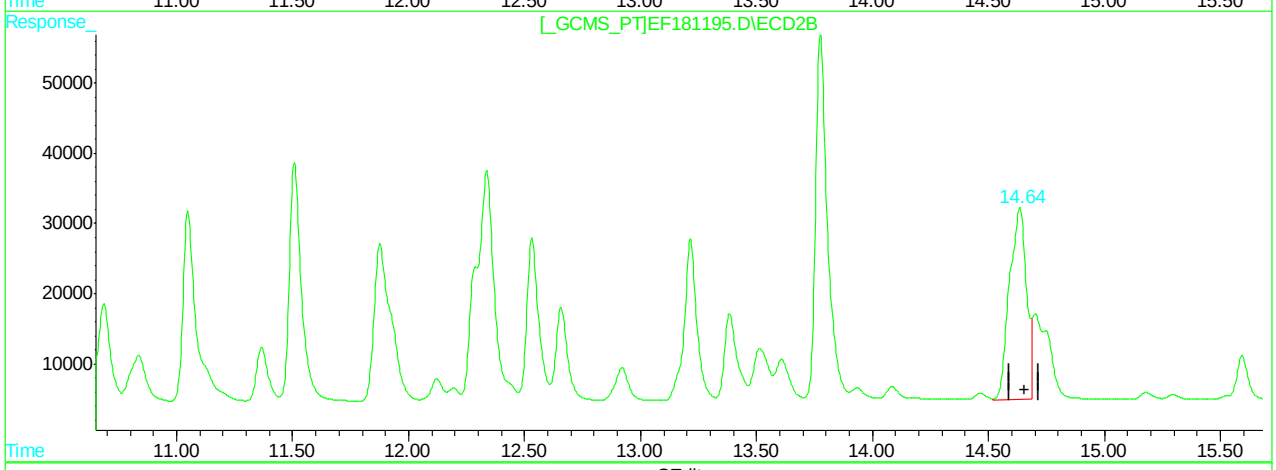
11.6.52.3 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD2B.CH
Acq On : 27 Mar 2018 7:40 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10875,GEF6202,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:43 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 470.754PPB

response 726547

(50) AR1260-E #2

14.64min 736.257PPB

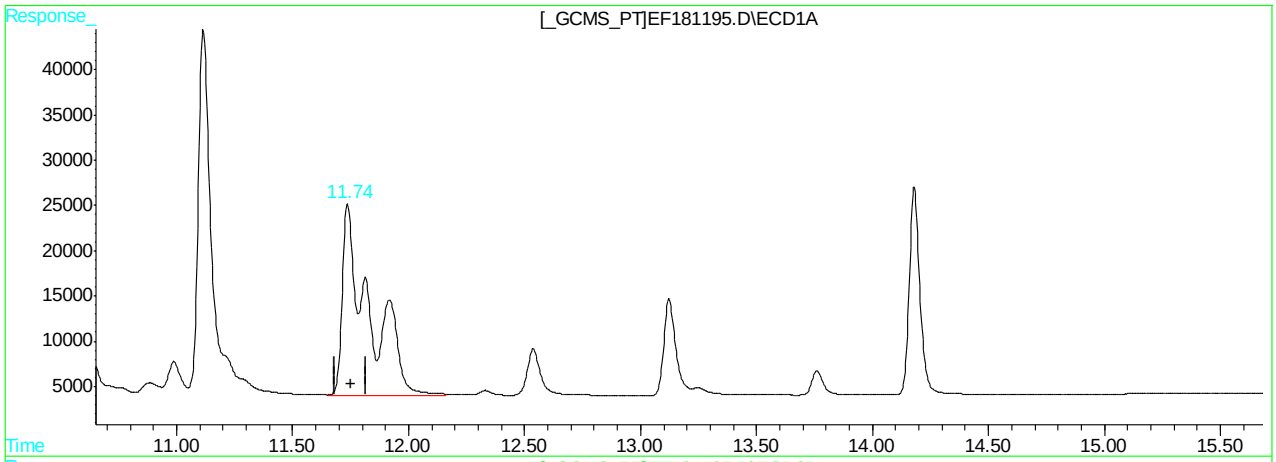
response 1373572

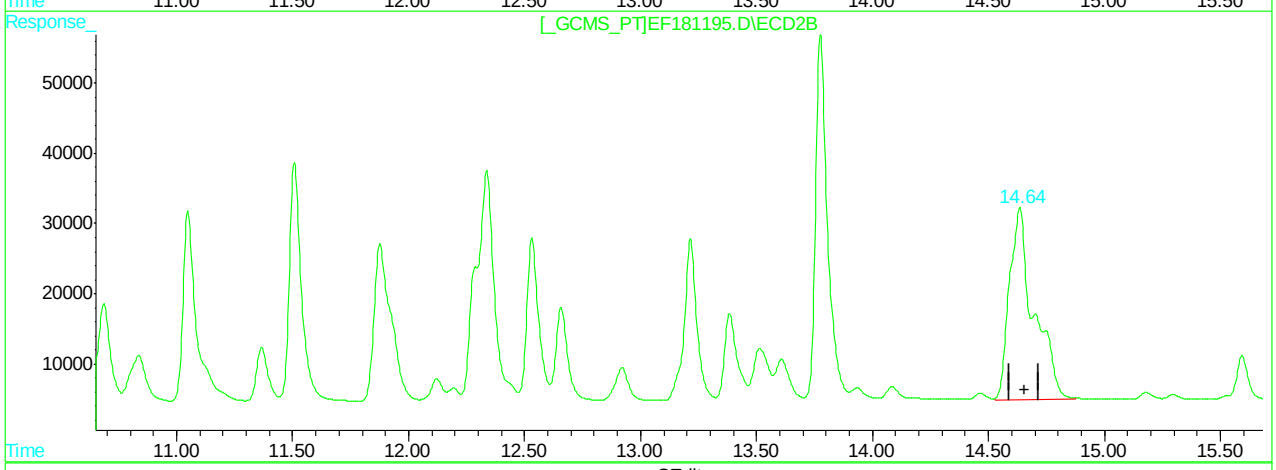
(+) = Expected Retention Time
EF181195.D PCB6195.M Wed Mar 28 08:44:17 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6202\EF181195.D\ECD2B.CH
Acq On : 27 Mar 2018 7:40 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10875,GEF6202,290,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 28 8:43 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 27 09:26:36 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.74min 1107.978PPB m

response 1710019

(50) AR1260-E #2

14.64min 1074.551PPB m

response 2004700

(+) = Expected Retention Time
EF181195.D PCB6195.M Wed Mar 28 08:44:30 2018 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
03/29/18 16:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:40 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.21	4.22	495853	670874	42.890	43.091
	Spiked Amount 40.000			Recovery =		107.22%	107.73%
51) S	Decachlorobiphen	14.19	17.32	739970	845493	43.232	40.274
	Spiked Amount 40.000			Recovery =		108.08%	100.69%
	Target Compounds						
41)	AR1016-A	3.75	5.17	309908	422462	978.202	1030.946
42)	AR1016-B	4.28	5.99	579392	753075	1050.731	935.064
43)	AR1016-C	5.08	6.94	1243904	1601598	1013.222m	997.038
44)	AR1016-D	5.32	7.24	513879	723803	1079.311	1053.867
45)	AR1016-E	6.05	8.25	529020	484265	1070.356	1008.663
46)	AR1260-A	9.67	12.35	1421283	1833854	1043.797	1029.073
47)	AR1260-B	9.92	12.54	781937	819985	1189.505	1017.570
48)	AR1260-C	10.45	13.23	616762	876582	1003.131	1018.455
49)	AR1260-D	11.13	13.79	1763580	1829280	1125.290	1020.216
50)	AR1260-E	11.75	14.65	1734352	1971023	1123.744m	1056.500m

11.6.53 11

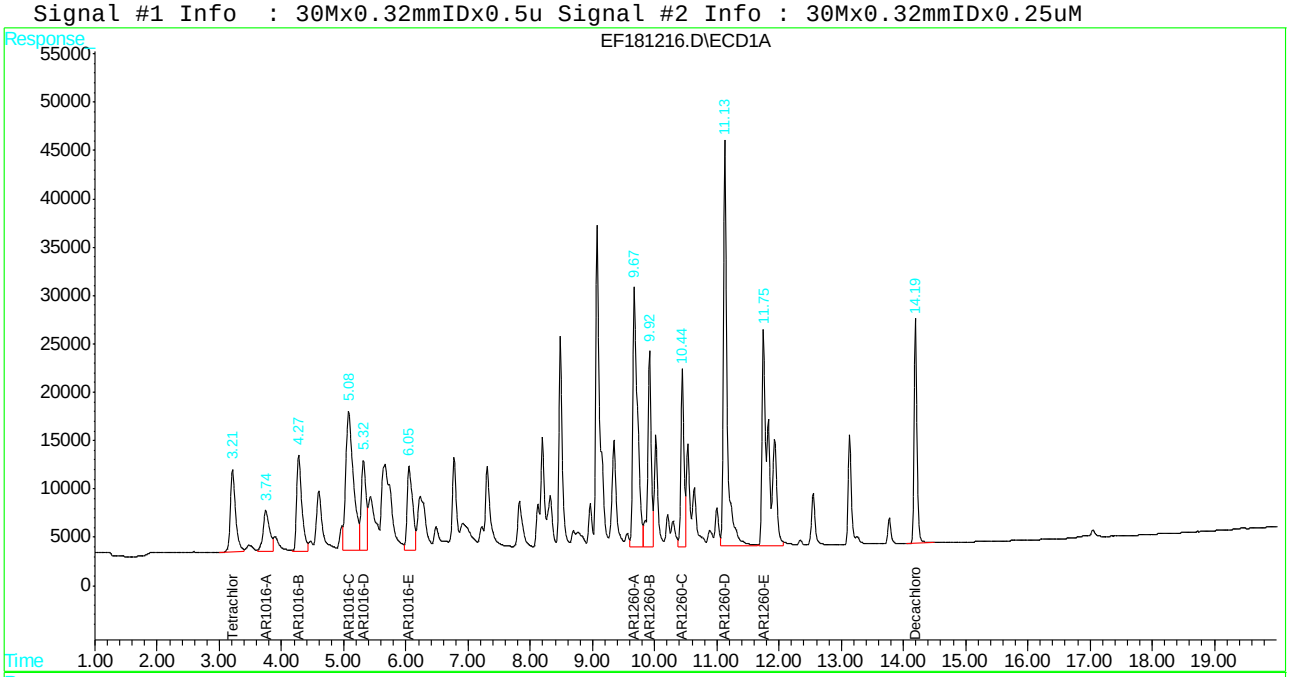
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181216.D PCB6195.M Thu Mar 29 08:40:47 2018 GCEF Page 1

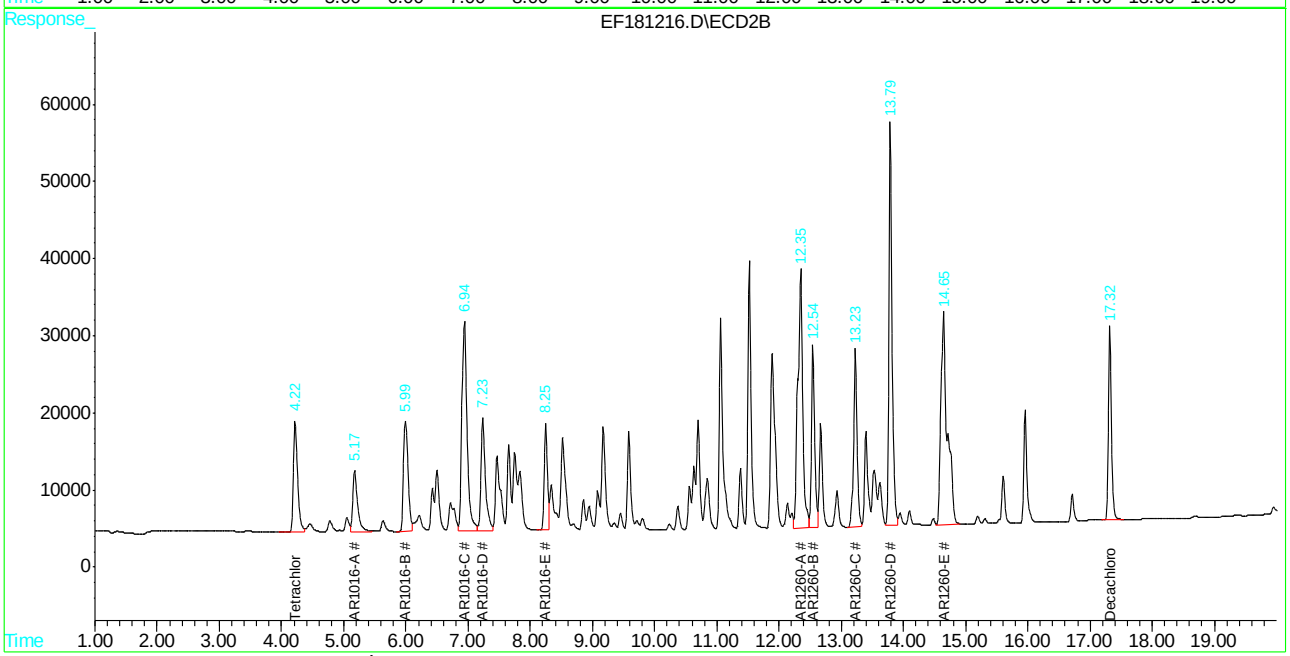
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:40 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62879

Manual Integration Approval Summary

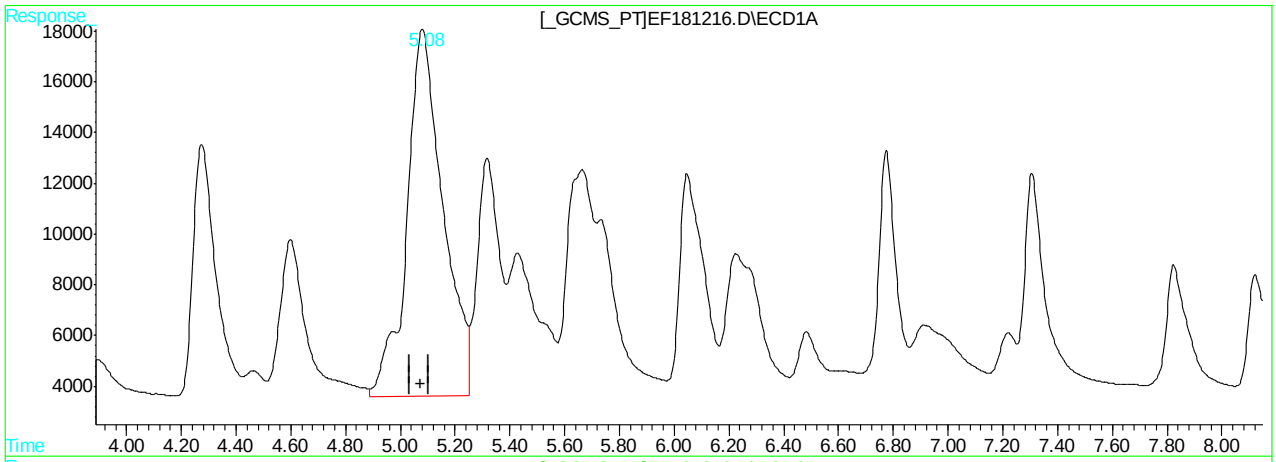
Sample Number:	GEF6203-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181216.D	**Analyst approved:**	03/29/18 08:49 Tianwei Ruan
Injection Time:	03/28/18 16:59	**Supervisor approved:**	03/29/18 16:19 Gwendolyn Burns

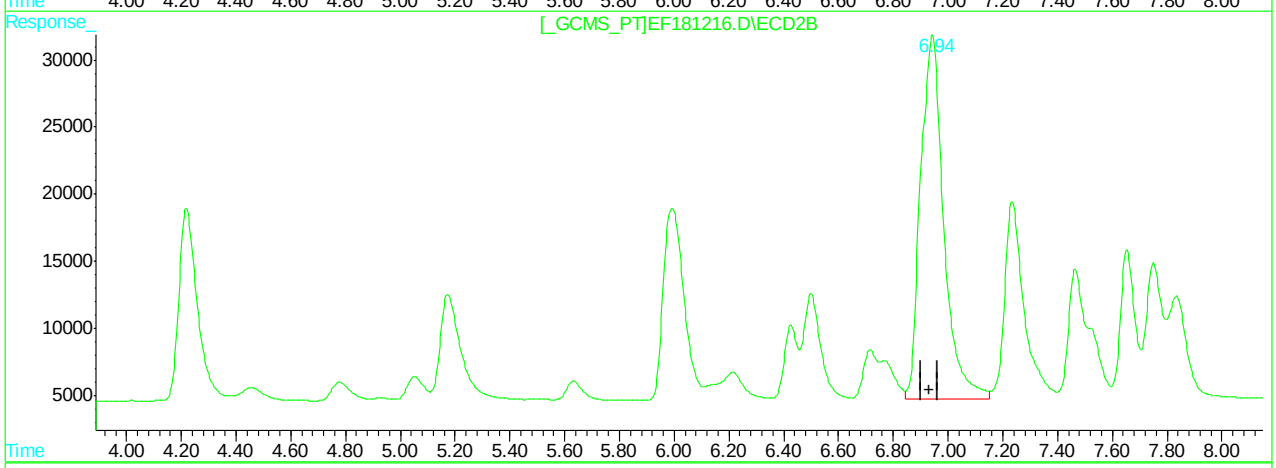
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		1	5.08	Split peak
AR1260-E		1	11.75	Split peak
AR1260-E		2	14.65	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.08min 1081.353PPB

response 1327546

(43) AR1016-C #2

6.94min 997.038PPB

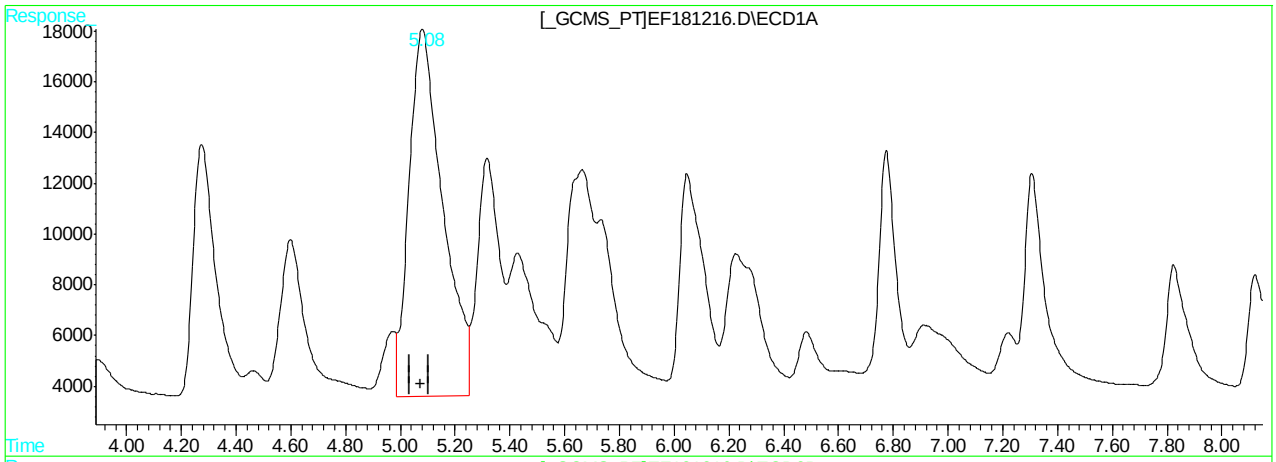
response 1601598

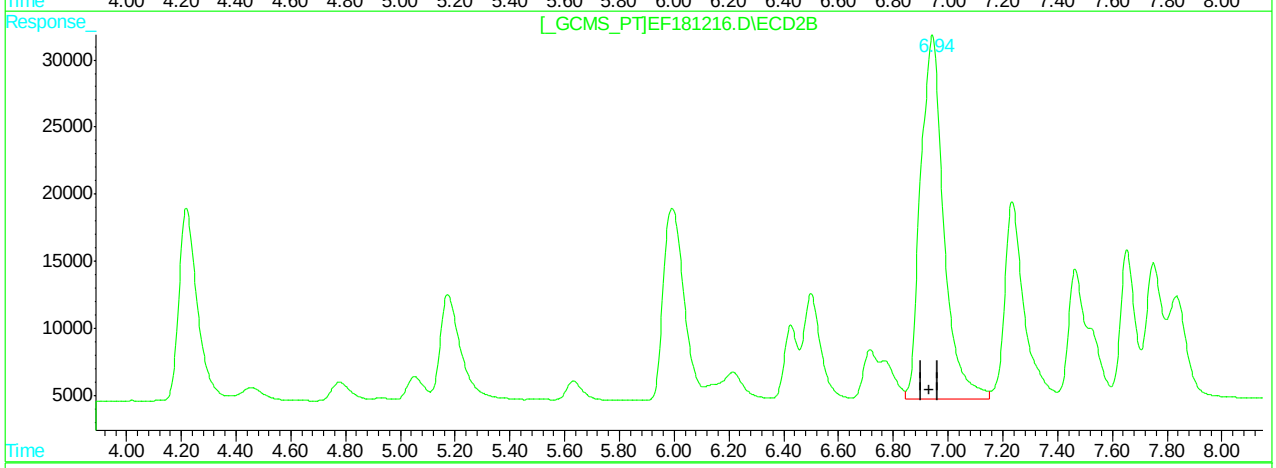
(+) = Expected Retention Time
EF181216.D PCB6195.M Thu Mar 29 08:40:14 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.08min 1013.222PPB m

response 1243904

(43) AR1016-C #2

6.94min 997.038PPB

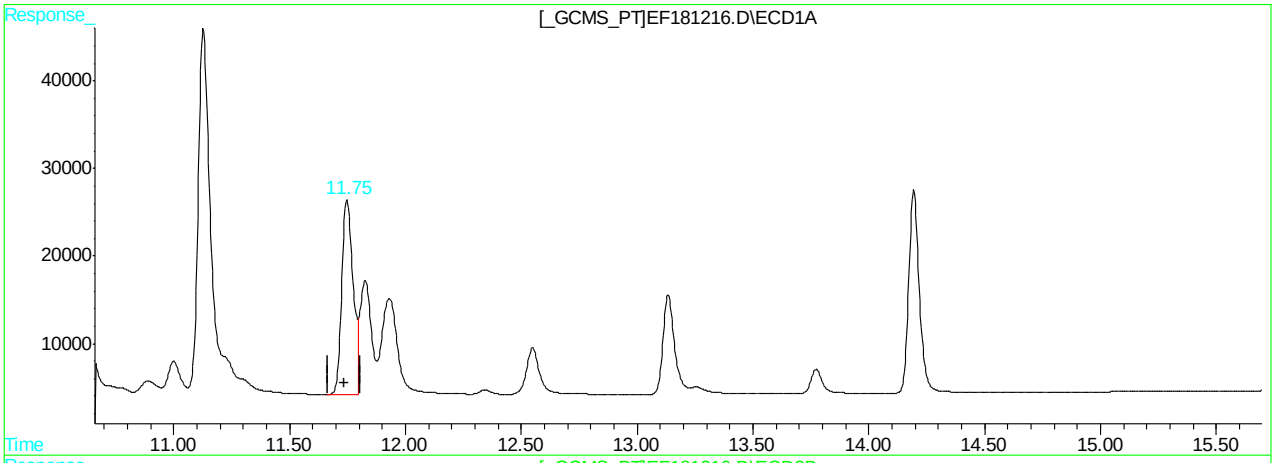
response 1601598

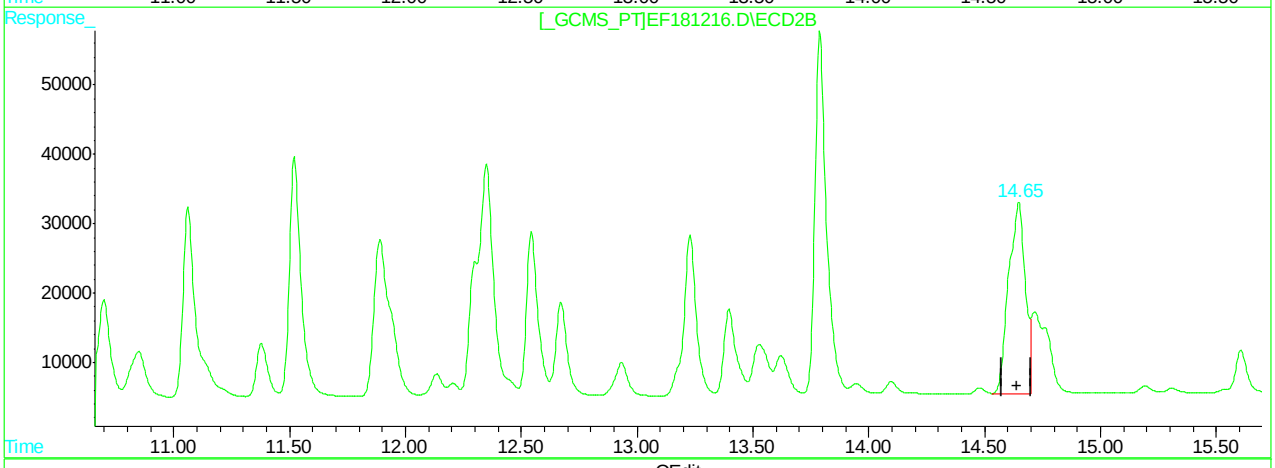
(+) = Expected Retention Time
EF181216.D PCB6195.M Thu Mar 29 08:40:20 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 488.496PPB

response 753929

(50) AR1260-E #2

14.65min 728.769PPB

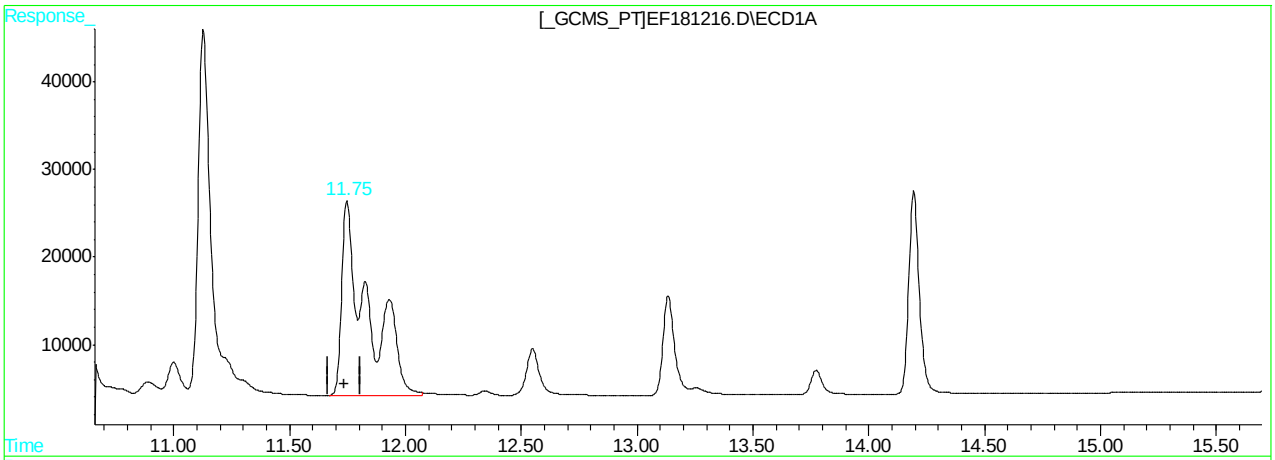
response 1359603

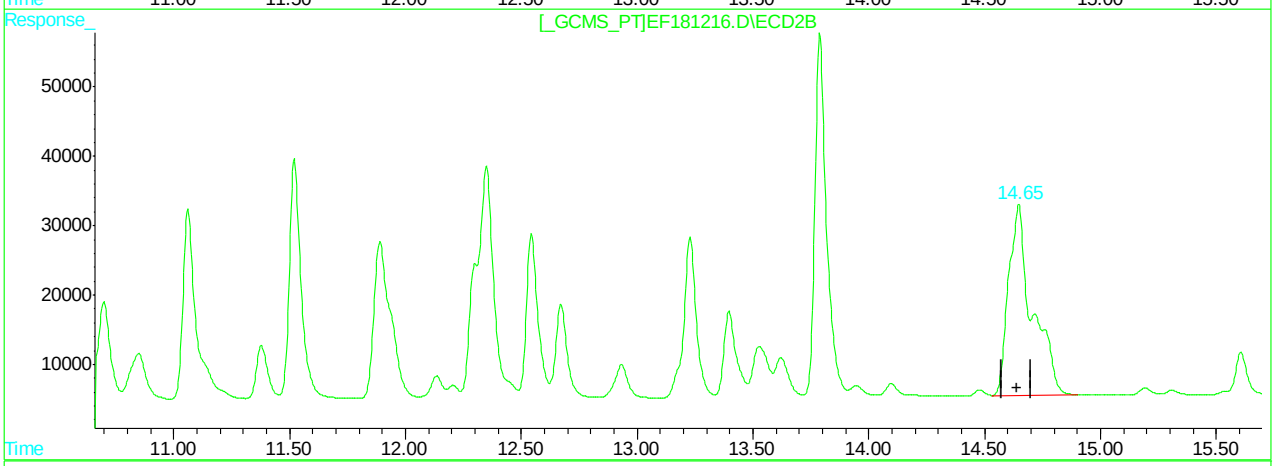
(+) = Expected Retention Time
EF181216.D PCB6195.M Thu Mar 29 08:40:31 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD1A.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181216.D\ECD2B.CH
Acq On : 28 Mar 2018 4:59 pm Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10898,GEF6203,15.7,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:39 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 1123.744PPB m

response 1734352

(50) AR1260-E #2

14.65min 1056.500PPB m

response 1971023

(+) = Expected Retention Time
EF181216.D PCB6195.M Thu Mar 29 08:40:41 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 16:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:46 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.22	4.22	240524	324774	20.805	20.860
	Spiked Amount 40.000			Recovery =		52.01%	52.15%
51) S	Decachlorobiphen	14.20	17.32	398195	480097	23.264	22.869
	Spiked Amount 40.000			Recovery =		58.16%	57.17%
	Target Compounds						
41)	AR1016-A	3.76	5.18	151384	218085	477.832	532.199
42)	AR1016-B	4.28f	6.00f	304349	413985	551.939	514.029
43)	AR1016-C	5.10f	6.95f	613504	861084	499.730m	536.048
44)	AR1016-D	5.33f	7.24f	271979	387084	571.244	563.600
45)	AR1016-E	6.06f	8.25	276643	261962	559.726	545.633
46)	AR1260-A	9.68	12.36	755607	989643	554.921	555.341
47)	AR1260-B	9.92	12.55	392346	455376	596.848	565.103
48)	AR1260-C	10.45	13.23	334596	478051	544.203	555.422
49)	AR1260-D	11.14	13.79	933540	995314	595.666	555.101
50)	AR1260-E	11.76	14.65	893445	1055504	578.893m	565.767m

11.6.54 11

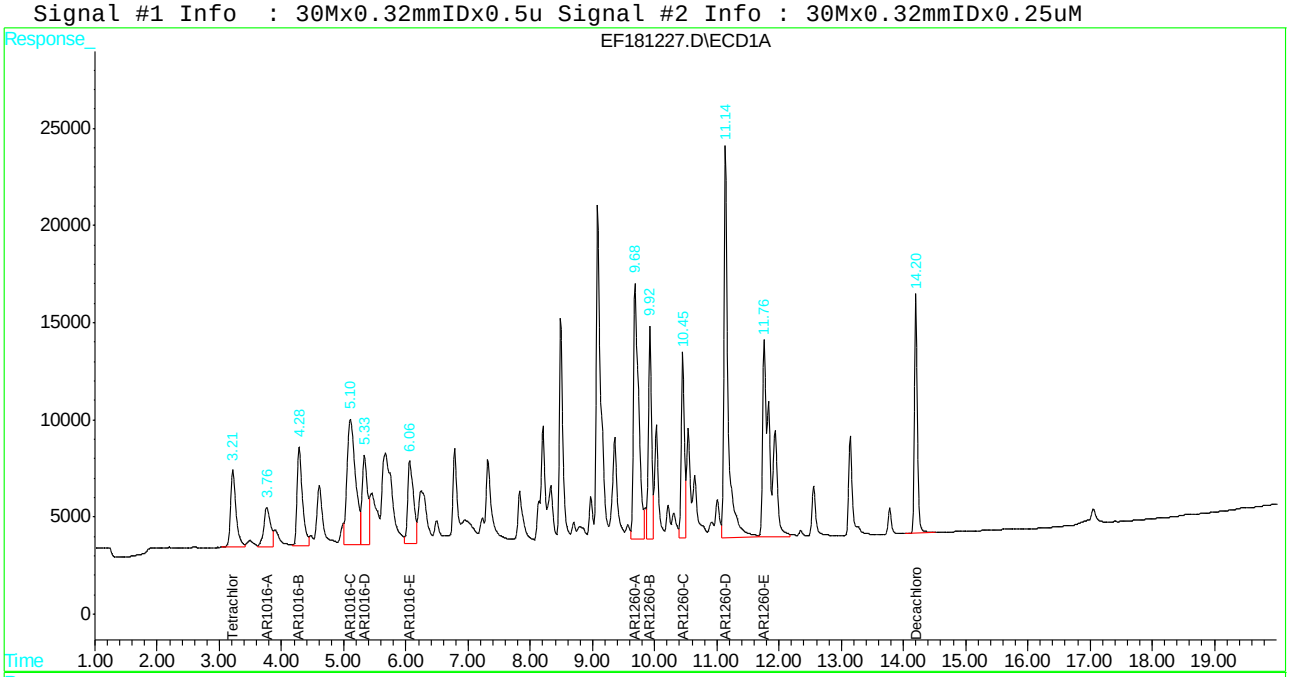
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181227.D PCB6195.M Thu Mar 29 08:46:39 2018 GCEF Page 1

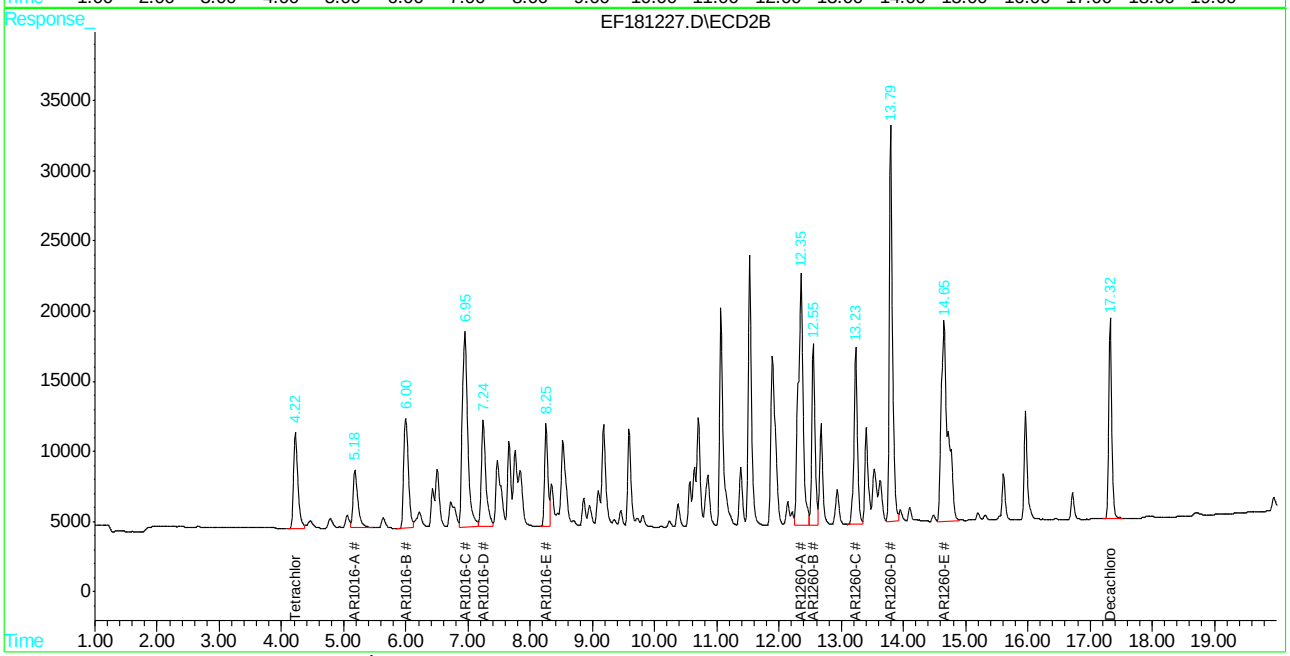
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:46 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

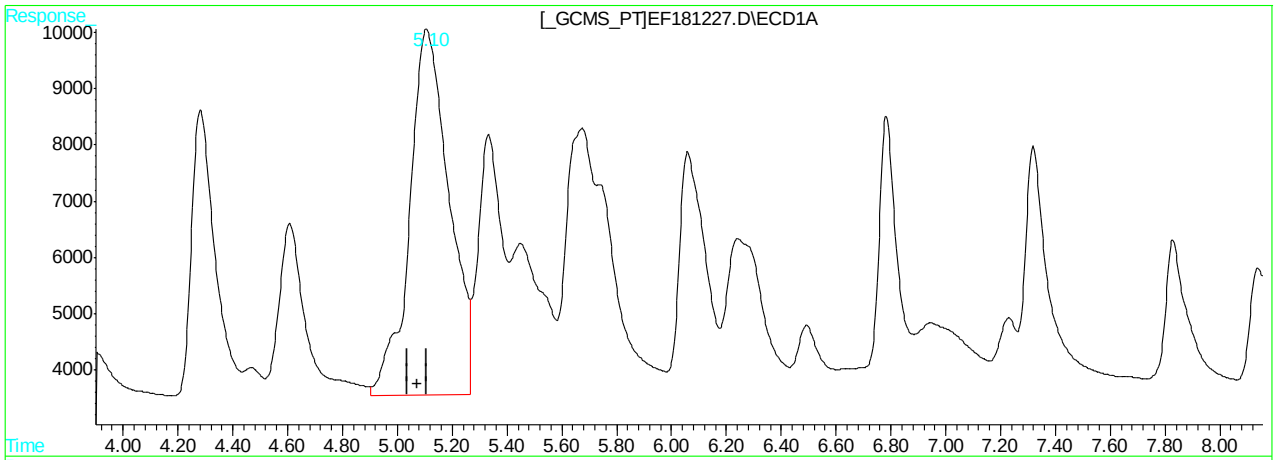
Sample Number:	GEF6203-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181227.D	**Analyst approved:**	03/29/18 09:38 Tianwei Ruan
Injection Time:	03/28/18 21:34	**Supervisor approved:**	03/29/18 16:19 Gwendolyn Burns

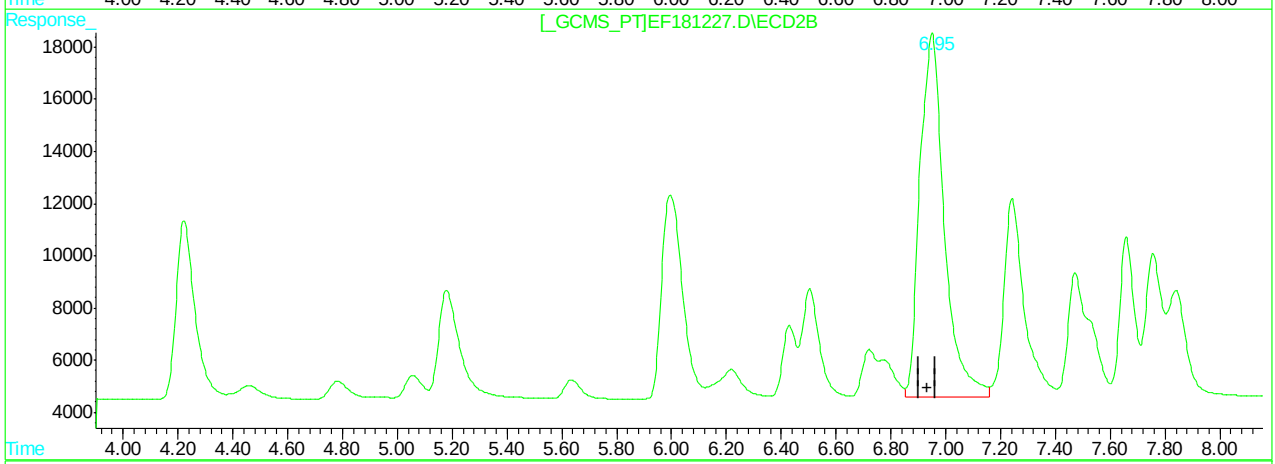
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		1	5.10	Split peak
AR1260-E		1	11.76	Split peak
AR1260-E		2	14.65	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.11min 531.395PPB

response 652378

(43) AR1016-C #2

6.95min 536.048PPB

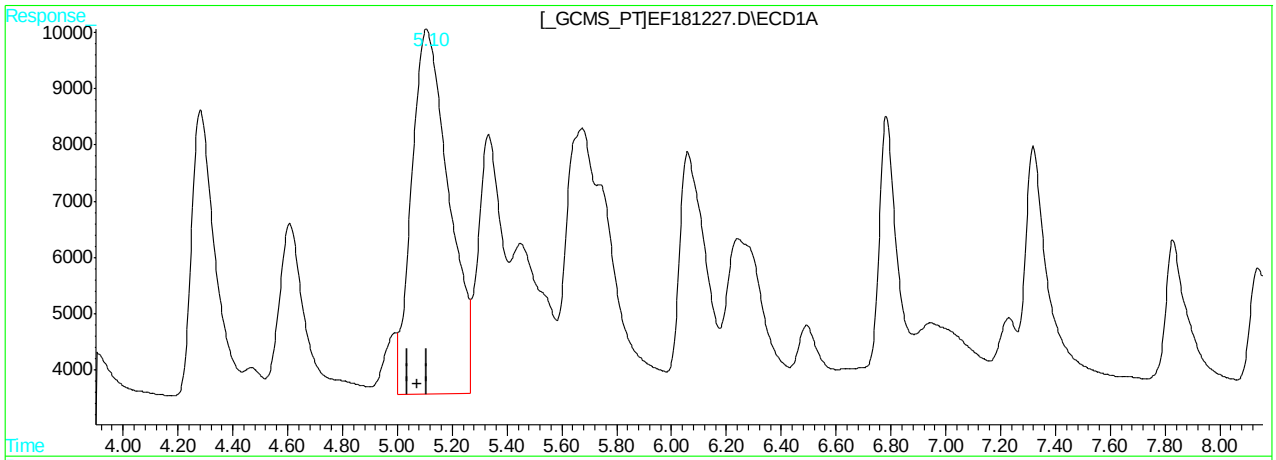
response 861084

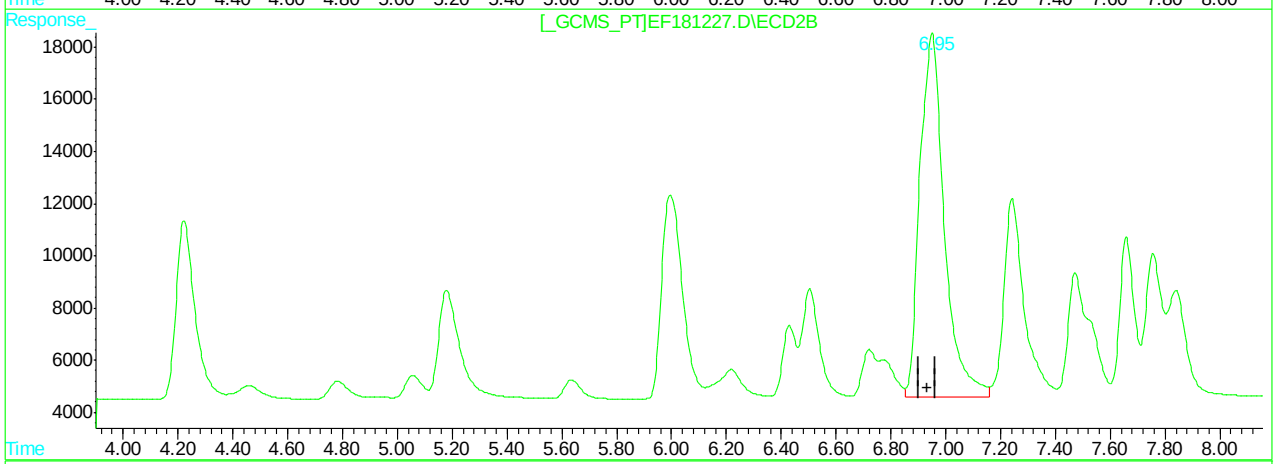
(+) = Expected Retention Time
EF181227.D PCB6195.M Thu Mar 29 08:46:06 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 499.730PPB m

response 613504

(43) AR1016-C #2

6.95min 536.048PPB

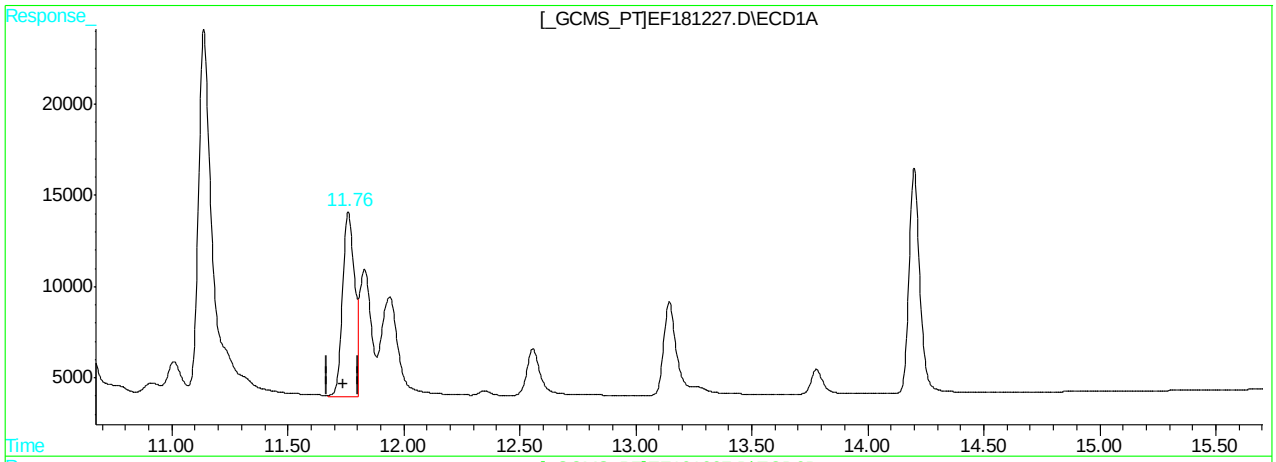
response 861084

(+) = Expected Retention Time
EF181227.D PCB6195.M Thu Mar 29 08:46:14 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration



(50) AR1260-E

11.76min 233.223PPB

response 359949

(50) AR1260-E #2

14.66min 388.367PPB

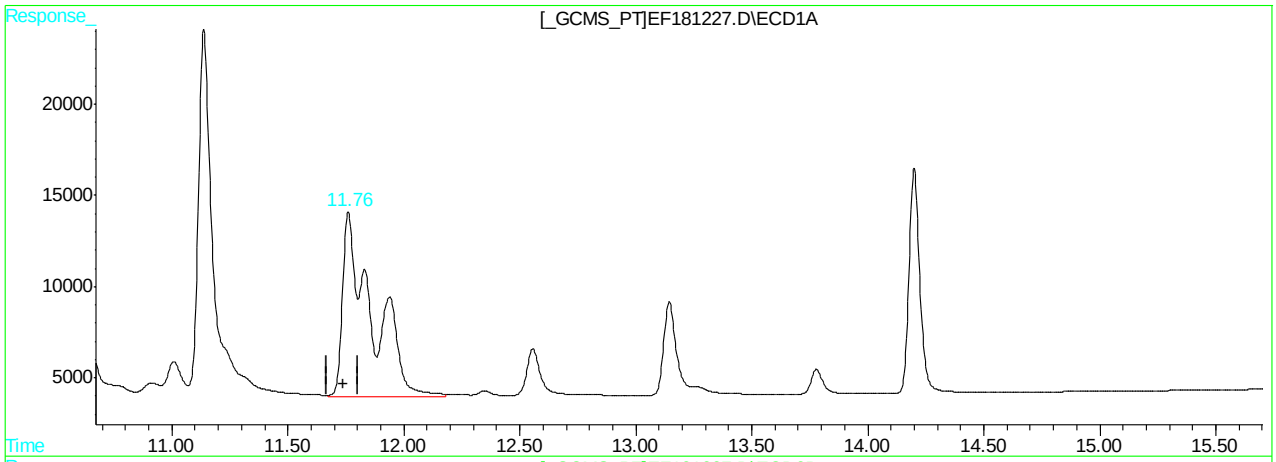
response 724544

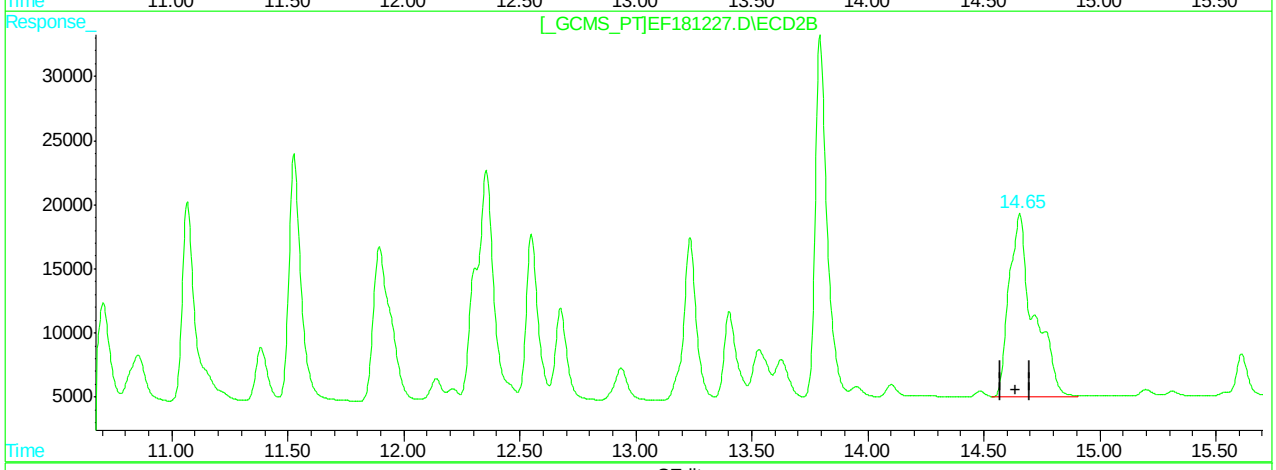
(+) = Expected Retention Time
EF181227.D PCB6195.M Thu Mar 29 08:46:22 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD1A.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181227.D\ECD2B.CH
Acq On : 28 Mar 2018 9:34 pm Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:45 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 578.893PPB m

response 893445

(50) AR1260-E #2

14.65min 565.767PPB m

response 1055504

(+) = Expected Retention Time
EF181227.D PCB6195.M Thu Mar 29 08:46:33 2018 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 16:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:48 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.22	4.22	502573	674689	43.472	43.336
	Spiked Amount 40.000			Recovery =		108.68%	108.34%
51) S	Decachlorobiphen	14.19	17.32	767635	917538	44.848	43.706
	Spiked Amount 40.000			Recovery =		112.12%	109.27%
	Target Compounds						
41)	AR1016-A	3.75	5.18	313657	418734	990.035	1021.847
42)	AR1016-B	4.28	5.99	590833	765108	1071.481	950.004
43)	AR1016-C	5.09	6.94	1252187	1625616	1019.969m	1011.990
44)	AR1016-D	5.32	7.24	521357	736209	1095.018	1071.931
45)	AR1016-E	6.05	8.25	542982	491293	1098.605	1023.300
46)	AR1260-A	9.68	12.35	1451557	1898303	1066.030	1065.238
47)	AR1260-B	9.92	12.54	731480	851690	1112.748	1056.914
48)	AR1260-C	10.45	13.23	626539	913462	1019.032	1061.303
49)	AR1260-D	11.13	13.79	1819684	1930661	1161.089	1076.757
50)	AR1260-E	11.75	14.65	1762500	2092235	1141.982m	1121.471

11.6.55 11

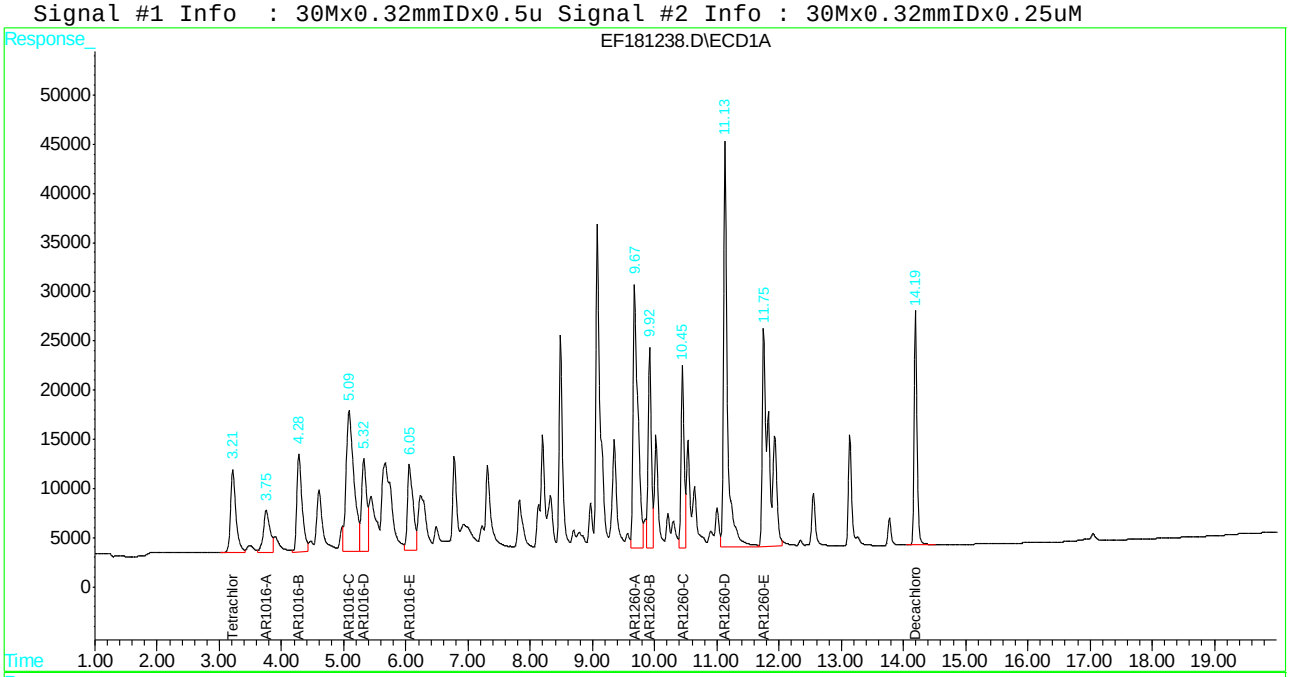
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181238.D PCB6195.M Thu Mar 29 08:48:42 2018 GCEF Page 1

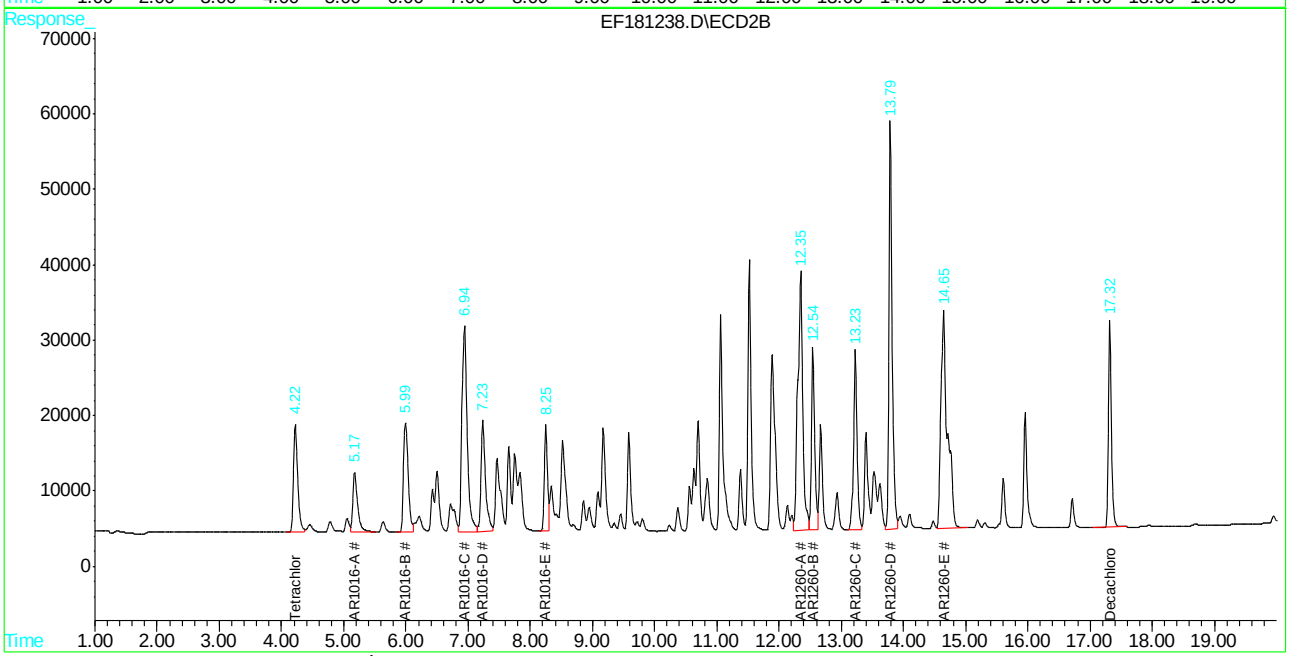
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:48 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC62879

Manual Integration Approval Summary

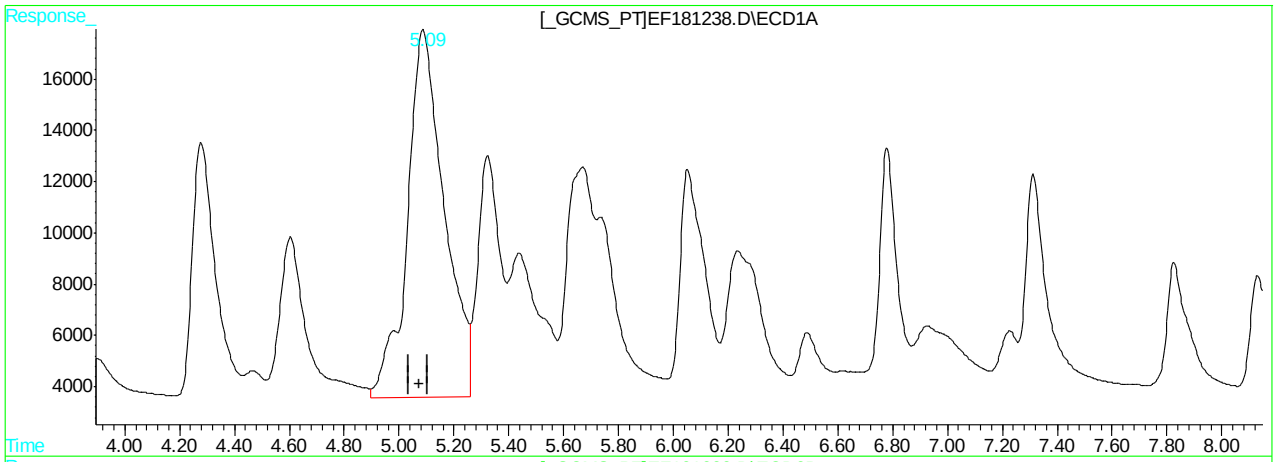
Sample Number:	GEF6203-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181238.D	**Analyst approved:**	03/29/18 09:38 Tianwei Ruan
Injection Time:	03/29/18 02:09	**Supervisor approved:**	03/29/18 16:19 Gwendolyn Burns

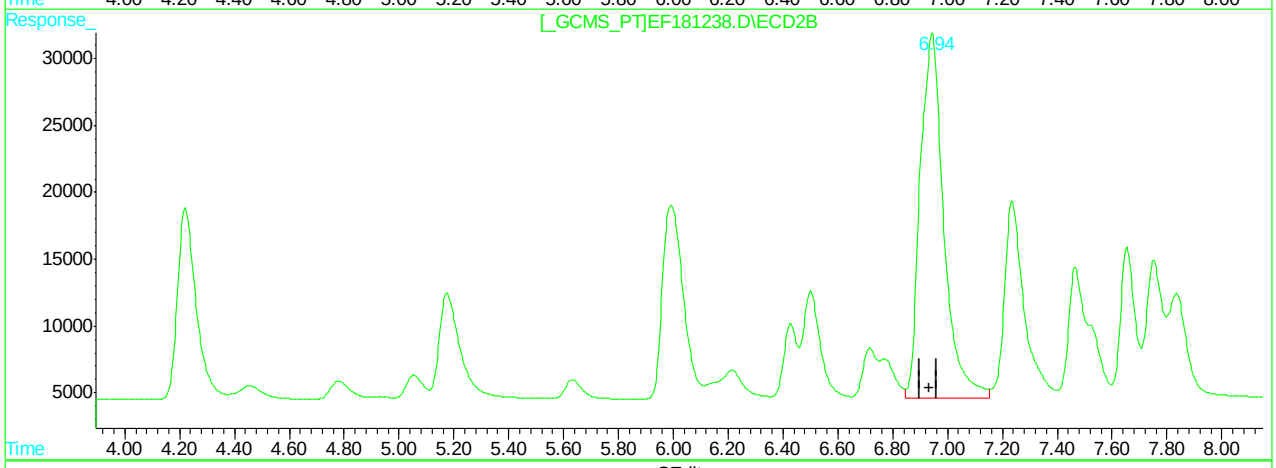
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		1	5.09	Split peak
AR1260-E		1	11.75	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.09min 1087.802PPB

response 1335464

(43) AR1016-C #2

6.94min 1011.990PPB

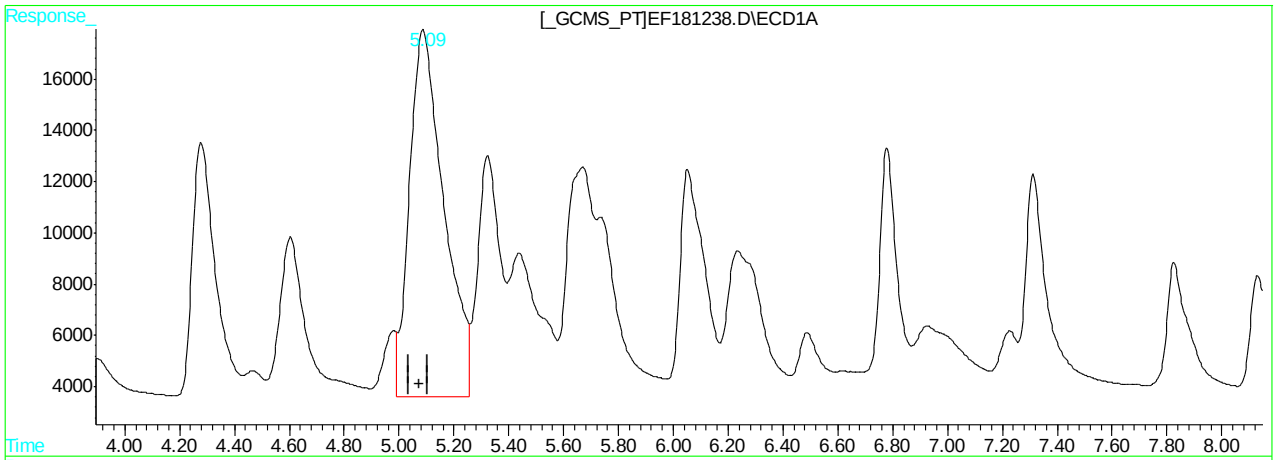
response 1625616

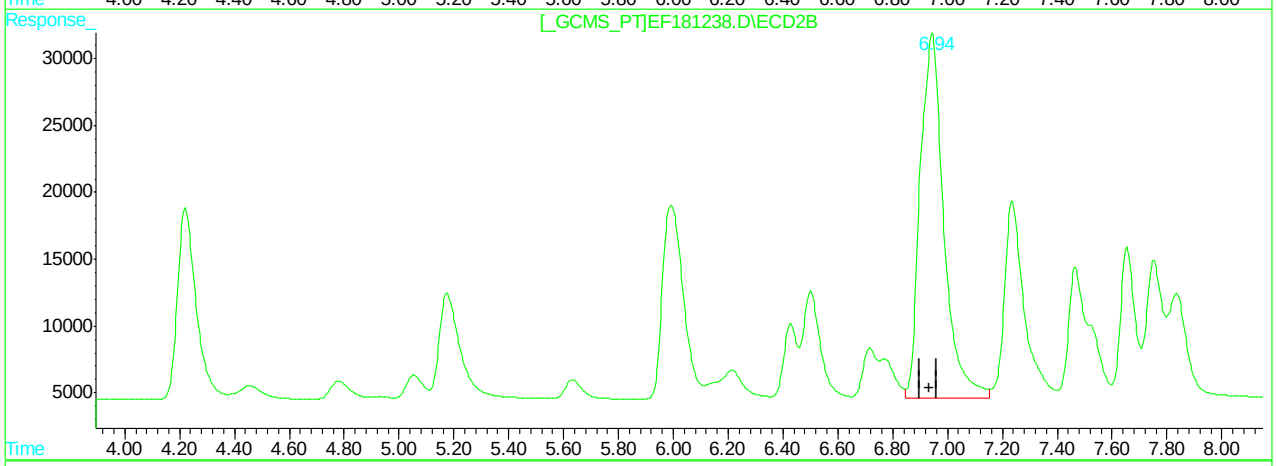
(+) = Expected Retention Time
EF181238.D PCB6195.M Thu Mar 29 08:48:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.09min 1019.969PPB m

response 1252187

(43) AR1016-C #2

6.94min 1011.990PPB

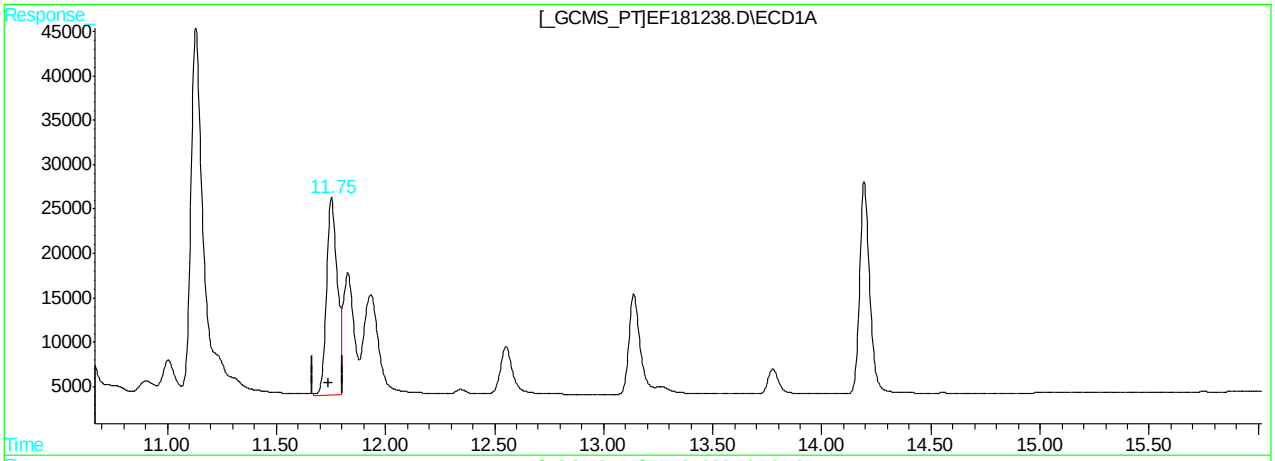
response 1625616

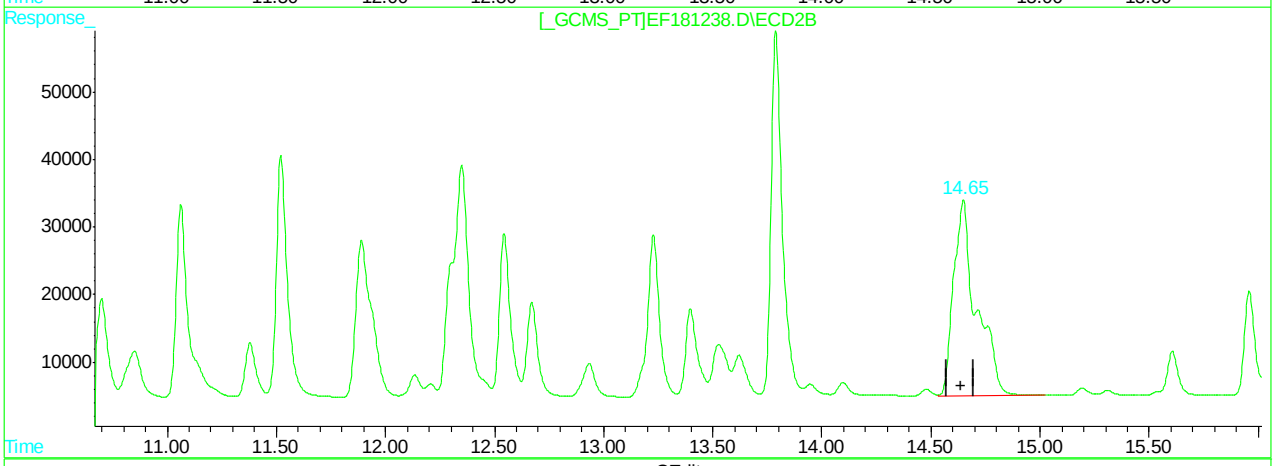
(+) = Expected Retention Time
EF181238.D PCB6195.M Thu Mar 29 08:48:19 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 490.562PPB

response 757118

(50) AR1260-E #2

14.65min 1121.471PPB

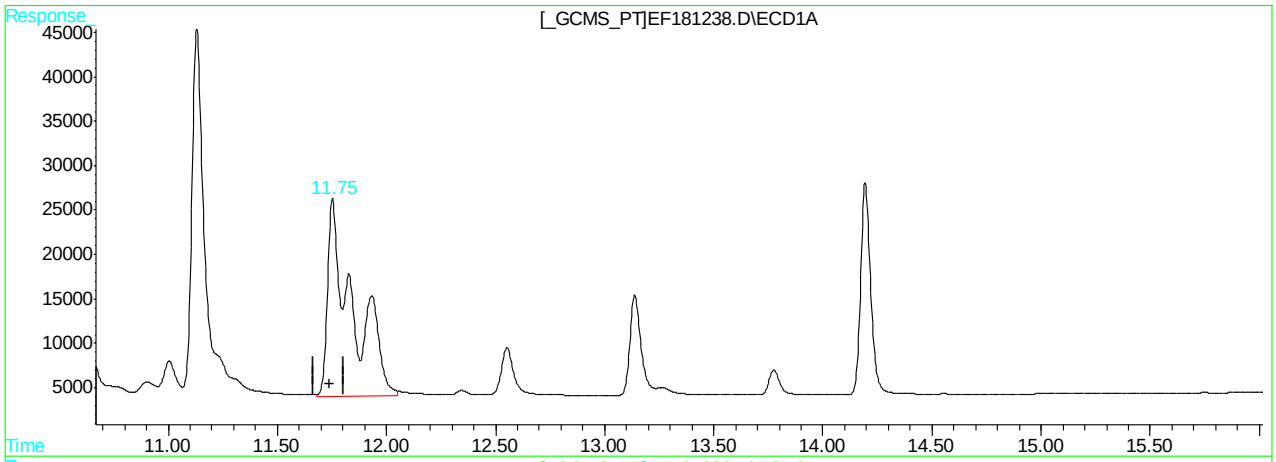
response 2092235

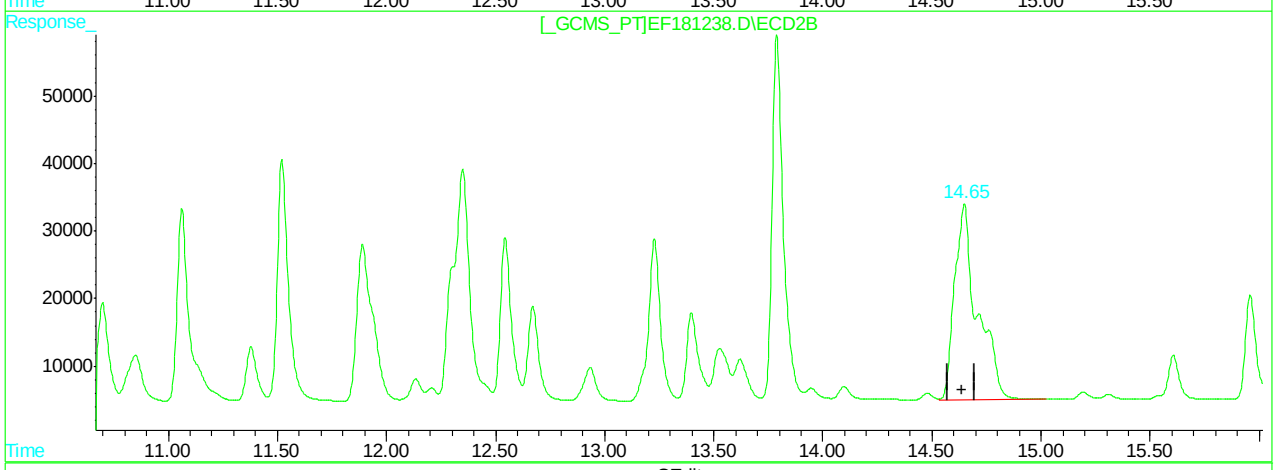
(+) = Expected Retention Time
EF181238.D PCB6195.M Thu Mar 29 08:48:26 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD1A.CH Vial: 53
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181238.D\ECD2B.CH
Acq On : 29 Mar 2018 2:09 am Operator: humarahb
Sample : cc6195-1000 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:47 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.75min 1141.982PPB m

response 1762500

(50) AR1260-E #2

14.65min 1121.471PPB

response 2092235

(+) = Expected Retention Time
EF181238.D PCB6195.M Thu Mar 29 08:48:32 2018 GCEF

11.6.55.5 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/29/18 16:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:50 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Initial Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.21	4.22	246233	328659	21.299	21.110
	Spiked Amount 40.000			Recovery =		53.25%	52.77%
51) S	Decachlorobiphen	14.20	17.33	394132	481929	23.027	22.956
	Spiked Amount 40.000			Recovery =		57.57%	57.39%
	Target Compounds						
41)	AR1016-A	3.76	5.18	154765	221898	488.506	541.502
42)	AR1016-B	4.28f	6.00f	307054	413449	556.846	513.364
43)	AR1016-C	5.10f	6.95f	620114	862710	505.114m	537.061
44)	AR1016-D	5.33f	7.24f	269081	385571	565.157	561.397
45)	AR1016-E	6.06f	8.25f	267398	257512	541.022	536.364
46)	AR1260-A	9.68	12.36	740217	974975	543.619	547.110
47)	AR1260-B	9.93	12.55	379998	446946	578.064	554.643
48)	AR1260-C	10.45	13.23	330891	468436	538.176	544.251
49)	AR1260-D	11.14	13.80	903772	978315	576.671	545.620
50)	AR1260-E	11.76	14.65	863486	1032715	559.481m	553.552m

11.6.56
11

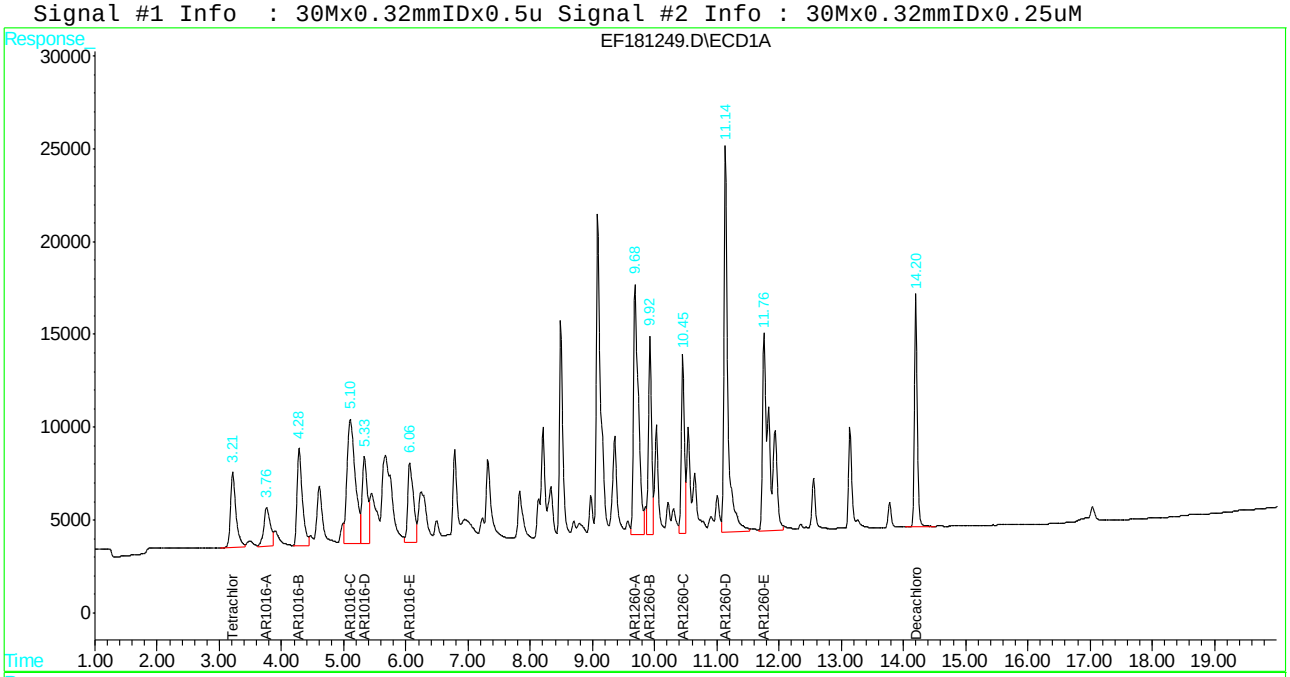
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF181249.D PCB6195.M Thu Mar 29 09:26:50 2018 GCEF Page 1

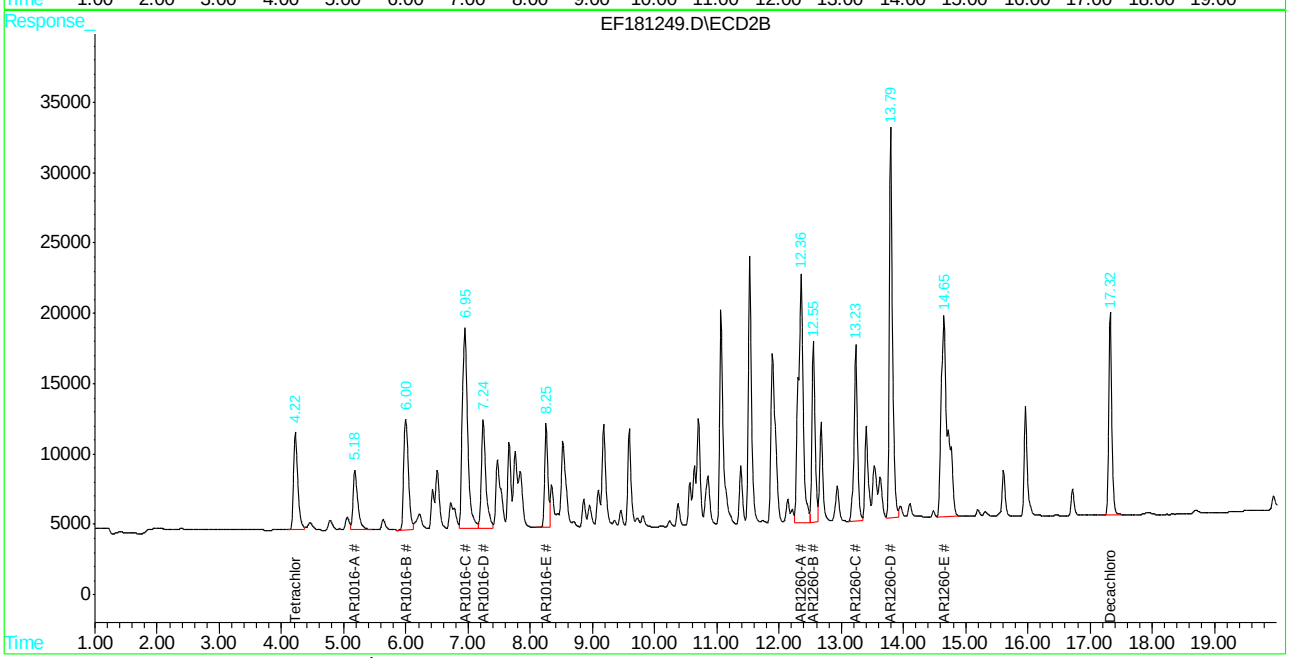
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:50 2018 Quant Results File: PCB6195.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration
DataAcq Meth : PCB6195.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC62879

Manual Integration Approval Summary

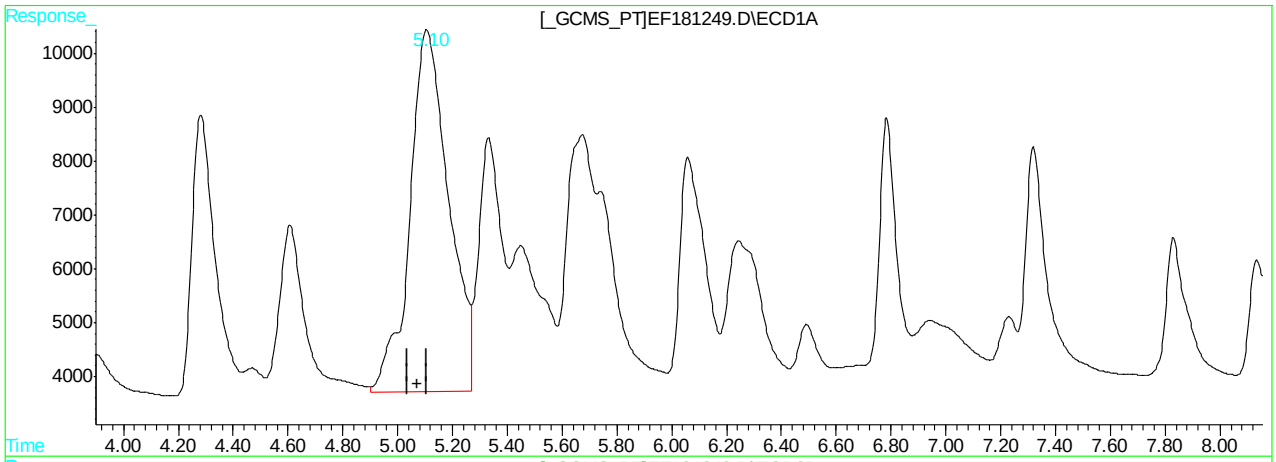
Sample Number:	GEF6203-CC6195	**Method:**	SW846 8082A
Lab FileID:	EF181249.D	**Analyst approved:**	03/29/18 09:38 Tianwei Ruan
Injection Time:	03/29/18 06:44	**Supervisor approved:**	03/29/18 16:19 Gwendolyn Burns

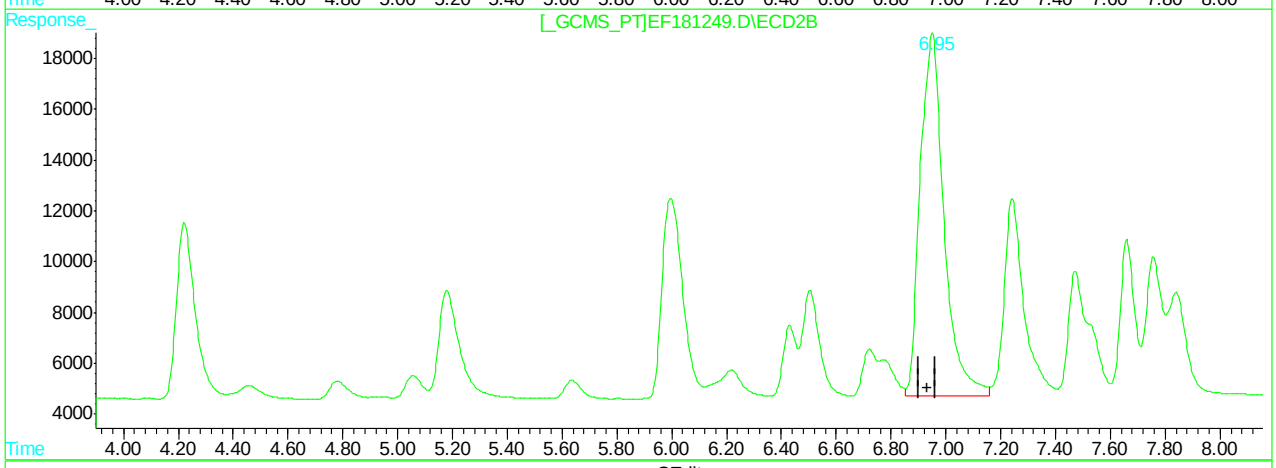
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		1	5.10	Split peak
AR1260-E		1	11.76	Split peak
AR1260-E		2	14.65	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:49 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.11min 537.651PPB

response 660059

(43) AR1016-C #2

6.95min 537.061PPB

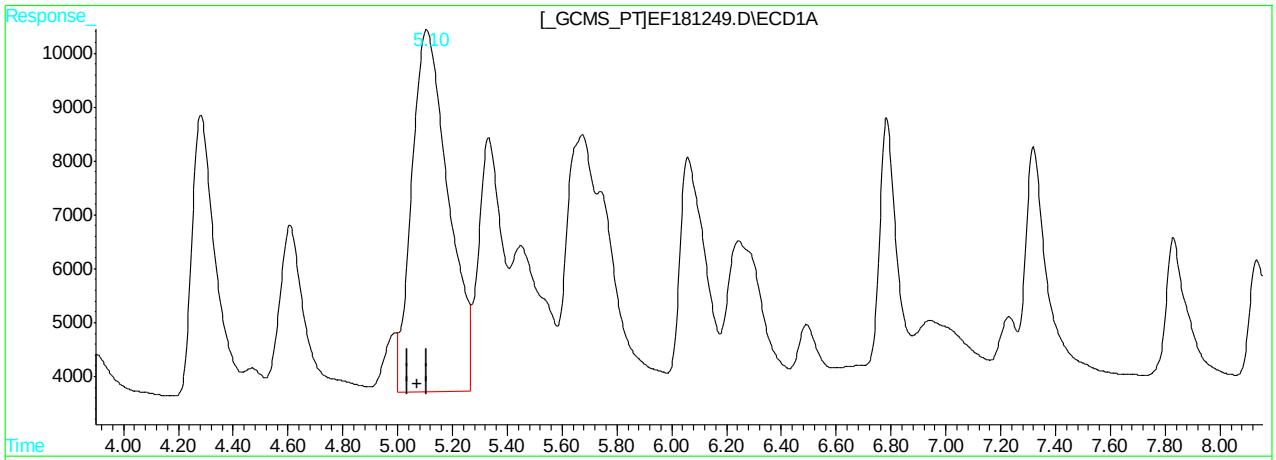
response 862710

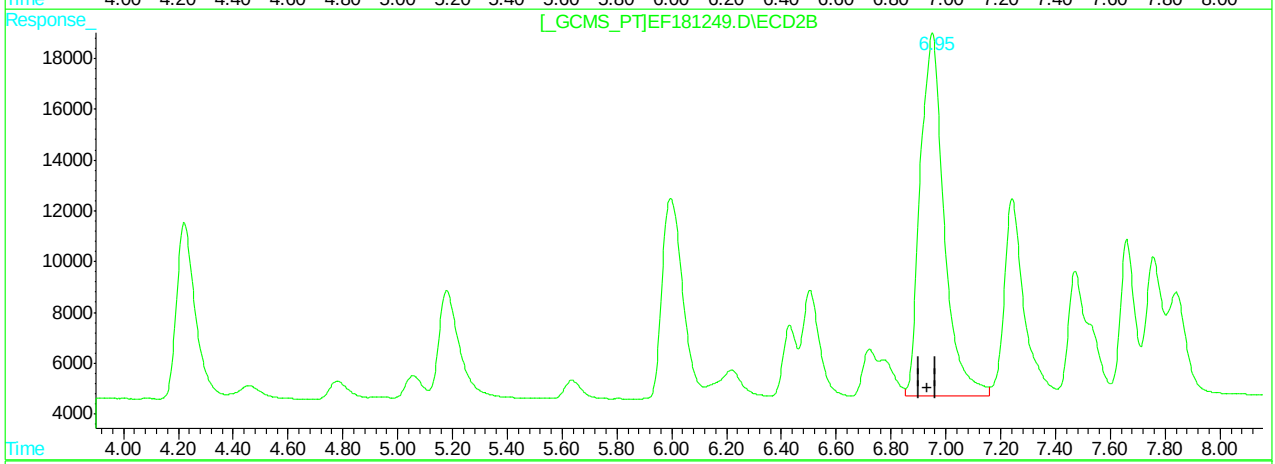
(+) = Expected Retention Time
EF181249.D PCB6195.M Thu Mar 29 08:50:12 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:49 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.10min 505.114PPB m

response 620114

(43) AR1016-C #2

6.95min 537.061PPB

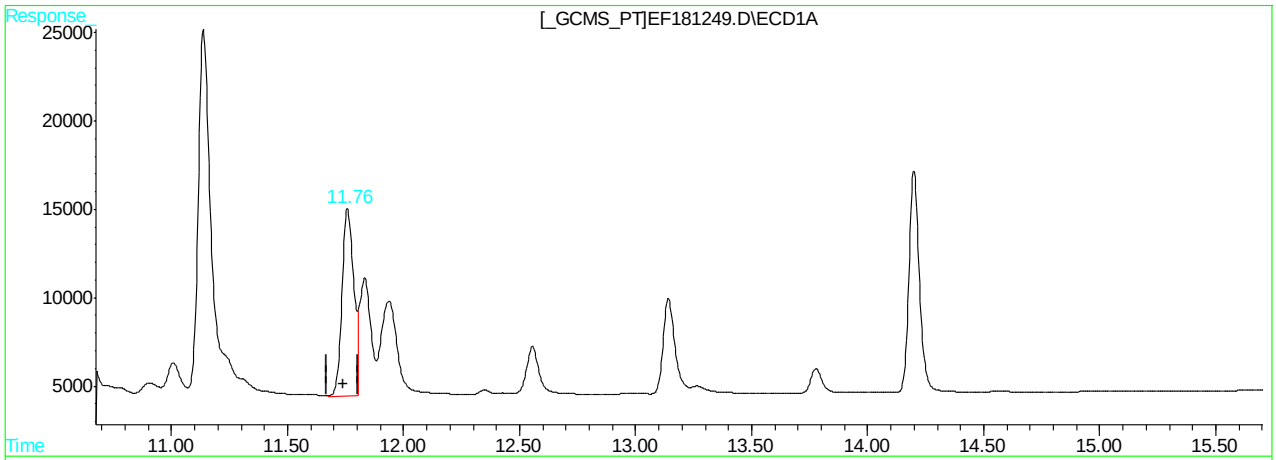
response 862710

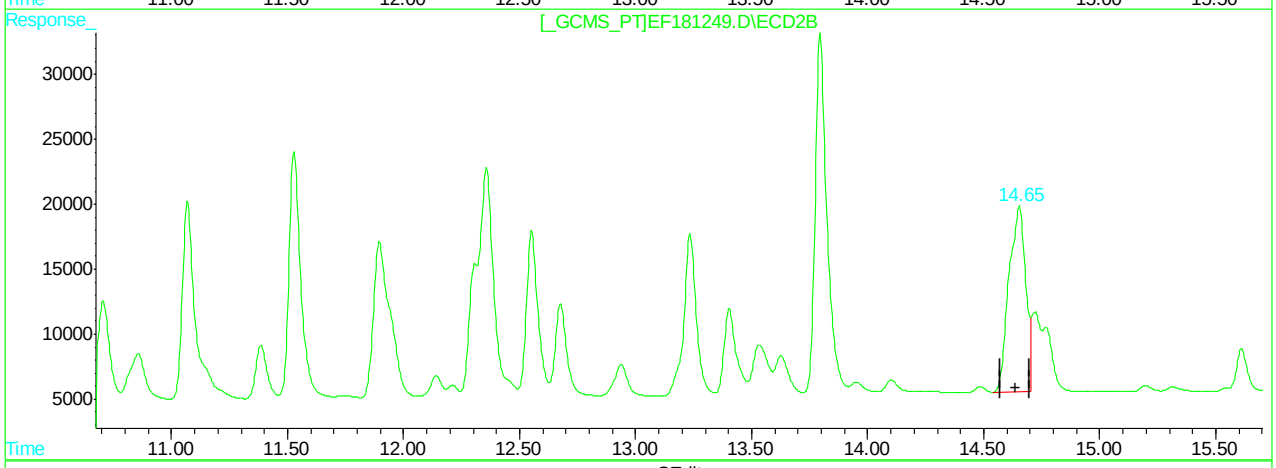
(+) = Expected Retention Time
EF181249.D PCB6195.M Thu Mar 29 08:50:18 2018 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:49 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 240.132PPB

response 370612

(50) AR1260-E #2

14.65min 385.605PPB

response 719392

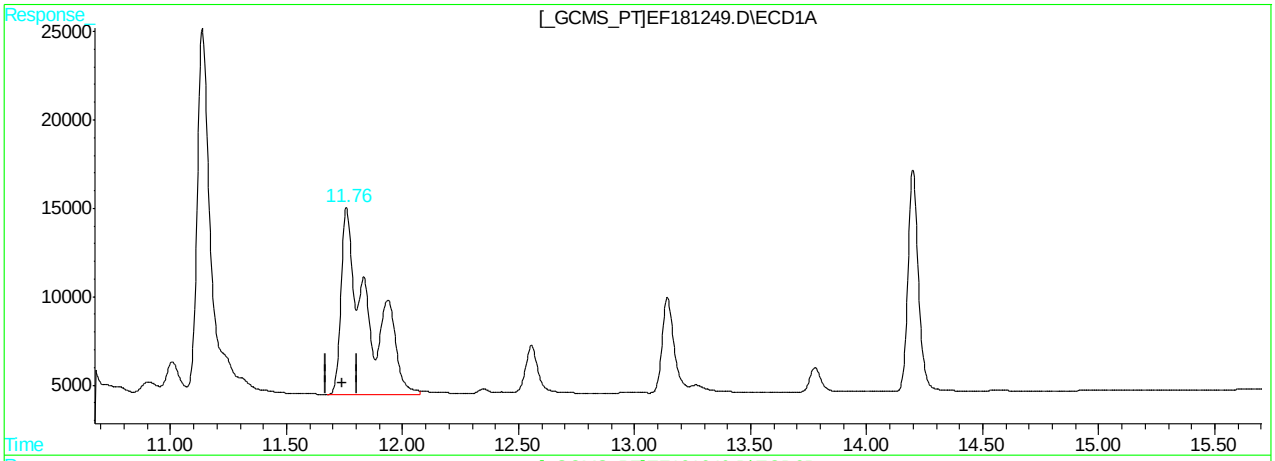
(+) = Expected Retention Time
EF181249.D PCB6195.M Thu Mar 29 08:50:25 2018 GCEF

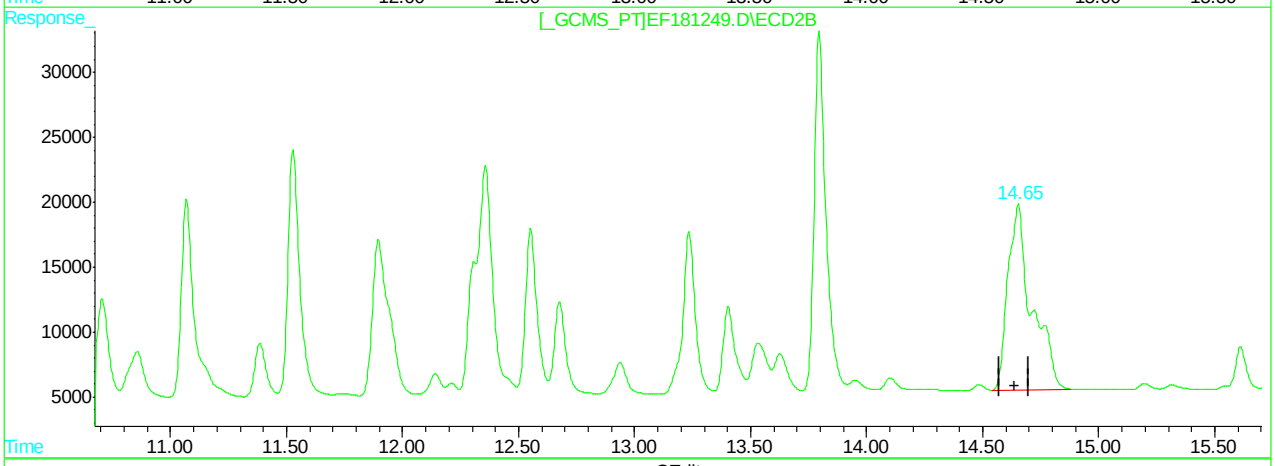
11.6.56.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD1A.CH Vial: 61
Signal #2 : C:\HPCHEM\1\DATA\GEF6203\EF181249.D\ECD2B.CH
Acq On : 29 Mar 2018 6:44 am Operator: humarahb
Sample : cc6195-500 Inst : gcef
Misc : op10884,GEF6203,300,,,2.0,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: Mar 29 8:49 2018 Quant Results File: PCB6195.RES

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed Mar 28 12:07:46 2018
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

11.76min 559.481PPB m

response 863486

(50) AR1260-E #2

14.65min 553.552PPB m

response 1032715

(+) = Expected Retention Time
EF181249.D PCB6195.M Thu Mar 29 08:50:35 2018 GCEF

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G4555

Print Analyst Name: Rebecca Krug

Analyst Signature: RK

Date: 2/7/18

Columns: ZBCLPI/ZBCLPII

Method 8081

Initial Cal. Method IPST4553

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17.2285.96	PEM	50.25 ppb
SV 17.2362.28	Pest ISTD	5 ppm
338A	Pest Mix	25 ppb
338B	Pest Mix	50 ppb
340	IB	20 ppb
173818	hexane (Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 2/12/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	1G143235	DDT				1		/	/	OK	
	236	CC4553-25				2		/	/	OK	various ↓ 1#
	237	IB				3		/	/	OK	
	238	op9834-mb	9834	8081 rel	S	5		/	/	OK	
	239	-bs1				6		/	/	OK	
	240	jc60235-1				7				NG	Needs TBA
	241	-3				8				NG	↓
	242	-5				9				NG	↓
	243	op9834-ms				10				NG	Needs TBA
	244	-msd				11				NG	↓
	245	jc60235-7				12		/	/	OK	
	246	-9				13				NG	Needs TBA
	247	-11				14				NG	Needs TBA
	248	-13				15		/	/	OK	
	249	-15				16		/	/	OK	
	250	-17				17				NG	Needs TBA
	251	-19				18				NG	Needs TBA
	252	-21				19				NG	Needs TBA
	253	-23				20		/	/	OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
Rev. Date: 5/25/17

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GIG4555

Print Analyst Name: Dharmistha Me

Date: 2/7/18

Analyst Signature: DM

Columns: ZBCLPI/ZBCLPII

Method 8081

Initial Cal. Method IPSTG553

Injection Volume: 1.0 µL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 177235-96	PEM	50-250ppb
SV 172362-28	PEST ESTD	5PPM
-33A	PEST MIX	25PPb
-33B	PEST MIX	50PPb
-40	IB	20PPb
173818	hexane (Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 2/12/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	19143254	jc60235-25				21				NG	needs TBA
	1255	jc60028-3a				22				OK	
	256	jc60028-6a	a83c	8081 ICIP	✓	23				OK	
	257	ddt				1				OK	
	258	gc4553-50				4				NOT USING	
	259	IB				3				NOT USING	

2/8/18 CAP

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
Rev. Date: 5/25/17

71

11.7.1 11

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G4547 5 pm 2/8

Print Analyst Name: Dharmistha Meh

Date: 2/8/18

Analyst Signature: DM

Standard Data

Lot #	Description	Conc.
172285-106	Pest mix	1 ppb
.107	↓	2 ppb
.108	↓	5 ppb
.109	↓	10 ppb
.112	↓	25 ppb
.113	↓	100 ppb

Standard Data

Lot #	Description	Conc.
172285-96	PEM	50-250 ppb
.110	PEST MIX	25 ppb
.111	PEST MIX	50 ppb
172362-28	PEST ISTD	5 ppm
.40	IB	20 ppb
173818	hexane (Fisher)	—

Columns: 2BCLPI / 2BCLPL

Method 8081 608

Initial Cal. Method 1PST4557

Injection Volume: 1.0 ml

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 2/12/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	1g143263	ddt				1			✓	OK	
	264	ib				2			✓	OK	
	265	IC4557-100				3			✓	OK	
	266	-75				4			✓	OK	
	267	-50				5			✓	OK	
	268	ICC4557-25				6			✓	OK	
	269	IC4557-10				7			✓	OK	
	270	-5				8			✓	OK	
	271	-2				9			✓	OK	
	272	-1				10			✓	OK	
	273	-500				11			✓	OK	
	274	-500				12			✓	OK	
	275	ICV4557-25				13			✓	not using	gch1↑ 1st
	276	-500				14			✓	OK	
	277	-500				15			✓	OK	
	278	-50				16			✓	OK	
	279	-50				17			✓	OK	
											pm 2/8/18

MTX = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
Rev. Date: 5/25/17

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G4558

Print Analyst Name: Kristen Drake

Date: 2/8/18

Analyst Signature: KD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.

Columns: ZBCVFI/ZBCVFIL

Method 8081

Initial Cal. Method 1PST4557

Injection Volume: 1.0 µL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature]

Date: 2/12/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	lg143280	CC4557-25				2				not using	
	281	IB				3				not using	
	282	DDT				1				ok	
	283	~~ICC4~~ ICV4557-25 KD 2/8	pest	2nd		5			/	ok	

MTX = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09

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SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G4598

Print Analyst Name: CHRISTINE PHILLIPS

Date: 3/28/18

Analyst Signature: CP

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method PST4557

Injection Volume: 1.0 µL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17-236279	IB	20ppb
-80A	PEST MIX	25ppb
-80B	PEST MIX	50ppb
-84	PEST ISTD	5ppm
-89	PCN	50-250ppb
173818	HEXANE (FISHER)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/28/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	1G144701	ddt				1				OK	
	702	CC4557-25				2				OK	HCB↑, METHOXY↓ 1ST
	703	IB				3				OK	
	704	OP10885-MB1	10885	8081tcl	W	26				OK	
	705	-BS1				27				OK	
	706	jc62942-6				28				OK	
	707	jc62879-8				29				OK	
	708	-9				30				OK	
	709	OP10885-MS				31				OK	
	710	-MSD				32				OK	
	711	jc62879-10				33				OK	
	712	-11				34				OK	
	713	OP10885-MS2				35				OK	
	714	-MSD2				36				OK	
	715	jc62879-12				37				OK	
	716	-13				38				OK	
	717	-14				39				OK	
	718	-15				40				OK	
	719	-16				41				OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
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SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G4598

Print Analyst Name: CHRISTINE PHILLIPS

Date: 3/28/18

Analyst Signature: CNP

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method UPST4557

Injection Volume: 1.0 ml

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17-2362-79	IB	20ppb
-80A	PEST MIX	25ppb
-80B	PEST MIX	50ppb
-84	PEST ISTD	5ppm
-89	PEM	50-250ppb
173818	HEXAMETHYLBENZENE	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/28/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	1G44720	jc62879-17	10885	8081ECL	W	42		/	/	OK	
	721/722	HEXANE				100		/	/	OK	
	723	CC4557-50				4		/	/	OK	
	724	IB				3		/	/	OK	
	725	jc62879-18				43		/	/	OK	
	726	-20				44		/	/	OK	
	727	jc62881-1				45		/	/	OK	
	728	-2				46		/	/	OK	
	729	-3				47		/	/	OK	
	730	-4				48		/	/	OK	
	731	-5				49		/	/	OK	
	732	-6				50		/	/	OK	

KD 3/28

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
Strikeouts must be initialed, dated, and reason applied if not transcription error

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SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G2366

Print Analyst Name: Kristen Drake

Date: 2/16/18

Analyst Signature: KD

Standard Data

Lot #	Description	Conc.
SV172285.106	Pest mix	1ppb
.107		2ppb
.108		5ppb
.109		10ppb
.112		75ppb
.113		100ppb

Standard Data

Lot #	Description	Conc.
SV172285.98	PEM	50-250ppb
.110	Pest mix	25ppb
.111	Pest mix	50ppb
SV172362.28	Pest ISTD	5ppm
.40	IB	20ppb
173818	hexane (Asher)	—

Columns: ZBCLPI/ZBCLPII

Method 8081, 608

Initial Cal. Method 4PST2366

Injection Volume: 1.0µL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: LB

Date: 2/19/2018

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4990000	ddt				1			/	OK	
	001	IB				2			/	OK	
	002	IC2366-100	pest	1st		3			/	OK	
	003	-75				4			/	OK	
	004	-50				5			/	OK	
	005	ICC2366-25				6			/	OK	
	006	IC2366-10				7			/	OK	
	007	-5				8			/	OK	
	008	-2				9			/	OK	
	009	-1				10			/	OK	
	010	-500	chl			11			/	OK	SV172285.129 @500ppb
	011	-500	tox			12			/	OK	SV172285.130 @500ppb
	012	ICV2366-25	pest	2nd		13	10		/	OK	SV172285.73 @250ppb
	013	-500	chl			14			/	OK	SV172285.57 @500ppb
	014	-500	tox			15			/	OK	SV172285.61 @500ppb
	015	-50	ala			16	20		/	ng	SV172285.141 @1000ppb rr
	016	-50	hexa			17	20		/	OK	SV172285.142 @1000ppb
											KD 2/19

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

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SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G2367

Print Analyst Name: Kristen Drake

Date: 2/19/18

Analyst Signature: KD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SU 172285.98	PEM	50-250 ppb
SU 172362.28	Pest mix	25 ppb
.33A	Pest mix	50 ppb
.33B	Pest ISTD	5 ppm
.40	IB	20 ppb
173818	hexane (fished)	—

Columns: ZBCLPI/ZBCLPII

Method 8081

Initial Cal. Method 4PST2366

Injection Volume: 1.0 µL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: CB

Date: 2/19/2018

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4g90017	ddt				1			/	OK	
	018	CC2366-25				2				not using	
	019	IB				3				not using	
	020	ICV2366-50	0/a	2nd		5			/	OK	SU172285.141 @1000 ppb

KD 2/19

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09

Rev. Date: 5/25/17

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RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC4G
Method: SW846 8081B

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	4G90005.D	02/16/18 17:25	G4G2366-ICC2366	KRISTEND
Std#2	4G90021.D	02/19/18 14:35	G4G2368-CC2366	CHRISTP
Std#3	4G90027.D	02/19/18 22:32	G4G2368-CC2366	CHRISTP

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
1-Bromo-2-nitrobenzene	1	ISTD	1.50	1.49	1.49	1.49	0.006	+/- 0.030 [a]
1-Bromo-2-nitrobenzene	2	ISTD	1.92	1.89	1.91	1.91	0.015	+/- 0.046
Tetrachloro-m-xylene	1	SURR	2.12	2.11	2.10	2.11	0.010	+/- 0.030
Decachlorobiphenyl	1	SURR	9.41	9.43	9.40	9.41	0.015	+/- 0.046
Tetrachloro-m-xylene	2	SURR	2.81	2.79	2.80	2.80	0.010	+/- 0.030
Decachlorobiphenyl	2	SURR	11.90	11.90	11.90	11.90	0.000	+/- 0.030 [a]
Hexachlorobenzene	1	REG	2.45	2.45	2.44	2.45	0.006	+/- 0.030 [a]
alpha-BHC	1	REG	2.59	2.59	2.58	2.59	0.006	+/- 0.030 [a]
gamma-BHC (Lindane)	1	REG	2.89	2.89	2.88	2.89	0.006	+/- 0.030 [a]
beta-BHC	1	REG	2.96	2.97	2.95	2.96	0.010	+/- 0.030
delta-BHC	1	REG	3.15	3.15	3.14	3.15	0.006	+/- 0.030 [a]
Heptachlor	1	REG	3.38	3.39	3.37	3.38	0.010	+/- 0.030
Aldrin	1	REG	3.71	3.72	3.70	3.71	0.010	+/- 0.030
Alachlor	1	REG	3.85	3.87	3.84	3.85	0.015	+/- 0.046
Heptachlor epoxide	1	REG	4.41	4.42	4.40	4.41	0.010	+/- 0.030
gamma-Chlordane	1	REG	4.57	4.59	4.56	4.57	0.015	+/- 0.046
alpha-Chlordane	1	REG	4.74	4.76	4.73	4.74	0.015	+/- 0.046
4,4'-DDE	1	REG	4.85	4.88	4.85	4.86	0.017	+/- 0.052
Endosulfan-I	1	REG	4.91	4.93	4.90	4.91	0.015	+/- 0.046
Dieldrin	1	REG	5.23	5.25	5.22	5.23	0.015	+/- 0.046
Endrin	1	REG	5.54	5.57	5.54	5.55	0.017	+/- 0.052
4,4'-DDD	1	REG	5.68	5.70	5.67	5.68	0.015	+/- 0.046
Endosulfan-II	1	REG	5.86	5.89	5.86	5.87	0.017	+/- 0.052
4,4'-DDT	1	REG	6.09	6.11	6.08	6.09	0.015	+/- 0.046
Endrin aldehyde	1	REG	6.48	6.50	6.47	6.48	0.015	+/- 0.046
Methoxychlor	1	REG	6.88	6.91	6.88	6.89	0.017	+/- 0.052
Mirex	1	REG	7.01	7.03	7.00	7.01	0.015	+/- 0.046
Endosulfan sulfate	1	REG	7.15	7.17	7.14	7.15	0.015	+/- 0.046
Endrin ketone	1	REG	7.59	7.61	7.58	7.59	0.015	+/- 0.046
Hexachlorobenzene	2	REG	3.35	3.33	3.35	3.34	0.012	+/- 0.035
alpha-BHC	2	REG	3.52	3.49	3.51	3.51	0.015	+/- 0.046
gamma-BHC (Lindane)	2	REG	3.96	3.95	3.96	3.96	0.006	+/- 0.030 [a]
beta-BHC	2	REG	4.05	4.04	4.05	4.05	0.006	+/- 0.030 [a]
delta-BHC	2	REG	4.47	4.45	4.46	4.46	0.010	+/- 0.030
Heptachlor	2	REG	4.56	4.55	4.56	4.56	0.006	+/- 0.030 [a]
Alachlor	2	REG	4.83	4.82	4.83	4.83	0.006	+/- 0.030 [a]
Aldrin	2	REG	5.03	5.02	5.03	5.03	0.006	+/- 0.030 [a]
Heptachlor epoxide	2	REG	5.87	5.86	5.87	5.87	0.006	+/- 0.030 [a]
gamma-Chlordane	2	REG	6.16	6.15	6.16	6.16	0.006	+/- 0.030 [a]
alpha-Chlordane	2	REG	6.39	6.38	6.39	6.39	0.006	+/- 0.030 [a]

SGS JC62879

RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC4G
Method: SW846 8081B

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	4G90005.D	02/16/18 17:25	G4G2366-ICC2366	KRISTEND
Std#2	4G90021.D	02/19/18 14:35	G4G2368-CC2366	CHRISTP
Std#3	4G90027.D	02/19/18 22:32	G4G2368-CC2366	CHRISTP

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
Endosulfan-I	2	REG	6.49	6.48	6.49	6.49	0.006	+/- 0.030 [a]
4,4'-DDE	2	REG	6.66	6.65	6.65	6.65	0.006	+/- 0.030 [a]
Dieldrin	2	REG	6.94	6.93	6.93	6.93	0.006	+/- 0.030 [a]
Endrin	2	REG	7.45	7.44	7.44	7.44	0.006	+/- 0.030 [a]
4,4'-DDD	2	REG	7.62	7.61	7.62	7.62	0.006	+/- 0.030 [a]
Endosulfan-II	2	REG	7.80	7.79	7.80	7.80	0.006	+/- 0.030 [a]
4,4'-DDT	2	REG	8.16	8.15	8.15	8.15	0.006	+/- 0.030 [a]
Endrin aldehyde	2	REG	8.38	8.37	8.38	8.38	0.006	+/- 0.030 [a]
Endosulfan sulfate	2	REG	8.85	8.85	8.85	8.85	0.000	+/- 0.030 [a]
Methoxychlor	2	REG	9.40	9.40	9.40	9.40	0.000	+/- 0.030 [a]
Mirex	2	REG	9.75	9.75	9.75	9.75	0.000	+/- 0.030 [a]
Endrin ketone	2	REG	9.82	9.82	9.82	9.82	0.000	+/- 0.030 [a]

(a) Default minimum StdDev of .01 minutes employed.

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G ~~2398~~ 2399 CMP 3/

Print Analyst Name: CHRISTINE PHILLIPS

Date: 3/27/18

Analyst Signature: CMP

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17-2362-79	IB	20ppb
.80A	PEST MIX	25ppb
.80B	PEST MIX	50ppb
.84	PEST ISTD	5ppm
.89	PEM	50-250ppb
.102	TBA SOL	—
173818	HEXANE (FISHER)	—

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method HPST2366

Injection Volume: 1.0 ml

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature]

Date: ~~3/~~ 4/2/18 RLC

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4G90969	ddt				1			/	OK	2:29 am
	970	CC2366-25				2			/	OK	
	971	IB				3			/	OK	
	972	OP10830-MB1	10830	8081 tcl	S	24		/	/	OK	HADTBA
	973	-BS1				25		/	/	OK	↓
	974	-MS				26		/	/	OK	↓
	975	-MSD				27		/	/	OK	↓
	976	jc62778-2		ppl		28		/	/	OK	↓
	977	HEXANE				50			/	OK	
	978	OP10859-MB1	10859	8081tcl	W	29		/	/	OK	
	979	-BS1				30		/	/	OK	
	980	-BSD				31		/	/	OK	
	981	jc62668-8				32		/	/	OK	
	982	ddt				1			/	OK	9:03 am
	983	CC2366-50				4			/	OK	bBHC↓2nd
	984	IB				3			/	OK	
	985	OP10876-mb1	10876	8081 tcl	W	5		/	/	OK	
	986	-bs1				6		/	/	OK	
	987	-bsd				7		/	/	OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G2399

Print Analyst Name: Dharmistha Mehta

Date: 3/27/18

Analyst Signature: DM

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
122362-79	IB	20 ppb
.80A	PEST MIX1	25 ppb
.80B	PEST MIX	50 ppb
.84	PEST ISTD	5 ppm
.89	PEM	50-250 ppb
.102		
123818	HEXANE (Fisher)	—

Columns: 2BCLPI | 2BCLPII

Method 8081

Initial Cal. Method 4PST2366

Injection Volume: 1.0 ml.

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature]

Date: 4/2/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4990988	OP10868-mb	10868	8081 xcl	W	8		/	/	OK	
	989	jc62809-19				9		/	/	OK	
	990	jc62810-19				10		/	/	OK	
	991	jc62811-19				11		/	/	OK	
	992	Fa52639-11	10876	8081 xcl	W	12		/	/	OK	
	993	jc62879-1				13		/	/	OK	
	994	-2				14		/	/	OK	
	995	-3				15		/	/	OK	
	996	-4				16		/	/	OK	
	997	-5				17		/	/	OK	
	998	-6				18		/	/	OK	
	999	-7				19		/	/	OK	

3/28/18 CAP

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09

Rev. Date: 5/25/17

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G2400

Print Analyst Name: CHRISTINE PHILLIPS

Date: 3/28/18

Analyst Signature: CAP

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method 4PST2366

Injection Volume: 1.0 µl

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
M-2362-79	IB	20ppb
·80A	PEST MIX	25ppb
·80B	PEST MIX	50ppb
·84	PEST ISTD	5ppm
·89	PCM	50-250ppb
173818	HEXANE (FISHER)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 4/2/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4G91000	ddt				1				OK	
	001	CC2366-25				2				OK	
	002	IB				3				OK	
	003	OP 10899-MB1	10899	8081 tcl,ppl	S	5				OK	
	004	-BS1				6				OK	
	005	jc 62021-1				7				OK	
	006	jc 62875-1				8				OK	% Solid
	007	OP 10899-MS				9				OK	↓
	008	-MSD				10				OK	
	009	jc 62901-1				11				OK	
	010	jc 62942-1				12				NC	Needs TBA
	011	-2				13				NC	Needs TBA
	012	-3				14				NC	Needs TBA
	013	-4				15				NC	Needs TBA
	014	-5				16				NC	Needs TBA
	015	jc 62920-1				17				OK	
	016	ddt				1				OK	
	017	CC2366-50				4				OK	d-BHC4 on 1st
	018	ib				3				OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G2400

Print Analyst Name: Dharmishaben

Date: 3/28/18

Analyst Signature: DM

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method LCPST23C6

Injection Volume: 1.0 µL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
M2362-79	IB	20 ppb
-80A	PEST MIX	25 ppb
-80B	PEST MIX	50 ppb
-84	PEST ISID	5 ppm
-89	PEM	5.0-250 ppb
173818	HEXANE C	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 4/2/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4g91019	OP10903-MB1	10903	8081 +CL	W	5				OK	
	020	-BS1				6				OK	
	021	-BSD				7				OK	
	022	jc62758-8				8				OK	
	023	jc62942-1				9				OK	Had TBA x-solid
	024	-2				10				OK	
	025	-3				11				OK	↓↓ 1:5
	026	-4				12				OK	
	027	-5				13				OK	
	028	-3				14	5			OK	
	029	ddt				1				OK	
	030	cc23666-25				2				OK	METHOXYCHLOR 2ND
	031	IB				3				OK	
	032	OP10937-MB1	10937	solp	W	15				OK	TX
	033	-BS1				16				OK	
	034	-BSD				17				OK	
	035	OP10940-MB1	10940	8081+clp	W	18				OK	OP10941
	036	-BS1				19				OK	
	037	FA52639-3LA	10937	solp		20				OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
Rev. Date: 5/25/17

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G2400

Print Analyst Name: CHRISTINE PHILLIPS

Date: 3/29/18

Analyst Signature: CNP

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method 4PST2366

Injection Volume: 1.0 ml

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
M-2362-19	IB	20ppb
-80A	PEST MIX	25ppb
-80B	PEST MIX	50ppb
-84	PEST ISTD	5ppm
-89	PEM	50-250ppb
173818	(HEXAMETHYLFISHER)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 4/2/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4G91038	FA52639-4LA	10937	8081	W	21		/	/	OK	8X
	039	-5LA				22		/	/	OK	
	040	-6LA				23		/	/	OK	
	041	-7LA				24		/	/	OK	
	042	-8LA				25		/	/	OK	
	043	OP10937-LBS				26		/	/	OK	
	044	jc628167-3AB	10940	8081	W	27		/	/	OK	
	045	jc623511				28		/	/	OK	
	046	OP10940-LS2				29		/	/	OK	MS
	047	-MSD				30		/	/	OK	
	048	OP10940-LB2				31		/	/	OK	
	049	-LB4				32		/	/	OK	
	050	OP10941-LB6	10941			33		/	/	OK	
	051	cc23666-5D				4		/	/	OK	DDT, METHOXYCHL ↓ 2ND
	052	IB				3		/	/	OK	
	053	DA3817-1	10941	8081	W	34		/	/	OK	
	054	OP10941-LS3				35		/	/	OK	MS
	055	-MSD				36		/	/	OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

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Form: OR016-09
Rev. Date: 5/25/17

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF6195

Print Analyst Name: Tianwei Ruan

Analyst Signature: TR

Date: 3/19/18

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB6195

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.
172362-71	IB	20 ppb
-20	Ar1221/1254	1000ppb
-21	Ar1232/1262	
-22	Ar1242/1268	
-23	Ar1248	
-13	Ar1016/1260	
-12	Ar1221/1254	

Standard Data

Lot #	Description	Conc.
SV 172285-86	Ar1016/1260	50ppb
-85B		250ppb
-85C		2000ppb
-85D		3000ppb
SV 172362-91A	Ar1016/1260	500ppb
-91B		1000ppb
173818	hexane (Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/20/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF80972	IB				16			/	ok	
	973	IC6195-50	1016/1260	1st		17			/	ok	
	974	-250				18			/	ok	
	975	-500				19			/	ok	
	976	ICC6195-1000				20			/	ok	
	977	IC6195-2000				21			/	ok	
	978	-3000				22			/	ok	
	979	IC6195-1000	1221/1254			23			/	OK	
	980	-1000	1232/1262			24			/	ok	
	981	-1000	1242/1268			25			/	OK	
	982	-1000	1248			26			/	ok	
	983	ICV6132-1000	1016/1260	2nd		27			/	ok	
	984	-1000	1221/1254			28			/	ok	
	985	-1000	1232/1262			29			/	ok	SV 17-2362-10 @1000ppb
	986	-1000	1242/1268			30			/	ok	SV 17-2362-15 @1000ppb
	987	-1000	1248			31			/	OK	SV 17-2362-16 @1000ppb
	988	Pest Mix				32			/	ok	SV 17-2285-111 @50 ppb
											TR 3/19

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

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Form: OR016-09

Rev. Date: 5/25/17

Initial Calibration Summary

Laboratory DRAFT - Not for Release

Sample: GEF6195-ICC6195
Lab FileID: EF180976.D

Response Factor Report gcef

Method : C:\HPCHEM\1\METHODS\PCB6195.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue Mar 20 15:27:34 2018
Response via : Initial Calibration

Calibration Files
3000=EF180978.D 2000=EF180977.D 1000=EF180976.D 500 =EF180975.D
250 =EF180974.D 50 =EF180973.D

	Compound	3000	2000	1000	500	250	50	Avg	%RSD
1) S	Tetrachloro-m-xylen	1.177	1.162	1.110	1.102	1.103	1.282	1.156 E4	6.02
2)	AR1221-A			1.261				1.261 E2	0.00
3)	AR1221-B			1.646				1.646 E2	0.00
4)	AR1221-C			5.623				5.623 E2	0.00
5)	AR1221-D			5.934				5.934 E1	0.00
6)	AR1221-E			1.207				1.207 E2	0.00
7)	AR1232-A			4.044				4.044 E2	0.00
8)	AR1232-B			2.644				2.644 E2	0.00
9)	AR1232-C			5.784				5.784 E2	0.00
10)	AR1232-D			2.215				2.215 E2	0.00
11)	AR1232-E			2.064				2.064 E2	0.00
12)	AR1242-A			4.679				4.679 E2	0.00
13)	AR1242-B			1.037				1.037 E3	0.00
14)	AR1242-C			4.037				4.037 E2	0.00
15)	AR1242-D			4.226				4.226 E2	0.00
16)	AR1242-E			5.053				5.053 E2	0.00
17)	AR1248-A			2.458				2.458 E2	0.00
18)	AR1248-B			6.987				6.987 E2	0.00
19)	AR1248-C			6.899				6.899 E2	0.00
20)	AR1248-D			6.247				6.247 E2	0.00
21)	AR1248-E			5.382				5.382 E2	0.00
22)	AR1248-F			7.076				7.076 E2	0.00
23)	AR1248-G			5.006				5.006 E2	0.00
24)	AR1254-A			5.570				5.570 E2	0.00
25)	AR1254-B			7.121				7.121 E2	0.00
26)	AR1254-C			5.215				5.215 E2	0.00
27)	AR1254-D			9.701				9.701 E2	0.00
28)	AR1254-E			8.638				8.638 E2	0.00
29)	AR1254-F			7.208				7.208 E2	0.00
30)	AR1254-G			9.509				9.509 E2	0.00
31)	AR1262-A			7.553				7.553 E2	0.00
32)	AR1262-B			1.090				1.090 E3	0.00
33)	AR1262-C			8.378				8.378 E2	0.00
34)	AR1262-D			2.000				2.000 E3	0.00
35)	AR1262-E			2.424				2.424 E3	0.00
36)	AR1268-A			2.189				2.189 E3	0.00
37)	AR1268-B			2.278				2.278 E3	0.00
38)	AR1268-C			1.828				1.828 E3	0.00
39)	AR1268-D			7.984				7.984 E2	0.00
40)	AR1268-E			4.915				4.915 E3	0.00
41)	AR1016-A	2.789	2.910	3.090	3.242	3.309	3.669	3.168 E2	9.90
42)	AR1016-B	4.573	4.840	5.276	5.702	5.915	6.779	5.514 E2	14.49
43)	AR1016-C	1.047	1.105	1.190	1.267	1.295	1.462	1.228 E3	12.10
44)	AR1016-D	4.047	4.279	4.638	4.943	5.028	5.633	4.761 E2	11.96
45)	AR1016-E	4.239	4.443	4.745	5.044	5.148	6.035	4.942 E2	12.89
46)	AR1260-A	1.169	1.224	1.320	1.405	1.434	1.617	1.362 E3	11.85
47)	AR1260-B	5.506	5.760	6.360	6.874	7.049	7.894	6.574 E2	13.44

Initial Calibration Summary

Laboratory DRAFT - Not for Release

Sample: GEF6195-ICC6195
Lab FileID: EF180976.D

48)		AR1260-C	5.323	5.556	5.982	6.370	6.495	7.165	6.148 E2	10.94
49)		AR1260-D	1.388	1.452	1.529	1.636	1.640	1.759	1.567 E3	8.73
50)		AR1260-E	1.422	1.470	1.528	1.576	1.567	1.697	1.543 E3	6.19
51)	S	Decachlorobiphenyl	1.446	1.526	1.631	1.747	1.832	2.088	1.712 E4	13.54

Signal #2

1)	S	Tetrachloro-m-xylen	1.598	1.596	1.542	1.514	1.530	1.562	1.557 E4	2.23
2)		AR1221-A			1.609				1.609 E2	0.00
3)		AR1221-B			2.344				2.344 E2	0.00
4)		AR1221-C			6.182				6.182 E2	0.00
5)		AR1221-D			1.321				1.321 E2	0.00
6)		AR1221-E			1.275				1.275 E2	0.00
7)		AR1232-A			4.834				4.834 E2	0.00
8)		AR1232-B			3.750				3.750 E2	0.00
9)		AR1232-C			7.681				7.681 E2	0.00
10)		AR1232-D			3.317				3.317 E2	0.00
11)		AR1232-E			2.122				2.122 E2	0.00
12)		AR1242-A			6.810				6.810 E2	0.00
13)		AR1242-B			1.342				1.342 E3	0.00
14)		AR1242-C			5.864				5.864 E2	0.00
15)		AR1242-D			4.146				4.146 E2	0.00
16)		AR1242-E			5.511				5.511 E2	0.00
17)		AR1248-A			3.481				3.481 E2	0.00
18)		AR1248-B			8.815				8.815 E2	0.00
19)		AR1248-C			5.045				5.045 E2	0.00
20)		AR1248-D			6.091				6.091 E2	0.00
21)		AR1248-E			6.759				6.759 E2	0.00
22)		AR1248-F			8.819				8.819 E2	0.00
23)		AR1248-G			7.666				7.666 E2	0.00
24)		AR1254-A			7.793				7.793 E2	0.00
25)		AR1254-B			8.229				8.229 E2	0.00
26)		AR1254-C			6.027				6.027 E2	0.00
27)		AR1254-D			1.271				1.271 E3	0.00
28)		AR1254-E			1.022				1.022 E3	0.00
29)		AR1254-F			1.005				1.005 E3	0.00
30)		AR1254-G			1.192				1.192 E3	0.00
31)		AR1262-A			8.906				8.906 E2	0.00
32)		AR1262-B			1.222				1.222 E3	0.00
33)		AR1262-C			1.046				1.046 E3	0.00
34)		AR1262-D			2.191				2.191 E3	0.00
35)		AR1262-E			2.884				2.884 E3	0.00
36)		AR1268-A			2.553				2.553 E3	0.00
37)		AR1268-B			2.736				2.736 E3	0.00
38)		AR1268-C			2.210				2.210 E3	0.00
39)		AR1268-D			9.624				9.624 E2	0.00
40)		AR1268-E			6.029				6.029 E3	0.00
41)		AR1016-A	3.329	3.545	3.912	4.250	4.407	5.144	4.098 E2	15.99
42)		AR1016-B	0.642	0.685	0.759	0.834	0.873	1.039	0.805 E3	17.88
43)		AR1016-C	1.281	1.364	1.514	1.671	1.756	2.052	1.606 E3	17.56
44)		AR1016-D	5.656	6.000	6.618	7.210	7.447	8.278	6.868 E2	14.15
45)		AR1016-E	3.933	4.199	4.615	4.979	5.154	5.925	4.801 E2	14.93
46)		AR1260-A	1.494	1.567	1.696	1.822	1.894	2.220	1.782 E3	14.68
47)		AR1260-B	0.646	0.681	0.755	0.826	0.875	1.052	0.806 E3	18.39
48)		AR1260-C	0.720	0.754	0.813	0.880	0.912	1.084	0.861 E3	15.24
49)		AR1260-D	1.538	1.600	1.713	1.844	1.901	2.163	1.793 E3	12.71
50)		AR1260-E	1.692	1.748	1.839	1.905	1.928	2.082	1.866 E3	7.47
51)	S	Decachlorobiphenyl	1.751	1.851	1.957	2.118	2.261	2.658	2.099 E4	15.68

(#) = Out of Range

RETENTION TIME WINDOW DETERMINATION

Instrument ID: GCEF
Method: SW846 8082A

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	EF180976.D	03/19/18 18:39	GEF6195-ICC6195	TIANWEIR
Std#2	EF180989.D	03/20/18 09:59	GEF6196-CC6195	TIANWEIR
Std#3	EF180999.D	03/20/18 14:09	GEF6196-CC6195	TIANWEIR

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
Tetrachloro-m-xylene	1	SURR	3.19	3.19	3.20	3.19	0.006	+/- 0.030 [a]
Decachlorobiphenyl	1	SURR	14.19	14.18	14.19	14.19	0.006	+/- 0.030 [a]
Tetrachloro-m-xylene	2	SURR	4.21	4.20	4.21	4.21	0.006	+/- 0.030 [a]
Decachlorobiphenyl	2	SURR	17.33	17.32	17.32	17.32	0.006	+/- 0.030 [a]
AR1016-A	1	REG	3.71	3.72	3.73	3.72	0.010	+/- 0.030
AR1016-B	1	REG	4.26	4.25	4.26	4.26	0.006	+/- 0.030 [a]
AR1016-C	1	REG	5.04	5.05	5.07	5.05	0.015	+/- 0.046
AR1016-D	1	REG	5.28	5.29	5.31	5.29	0.015	+/- 0.046
AR1016-E	1	REG	6.03	6.02	6.04	6.03	0.010	+/- 0.030
AR1260-A	1	REG	9.65	9.65	9.67	9.66	0.012	+/- 0.035
AR1260-B	1	REG	9.91	9.90	9.91	9.91	0.006	+/- 0.030 [a]
AR1260-C	1	REG	10.43	10.43	10.44	10.43	0.006	+/- 0.030 [a]
AR1260-D	1	REG	11.11	11.11	11.12	11.11	0.006	+/- 0.030 [a]
AR1260-E	1	REG	11.73	11.73	11.74	11.73	0.006	+/- 0.030 [a]
AR1016-A	2	REG	5.16	5.15	5.16	5.16	0.006	+/- 0.030 [a]
AR1016-B	2	REG	5.99	5.98	5.98	5.98	0.006	+/- 0.030 [a]
AR1016-C	2	REG	6.93	6.93	6.93	6.93	0.000	+/- 0.030 [a]
AR1016-D	2	REG	7.23	7.22	7.23	7.23	0.006	+/- 0.030 [a]
AR1016-E	2	REG	8.24	8.23	8.24	8.24	0.006	+/- 0.030 [a]
AR1260-A	2	REG	12.35	12.34	12.35	12.35	0.006	+/- 0.030 [a]
AR1260-B	2	REG	12.55	12.54	12.54	12.54	0.006	+/- 0.030 [a]
AR1260-C	2	REG	13.23	13.22	13.23	13.23	0.006	+/- 0.030 [a]
AR1260-D	2	REG	13.79	13.79	13.79	13.79	0.000	+/- 0.030 [a]
AR1260-E	2	REG	14.65	14.64	14.65	14.65	0.006	+/- 0.030 [a]

(a) Default minimum StdDev of .01 minutes employed.

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF 6202

Print Analyst Name: HUMARAH BANO

Date: 3/27/18

Analyst Signature: HB

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB 6195

Injection Volume: 1.0 ML

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
172362-91A	AR 1016/1260	500 PPB
-91B	↓	1000 PPB
-79	IB	20 PPB
-62	TBA	—
173818	Hexane (Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 3/28/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF ** 181169	CC6195-500				1				OK	1260 & 1st
	170	IB				2				OK	
	171	JC62687-5	10818	8082	S	3				OK	HAD TBA Clean
	172	-10				4				OK	↓
	173	-15				5				OK	
	174	-25				6				OK	
	175	-30				7				OK	
	176	Hexane				100				NOT RSN	cut from Sequence
	177	CC6195-1000				8				OK	
	178	IB				2				OK	
	179	OP10875-MB1	10875	8082	W	9				OK	
	180	-BS1				10				OK	
	181	-BSD				11				OK	
	182	JC62879-1				12				OK	
	183	-2				13				OK	
	184	-3				14				OK	
	185/186	Hexane				100				OK	
	187	CC6195-500				15				OK	
	188	IB				2				OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
Rev. Date: 5/25/17

195

11.7.9 11

SGS JC62879

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF 6202

Print Analyst Name: HUMAYAN BAND

Date: 3/27/18

Analyst Signature: HB

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17-2862-119A	AR 1016/1260	500 PPB
-119B	↓	1000 PPB
-79	IB	2000 PPB
173818	Hexane (Fisher)	—

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB 6195

Injection Volume: 1.0 µL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: _____ Date: 3/28/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	GF181189	IC62879-4	10875	8082	W	16				OK	
	190	-5				17				OK	
	191 ~~192~~	-6				18				OK	
	192 ~~193~~	-7 Hexane				19 100	HB 3/22			OK	
	193 ~~194~~ 194 ~~195~~	Hexane ~~IC6200~~	HB 3/27			100				OK	
	195 ~~196~~	CC6795 - 1000				20				OK	
	196 ~~197~~	IB				2				OK	

MTX = Matrix. Designate W for water, S for soil, O for oil. IS = Internal Standard Area (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated and reason applied if not transcription error.

FTR 3/27/18

Form: OR016-09
Rev. Date: 5/25/17

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11.7.9 11

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF6203

Print Analyst Name: Tianwei Ruan

Date: 3/28/18

Analyst Signature: TR

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB6195

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
S 173236-1198	AR1016/1260	500ppb
1198	AR1016/1260	1000ppb
79	IB	20ppb
-102	TBA solution	-
173818	hexane(fisher)	-

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/30/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF18197	cc6195-1000				21			/	OK	
	198	IB				2			/	OK	
	199	OP10898-MB1	10898	8082	S	22			/	OK	
	200	-BS1				23			/	OK	
	201	JC62867-3A				24			/	OK	
	202	JC62901-1				25			/	OK	
	203	OP10898-MS				26			/	OK	
	204	-MSD				27			/	OK	
	205	cc6195-500				28			/	OK	
	206	IB				2			/	OK	
	207	JC62942-1				29			/	OK	HAD TBA cleanup
	208	-2				30			/	OK	
	209	-3				31			/	OK	
	210	-4				32			/	OK	
	211	-5				33			/	OK	
	212	JC62875-1				34			/	OK	
	213	JC62920-1				35			/	OK	
	214	JC62274-2R				36			/	OK	
	215	Hexane				100			/	OK	

MTX = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
Rev. Date: 5/25/17

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11.7.10 11

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF 6203

Print Analyst Name: HUMARAH BANO

Date: 3/28/18

Analyst Signature: HB

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17-2362119A	AR 1016/1260	500 ppb
-119B	↓	1000 ppb
-79	IB	20 ppb
173818	hexane (Fisher)	-

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB 6195

Injection Volume: 1.0 µL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: HB Date: 3/30/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF181216	CC6195-1000				37				OK	
	217	IB				2				OK	
	218	OP10884-MB1	10884	8082	W	38				OK	
	219	-BS1				39				OK	
	220	JC62879-9				40				OK	
	221	OP10884-MS				41				OK	
	222	-MSD				42				OK	
	223	JC62879-20				43				OK	
	224	JC62879-8				44				OK	
	225/226	Hexane				100				OK	
	227	CC6295-500				45				OK	
	228	IB				2				OK	
	229	JC62879-10				46				OK	
	230	-11				47				OK	
	231	OP10884-MS2				48				OK	
	232	-MSD2				49				OK	
	233	JC62879-12				50				OK	
	234	-13				51				OK	
	235	-14				52				OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR01609

Rev. Date: 5/25/17

1

11.7.10 11

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF 6203

Print Analyst Name: HUMARAH BAND

Date: 3/28/18

Analyst Signature: HB

Standard Data

Lot #	Description	Conc.

SV

Standard Data

Lot #	Description	Conc.
172362-119A	AC 1016/1260	500 ppb
-119B	↓	1000 ppb
-79	IB	20 ppb
173818	Hexane (Fisher)	-

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB 6195

Injection Volume: 1.0 uL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: HB Date: 3/30/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF181236/237	Hexane				100				OK	
	238	CC6195-1000				53			/	OK	
	239	IB				2			/	OK	
	240	JC62879-15				54			/	OK	
	241	-16				55			/	OK	
	242	-17				56			/	OK	
	243	-18				57			/	OK	
	244	JC62942-6				58			/	OK	
	245	JC62881-1				59			/	OK	
	246	-2				60			/	OK	
	247/248	Hexane				100				OK	
	249	CC6195-500				61			/	OK	
	250	IB				2			/	OK	
	251	JC62881-3				62			/	OK	
	252	-4				63			/	OK	
	253	-5				64			/	OK	
	254	-6				65			/	OK	
	255	OP10898-MS	10898	8082	S	66			/	OK	HAD TBA
	256	-MSD				67			/	OK	↓

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
Rev. Date: 5/25/17

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF 6203

Print Analyst Name: Humaira Band

Date: 3/28/18

Analyst Signature: HB

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB 6195

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 17-2362119A	AC 1016/1260	500 PPB
-119B	↓	1000 PPB
-79	IB	20 PPB
173818	Hexane (Fisher)	-

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: HB Date: 3/30/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF181257	Hexane				100				OK	
	258	OP10898-MB1 BSL	7R 3/29			68			✓	OK	HAD TBA
	259	MB1 BSL				69			✓	OK	↓
	260	CC 6195-1000				70			✓	OK	
	261	IB				2			✓	OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

7R 3/29

Form: OR016-09

Rev. Date: 5/25/17

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11.7.10 11

8-2176

Pest/PCB Extraction Log - Aqueous

LOGBOOK ID:

Date Started: 3/26/18 Time Started: 1820
Date Finished: 3/26/18 Time Finished: 2015

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other √
Continuous Liquid Liquid: SW846 3520C/CLP/other

BATCH # GC 10875	RACK# PCB-14
Set-up by:	RG
Extracted by:	AF
Concentrated by:	AF CC
Final Vol. Top-up:	CC
Vialed by:	CC, NT
Supervisor Review:	RM/mcha 3/26/18.

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:

Final Volume:

Other:

HT 3/26

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	2	65	/	/	OK
Buchi Chiller	B2	10.7	/	/	OK
Waterbath (70-80°C)					
Waterbath Chiller (GPM)					
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB	182158 64	400	0.2
PPCB LL			

WITNESS SIGN: AY SPIKE SIGN: RG

MATRIX SPIKE	LOT #	CONC	AMT (mL)
~~PEST~~ PCB	18215830	2ppm	0.2
~~PEST LL~~			
PCB	~~182158 58A~~	250ppb	~~0.2~~
PCB LL			

WITNESS SIGN: AY SPIKE SIGN: RG

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	181347	BShell	3X15
HEXANE	173818	BShell	50.

REAGENT	LOT #	BAKE BATCH #	BRAND
Sodium Sulfate	176CCQP	3-20-18A	BShell Lab.
Glass Wool	10P18-4		
Filter Paper			
Copper	OP18716000		Aldrich
Florisil			
1:1 Sulfuric Acid			
Chlorine Strips			

	Sample #	Analysis Type	Sample Bottle #	pH	Sample Description	Sample Volume (mL)	Final Extract Color	Final Extract Vol(mL)	Extract Cleanup GPC	Copper	H2SO4	Florisil	KMnO4	Comments
	MB1	PCB			DI H2O	300	Clear	2.0		✓				
	BS1	LV1			DI H2O	300	Clear	2.0		✓				
BSD	MS	+			DI H2O	300	Clear	2.0		✓				
	MSD													
	BS													
	MS													
	MSD													
1	JC62879 -1	PCB	6		Lyellow	275	Clear	2.0		✓				
2	-2	LV1	6		Lyellow	300	Clear	2.0		✓				
3	-3		5		Lyellow	280	Clear	2.0		✓				
4	-4		6		Clear	300	Clear	2.0		✓				
5	-5		6		Lyellow	300	Clear	2.0		✓				
6	-6		5		Lyellow	295	Clear	2.0		✓				
7	-7		5		Yellow	290	Clear	2.0		✓				
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

SGS
Form: OP021A-10
Rev Date: 8/2/17

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8-2176

LOGBOOK ID:

Date Started: 3/26/18 Time Started: 1820
Date Finished: 3/26/18 Time Finished: 2010

Pest/PCB Extraction Log - Aqueous

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other ✓
Continuous Liquid Liquid: SW846 3520C/CLP/other

BATCH # GC 10876 RACK# Pest-4

Set-up by:	RG
Extracted by:	AF
Concentrated by:	AF CC
Final Vol. Top-up:	CC
Vialed by:	CC, NT
Supervisor Review:	R Yuriana 3/26/18

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

Sample #	Analysis Type	Sample Bottle #	pH	Sample Description	Sample Volume (mL)	Final Extract Color	Final Extract Vol(mL)	Extract Cleanup GPC	Copper	H2SO4	Florisil	KMnO4	Comments
MB1	Pest			diH2O	300	Clear	2.0		✓				
BS1	LVI			diH2O	300	Clear	2.0		✓				
BSD ~~MS~~	1			diH2O	300	Clear	2.0		✓				
MSD													
BS													
MS													
MSD													
1 JC62879-1	Pest	6		1.yellow	275	Clear	2.0		✓				
2 -2	LVI	6		1.yellow	300	Clear	2.0		✓				
3 -3		5		1.yellow	280	Clear	2.0		✓				
4 -4		6		clear	300	Clear	2.0		✓				
5 -5		6		1.yellow	300	Clear	2.0		✓				
6 -6		5		1.yellow	295	Clear	2.0		✓				
7 -7		5		yellow	290	Clear	2.0		✓				
8 FA52639-11		2		clear	245	Clear	2.0		✓				
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	2	65	—	—	OK
Buchi Chiller	B2	10.7	—	—	OK
Waterbath (70-80°C)					
Waterbath Chiller (GPM)					
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB	18215864	400	0.2
PPCB LL			
WITNESS SIGN: AY		SPIKE SIGN: RG	

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST			
PEST LL			
PCB	18215858A	250ppb	0.2
PCB LL			
WITNESS SIGN: AY		SPIKE SIGN: RG	

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	181347	Fisher	3x15
HEXANE	173818	Fisher	50

REAGENT	LOT #	BAKE BATCH #	BRAND
Sodium Sulfate	1760006	3-20-18A	Fisher
Glass Wool	10R18-4		lab-
Filter Paper			
Copper	CP18216000		Aldrich
Florisil			
1:1 Sulfuric Acid			
Chlorine Strips			

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:

Final Volume:

Other:

HT 3/26

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

SGS
Form: OP021A-10
Rev Date: 8/2/17

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11.8.2 11

Pest/PCB Extraction Log - Aqueous

LOGBOOK ID: 8 7188

Date Started: 3/27/18 Time Started: 1810

Date Finished: 3/27/18 Time Finished: 2300

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):

Separatory Funnel: SW846 3510C/CLP/other ✓

Continuous Liquid Liquid: SW846 3520C/CLP/other

BATCH # GC 10884	RACK# PCB-14
Set-up by:	AF, RC
Extracted by:	AF, RC
Concentrated by:	RG
Final Vol. Top-up:	AF
Vialed by:	AF
Supervisor Review:	R Yuca 3/27/18

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:

Manager/Supervisor/Team Lead Approval:

Sample #	Analysis Type	Sample Bottle #	pH	Sample Description	Sample Volume (mL)	Final Extract Color	Final Extract Vol(mL)	Extract Cleanup GPC	Copper	H2SO4	Florisil	KMnO4	Comments
MB1	PCB			diH2O	~~1000~~ 300	clear	2.0						
BS1	LV1			diH2O	~~16~~ 300	clear	2.0						
JC62879-9 MS		16		orange	300	clear	2.0						
MSD		18		orange	300	clear	2.0						
BS													
JC62879-11 MS	2	12		yellow	300	clear	2.0						
MSD	2	19		yellow	300	clear	2.0						
JC62879-8	PCB	5		clear	300	clear	2.0						
-9	LV1	21		orange	290	l.yellow	2.0						
-10		4		yellow	290	l.yellow	2.0						
-11		11		yellow	290	clear	2.0						
-12		6		yellow	300	l.yellow	2.0						
-13		7		orange	300	clear	2.0						
-14		7		orange	300	clear	2.0						
-15		4		orange	290	clear	2.0						
-16		6		orange	300	clear	2.0						
-17		4		yellow	300	clear	2.0						
-18		4		orange	300	clear	2.0						
JC62881-1		5		yellow	300	clear	2.0						
-2		7		yellow	300	l.yellow	2.0						
-3		4		clear	300	clear	2.0						
-4		6		yellow	300	l.yellow	2.0						
-5		7		yellow	290	clear	2.0						
-6		4		orange	295	clear	2.0						
JC62879-20		4		yellow	300	clear	2.0						
JC62942-6		6		clear	300	clear	2.0						

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	2,3	65	–	–	Ok
Buchi Chiller	B2,B3	11	–	–	Ok.
Waterbath (70-80°C)					
Waterbath Chiller (GPM)					
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB	18215864	400	0.2
PPCB LL			

WITNESS SIGN: AF SPIKE SIGN: RC

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST			
PEST LL			
PCB	18215830	2ppm	0.2
PCB LL			

WITNESS SIGN: AF SPIKE SIGN: RC

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	151347	fisher.	15x3.
HEXANE	173578.	Fisher	50

REAGENT	LOT #	BAKE BATCH #	BRAND
Sodium Sulfate	1716006	3-23-18A	fisher.
Glass Wool	10R18-4.		lab.
Filter Paper			
Copper	08182160001		Aldrich
Florisil			
1:1 Sulfuric Acid			
Chlorine Strips			

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD: JC62879-9 JC62879-11

Final Volume:

Other:

HT 3/28 DD 4/6 3/29

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SGS
Form: OP021A-10
Rev Date: 8/2/17

11.8.3 11

8 2188

LOGBOOK ID:

Pest/PCB Extraction Log - Aqueous

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other √
Continuous Liquid Liquid: SW846 3520C/CLP/other

Date Started: 3/27/18 Time Started: 1810
Date Finished: 3/27/18 Time Finished: 2360

BATCH # GC 10885 RACK# Pest 23

Set-up by:	AF KC
Extracted by:	AF KC
Concentrated by:	KC
Final Vol. Top-up:	AF
Vialed by:	AF
Supervisor Review:	LGlucha 3/27/18.

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	2,3	65	—	—	ok
Buchi Chiller	B2, B3	11	—	—	ok
Waterbath (70-80°C)					
Waterbath Chiller (GPM)					
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB	OP18215864.	400	0.2
PPCB LL			
WITNESS SIGN: AF		SPIKE SIGN: KC	

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST	18215858A	250 ppb	0.2
PEST LL			
PCB			
PCB LL			
WITNESS SIGN: AF		SPIKE SIGN: KC	

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	181347.	Fisher.	15x3.
HEXANE	173528.	Fisher.	50.

REAGENT	LOT #	BAKE BATCH #	BRAND
Sodium Sulfate	M1600le	3-23-18A	Fisher
Glass Wool	10118-4		Lab.
Filter Paper			
Copper	OP18211000001		Alfa Aesar
Florisil			
1:1 Sulfuric Acid			
Chlorine Strips			

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:

Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:
JC62879-9
JC62879-11

Final Volume:

Other:
MT 3/28
DSH/6

	Sample #	Analysis Type	Sample Bottle #	pH	Sample Description	Sample Volume (mL)	Final Extract Color	Final Extract Vol(mL)	Extract Cleanup GPC	Copper	H2SO4	Florisil	KMnO4	Comments
	MB1	Pest			diH_2O	1000	clear	2.0		✓				
	BS1	LV1			diH_2O	1000	clear	2.0		✓				
	JC62879-9 MS		15		orange	300		2.0		✓				
	MSD		17		orange	300		2.0						
	BS													
	JC62879-11 MS	2	21		yellow	290	clear	2.0		✓				
	MSD	2	20		yellow	300	clear	2.0		✓				
1	JC62879-8	Pest	5		clear	300	Clear	2.0		✓				
2	-9	LV1	21		orange	290	Yellow	2.0		✓				
3	-10		4		yellow	290	Yellow	2.0		✓				
4	-11		11		yellow	290	clear	2.0		✓				
5	-12		6		yellow	300	Yellow	2.0		✓				
6	-13		7		orange	300	Clear	2.0		✓				
7	-14		7		orange	300	clear	2.0		✓				
8	-15		4		orange	290	clear	2.0		✓				
9	-16		6		orange	300	Clear	2.0		✓				
10	-17		4		yellow	300	Clear	2.0		✓				
11	-18		4		orange	300	Clear	2.0		✓				
12	JC62881 - 1		5		yellow	300	Clear	2.0		✓				
13	-2		7		yellow	300	Yellow	2.0		✓				
14	-3		4		clear	300	Clear	2.0		✓				
15	-4		6		yellow	300	Yellow	2.0		✓				
16	-5		7		yellow	290	Clear	2.0		✓				
17	-6		4		orange	295	Clear	2.0		✓				
18	JC62879-10		9		yellow	300	Clear	2.0		✓				
19	JC62879-6		6		clear	300	Clear	2.0		✓				
20														

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

SGS
Form: OP021A-10
Rev Date: 8/2/17

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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
Analyst: JA Run ID: MA44080
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:30	MA44080-STD1	1		B=1.8436E-004 C=1.8995E-002 C=0.9999230
09:31	MA44080-STD2	1		STDB
09:33	MA44080-STD3	1		STDC
09:34	MA44080-STD4	1		STDD
09:35	MA44080-STD5	1		STDE
09:37	MA44080-STD6	1		STDF
09:41	MA44080-ICV1	1		
09:43	MA44080-ICB1	1		
09:45	MA44080-CCV1	1		
09:46	MA44080-CCB1	1		
09:48	MA44080-CRI1	1		
09:50	MP6363-MB1	1		
09:51	MP6363-B1	1		
09:53	MP6363-S1	1		
09:55	MP6363-S2	1		
09:57	JC62872-1	1		(sample used for QC only; not part of login JC62879)
09:59	ZZZZZZ	1		
10:01	ZZZZZZ	1		
10:02	MA44080-CCV2	1		
10:03	MA44080-CCB2	1		
10:05	ZZZZZZ	1		
10:06	ZZZZZZ	1		
10:08	ZZZZZZ	1		
10:09	ZZZZZZ	1		
10:10	ZZZZZZ	1		
10:12	ZZZZZZ	1		
10:13	ZZZZZZ	1		
10:14	ZZZZZZ	1		
10:16	MA44080-CCV3	1		
10:18	MA44080-CCB3	1		
10:20	ZZZZZZ	1		
10:21	ZZZZZZ	1		
10:23	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
Analyst: JA Run ID: MA44080
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:25	ZZZZZZ	1		
10:26	ZZZZZZ	1		
10:27	ZZZZZZ	1		
10:29	ZZZZZZ	1		
10:30	ZZZZZZ	1		
10:31	MA44080-CCV4	1		
10:33	MA44080-CCB4	1		
10:34	ZZZZZZ	1		
10:36	ZZZZZZ	1		
10:37	ZZZZZZ	1		
10:38	ZZZZZZ	1		
10:40	ZZZZZZ	1		
10:41	MP6364-MB1	1		
10:43	MP6364-B1	1		
10:46	MA44080-CCV5	1		
10:47	MA44080-CCB5	1		
10:49	MP6364-S1	1		
10:50	MP6364-S2	1		
10:52	MP6364-S3	1		
10:53	MP6364-S4	1		
10:55	JC62879-9	1		BRIGHT ORANGE
10:57	JC62879-11	1		
10:59	JC62879-1	1		
11:00	MA44080-CCV6	1		
11:01	MA44080-CCB6	1		
11:03	JC62879-2	1		
11:04	JC62879-3	1		
11:06	JC62879-4	1		
11:07	JC62879-5	1		
11:08	JC62879-6	1		
11:10	JC62879-7	1		
11:11	JC62879-8	1		
11:12	JC62879-10	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
Analyst: JA Run ID: MA44080
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:14	MA44080-CCV7	1		
11:15	MA44080-CCB7	1		
11:17	JC62879-12	1		
11:18	JC62879-13	1		FOAMY
11:19	JC62879-14	1		
11:21	JC62879-15	1		
11:22	JC62879-16	1		
11:23	JC62879-17	1		
11:24	JC62879-18	1		ORANGE SEDIMENT
11:26	JC62879-20	1		
---------->	Last reportable sample/prep for job JC62879			
11:27	ZZZZZZ	1		
11:28	MA44080-CCV8	1		
11:30	MA44080-CCB8	1		
11:31	ZZZZZZ	1		
11:35	ZZZZZZ	1		
11:40	MP6365-MB1	1		
11:41	MP6365-B1	1		
11:42	MP6365-S1	1		
11:44	MP6365-S2	1		
11:46	JC62351-1	1		(sample used for QC only; not part of login JC62879)
11:48	MA44080-CCV9	1		
11:49	MA44080-CCB9	1		
11:51	MP6369-MB1	1		
11:52	MP6369-B1	1		
11:53	MP6369-S1	1		
11:55	MP6369-S2	1		
11:57	JC62494-5	1		(sample used for QC only; not part of login JC62879)
11:59	ZZZZZZ	1		
12:00	ZZZZZZ	1		
12:02	ZZZZZZ	1		
12:03	MA44080-CCV10	1		
12:05	MA44080-CCB10	1		
12:06	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
Analyst: JA Run ID: MA44080
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:08	ZZZZZZ	1		
12:10	MA44080-CRI2	1		
12:12	MA44080-CCV11	1		
12:13	MA44080-CCB11	1		

----------> Last reportable CCB for job JC62879
Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44080 Units: ug/l

Time:			09:43		09:46		10:03		10:18	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.059	-0.041	<0.20	-0.042	<0.20	-0.031	<0.20	-0.031	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44080 Units: ug/l

Time:			10:33		10:47		11:01		11:15	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.059	-0.040	<0.20	-0.030	<0.20	-0.042	<0.20	-0.027	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44080 Units: ug/l

Time:			11:30		11:49		12:05		12:13	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.059	-0.025	<0.20	-0.030	<0.20	-0.025	<0.20	-0.031	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44080 Units: ug/l

Time:		09:41			09:45			10:02	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3.0	3.0	100.0	2.5	2.6	104.0	2.5	2.5	100.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44080 Units: ug/l

Time:		10:16			10:31			10:46	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.5	100.0	2.5	2.5	100.0	2.5	2.5	100.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44080 Units: ug/l

Time:		11:00			11:14			11:28	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.6	104.0	2.5	2.6	104.0	2.5	2.5	100.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44080 Units: ug/l

Time:		11:48			12:03			12:12	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.5	100.0	2.5	2.5	100.0	2.5	2.5	100.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7032718W1.CSV Date Analyzed: 03/27/18 Methods: SW846 7470A
QC Limits: 70 to 130 % Recovery Run ID: MA44080 Units: ug/l

Time:			09:48		12:10	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.22	110.0	0.22	110.0

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44103
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:11	MA44103-STD1	1		STDA
13:14	MA44103-STD2	1		STDB
13:17	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:24	MA44103-ICV1	1		
13:28	MA44103-ICB1	1		
13:32	MA44103-ICCV1	1		
13:37	MA44103-CCB1	1		
13:41	MA44103-CRI1	1		
13:44	MA44103-CRID1	1		See rerun
13:47	MA44103-ICSA1	1		
13:50	MA44103-ICSAB1	1		
13:53	MA44103-HSTD1	1		
13:56	MA44103-HSTD2	1		
13:59	ZZZZZZ	1		
14:02	ZZZZZZ	1		
14:05	ZZZZZZ	1		
14:08	MA44103-CCV1	1		
14:11	MA44103-CCB2	1		
14:14	MA44103-CRID2	1		
14:17	MP6402-MB1	1		
14:20	MP6402-B1	1		
14:22	MP6402-S1	1		
14:25	MP6402-S2	1		
14:28	JC62879-11	1		
14:31	MP6402-SD1	5		
---------->	Last reportable sample/prep for job JC62879			
14:34	ZZZZZZ	1		
14:37	MA44103-CCV2	1		
14:40	MA44103-CCB3	1		
14:43	MP6412-MB1	1		
14:46	MP6412-B1	1		
14:49	MP6412-LC1	1		
14:52	MP6412-S1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44103
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	14:55	MP6412-S2	1		
	14:58	JC63077-1	1		(sample used for QC only; not part of login JC62879)
	15:01	MP6412-SD1	5		
	15:04	ZZZZZZ	1		
	15:07	ZZZZZZ	1		
	15:10	MA44103-CCV3	1		
	15:15	MA44103-CCB4	1		
	15:18	MP6412-S2	3		
	15:22	MP6412-S1	3		
	15:25	JC63077-1	3		(sample used for QC only; not part of login JC62879)
	15:27	MP6412-SD1	15		
	15:30	ZZZZZZ	1		
	15:33	MP5814-MB1	1		
	15:36	MP5814-MB2	1		
	15:39	MP5814-B1	1		
	15:42	ZZZZZZ	1		
	15:45	MA44103-CCV4	1		
	15:48	MA44103-CCB5	1		
	15:51	ZZZZZZ	1		
	15:56	ZZZZZZ	1		
	15:59	ZZZZZZ	1		
	16:02	MA44103-CRI2	1		
	16:05	MA44103-CRID3	1		
	16:08	MA44103-ICSA2	1		
	16:11	MA44103-ICSAB2	1		
	16:14	MA44103-CCV5	1		
	16:17	MA44103-CCB6	1		
---------->	Last reportable CCB for job JC62879				
	16:20	MP5813-MB1	1		
	16:23	MP5813-MB2	1		
	16:26	MP5813-B1	1		
	16:29	ZZZZZZ	1		
	16:32	ZZZZZZ	1		
	16:35	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44103
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:38	ZZZZZZ	1		
16:42	ZZZZZZ	1		
16:45	ZZZZZZ	1		
16:48	MA44103-CCV6	1		
16:51	MA44103-CCB7	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44103
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:11	MA44103-STD1	7098 R	162010 R	18993 R	10764 R
13:14	MA44103-STD2	6714	151940	17452	9848
13:17	ZZZZZZ	7009	153610	17651	10265
13:20	ZZZZZZ	7261	160470	18046	11009
13:24	MA44103-ICV1	6907	156390	17975	10173
13:28	MA44103-ICB1	6950	152880	18349	10589
13:32	MA44103-ICCV1	6955	156280	18029	10257
13:37	MA44103-CCB1	6929	159130	18001	10578
13:41	MA44103-CRI1	6810	155420	17421	10331
13:44	MA44103-CRID1	No results reported for the elements associated with this internal standard.			
13:47	MA44103-ICSA1	6437	142690	17003	9296
13:50	MA44103-ICSAB1	6386	141520	17040	9248
13:53	MA44103-HSTD1	7005	158350	17924	10632
13:56	MA44103-HSTD2	6583	145990	17357	9371
13:59	ZZZZZZ	7031	159450	17972	10788
14:02	ZZZZZZ	6970	161480	18073	10764
14:05	ZZZZZZ	6921	157850	17542	10535
14:08	MA44103-CCV1	6904	155270	17689	10142
14:11	MA44103-CCB2	6928	157440	17603	10528
14:14	MA44103-CRID2	7135	156040	18021	10780
14:17	MP6402-MB1	7080	161360	18179	10711
14:20	MP6402-B1	6890	156150	17834	10164
14:22	MP6402-S1	6779	155060	17675	9829
14:25	MP6402-S2	6873	153860	17822	9950
14:28	JC62879-11	7010	157950	18107	10278
14:31	MP6402-SD1	7151	161220	18074	10695
14:34	ZZZZZZ	7117	160550	18279	10429
14:37	MA44103-CCV2	6981	156080	17848	10194
14:40	MA44103-CCB3	7161	161400	18617	10803
14:43	MP6412-MB1	7116	162880	18218	10711
14:46	MP6412-B1	6979	156380	17879	10260
14:49	MP6412-LC1	7247	163480	18566	10488
14:52	MP6412-S1	7313	161600	19004	10358

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44103
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:55	MP6412-S2	7066	158140	18895	10244
14:58	JC63077-1	7118	163510	19035	10249
15:01	MP6412-SD1	7239	162960	18530	10674
15:04	ZZZZZZ	7299	161150	18730	10620
15:07	ZZZZZZ	7517	168060	19680	10115
15:10	MA44103-CCV3	6990	156000	17812	10254
15:15	MA44103-CCB4	7205	164220	18465	10933
15:18	MP6412-S2	7111	160120	18322	10513
15:22	MP6412-S1	7062	160350	18414	10385
15:25	JC63077-1	7207	162370	18394	10677
15:27	MP6412-SD1	7228	170680	18449	10825
15:30	ZZZZZZ	6731	158870	18179	10059
15:33	MP5814-MB1	7311	167780	18950	11136
15:36	MP5814-MB2	7223	165600	18722	11020
15:39	MP5814-B1	7129	162640	18451	10631
15:42	ZZZZZZ	7390	166710	18676	11250
15:45	MA44103-CCV4	6990	157630	17940	10368
15:48	MA44103-CCB5	6954	169350	17810	10679
15:51	ZZZZZZ	7115	162660	18143	10883
15:56	ZZZZZZ	7125	160420	18158	10933
15:59	ZZZZZZ	6962	164010	18177	10718
16:02	MA44103-CRI2	7143	163020	18354	10907
16:05	MA44103-CRID3	7212	165100	18253	11066
16:08	MA44103-ICSA2	6539	146960	17359	9574
16:11	MA44103-ICSAB2	6515	146250	16982	9553
16:14	MA44103-CCV5	6938	155180	17658	10340
16:17	MA44103-CCB6	7105	162320	17941	10924
16:20	MP5813-MB1	7303	161980	18007	11232
16:23	MP5813-MB2	7174	165920	18558	11041
16:26	MP5813-B1	7135	161950	18348	10748
16:29	ZZZZZZ	7280	166850	18603	11265
16:32	ZZZZZZ	7376	172970	18554	11393
16:35	ZZZZZZ	7186	168390	18334	11140

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44103
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:38	ZZZZZZ	7202	165810	18386	11050
16:42	ZZZZZZ	7129	165240	18193	10961
16:45	ZZZZZZ	7134	164050	18026	10986
16:48	MA44103-CCV6	7006	159250	17881	10461
16:51	MA44103-CCB7	7188	164500	17981	11091

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44103 Units: ug/l

Time: / Sample ID:			13:28 ICB1		13:37 CCB1		14:11 CCB2		14:40 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	4.0	<200	-2.4	<200	6.2	<200	2.2	<200
Antimony	6.0	2.4	1.1	<6.0	-0.80	<6.0	-0.30	<6.0	0.40	<6.0
Arsenic	3.0	1.2	1.2	<3.0	1.0	<3.0	0.20	<3.0	1.1	<3.0
Barium	200	.6	0.30	<200	-0.10	<200	0.80	<200	0.40	<200
Beryllium	1.0	.2	0.10	<1.0	0.0	<1.0	0.10	<1.0	0.0	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.10	<3.0	0.0	<3.0	0.10	<3.0	0.20	<3.0
Calcium	5000	5.5	3.3	<5000	3.0	<5000	4.7	<5000	0.10	<5000
Chromium	10	.7	0.10	<10	-0.10	<10	0.0	<10	0.20	<10
Cobalt	50	.4	-0.20	<50	-0.30	<50	-0.10	<50	-0.20	<50
Copper	10	1.1	0.60	<10	0.0	<10	0.50	<10	-0.10	<10
Iron	100	3.5	1.0	<100	-1.3	<100	1.1	<100	0.40	<100
Lead	3.0	2.2	0.10	<3.0	-0.90	<3.0	-0.10	<3.0	0.10	<3.0
Lithium	50	3.4								
Magnesium	5000	25	18.4	<5000	-6.3	<5000	17.8	<5000	28.0	<5000
Manganese	15	.14	0.0	<15	0.0	<15	0.0	<15	0.0	<15
Molybdenum	20	.4								
Nickel	10	.5	0.10	<10	0.30	<10	0.10	<10	0.40	<10
Phosphorus	50	2								
Potassium	10000	60	60.3	<10000	134	<10000	132	<10000	44.9	<10000
Selenium	10	3.7	-0.20	<10	0.70	<10	1.2	<10	-0.10	<10
Silicon	200	1.8								
Silver	10	.7	0.40	<10	0.70	<10	1.0	<10	0.70	<10
Sodium	10000	35	13.2	<10000	14.6	<10000	-16	<10000	6.2	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	-0.90	<2.0	-0.30	<2.0	0.90	<2.0	-0.40	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	-0.30	<50	-0.20	<50	-0.30	<50	0.10	<50
Zinc	20	.2	0.10	<20	0.0	<20	0.10	<20	0.10	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44103 Units: ug/l

Time:			13:28		13:37		14:11		14:40	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44103 Units: ug/l

Time:			15:15		15:48		16:17	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	19	5.4	<200	3.1	<200	1.6	<200
Antimony	6.0	2.4	-0.20	<6.0	0.10	<6.0	0.20	<6.0
Arsenic	3.0	1.2	0.60	<3.0	0.20	<3.0	0.60	<3.0
Barium	200	.6	-0.30	<200	-0.20	<200	0.10	<200
Beryllium	1.0	.2	0.10	<1.0	0.10	<1.0	0.10	<1.0
Bismuth	20	3.2						
Boron	100	1.5						
Cadmium	3.0	.4	0.0	<3.0	0.10	<3.0	0.10	<3.0
Calcium	5000	5.5	-0.70	<5000	2.3	<5000	6.8	<5000
Chromium	10	.7	-0.10	<10	-0.10	<10	0.10	<10
Cobalt	50	.4	-0.20	<50	-0.20	<50	-0.10	<50
Copper	10	1.1	0.0	<10	0.10	<10	0.30	<10
Iron	100	3.5	2.1	<100	1.3	<100	-0.10	<100
Lead	3.0	2.2	1.3	<3.0	-1.0	<3.0	-0.20	<3.0
Lithium	50	3.4						
Magnesium	5000	25	16.2	<5000	26.4	<5000	0.60	<5000
Manganese	15	.14	0.0	<15	0.0	<15	0.0	<15
Molybdenum	20	.4						
Nickel	10	.5	-0.10	<10	0.0	<10	0.20	<10
Phosphorus	50	2						
Potassium	10000	60	106	<10000	-3.7	<10000	18.0	<10000
Selenium	10	3.7	0.30	<10	-0.70	<10	-0.80	<10
Silicon	200	1.8						
Silver	10	.7	0.50	<10	1.0	<10	1.1	<10
Sodium	10000	35	30.1	<10000	26.6	<10000	8.7	<10000
Strontium	10	.2						
Sulfur	50	3.1	anr					
Thallium	2.0	1.8	0.0	<2.0	0.0	<2.0	0.30	<2.0
Tin	10	.9						
Titanium	10	.7						
Tungsten	50	2.2						
Vanadium	50	.8	0.20	<50	-0.20	<50	-0.20	<50
Zinc	20	.2	0.20	<20	-0.10	<20	0.0	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44103 Units: ug/l

Time:			15:15		15:48		16:17	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Zirconium	10	.3						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44103 Units: ug/l

Time:		13:32	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Aluminum	40000	39500	98.8
Antimony	2000	1950	97.5
Arsenic	2000	1940	97.0
Barium	2000	2010	100.5
Beryllium	2000	2010	100.5
Bismuth			
Boron			
Cadmium	2000	1960	98.0
Calcium	40000	40000	100.0
Chromium	2000	2020	101.0
Cobalt	2000	1980	99.0
Copper	2000	1990	99.5
Iron	40000	40000	100.0
Lead	2000	1980	99.0
Lithium			
Magnesium	40000	39900	99.8
Manganese	2000	2080	104.0
Molybdenum			
Nickel	2000	1980	99.0
Phosphorus			
Potassium	40000	39700	99.3
Selenium	2000	1940	97.0
Silicon			
Silver	250	251	100.4
Sodium	40000	39900	99.8
Strontium			
Sulfur	anr		
Thallium	2000	2000	100.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	2000	100.0
Zinc	2000	1990	99.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44103 Units: ug/l

Time:		13:32	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44103 Units: ug/l

Time:		13:24			14:08			14:37	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39400	98.5	40000	37700	94.3	40000	38800	97.0
Antimony	2000	1980	99.0	2000	1950	97.5	2000	1910	95.5
Arsenic	2000	1980	99.0	2000	1950	97.5	2000	1910	95.5
Barium	2000	2010	100.5	2000	1920	96.0	2000	1960	98.0
Beryllium	2000	2010	100.5	2000	1930	96.5	2000	1990	99.5
Bismuth									
Boron									
Cadmium	2000	1990	99.5	2000	1960	98.0	2000	1920	96.0
Calcium	40000	39900	99.8	40000	38300	95.8	40000	39300	98.3
Chromium	2000	2030	101.5	2000	1940	97.0	2000	1990	99.5
Cobalt	2000	2010	100.5	2000	1990	99.5	2000	1950	97.5
Copper	2000	2000	100.0	2000	1930	96.5	2000	1960	98.0
Iron	40000	39800	99.5	40000	38000	95.0	40000	39000	97.5
Lead	2000	2010	100.5	2000	1990	99.5	2000	1960	98.0
Lithium									
Magnesium	40000	39900	99.8	40000	38400	96.0	40000	39300	98.3
Manganese	2000	2090	104.5	2000	2000	100.0	2000	2030	101.5
Molybdenum									
Nickel	2000	2010	100.5	2000	2000	100.0	2000	1970	98.5
Phosphorus									
Potassium	40000	39800	99.5	40000	38400	96.0	40000	38900	97.3
Selenium	2000	1980	99.0	2000	1950	97.5	2000	1910	95.5
Silicon									
Silver	250	252	100.8	250	244	97.6	250	246	98.4
Sodium	40000	39900	99.8	40000	38500	96.3	40000	39200	98.0
Strontium									
Sulfur	anr								
Thallium	2000	2030	101.5	2000	2000	100.0	2000	1980	99.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2010	100.5	2000	1940	97.0	2000	1980	99.0
Zinc	2000	2020	101.0	2000	2000	100.0	2000	1950	97.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44103 Units: ug/l

Time:		13:24			14:08			14:37	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44103 Units: ug/l

Time:		15:10			15:45			16:14	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39500	98.8	40000	38600	96.5	40000	38900	97.3
Antimony	2000	1950	97.5	2000	1950	97.5	2000	1930	96.5
Arsenic	2000	1950	97.5	2000	1940	97.0	2000	1920	96.0
Barium	2000	2000	100.0	2000	1950	97.5	2000	1960	98.0
Beryllium	2000	2010	100.5	2000	1940	97.0	2000	1940	97.0
Bismuth									
Boron									
Cadmium	2000	1960	98.0	2000	1960	98.0	2000	1950	97.5
Calcium	40000	40000	100.0	40000	39000	97.5	40000	39100	97.8
Chromium	2000	2030	101.5	2000	1980	99.0	2000	1990	99.5
Cobalt	2000	1990	99.5	2000	1980	99.0	2000	1960	98.0
Copper	2000	1980	99.0	2000	1950	97.5	2000	1950	97.5
Iron	40000	40000	100.0	40000	39100	97.8	40000	39400	98.5
Lead	2000	1990	99.5	2000	1970	98.5	2000	1950	97.5
Lithium									
Magnesium	40000	40200	100.5	40000	39000	97.5	40000	39200	98.0
Manganese	2000	2090	104.5	2000	2060	103.0	2000	2070	103.5
Molybdenum									
Nickel	2000	2000	100.0	2000	1960	98.0	2000	1940	97.0
Phosphorus									
Potassium	40000	39500	98.8	40000	38800	97.0	40000	38900	97.3
Selenium	2000	1960	98.0	2000	1940	97.0	2000	1930	96.5
Silicon									
Silver	250	250	100.0	250	248	99.2	250	248	99.2
Sodium	40000	39900	99.8	40000	39200	98.0	40000	39300	98.3
Strontium									
Sulfur	anr								
Thallium	2000	2020	101.0	2000	1990	99.5	2000	1980	99.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2010	100.5	2000	1960	98.0	2000	1950	97.5
Zinc	2000	2000	100.0	2000	1990	99.5	2000	1980	99.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44103 Units: ug/l

Time:		15:10			15:45			16:14	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44103 Units: ug/l

Time:		13:53			13:56	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum				300000	289000	96.3
Antimony	5000	4910	98.2			
Arsenic	5000	4820	96.4			
Barium	5000	4930	98.6			
Beryllium	5000	4900	98.0			
Bismuth						
Boron						
Cadmium	5000	4930	98.6			
Calcium				150000	138000	92.0
Chromium	5000	5090	101.8			
Cobalt	5000	4970	99.4			
Copper	5000	5080	101.6			
Iron				150000	145000	96.7
Lead	5000	5030	100.6			
Lithium						
Magnesium				300000	295000	98.3
Manganese	5000	5150	103.0			
Molybdenum						
Nickel	5000	5000	100.0			
Phosphorus						
Potassium				150000	153000	102.0
Selenium	5000	4860	97.2			
Silicon						
Silver	625	623	99.7			
Sodium				150000	145000	96.7
Strontium						
Sulfur	anr					
Thallium	5000	5050	101.0			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5020	100.4			
Zinc	5000	5080	101.6			

HIGH STANDARD CHECK SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44103 Units: ug/l

Time:		13:53			13:56	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44103 Units: ug/l

Time:				13:41		14:14		16:02	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID2		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200	500	100	198	99.0	95.2	95.2	201	100.5
Antimony	6.0	20	3.0	7.5	125.0	-0.60U	0.0* (a)	5.7	95.0
Arsenic	8.0	20	3.0	9.2	115.0	3.6	120.0	7.6	95.0
Barium	200		4.0	204	102.0	4.6	115.0	192	96.0
Beryllium	2.0		1.0	2.0	100.0	1.0	100.0	2.0	100.0
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.3	110.0	1.1	110.0	3.1	103.3
Calcium	5000	2000	1000	5270	105.4	1010	101.0	4970	99.4
Chromium	10		2.0	10.7	107.0	2.1	105.0	10.0	100.0
Cobalt	50		3.0	52.1	104.2	2.9	96.7	49.8	99.6
Copper	10		2.0	10.2	102.0	0.50U	0.0* (a)	9.8	98.0
Iron	100	500		108	108.0			102	102.0
Lead	3.0	20	2.5	3.0	100.0	-0.90U	0.0* (a)	2.4	80.0
Lithium	50								
Magnesium	5000	2000	100	5330	106.6	120	120.0	5020	100.4
Manganese	15		3.0	16.8	112.0	3.3	110.0	16.1	107.3
Molybdenum	20								
Nickel	10		4.0	11.1	111.0	4.2	105.0	10.0	100.0
Phosphorus	50								
Potassium	5000		2000	5160	103.2	2030	101.5	4830	96.6
Selenium	10	20	5.0	11.4	114.0	4.9	98.0	10.2	102.0
Silicon	200								
Silver	5.0		2.0	5.4	108.0	0.10U	0.0* (a)	4.9	98.0
Sodium	5000		1000	5250	105.0	995	99.5	4970	99.4
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	8.7	87.0	2.1	105.0	8.5	85.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	52.5	105.0	1.6	80.0	48.5	97.0
Zinc	20		10	22.3	111.5	10.5	105.0	21.4	107.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44103 Units: ug/l

Time:				13:41		14:14		16:02	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID2		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium	10								

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element at this RL in the area bracketed by this QC.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44103 Units: ug/l

Time:				16:05	
Sample ID:	CRI	CRIA	CRID	CRID3	
Metal	True	True	True	Results	% Rec
Aluminum	200	500	100	99.5	99.5
Antimony	6.0	20	3.0	-1.0U	0.0* (a)
Arsenic	8.0	20	3.0	3.7	123.3
Barium	200		4.0	3.6	90.0
Beryllium	2.0		1.0	1.0	100.0
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	1.2	120.0
Calcium	5000	2000	1000	1010	101.0
Chromium	10		2.0	2.0	100.0
Cobalt	50		3.0	2.8	93.3
Copper	10		2.0	0.40U	0.0* (a)
Iron	100	500			
Lead	3.0	20	2.5	0.70U	0.0* (a)
Lithium	50				
Magnesium	5000	2000	100	107	107.0
Manganese	15		3.0	3.1	103.3
Molybdenum	20				
Nickel	10		4.0	4.0	100.0
Phosphorus	50				
Potassium	5000		2000	1890	94.5
Selenium	10	20	5.0	3.8	76.0
Silicon	200				
Silver	5.0		2.0	0.70	35.0*(a)
Sodium	5000		1000	1000	100.0
Strontium	10				
Sulfur	50				
Thallium	10		2.0	1.8	90.0
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	1.7	85.0
Zinc	20		10	10.6	106.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44103 Units: ug/l

Time:				16:05	
Sample ID:	CRI	CRIA	CRID	CRID3	
Metal	True	True	True	Results	% Rec
Zirconium	10				

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element at this RL in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44103 Units: ug/l

Time:			13:47		13:50		16:08		16:11	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	503000	100.6	517000	103.4	489000	97.8	517000	103.4
Antimony		1000	1.1		1070	107.0	1.1		1060	106.0
Arsenic		1000	-1.5		1050	105.0	-0.30		1030	103.0
Barium		500	1.8		511	102.2	1.6		502	100.4
Beryllium		500	0.0		506	101.2	0.10		488	97.6
Bismuth		500	7.1		527	105.4	8.6		512	102.4
Boron		500	-0.20		509	101.8	-4.4		499	99.8
Cadmium		1000	0.90		1030	103.0	0.90		1020	102.0
Calcium	400000	400000	384000	96.0	396000	99.0	373000	93.3	387000	96.8
Chromium		500	1.2		502	100.4	1.2		484	96.8
Cobalt		500	0.0		499	99.8	0.10		492	98.4
Copper		500	5.6		523	104.6	3.7		503	100.6
Iron	200000	200000	193000	96.5	201000	100.5	188000	94.0	199000	99.5
Lead		1000	1.8		981	98.1	-0.80		962	96.2
Lithium		500	-10		523	104.6	-11		500	100.0
Magnesium	500000	500000	500000	100.0	508000	101.6	483000	96.6	496000	99.2
Manganese		500	-3.1		521	104.2	-3.2		511	102.2
Molybdenum		500	1.1		500	100.0	0.80		486	97.2
Nickel		1000	-1.5		984	98.4	-1.7		958	95.8
Phosphorus		500	0.60		509	101.8	-3.4		491	98.2
Potassium			238		289		183		221	
Selenium		1000	9.3		1020	102.0	4.2		1010	101.0
Silicon		500	-13		488	97.6	-7.4		485	97.0
Silver		1000	-0.90		1040	104.0	0.40		1010	101.0
Sodium			-0.70		-22		10.9		-4.2	
Strontium		500	-2.5		521	104.2	-2.6		513	102.6
Sulfur		500	0.0		500	100.0	-1.2		500	100.0
Thallium		1000	-0.40		1100	110.0	-2.4		1080	108.0
Tin		500	-6.3		480	96.0	-6.6		484	96.8
Titanium		500	-2.0		512	102.4	-2.4		489	97.8
Tungsten		500	0.50		492	98.4	-0.10		483	96.6
Vanadium		500	-2.2		507	101.4	-2.3		484	96.8
Zinc		1000	2.5		971	97.1	2.8		961	96.1

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033018M1.ICP Date Analyzed: 03/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44103 Units: ug/l

Time:			13:47		13:50		16:08		16:11	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	-2.6		559	111.8	-2.6		545	109.0

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:32	MA44114-STD1	1		STDA
13:35	MA44114-STD2	1		STDB
13:38	ZZZZZZ	1		
13:41	ZZZZZZ	1		
13:55	MA44114-ICV1	1		
14:08	MA44114-ICB1	1		
14:12	MA44114-ICCV1	1		
14:17	MA44114-ICCV2	1		
14:22	MA44114-CCB1	1		
14:32	MA44114-CRI1	1		
14:35	MA44114-CRID1	1		
14:38	MA44114-ICSA1	1		
14:41	MA44114-ICSAB1	1		
14:44	MA44114-HSTD1	1		
14:47	MA44114-HSTD2	1		
14:50	ZZZZZZ	1		
14:53	ZZZZZZ	1		
14:56	ZZZZZZ	1		
14:59	MA44114-CCV1	1		
15:01	MA44114-CCB2	1		
15:04	ZZZZZZ	1		
15:08	ZZZZZZ	1		
15:11	ZZZZZZ	1		
15:14	MA44114-CRI2	1		
15:17	MA44114-CRID2	1		
15:20	MP6399-MB1	1		
15:23	MP6399-MB2	1		
15:26	MP6399-B1	1		
15:29	MP6399-B2	1		
15:32	MA44114-CCV2	1		
15:34	MA44114-CCB3	1		
15:37	MP6399-S1	1		
15:40	MA44114-CCV3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:43	MA44114-CCB4	1		
15:48	ZZZZZZ	1		
15:51	ZZZZZZ	1		
15:54	ZZZZZZ	1		
15:57	ZZZZZZ	1		
16:00	MA44114-CCV4	1		
16:02	MA44114-CCB5	1		
16:09	ZZZZZZ	1		
16:12	ZZZZZZ	1		
16:15	ZZZZZZ	1		
16:18	ZZZZZZ	1		
16:21	ZZZZZZ	1		
16:24	ZZZZZZ	1		
16:27	ZZZZZZ	1		
16:30	ZZZZZZ	1		
16:33	ZZZZZZ	1		
16:36	MA44114-CCV5	1		
16:39	MA44114-CCB6	1		
16:46	ZZZZZZ	1		
16:49	ZZZZZZ	1		
16:52	ZZZZZZ	1		
16:55	ZZZZZZ	1		
16:58	ZZZZZZ	1		
17:01	ZZZZZZ	1		
17:05	ZZZZZZ	1		
17:07	ZZZZZZ	1		
17:11	ZZZZZZ	1		
17:14	MA44114-CCV6	1		
17:16	MA44114-CCB7	1		
17:19	ZZZZZZ	5		
17:22	ZZZZZZ	25		
17:25	MP6399-S2	1		
17:28	JC62879-9	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:31	MP6399-SD1	5		
---------->	Last reportable sample/prep for job JC62879			
17:34	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:40	ZZZZZZ	1		
17:43	ZZZZZZ	1		
17:46	ZZZZZZ	1		
17:49	MA44114-CCV7	1		
17:52	MA44114-CCB8	1		
17:55	ZZZZZZ	1		
17:58	ZZZZZZ	1		
18:01	ZZZZZZ	1		
18:04	ZZZZZZ	1		
18:07	ZZZZZZ	1		
18:10	MP6414-B1	1		
18:13	MP6414-B2	1		
18:15	MP6414-MB1	1		
18:18	MP6414-S1	1		Na high
18:21	MP6414-S2	1		Na high
18:25	MA44114-CCV8	1		
18:27	MA44114-CCB9	1		
18:30	JC63032-3	1		(sample used for QC only; not part of login JC62879)
18:33	MP6414-SD1	5		Na high
18:37	ZZZZZZ	1		
18:40	MP6400-MB1	1		
18:42	MP6400-B1	1		
18:45	MP6400-S1	1		high rsd
18:48	MP6400-S2	1		high rsd
18:51	JC62779-2	1		(sample used for QC only; not part of login JC62879)
18:54	MP6400-SD1	5		high rsd
18:57	ZZZZZZ	1		
19:00	MA44114-CCV9	1		
19:03	MA44114-CCB10	1		
19:06	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:09	ZZZZZZ	1		
19:12	ZZZZZZ	1		
19:15	ZZZZZZ	1		
19:18	ZZZZZZ	1		
19:21	ZZZZZZ	1		
19:24	ZZZZZZ	1		
19:27	ZZZZZZ	1		
19:30	ZZZZZZ	1		
19:33	ZZZZZZ	1		
19:36	MA44114-CCV10	1		
19:39	MA44114-CCB11	1		
19:42	ZZZZZZ	1		
19:45	ZZZZZZ	1		
19:48	ZZZZZZ	1		
19:51	ZZZZZZ	1		
19:54	ZZZZZZ	1		
19:57	ZZZZZZ	1		
20:01	ZZZZZZ	1		
20:04	ZZZZZZ	1		
20:07	MA44114-CCV11	1		
20:09	MA44114-CCB12	1		
20:12	MA44114-CRI3	1		
20:15	MA44114-CRID3	1		
20:18	MA44114-ICSA2	1		
20:21	MA44114-ICSAB2	1		
20:24	MA44114-CCV12	1		
20:27	MA44114-CCB13	1		
---------->	Last reportable CCB for job JC62879			
20:30	ZZZZZZ	1		
20:33	ZZZZZZ	1		
20:36	ZZZZZZ	1		
20:39	ZZZZZZ	1		
20:42	ZZZZZZ	1		
20:45	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:48	ZZZZZZ	1		
20:51	ZZZZZZ	1		
20:54	ZZZZZZ	1		
20:57	ZZZZZZ	1		
21:01	ZZZZZZ	1		
21:03	ZZZZZZ	1		
21:06	MA44114-CCV13	1		
21:09	MA44114-CCB14	1		
21:12	MP6403-MB1	1		
21:15	MP6403-B1	1		
21:18	MP6403-S1	1		
21:21	MP6403-S2	1		
21:24	JC63041-1	1		(sample used for QC only; not part of login JC62879)
21:27	MP6403-SD1	5		
21:30	ZZZZZZ	1		
21:33	ZZZZZZ	1		
21:36	ZZZZZZ	1		
21:39	ZZZZZZ	1		
21:42	MA44114-CCV14	1		
21:45	MA44114-CCB15	1		
21:48	ZZZZZZ	1		
21:50	ZZZZZZ	1		
21:53	ZZZZZZ	1		
21:56	ZZZZZZ	1		
21:59	ZZZZZZ	1		
22:03	ZZZZZZ	1		
22:06	ZZZZZZ	1		
22:09	ZZZZZZ	1		
22:12	ZZZZZZ	1		
22:15	ZZZZZZ	1		
22:18	MA44114-CCV15	1		
22:21	MA44114-CCB16	1		
22:24	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:26	ZZZZZZ	1		
22:29	ZZZZZZ	1		
22:32	ZZZZZZ	1		
22:35	ZZZZZZ	1		
22:38	ZZZZZZ	1		
22:41	ZZZZZZ	10		
22:44	ZZZZZZ	1		
22:47	ZZZZZZ	10		
22:50	MA44114-CCV16	1		
22:53	MA44114-CCB17	1		
22:56	ZZZZZZ	2		
22:59	ZZZZZZ	5		
23:02	ZZZZZZ	50		
23:05	ZZZZZZ	2		
23:08	ZZZZZZ	10		
23:11	ZZZZZZ	2		
23:13	ZZZZZZ	10		
23:16	ZZZZZZ	5		
23:19	ZZZZZZ	10		
23:22	ZZZZZZ	2		
23:25	MA44114-CCV17	1		
23:28	MA44114-CCB18	1		
23:31	ZZZZZZ	1		
23:34	ZZZZZZ	10		
23:37	ZZZZZZ	1		
23:40	ZZZZZZ	3		
23:43	ZZZZZZ	10		
23:46	ZZZZZZ	25		
23:49	ZZZZZZ	5		
23:51	ZZZZZZ	10		
23:54	ZZZZZZ	1		
23:57	ZZZZZZ	10		
00:00	MA44114-CCV18	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:03	MA44114-CCB19	1		
00:06	ZZZZZZ	1		
00:09	ZZZZZZ	5		
00:12	ZZZZZZ	10		
00:15	MP6394-MB2	5		
00:18	MP6394-B2	5		
00:21	ZZZZZZ	5		
00:24	MP6422-B1	1		
00:27	MP6422-MB1	1		
00:30	MP6422-S1	1		Y out. Mn an FE high
00:33	MP6422-S2	1		Y out. Mn an FE high
00:36	MA44114-CCV19	1		
00:39	MA44114-CCB20	1		
00:42	JC63038-6	1		(sample used for QC only; not part of login JC62879)
00:45	MP6422-SD1	5		Y out. Mn an FE high
00:48	ZZZZZZ	1		
00:51	ZZZZZZ	1		
00:54	ZZZZZZ	1		
00:57	ZZZZZZ	1		
01:00	ZZZZZZ	1		
01:03	ZZZZZZ	1		
01:06	ZZZZZZ	1		
01:09	ZZZZZZ	1		
01:12	MA44114-CCV20	1		
01:15	MA44114-CCB21	1		
01:18	ZZZZZZ	1		
01:21	ZZZZZZ	1		
01:24	ZZZZZZ	1		
01:27	ZZZZZZ	1		
01:30	ZZZZZZ	1		
01:33	ZZZZZZ	1		
01:36	ZZZZZZ	1		
01:39	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:42	MA44114-CCV21	1		
01:45	MA44114-CCB22	1		
01:48	MA44114-CRI4	1		
01:51	MA44114-CRID4	1		
01:54	MA44114-CCV22	1		
01:57	MA44114-CCB23	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:32	MA44114-STD1	6846 R	159920 R	21139 R	11271 R
13:35	MA44114-STD2	6517	151770	20889	10409
13:38	ZZZZZZ	6817	158180	21525	10841
13:41	ZZZZZZ	6927	162550	21644	11420
13:55	MA44114-ICV1	6788	158180	21394	10845
14:08	MA44114-ICB1	6851	161300	21393	11360
14:12	MA44114-ICCV1	No results reported for the elements associated with this internal standard.			
14:17	MA44114-ICCV2	6710	156530	21144	10703
14:22	MA44114-CCB1	6848	160670	21551	11316
14:32	MA44114-CRI1	No results reported for the elements associated with this internal standard.			
14:35	MA44114-CRID1	No results reported for the elements associated with this internal standard.			
14:38	MA44114-ICSA1	6227	143980	20432	9787
14:41	MA44114-ICSAB1	6323	146260	20637	9922
14:44	MA44114-HSTD1	6791	159160	21617	11252
14:47	MA44114-HSTD2	6334	146970	20594	9841
14:50	ZZZZZZ	6716	159810	21424	11245
14:53	ZZZZZZ	6694	160450	21480	11258
14:56	ZZZZZZ	6858	161180	21425	11300
14:59	MA44114-CCV1	6614	155750	21202	10578
15:01	MA44114-CCB2	6853	161330	21403	11301
15:04	ZZZZZZ	7011	164100	22038	11509
15:08	ZZZZZZ	6742	158990	21525	10831
15:11	ZZZZZZ	6041	143250	20442	9159
15:14	MA44114-CRI2	6921	166690	21259	11279
15:17	MA44114-CRID2	6835	160530	21251	11209
15:20	MP6399-MB1	6998	164720	22007	11463
15:23	MP6399-MB2	6953	164390	21623	11384
15:26	MP6399-B1	6747	157890	21282	10784
15:29	MP6399-B2	6848	161340	21615	10895
15:32	MA44114-CCV2	6738	157540	21169	10636
15:34	MA44114-CCB3	6853	161730	21414	11206
15:37	MP6399-S1	6886	160710	21761	10909
15:40	MA44114-CCV3	6818	157800	21389	10745

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:43	MA44114-CCB4	7023	163320	21436	11428
15:48	ZZZZZZ	6771	159380	21722	10693
15:51	ZZZZZZ	6840	159830	21815	10809
15:54	ZZZZZZ	6785	159280	21857	10698
15:57	ZZZZZZ	6720	157610	21499	10573
16:00	MA44114-CCV4	6767	156440	21171	10634
16:02	MA44114-CCB5	6933	162690	21030	11268
16:09	ZZZZZZ	6859	158510	21722	10415
16:12	ZZZZZZ	6989	163990	21720	11205
16:15	ZZZZZZ	7028	163480	21609	11249
16:18	ZZZZZZ	7093	164700	21884	11269
16:21	ZZZZZZ	No results reported for the elements associated with this internal standard.			
16:24	ZZZZZZ	7191	167980	21866	11551
16:27	ZZZZZZ	7048	161890	21843	11055
16:30	ZZZZZZ	7056	163720	21976	10951
16:33	ZZZZZZ	6829	158420	21602	10246
16:36	MA44114-CCV5	6968	158390	20594	10775
16:39	MA44114-CCB6	7232	167510	21654	11546
16:46	ZZZZZZ	6899	158600	21396	10409
16:49	ZZZZZZ	6924	159530	21271	10454
16:52	ZZZZZZ	7289	168560	22049	11241
16:55	ZZZZZZ	7256	168710	21750	11460
16:58	ZZZZZZ	6942	158740	21154	10452
17:01	ZZZZZZ	6567	152830	20633	9848
17:05	ZZZZZZ	7015	161930	21183	10765
17:07	ZZZZZZ	6695	154610	20649	10063
17:11	ZZZZZZ	6622	153720	20357	9959
17:14	MA44114-CCV6	7061	161440	20860	10792
17:16	MA44114-CCB7	7055	162750	20654	11202
17:19	ZZZZZZ	7055	162650	20828	11110
17:22	ZZZZZZ	7236	165760	21083	11433
17:25	MP6399-S2	6991	159800	20870	10784
17:28	JC62879-9	6924	163580	21001	10862

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:31	MP6399-SD1	7282	167060	21339	11482
17:34	ZZZZZZ	7289	166730	21409	11324
17:37	ZZZZZZ	7272	167130	21513	11227
17:40	ZZZZZZ	7107	164650	21139	10968
17:43	ZZZZZZ	7170	164510	21311	10970
17:46	ZZZZZZ	7201	166190	21260	11080
17:49	MA44114-CCV7	6862	159190	20630	10474
17:52	MA44114-CCB8	6919	159720	20256	10940
17:55	ZZZZZZ	6986	162370	20924	10782
17:58	ZZZZZZ	7119	164510	21166	10991
18:01	ZZZZZZ	6826	159050	21066	10383
18:04	ZZZZZZ	6797	157030	20730	10229
18:07	ZZZZZZ	7226	166990	21167	11185
18:10	MP6414-B1	7082	162410	21004	10830
18:13	MP6414-B2	7085	162270	20658	10814
18:15	MP6414-MB1	7230	166560	20984	11307
18:18	MP6414-S1	6293	142260	20097	9000
18:21	MP6414-S2	6407	143680	20376	9149
18:25	MA44114-CCV8	6918	157760	20412	10509
18:27	MA44114-CCB9	7050	161820	20464	11111
18:30	JC63032-3	6403	143170	20104	9140
18:33	MP6414-SD1	6810	155150	20701	10089
18:37	ZZZZZZ	7359	169510	21492	11506
18:40	MP6400-MB1	7326	168790	21513	11467
18:42	MP6400-B1	7112	162420	21054	10864
18:45	MP6400-S1	6958	158450	20930	10473
18:48	MP6400-S2	7011	161400	21220	10566
18:51	JC62779-2	7096	162800	21286	10779
18:54	MP6400-SD1	7220	165170	21334	11245
18:57	ZZZZZZ	7317	168310	21718	11351
19:00	MA44114-CCV9	7028	159820	20616	10771
19:03	MA44114-CCB10	7062	168670	21374	11229
19:06	ZZZZZZ	6995	159960	20947	10771

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:09	ZZZZZZ	7079	163040	21412	10753
19:12	ZZZZZZ	6763	154150	21207	10183
19:15	ZZZZZZ	6965	159710	21172	10706
19:18	ZZZZZZ	6984	160150	21298	10658
19:21	ZZZZZZ	7052	161950	21384	10859
19:24	ZZZZZZ	7138	163990	21552	10902
19:27	ZZZZZZ	7023	161910	21471	10823
19:30	ZZZZZZ	7256	167200	21712	11316
19:33	ZZZZZZ	7076	162630	21643	10880
19:36	MA44114-CCV10	6979	160070	20962	10762
19:39	MA44114-CCB11	7020	162270	20917	11256
19:42	ZZZZZZ	7012	162480	21361	10871
19:45	ZZZZZZ	6934	161270	21495	10684
19:48	ZZZZZZ	6691	153580	20978	10146
19:51	ZZZZZZ	6997	161720	21235	10823
19:54	ZZZZZZ	6971	160540	21364	10686
19:57	ZZZZZZ	7051	161920	21323	10887
20:01	ZZZZZZ	6945	160230	21328	10763
20:04	ZZZZZZ	6989	161890	21265	10819
20:07	MA44114-CCV11	7022	160780	21180	10835
20:09	MA44114-CCB12	7197	166520	21651	11491
20:12	MA44114-CRI3	7143	165010	21340	11316
20:15	MA44114-CRID3	7080	164460	21115	11310
20:18	MA44114-ICSA2	6489	148190	20294	9850
20:21	MA44114-ICSAB2	6543	148510	20552	9961
20:24	MA44114-CCV12	7007	160820	21257	10815
20:27	MA44114-CCB13	7226	166800	21585	11536
20:30	ZZZZZZ	7227	166750	21775	11554
20:33	ZZZZZZ	7110	164110	21360	11431
20:36	ZZZZZZ	7259	168490	21669	11594
20:39	ZZZZZZ	7171	165100	21553	11443
20:42	ZZZZZZ	7254	167550	21917	11574
20:45	ZZZZZZ	7147	166890	21612	11496

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:48	ZZZZZZ	7187	166370	21620	11483
20:51	ZZZZZZ	7242	167460	21884	11562
20:54	ZZZZZZ	7050	163620	21126	11328
20:57	ZZZZZZ	6698	155850	20721	10340
21:01	ZZZZZZ	6924	152290	20557	10351
21:03	ZZZZZZ	6537	150790	20131	10027
21:06	MA44114-CCV13	6948	160120	21195	10761
21:09	MA44114-CCB14	7066	163940	21282	11318
21:12	MP6403-MB1	7287	169210	22115	11611
21:15	MP6403-B1	7110	164620	21636	11091
21:18	MP6403-S1	6876	158330	21460	10442
21:21	MP6403-S2	6933	160060	21633	10575
21:24	JC63041-1	6915	158760	21581	10320
21:27	MP6403-SD1	7103	163520	21734	10998
21:30	ZZZZZZ	7218	166450	22223	11127
21:33	ZZZZZZ	7228	166410	22182	11163
21:36	ZZZZZZ	7202	166430	22013	11132
21:39	ZZZZZZ	7204	165940	22076	11131
21:42	MA44114-CCV14	6902	157850	21065	10716
21:45	MA44114-CCB15	7187	166190	21515	11496
21:48	ZZZZZZ	7275	166850	22458	11189
21:50	ZZZZZZ	7141	163090	21737	10968
21:53	ZZZZZZ	7119	164710	21948	10960
21:56	ZZZZZZ	7006	160000	21604	10800
21:59	ZZZZZZ	7167	165430	21816	11058
22:03	ZZZZZZ	7247	165190	22008	11174
22:06	ZZZZZZ	7453	165490	22830	11177
22:09	ZZZZZZ	7097	162800	21632	10999
22:12	ZZZZZZ	7301	167500	21944	11228
22:15	ZZZZZZ	6868	160110	21689	10509
22:18	MA44114-CCV15	6777	158710	20695	10501
22:21	MA44114-CCB16	7048	162950	21036	11276
22:24	ZZZZZZ	7276	166710	22021	10989

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:26	ZZZZZZ	7357	170350	22136	11436
22:29	ZZZZZZ	7183	166260	21841	11178
22:32	ZZZZZZ	7197	168350	21797	11452
22:35	ZZZZZZ	7064	162900	21489	10990
22:38	ZZZZZZ	999999 !a	149690	20283	10984
22:41	ZZZZZZ	6396	161760	20993	11126
22:44	ZZZZZZ	2715 !a	155060	20089	11459
22:47	ZZZZZZ	6749	165250	21400	11332
22:50	MA44114-CCV16	6971	159380	20880	10746
22:53	MA44114-CCB17	7134	164240	21166	11364
22:56	ZZZZZZ	7017	163100	21441	11149
22:59	ZZZZZZ	7216	167420	21670	11394
23:02	ZZZZZZ	7193	166920	21583	11425
23:05	ZZZZZZ	6790	156310	20275	10868
23:08	ZZZZZZ	6786	154200	19725	10757
23:11	ZZZZZZ	6747	154470	19972	11227
23:13	ZZZZZZ	6727	153260	19453	10755
23:16	ZZZZZZ	6598	144850	19530	10635
23:19	ZZZZZZ	6765	154130	19662	10650
23:22	ZZZZZZ	6780	154490	19898	10467
23:25	MA44114-CCV17	6576	148810	19233	10195
23:28	MA44114-CCB18	6703	152940	19423	10680
23:31	ZZZZZZ	6879	157070	20537	10461
23:34	ZZZZZZ	6873	156840	20034	10977
23:37	ZZZZZZ	6808	155260	19941	10650
23:40	ZZZZZZ	6681	152500	19557	11031
23:43	ZZZZZZ	6676	152660	19449	10657
23:46	ZZZZZZ	6785	154100	19526	10737
23:49	ZZZZZZ	6893	155070	19863	10792
23:51	ZZZZZZ	6900	158920	20059	10822
23:54	ZZZZZZ	6578	148550	19818	10092
23:57	ZZZZZZ	6429	146480	18937	10000
00:00	MA44114-CCV18	6706	150370	19385	10359

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:03	MA44114-CCB19	6831	155170	19659	10853
00:06	ZZZZZZ	5842	133580	18226	8767
00:09	ZZZZZZ	6621	150340	19290	10725
00:12	ZZZZZZ	6787	154030	19551	10801
00:15	MP6394-MB2	6715	153420	19504	10661
00:18	MP6394-B2	6810	154990	19781	10684
00:21	ZZZZZZ	6774	152450	19737	10470
00:24	MP6422-B1	6546	148280	19172	10192
00:27	MP6422-MB1	6872	156840	19838	10838
00:30	MP6422-S1	9000 !a	201890	26374	10737
00:33	MP6422-S2	9922 !a	223290 !a	30093 !a	11223
00:36	MA44114-CCV19	7064	161510	21290	10808
00:39	MA44114-CCB20	7228	166750	21481	11441
00:42	JC63038-6	10149 !a	229720 !a	30565 !a	11463
00:45	MP6422-SD1	7904	180620	22871	11386
00:48	ZZZZZZ	7313	167030	21611	11326
00:51	ZZZZZZ	8562	194360	25696	11282
00:54	ZZZZZZ	8614	196790	25926	11358
00:57	ZZZZZZ	8177	185000	24659	10850
01:00	ZZZZZZ	8278	187260	24971	11172
01:03	ZZZZZZ	7366	169830	21645	11227
01:06	ZZZZZZ	7390	168960	22086	11318
01:09	ZZZZZZ	7426	171110	22145	11193
01:12	MA44114-CCV20	6958	159340	20740	10667
01:15	MA44114-CCB21	7248	167950	21438	11451
01:18	ZZZZZZ	7455	170660	22222	11467
01:21	ZZZZZZ	7466	170510	22352	11426
01:24	ZZZZZZ	7352	169670	23098	11364
01:27	ZZZZZZ	7100	163630	21828	10777
01:30	ZZZZZZ	7372	168430	22204	11094
01:33	ZZZZZZ	7343	167210	22065	11138
01:36	ZZZZZZ	7258	165170	21651	10989
01:39	ZZZZZZ	7500	170710	22267	11094

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44114
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:42	MA44114-CCV21	7138	163590	21310	10880
01:45	MA44114-CCB22	7161	165430	21215	11298
01:48	MA44114-CRI4	7065	162960	21018	11084
01:51	MA44114-CRID4	7114	164720	21081	11221
01:54	MA44114-CCV22	6952	158910	20825	10614
01:57	MA44114-CCB23	7270	167800	21512	11467

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			14:08 ICB1		14:22 CCB1		15:01 CCB2		15:34 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	-0.10	<200	10.7	<200	-10	<200	5.8	<200
Antimony	6.0	2.4	-0.80	<6.0	-0.80	<6.0	-0.50	<6.0	0.10	<6.0
Arsenic	3.0	1.2	-0.60	<3.0	-1.7	<3.0	1.6	<3.0	-0.80	<3.0
Barium	200	.6	0.0	<200	0.40	<200	0.60	<200	0.10	<200
Beryllium	1.0	.2	0.0	<1.0	0.10	<1.0	0.0	<1.0	0.0	<1.0
Bismuth	20	3.2								
Boron	100	1.5	anr							
Cadmium	3.0	.4	0.10	<3.0	0.10	<3.0	0.20	<3.0	0.20	<3.0
Calcium	5000	5.5	-2.4	<5000	-1.5	<5000	-2.2	<5000	-2.8	<5000
Chromium	10	.7	0.30	<10	-0.20	<10	0.0	<10	-0.10	<10
Cobalt	50	.4	0.10	<50	-0.10	<50	-0.20	<50	0.0	<50
Copper	10	1.1	0.70	<10	0.40	<10	0.50	<10	0.30	<10
Iron	100	3.5	-2.3	<100	1.2	<100	0.80	<100	-0.10	<100
Lead	3.0	2.2	-0.30	<3.0	-0.40	<3.0	0.40	<3.0	-0.60	<3.0
Lithium	50	3.4								
Magnesium	5000	25	0.90	<5000	-9.1	<5000	-13	<5000	-9.9	<5000
Manganese	15	.14	0.0	<15	0.0	<15	-0.10	<15	0.0	<15
Molybdenum	20	.4								
Nickel	10	.5	0.0	<10	0.0	<10	-0.30	<10	-0.20	<10
Phosphorus	50	2								
Potassium	10000	60	-21	<10000	119	<10000	68.5	<10000	95.5	<10000
Selenium	10	3.7	-1.2	<10	-1.0	<10	2.1	<10	1.2	<10
Silicon	200	1.8								
Silver	10	.7	0.20	<10	0.50	<10	0.30	<10	0.30	<10
Sodium	10000	35	21.4	<10000	35.6	<10000	51.1	<10000	38.2	<10000
Strontium	10	.2								
Sulfur	50	3.1								
Thallium	2.0	1.8	-0.20	<2.0	1.7	<2.0	0.90	<2.0	1.4	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	-0.40	<50	-0.20	<50	-0.30	<50	-0.20	<50
Zinc	20	.2	0.0	<20	0.10	<20	0.0	<20	0.0	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			14:08 ICB1		14:22 CCB1		15:01 CCB2		15:34 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			15:43 CCB4		16:02 CCB5		16:39 CCB6		17:16 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	5.0	<200	4.0	<200	10.1	<200	-6.9	<200
Antimony	6.0	2.4	0.20	<6.0	0.20	<6.0	2.0	<6.0	1.2	<6.0
Arsenic	3.0	1.2	0.30	<3.0	-0.50	<3.0	0.90	<3.0	1.2	<3.0
Barium	200	.6	0.80	<200	0.30	<200	1.0	<200	0.80	<200
Beryllium	1.0	.2	0.10	<1.0	-0.10	<1.0	-0.10	<1.0	-0.10	<1.0
Bismuth	20	3.2								
Boron	100	1.5	anr							
Cadmium	3.0	.4	0.20	<3.0	0.20	<3.0	-0.10	<3.0	0.20	<3.0
Calcium	5000	5.5	-2.8	<5000	-0.80	<5000	-0.60	<5000	10.3	<5000
Chromium	10	.7	-0.40	<10	0.0	<10	0.0	<10	0.30	<10
Cobalt	50	.4	-0.30	<50	0.10	<50	0.0	<50	0.10	<50
Copper	10	1.1	-0.70	<10	-0.10	<10	-0.50	<10	0.10	<10
Iron	100	3.5	0.90	<100	-1.5	<100	-1.2	<100	2.0	<100
Lead	3.0	2.2	-0.40	<3.0	-0.10	<3.0	-0.50	<3.0	0.30	<3.0
Lithium	50	3.4								
Magnesium	5000	25	-26	<5000	-15	<5000	-23	<5000	0.50	<5000
Manganese	15	.14	0.0	<15	0.0	<15	0.0	<15	0.10	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.10	<10	0.10	<10	-0.30	<10	0.60	<10
Phosphorus	50	2								
Potassium	10000	60	77.7	<10000	83.6	<10000	200	<10000	106	<10000
Selenium	10	3.7	1.4	<10	0.90	<10	-0.60	<10	-1.0	<10
Silicon	200	1.8								
Silver	10	.7	0.20	<10	0.0	<10	0.30	<10	0.10	<10
Sodium	10000	35	25.5	<10000	47.6	<10000	99.6	<10000	97.3	<10000
Strontium	10	.2								
Sulfur	50	3.1								
Thallium	2.0	1.8	1.1	<2.0	1.4	<2.0	1.5	<2.0	0.70	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.0	<50	-0.40	<50	-0.30	<50	-0.20	<50
Zinc	20	.2	0.20	<20	0.0	<20	0.10	<20	1.7	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			15:43 CCB4		16:02 CCB5		16:39 CCB6		17:16 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			17:52 CCB8		18:27 CCB9		19:03 CCB10		19:39 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	4.7	<200	1.7	<200	3.6	<200	1.2	<200
Antimony	6.0	2.4	0.10	<6.0	-1.6	<6.0	-2.0	<6.0	0.0	<6.0
Arsenic	3.0	1.2	0.40	<3.0	0.60	<3.0	1.0	<3.0	0.30	<3.0
Barium	200	.6	1.5	<200	1.0	<200	0.90	<200	1.1	<200
Beryllium	1.0	.2	0.0	<1.0	0.0	<1.0	0.0	<1.0	0.10	<1.0
Bismuth	20	3.2								
Boron	100	1.5	anr							
Cadmium	3.0	.4	0.10	<3.0	-0.10	<3.0	-0.10	<3.0	0.10	<3.0
Calcium	5000	5.5	15.7	<5000	16.1	<5000	16.9	<5000	14.2	<5000
Chromium	10	.7	-0.30	<10	-0.40	<10	0.10	<10	0.30	<10
Cobalt	50	.4	-0.10	<50	-0.20	<50	-0.20	<50	-0.20	<50
Copper	10	1.1	-0.80	<10	-1.2	<10	-0.90	<10	-0.20	<10
Iron	100	3.5	-2.5	<100	0.80	<100	1.8	<100	0.90	<100
Lead	3.0	2.2	0.30	<3.0	0.90	<3.0	-0.60	<3.0	-0.30	<3.0
Lithium	50	3.4								
Magnesium	5000	25	-4.7	<5000	-9.1	<5000	-3.5	<5000	-7.4	<5000
Manganese	15	.14	0.0	<15	0.0	<15	0.0	<15	0.10	<15
Molybdenum	20	.4								
Nickel	10	.5	0.40	<10	-0.10	<10	0.20	<10	0.50	<10
Phosphorus	50	2								
Potassium	10000	60	136	<10000	353	<10000	130	<10000	109	<10000
Selenium	10	3.7	0.80	<10	-1.2	<10	-0.40	<10	-1.7	<10
Silicon	200	1.8								
Silver	10	.7	-0.50	<10	-0.80	<10	-0.40	<10	0.20	<10
Sodium	10000	35	36.1	<10000	488	<10000	166	<10000	151	<10000
Strontium	10	.2								
Sulfur	50	3.1								
Thallium	2.0	1.8	0.40	<2.0	1.3	<2.0	0.90	<2.0	0.0	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	-0.20	<50	-0.10	<50	0.20	<50	-0.30	<50
Zinc	20	.2	2.0	<20	1.9	<20	2.0	<20	2.0	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time:			17:52		18:27		19:03		19:39	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time: / Sample ID:			20:09 CCB12		20:27 CCB13	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	19	1.5	<200	11.9	<200
Antimony	6.0	2.4	0.60	<6.0	-0.30	<6.0
Arsenic	3.0	1.2	-0.50	<3.0	-0.20	<3.0
Barium	200	.6	0.80	<200	1.3	<200
Beryllium	1.0	.2	-0.10	<1.0	-0.20	<1.0
Bismuth	20	3.2				
Boron	100	1.5	anr			
Cadmium	3.0	.4	-0.10	<3.0	0.0	<3.0
Calcium	5000	5.5	13.6	<5000	-0.50	<5000
Chromium	10	.7	-0.20	<10	0.20	<10
Cobalt	50	.4	0.0	<50	0.0	<50
Copper	10	1.1	-1.0	<10	-0.10	<10
Iron	100	3.5	-0.60	<100	-1.4	<100
Lead	3.0	2.2	-0.70	<3.0	0.0	<3.0
Lithium	50	3.4				
Magnesium	5000	25	-8.1	<5000	2.3	<5000
Manganese	15	.14	0.10	<15	0.0	<15
Molybdenum	20	.4				
Nickel	10	.5	0.20	<10	0.20	<10
Phosphorus	50	2				
Potassium	10000	60	36.4	<10000	82.1	<10000
Selenium	10	3.7	-1.3	<10	-1.0	<10
Silicon	200	1.8				
Silver	10	.7	0.30	<10	0.0	<10
Sodium	10000	35	138	<10000	94.5	<10000
Strontium	10	.2				
Sulfur	50	3.1				
Thallium	2.0	1.8	0.90	<2.0	1.1	<2.0
Tin	10	.9				
Titanium	10	.7				
Tungsten	50	2.2				
Vanadium	50	.8	-0.20	<50	-0.30	<50
Zinc	20	.2	2.0	<20	0.40	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44114 Units: ug/l

Time:			20:09		20:27	
Sample ID:			CCB12		CCB13	
Metal	RL	IDL	raw	final	raw	final
Zirconium	10	.3				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		14:17	
Sample ID:	ICCV	ICCV2	
Metal	True	Results	% Rec
Aluminum	40000	40800	102.0
Antimony	2000	2010	100.5
Arsenic	2000	2010	100.5
Barium	2000	2050	102.5
Beryllium	2000	2060	103.0
Bismuth			
Boron	anr		
Cadmium	2000	2020	101.0
Calcium	40000	41200	103.0
Chromium	2000	2040	102.0
Cobalt	2000	2050	102.5
Copper	2000	2010	100.5
Iron	40000	41100	102.8
Lead	2000	2050	102.5
Lithium			
Magnesium	40000	41200	103.0
Manganese	2000	2100	105.0
Molybdenum			
Nickel	2000	2060	103.0
Phosphorus			
Potassium	40000	40700	101.8
Selenium	2000	2030	101.5
Silicon			
Silver	250	252	100.8
Sodium	40000	41000	102.5
Strontium			
Sulfur			
Thallium	2000	2080	104.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	2040	102.0
Zinc	2000	2050	102.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		14:17	
Sample ID:	ICCV	ICCV2	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		13:55			14:59			15:32	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39200	98.0	40000	39600	99.0	40000	39400	98.5
Antimony	2000	1960	98.0	2000	2010	100.5	2000	1980	99.0
Arsenic	2000	1960	98.0	2000	2010	100.5	2000	1980	99.0
Barium	2000	1970	98.5	2000	1990	99.5	2000	1980	99.0
Beryllium	2000	1990	99.5	2000	2000	100.0	2000	1980	99.0
Bismuth									
Boron	anr								
Cadmium	2000	1970	98.5	2000	2020	101.0	2000	1980	99.0
Calcium	40000	39500	98.8	40000	40000	100.0	40000	39900	99.8
Chromium	2000	1990	99.5	2000	2000	100.0	2000	1970	98.5
Cobalt	2000	2000	100.0	2000	2040	102.0	2000	2020	101.0
Copper	2000	1950	97.5	2000	1970	98.5	2000	1950	97.5
Iron	40000	39600	99.0	40000	39900	99.8	40000	39600	99.0
Lead	2000	2000	100.0	2000	2050	102.5	2000	2030	101.5
Lithium									
Magnesium	40000	39600	99.0	40000	40000	100.0	40000	40100	100.3
Manganese	2000	2040	102.0	2000	2060	103.0	2000	2020	101.0
Molybdenum									
Nickel	2000	2010	100.5	2000	2050	102.5	2000	2040	102.0
Phosphorus									
Potassium	40000	39200	98.0	40000	39600	99.0	40000	39400	98.5
Selenium	2000	1960	98.0	2000	2030	101.5	2000	1990	99.5
Silicon									
Silver	250	246	98.4	250	248	99.2	250	244	97.6
Sodium	40000	39500	98.8	40000	39900	99.8	40000	39900	99.8
Strontium									
Sulfur									
Thallium	2000	2030	101.5	2000	2080	104.0	2000	2060	103.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1990	99.5	2000	1990	99.5	2000	1960	98.0
Zinc	2000	2000	100.0	2000	2050	102.5	2000	2010	100.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		13:55			14:59			15:32	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		15:40			16:00			16:36	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38700	96.8	40000	39300	98.3	40000	40400	101.0
Antimony	2000	1950	97.5	2000	1970	98.5	2000	1900	95.0
Arsenic	2000	1960	98.0	2000	1970	98.5	2000	1900	95.0
Barium	2000	1950	97.5	2000	1980	99.0	2000	2030	101.5
Beryllium	2000	1950	97.5	2000	1970	98.5	2000	2020	101.0
Bismuth									
Boron	anr								
Cadmium	2000	1950	97.5	2000	1960	98.0	2000	1890	94.5
Calcium	40000	39300	98.3	40000	39900	99.8	40000	41300	103.3
Chromium	2000	1960	98.0	2000	1980	99.0	2000	1960	98.0
Cobalt	2000	2000	100.0	2000	2010	100.5	2000	1960	98.0
Copper	2000	1940	97.0	2000	1960	98.0	2000	1950	97.5
Iron	40000	39100	97.8	40000	39600	99.0	40000	40700	101.8
Lead	2000	2010	100.5	2000	2020	101.0	2000	1990	99.5
Lithium									
Magnesium	40000	39600	99.0	40000	40200	100.5	40000	41800	104.5
Manganese	2000	2010	100.5	2000	2020	101.0	2000	1990	99.5
Molybdenum									
Nickel	2000	2020	101.0	2000	2030	101.5	2000	2000	100.0
Phosphorus									
Potassium	40000	38800	97.0	40000	39300	98.3	40000	40200	100.5
Selenium	2000	1970	98.5	2000	1980	99.0	2000	1920	96.0
Silicon									
Silver	250	243	97.2	250	244	97.6	250	243	97.2
Sodium	40000	39300	98.3	40000	39800	99.5	40000	41200	103.0
Strontium									
Sulfur									
Thallium	2000	2040	102.0	2000	2060	103.0	2000	2010	100.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	1940	97.0	2000	1950	97.5	2000	1930	96.5
Zinc	2000	1980	99.0	2000	2000	100.0	2000	1930	96.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		15:40			16:00			16:36	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		17:14			17:49			18:25	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38200	95.5	40000	39100	97.8	40000	39100	97.8
Antimony	2000	1850	92.5	2000	1930	96.5	2000	1900	95.0
Arsenic	2000	1860	93.0	2000	1940	97.0	2000	1910	95.5
Barium	2000	1900	95.0	2000	1960	98.0	2000	1960	98.0
Beryllium	2000	1890	94.5	2000	1930	96.5	2000	1930	96.5
Bismuth									
Boron	anr								
Cadmium	2000	1840	92.0	2000	1910	95.5	2000	1880	94.0
Calcium	40000	39300	98.3	40000	40500	101.3	40000	40500	101.3
Chromium	2000	1890	94.5	2000	1930	96.5	2000	1940	97.0
Cobalt	2000	1930	96.5	2000	2000	100.0	2000	1980	99.0
Copper	2000	1890	94.5	2000	1920	96.0	2000	1940	97.0
Iron	40000	38400	96.0	40000	39400	98.5	40000	39300	98.3
Lead	2000	1970	98.5	2000	2050	102.5	2000	2030	101.5
Lithium									
Magnesium	40000	39900	99.8	40000	41000	102.5	40000	41200	103.0
Manganese	2000	1910	95.5	2000	1940	97.0	2000	1950	97.5
Molybdenum									
Nickel	2000	1990	99.5	2000	2070	103.5	2000	2050	102.5
Phosphorus									
Potassium	40000	38100	95.3	40000	39100	97.8	40000	39600	99.0
Selenium	2000	1890	94.5	2000	1960	98.0	2000	1940	97.0
Silicon									
Silver	250	234	93.6	250	238	95.2	250	240	96.0
Sodium	40000	39200	98.0	40000	40300	100.8	40000	39900	99.8
Strontium									
Sulfur									
Thallium	2000	1990	99.5	2000	2070	103.5	2000	2060	103.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1840	92.0	2000	1870	93.5	2000	1880	94.0
Zinc	2000	1890	94.5	2000	1960	98.0	2000	1930	96.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		17:14			17:49			18:25	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		19:00			19:36			20:07	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39600	99.0	40000	38800	97.0	40000	38700	96.8
Antimony	2000	1900	95.0	2000	1910	95.5	2000	1890	94.5
Arsenic	2000	1910	95.5	2000	1920	96.0	2000	1900	95.0
Barium	2000	1990	99.5	2000	1950	97.5	2000	1940	97.0
Beryllium	2000	1960	98.0	2000	1940	97.0	2000	1930	96.5
Bismuth									
Boron	anr								
Cadmium	2000	1880	94.0	2000	1890	94.5	2000	1880	94.0
Calcium	40000	40900	102.3	40000	39900	99.8	40000	39600	99.0
Chromium	2000	1940	97.0	2000	1940	97.0	2000	1930	96.5
Cobalt	2000	1970	98.5	2000	1980	99.0	2000	1960	98.0
Copper	2000	1920	96.0	2000	1920	96.0	2000	1900	95.0
Iron	40000	39800	99.5	40000	39200	98.0	40000	38900	97.3
Lead	2000	2010	100.5	2000	2010	100.5	2000	1990	99.5
Lithium									
Magnesium	40000	41200	103.0	40000	40300	100.8	40000	40000	100.0
Manganese	2000	1940	97.0	2000	1960	98.0	2000	1940	97.0
Molybdenum									
Nickel	2000	2020	101.0	2000	2020	101.0	2000	2000	100.0
Phosphorus									
Potassium	40000	39600	99.0	40000	38800	97.0	40000	38400	96.0
Selenium	2000	1930	96.5	2000	1940	97.0	2000	1920	96.0
Silicon									
Silver	250	237	94.8	250	239	95.6	250	237	94.8
Sodium	40000	40200	100.5	40000	39500	98.8	40000	39100	97.8
Strontium									
Sulfur									
Thallium	2000	2030	101.5	2000	2030	101.5	2000	2020	101.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1870	93.5	2000	1890	94.5	2000	1880	94.0
Zinc	2000	1930	96.5	2000	1950	97.5	2000	1930	96.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		19:00			19:36			20:07	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		20:24	
Sample ID:	CCV	CCV12	
Metal	True	Results	% Rec
Aluminum	40000	38300	95.8
Antimony	2000	1890	94.5
Arsenic	2000	1900	95.0
Barium	2000	1920	96.0
Beryllium	2000	1910	95.5
Bismuth			
Boron	anr		
Cadmium	2000	1880	94.0
Calcium	40000	39200	98.0
Chromium	2000	1920	96.0
Cobalt	2000	1960	98.0
Copper	2000	1900	95.0
Iron	40000	38600	96.5
Lead	2000	1990	99.5
Lithium			
Magnesium	40000	39600	99.0
Manganese	2000	1940	97.0
Molybdenum			
Nickel	2000	2000	100.0
Phosphorus			
Potassium	40000	38100	95.3
Selenium	2000	1920	96.0
Silicon			
Silver	250	237	94.8
Sodium	40000	38900	97.3
Strontium			
Sulfur			
Thallium	2000	2020	101.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	1870	93.5
Zinc	2000	1920	96.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44114 Units: ug/l

Time:		20:24	
Sample ID:	CCV	CCV12	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44114 Units: ug/l

Time:		14:44			14:47	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum				300000	309000	103.0
Antimony	5000	5050	101.0			
Arsenic	5000	4980	99.6			
Barium	5000	5020	100.4			
Beryllium	5000	4890	97.8			
Bismuth						
Boron	anr					
Cadmium	5000	5100	102.0			
Calcium				150000	143000	95.3
Chromium	5000	5140	102.8			
Cobalt	5000	5130	102.6			
Copper	5000	5130	102.6			
Iron				150000	155000	103.3
Lead	5000	5220	104.4			
Lithium						
Magnesium				300000	312000	104.0
Manganese	5000	5200	104.0			
Molybdenum						
Nickel	5000	5160	103.2			
Phosphorus						
Potassium				150000	159000	106.0
Selenium	5000	5080	101.6			
Silicon						
Silver	630	630	100.8			
Sodium				150000	151000	100.7
Strontium						
Sulfur						
Thallium	5000	5270	105.4			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5070	101.4			
Zinc	5000	5260	105.2			

HIGH STANDARD CHECK SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44114 Units: ug/l

Time:		14:44			14:47	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44114 Units: ug/l

Time:				15:14		15:17		20:12	
Sample ID:	CRI	CRIA	CRID	CRI2		CRID2		CRI3	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200	500	100	217	108.5	120	120.0	192	96.0
Antimony	6.0	20	3.0	4.9	81.7			4.6	76.7
Arsenic	8.0	20	3.0	8.1	101.3	2.9	96.7	8.2	102.5
Barium	200		4.0	199	99.5	4.6	115.0	189	94.5
Beryllium	2.0		1.0	1.9	95.0	1.0	100.0	1.8	90.0
Bismuth	20								
Boron	100		10	anr					
Cadmium	3.0		1.0	3.0	100.0	1.3	130.0	2.9	96.7
Calcium	5000	2000	1000	5160	103.2	1070	107.0	4950	99.0
Chromium	10		2.0	10.0	100.0	2.3	115.0	9.4	94.0
Cobalt	50		3.0	50.0	100.0	3.0	100.0	48.9	97.8
Copper	10		2.0	8.7	87.0			8.8	88.0
Iron	100	500		105	105.0			94.1	94.1
Lead	3.0	20	2.5	2.5	83.3			3.0	100.0
Lithium	50								
Magnesium	5000	2000	100	5240	104.8	108	108.0	5040	100.8
Manganese	15		3.0	15.4	102.7	3.3	110.0	15.0	100.0
Molybdenum	20								
Nickel	10		4.0	9.6	96.0	4.2	105.0	10.0	100.0
Phosphorus	50								
Potassium	5000		2000	5080	101.6	2140	107.0	4790	95.8
Selenium	10	20	5.0	8.2	82.0			8.3	83.0
Silicon	200								
Silver	5.0		2.0	4.7	94.0			4.0	80.0
Sodium	5000		1000	5160	103.2	1100	110.0	5030	100.6
Strontium	10								
Sulfur	50								
Thallium	10		2.0	9.8	98.0	2.1	105.0	9.4	94.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	47.9	95.8	2.0	100.0	47.0	94.0
Zinc	20		10	20.6	103.0	11.2	112.0	19.8	99.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44114 Units: ug/l

Time:				15:14		15:17		20:12	
Sample ID:	CRI	CRIA	CRID	CRI2		CRID2		CRI3	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium	10								

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44114 Units: ug/l

Time:				20:15	
Sample ID:	CRI	CRIA	CRID	CRID3	
Metal	True	True	True	Results	% Rec
Aluminum	200	500	100	123	123.0
Antimony	6.0	20	3.0		
Arsenic	8.0	20	3.0	3.7	123.3
Barium	200		4.0	4.9	122.5
Beryllium	2.0		1.0	1.0	100.0
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	1.1	110.0
Calcium	5000	2000	1000	1070	107.0
Chromium	10		2.0	2.3	115.0
Cobalt	50		3.0	3.2	106.7
Copper	10		2.0		
Iron	100	500			
Lead	3.0	20	2.5		
Lithium	50				
Magnesium	5000	2000	100	71.2	71.2
Manganese	15		3.0	3.1	103.3
Molybdenum	20				
Nickel	10		4.0	4.2	105.0
Phosphorus	50				
Potassium	5000		2000	2120	106.0
Selenium	10	20	5.0	4.2	84.0
Silicon	200				
Silver	5.0		2.0		
Sodium	5000		1000	1170	117.0
Strontium	10				
Sulfur	50				
Thallium	10		2.0	1.8	90.0
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	2.2	110.0
Zinc	20		10	11.1	111.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44114 Units: ug/l

Time:				20:15	
Sample ID:	CRI	CRIA	CRID	CRID3	
Metal	True	True	True	Results	% Rec
Zirconium	10				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44114 Units: ug/l

Time:			14:38		14:41		20:18		20:21	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	511000	102.2	504000	100.8	512000	102.4	489000	97.8
Antimony		1000	3.1		1040	104.0	3.0		1020	102.0
Arsenic		1000	-0.50		1020	102.0	3.4		1000	100.0
Barium		500	1.3		498	99.6	2.2		491	98.2
Beryllium		500	0.0		488	97.6	0.0		474	94.8
Bismuth		500	16.0		551	110.2	13.1		552	110.4
Boron		500	-2.4		506	101.2	-4.7		493	98.6
Cadmium		1000	1.1		1010	101.0	0.60		982	98.2
Calcium	400000	400000	387000	96.8	385000	96.3	388000	97.0	378000	94.5
Chromium		500	0.40		482	96.4	0.90		484	96.8
Cobalt		500	-0.70		494	98.8	-0.50		492	98.4
Copper		500	1.0		499	99.8	1.9		504	100.8
Iron	200000	200000	191000	95.5	187000	93.5	189000	94.5	183000	91.5
Lead		1000	0.10		974	97.4	4.7		979	97.9
Lithium		500	-5.6		507	101.4	-4.9		492	98.4
Magnesium	500000	500000	501000	100.2	492000	98.4	509000	101.8	495000	99.0
Manganese		500	0.70		505	101.0	-0.20		498	99.6
Molybdenum		500	1.2		487	97.4	1.2		468	93.6
Nickel		1000	-0.70		976	97.6	-1.4		987	98.7
Phosphorus		500	7.2		510	102.0	14.1		498	99.6
Potassium			271		216		230		222	
Selenium		1000	-2.0		996	99.6	6.1		976	97.6
Silicon		500	42.0		523	104.6	-11		506	101.2
Silver		1000	2.8		998	99.8	-1.1		992	99.2
Sodium			12.0		35.2		186		176	
Strontium		500	-2.7		527	105.4	-2.5		521	104.2
Sulfur		500	-4.2		488	97.6	-1.3		471	94.2
Thallium		1000	-1.1		1090	109.0	-3.0		1090	109.0
Tin		500	-5.8		468	93.6	-4.8		448	89.6
Titanium		500	-1.9		485	97.0	-2.3		501	100.2
Tungsten		500	-0.40		480	96.0	-0.50		476	95.2
Vanadium		500	-1.2		491	98.2	-0.60		485	97.0
Zinc		1000	3.6		961	96.1	2.9		942	94.2

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC033118M2.ICP Date Analyzed: 03/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44114 Units: ug/l

Time:			14:38		14:41		20:18		20:21	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	0.20		498	99.6	-0.70		493	98.6

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:15	MA44135-STD1	1		STDA
13:20	MA44135-STD2	1		STDB
13:24	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:36	MA44135-ICV1	1		
13:46	MA44135-ICB1	1		
13:50	MA44135-ICCV1	1		
13:58	MA44135-CCB1	1		
14:01	MA44135-CRI1	1		
14:05	MA44135-CRID1	1		
14:10	MA44135-ICSA1	1		
14:14	MA44135-ICSAB1	1		
14:18	MA44135-HSTD1	1		
14:23	MA44135-HSTD2	1		
14:27	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:36	ZZZZZZ	1		
14:40	MA44135-CCV1	1		
14:44	MA44135-CCB2	1		
14:48	MA44135-CRID2	1		
14:53	ZZZZZZ	1		
14:57	ZZZZZZ	50		
15:01	ZZZZZZ	50		
15:06	ZZZZZZ	1		
15:10	MA44135-CRID3	1		
15:14	ZZZZZZ	1		
15:19	MP6400-S1	1		
15:23	MP6400-S2	1		
15:27	JC62779-2	1		(sample used for QC only; not part of login JC62879)
15:31	MA44135-CCV2	1		
15:35	MA44135-CCB3	1		
15:40	MP6400-SD1	5		
15:44	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:48	ZZZZZZ	5		
15:53	ZZZZZZ	2		
15:57	ZZZZZZ	2		
16:01	ZZZZZZ	2		
16:06	ZZZZZZ	5		
16:10	ZZZZZZ	2		
16:14	ZZZZZZ	2		
16:19	MA44135-CCV3	1		
16:23	MA44135-CCB4	1		
16:27	ZZZZZZ	1		
16:31	ZZZZZZ	1		
16:36	MP6395-MB2	1		
16:40	MP6395-B2	1		
16:44	ZZZZZZ	1		
16:48	ZZZZZZ	1		
16:53	ZZZZZZ	1		
16:57	ZZZZZZ	1		
17:01	ZZZZZZ	1		
17:05	MA44135-CCV4	1		
17:09	MA44135-CCB5	1		
17:14	JC62879-1	1		
17:18	JC62879-2	1		
17:22	JC62879-3	1		high rsd
17:27	JC62879-4	1		
17:31	JC62879-5	1		
17:35	JC62879-6	1		S high
17:39	JC62879-7	1		
17:44	JC62879-8	1		
17:48	JC62879-10	1		S high
17:52	MA44135-CCV5	1		
17:56	MA44135-CCB6	1		
18:01	JC62879-12	1		
18:05	JC62879-13	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:09	JC62879-14	1		
18:13	JC62879-15	1		
18:18	JC62879-16	1		
18:22	JC62879-17	1		Ca and S high
18:26	JC62879-18	1		
18:30	JC62879-20	1		
---------->	Last reportable sample/prep for job JC62879			
18:35	MA44135-CCV6	1		
18:39	MA44135-CCB7	1		
18:43	MP6434-MB1	1		
18:47	MP6434-B1	1		
18:51	ZZZZZZ	1		
18:56	ZZZZZZ	1		
19:00	ZZZZZZ	250		
19:05	ZZZZZZ	250		
19:09	MP6401-B1	1		
19:13	MP6401-MB1	1		
19:17	MP6401-S1	1		Na high
19:21	MA44135-CCV7	1		
19:25	MA44135-CCB8	1		
19:30	MP6401-S2	1		Na high
19:34	JC62909-1F	1		(sample used for QC only; not part of login JC62879)
19:38	MP6401-SD1	5		Na high
19:43	ZZZZZZ	1		
19:47	ZZZZZZ	1		
19:51	ZZZZZZ	1		
19:56	ZZZZZZ	1		
20:00	ZZZZZZ	1		
20:04	ZZZZZZ	1		
20:09	MA44135-CCV8	1		
20:13	MA44135-CCB9	1		
20:17	MA44135-CRI2	1		
20:21	MA44135-CRID4	1		
20:26	MA44135-ICSA2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:30	MA44135-ICSAB2	1		
20:40	MA44135-CCV9	1		
20:44	MA44135-CCB10	1		
---------->	Last reportable CCB for job JC62879			
20:49	ZZZZZZ	1		
20:53	ZZZZZZ	1		
20:57	ZZZZZZ	1		
21:02	ZZZZZZ	1		
21:06	ZZZZZZ	1		
21:10	ZZZZZZ	1		
21:15	ZZZZZZ	1		
21:19	ZZZZZZ	1		
21:23	ZZZZZZ	1		
21:28	ZZZZZZ	1		
21:32	ZZZZZZ	1		
21:36	ZZZZZZ	1		
21:41	MA44135-CCV10	1		
21:45	MA44135-CCB11	1		
21:49	ZZZZZZ	1		
21:54	ZZZZZZ	1		
21:58	ZZZZZZ	1		
22:02	ZZZZZZ	1		
22:07	ZZZZZZ	1		
22:11	ZZZZZZ	1		
22:15	ZZZZZZ	1		
22:20	ZZZZZZ	1		
22:24	ZZZZZZ	1		
22:28	MA44135-CCV11	1		
22:32	MA44135-CCB12	1		
22:37	ZZZZZZ	1		
22:41	ZZZZZZ	1		
22:45	MP6466-B1	1		In out
22:49	MP6466-MB1	1		In out
22:54	MP6466-S1	1		Very high elements

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:58	MP6466-S2	1		Very high elements
23:02	FA52915-1	1		(sample used for QC only; not part of login JC62879)
23:07	MP6466-SD1	5		
23:11	ZZZZZZ	1		
23:15	MA44135-CCV12	1		
23:19	MA44135-CCB13	1		
23:23	ZZZZZZ	1		
23:28	MP6448-S1	5		
23:32	MP6448-S2	5		
23:36	JC63301-6	5		(sample used for QC only; not part of login JC62879)
23:40	MP6448-SD1	25		
23:45	ZZZZZZ	20		
23:49	ZZZZZZ	2		
23:54	ZZZZZZ	10		
23:58	ZZZZZZ	2		
00:02	MA44135-CCV13	1		
00:06	MA44135-CCB14	1		
00:11	ZZZZZZ	10		
00:15	MP6461-B1	1		
00:19	MP6461-MB1	1		
00:23	MP6461-S1	1		
00:27	MP6461-S2	1		
00:31	JC62134-95	1		(sample used for QC only; not part of login JC62879)
00:36	MP6461-SD1	5		
00:40	ZZZZZZ	1		
00:44	ZZZZZZ	1		
00:49	MA44135-CCV14	1		
00:53	MA44135-CCB15	1		
00:57	ZZZZZZ	1		
01:01	ZZZZZZ	1		
01:05	ZZZZZZ	1		
01:10	ZZZZZZ	1		
01:14	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:18	ZZZZZZ	1		
01:23	ZZZZZZ	1		
01:27	ZZZZZZ	1		
01:31	ZZZZZZ	1		
01:35	MA44135-CCV15	1		
01:39	MA44135-CCB16	1		
01:44	ZZZZZZ	1		
01:48	ZZZZZZ	1		
01:52	ZZZZZZ	1		
01:57	ZZZZZZ	1		
02:01	ZZZZZZ	1		
02:05	ZZZZZZ	1		
02:10	ZZZZZZ	1		
02:14	ZZZZZZ	1		
02:18	MA44135-CCV16	1		
02:22	MA44135-CCB17	1		
02:27	MA44135-CRI3	1		
02:31	MA44135-CRID5	1		
02:35	MA44135-CCV17	1		
02:39	MA44135-CCB18	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:15	MA44135-STD1	3882 R	106060 R	16200 R	9169 R
13:20	MA44135-STD2	3657	99447	15974	7971
13:24	ZZZZZZ	3756	101660	16230	8301
13:28	ZZZZZZ	3900	107250	16354	9211
13:36	MA44135-ICV1	3770	102160	16132	8313
13:46	MA44135-ICB1	3909	107060	16412	9245
13:50	MA44135-ICCV1	3771	102480	16171	8323
13:58	MA44135-CCB1	3914	106920	16286	9221
14:01	MA44135-CRI1	3846	105210	16342	8971
14:05	MA44135-CRID1	No results reported for the elements associated with this internal standard.			
14:10	MA44135-ICSA1	3485	93868	15768	7318
14:14	MA44135-ICSAB1	3491	93843	15682	7313
14:18	MA44135-HSTD1	3845	105660	16315	8939
14:23	MA44135-HSTD2	3546	95391	15702	7427
14:27	ZZZZZZ	3829	105020	16174	9055
14:31	ZZZZZZ	3836	107600	16419	9191
14:36	ZZZZZZ	3917	107420	16453	9243
14:40	MA44135-CCV1	3769	102650	16230	8310
14:44	MA44135-CCB2	3907	107410	16265	9214
14:48	MA44135-CRID2	3887	107220	16320	9129
14:53	ZZZZZZ	3878	107310	16504	9154
14:57	ZZZZZZ	3831	106810	16395	9130
15:01	ZZZZZZ	3868	107230	16534	9165
15:06	ZZZZZZ	3887	108160	16566	9170
15:10	MA44135-CRID3	3901	107140	16365	9151
15:14	ZZZZZZ	3805	104150	16493	8500
15:19	MP6400-S1	3687	100910	16259	8043
15:23	MP6400-S2	3680	100920	16364	8032
15:27	JC62779-2	3714	101720	16314	8278
15:31	MA44135-CCV2	3780	102670	16091	8301
15:35	MA44135-CCB3	3918	107620	16476	9205
15:40	MP6400-SD1	3848	105390	16355	8862
15:44	ZZZZZZ	3799	103710	16504	8550

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:48	ZZZZZZ	3751	101760	16203	8355
15:53	ZZZZZZ	3756	102610	16008	8433
15:57	ZZZZZZ	3823	105010	16426	8628
16:01	ZZZZZZ	3772	103700	16333	8548
16:06	ZZZZZZ	3752	102030	16277	8345
16:10	ZZZZZZ	3750	102210	16279	8429
16:14	ZZZZZZ	3794	103520	16438	8642
16:19	MA44135-CCV3	3797	102550	16229	8326
16:23	MA44135-CCB4	3925	107320	16490	9205
16:27	ZZZZZZ	3897	107830	16577	9170
16:31	ZZZZZZ	3648	99302	16355	8006
16:36	MP6395-MB2	3949	108730	16692	9276
16:40	MP6395-B2	3813	103960	16570	8507
16:44	ZZZZZZ	3904	107420	16653	9069
16:48	ZZZZZZ	3874	106610	16553	9009
16:53	ZZZZZZ	3673	101790	16399	8325
16:57	ZZZZZZ	3905	107950	16576	9188
17:01	ZZZZZZ	3815	104170	16468	8502
17:05	MA44135-CCV4	3789	102160	16195	8301
17:09	MA44135-CCB5	3914	107510	16360	9180
17:14	JC62879-1	3781	103970	16402	8534
17:18	JC62879-2	3717	102320	16343	8356
17:22	JC62879-3	3584	98891	15993	7964
17:27	JC62879-4	3718	101650	16230	8380
17:31	JC62879-5	3837	105390	16390	8812
17:35	JC62879-6	3534	97349	15834	7805
17:39	JC62879-7	3634	99432	15939	8123
17:44	JC62879-8	3578	98415	15973	7925
17:48	JC62879-10	3656	100230	16003	8217
17:52	MA44135-CCV5	3787	102360	16208	8293
17:56	MA44135-CCB6	3914	107090	16279	9186
18:01	JC62879-12	3855	106010	16429	8865
18:05	JC62879-13	3665	99218	16119	8048

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:09	JC62879-14	3776	103600	16219	8540
18:13	JC62879-15	3711	102040	16257	8333
18:18	JC62879-16	3720	102070	16289	8367
18:22	JC62879-17	3495	96784	15811	7752
18:26	JC62879-18	3813	104860	16364	8778
18:30	JC62879-20	3767	103480	16193	8573
18:35	MA44135-CCV6	3782	102760	16105	8290
18:39	MA44135-CCB7	3916	107180	16381	9184
18:43	MP6434-MB1	3923	108130	16700	9222
18:47	MP6434-B1	3795	104180	16427	8451
18:51	ZZZZZZ	3948	109290	16647	9303
18:56	ZZZZZZ	3940	108870	16551	9292
19:00	ZZZZZZ	3882	106830	16475	9126
19:05	ZZZZZZ	3898	107360	16432	9156
19:09	MP6401-B1	3808	104290	16462	8489
19:13	MP6401-MB1	3891	107770	16517	9154
19:17	MP6401-S1	3551	97262	15865	7588
19:21	MA44135-CCV7	3773	102380	16205	8279
19:25	MA44135-CCB8	3911	107340	16473	9179
19:30	MP6401-S2	3554	97060	15985	7584
19:34	JC62909-1F	3549	96737	15883	7705
19:38	MP6401-SD1	3778	103160	16305	8518
19:43	ZZZZZZ	3898	107890	16620	9157
19:47	ZZZZZZ	3733	102190	16306	8384
19:51	ZZZZZZ	3756	103320	16325	8518
19:56	ZZZZZZ	3899	107800	16580	9165
20:00	ZZZZZZ	3785	103280	16375	8529
20:04	ZZZZZZ	3689	99831	16292	8074
20:09	MA44135-CCV8	3779	102700	16296	8282
20:13	MA44135-CCB9	3927	107760	16425	9207
20:17	MA44135-CRI2	3880	106140	16347	8992
20:21	MA44135-CRID4	3888	106900	16396	9098
20:26	MA44135-ICSA2	3480	93858	15650	7238

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:30	MA44135-ICSAB2	3490	94012	15685	7259
20:40	MA44135-CCV9	3787	102490	16277	8292
20:44	MA44135-CCB10	3909	107580	16508	9171
20:49	ZZZZZZ	3562	96234	15494	7828
20:53	ZZZZZZ	3920	107440	16357	9180
20:57	ZZZZZZ	3909	106950	16334	9137
21:02	ZZZZZZ	3564	98031	15880	7874
21:06	ZZZZZZ	3997	110070	16910	9412
21:10	ZZZZZZ	4004	100710	16750	8115
21:15	ZZZZZZ	3953	108420	16624	9266
21:19	ZZZZZZ	3944	108240	16492	9196
21:23	ZZZZZZ	3916	108020	16446	9143
21:28	ZZZZZZ	3926	108200	16508	9213
21:32	ZZZZZZ	3919	107890	16465	9160
21:36	ZZZZZZ	3921	107860	16541	9177
21:41	MA44135-CCV10	3791	102690	16227	8293
21:45	MA44135-CCB11	3906	107610	16367	9134
21:49	ZZZZZZ	3949	108480	16833	8963
21:54	ZZZZZZ	3634	98833	16105	7914
21:58	ZZZZZZ	3578	97838	16020	7829
22:02	ZZZZZZ	3632	98820	16164	7868
22:07	ZZZZZZ	3726	102640	16205	8382
22:11	ZZZZZZ	3775	103830	16301	8527
22:15	ZZZZZZ	3665	99019	16106	7948
22:20	ZZZZZZ	3675	99136	16156	7977
22:24	ZZZZZZ	3912	107920	16511	9150
22:28	MA44135-CCV11	3790	102970	16269	8269
22:32	MA44135-CCB12	3917	107930	16434	9150
22:37	ZZZZZZ	3834	105550	16497	8769
22:41	ZZZZZZ	3866	105670	16503	8639
22:45	MP6466-B1	No results reported for the elements associated with this internal standard.			
22:49	MP6466-MB1	No results reported for the elements associated with this internal standard.			
22:54	MP6466-S1	No results reported for the elements associated with this internal standard.			

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:58	MP6466-S2	No results reported for the elements associated with this internal standard.			
23:02	FA52915-1	No results reported for the elements associated with this internal standard.			
23:07	MP6466-SD1	No results reported for the elements associated with this internal standard.			
23:11	ZZZZZZ	3803	104210	16422	8450
23:15	MA44135-CCV12	3786	103080	16360	8283
23:19	MA44135-CCB13	3919	107410	16556	9168
23:23	ZZZZZZ	3903	107940	16642	9155
23:28	MP6448-S1	3691	100290	16262	8009
23:32	MP6448-S2	3696	100140	16131	8018
23:36	JC63301-6	3691	99678	16244	8067
23:40	MP6448-SD1	3835	104310	16371	8690
23:45	ZZZZZZ	3818	103270	16351	8558
23:49	ZZZZZZ	3521	95987	15926	7586
23:54	ZZZZZZ	3732	101720	16147	8292
23:58	ZZZZZZ	3523	95302	15862	7626
00:02	MA44135-CCV13	3798	102660	16371	8283
00:06	MA44135-CCB14	3920	107300	16551	9145
00:11	ZZZZZZ	3734	101760	16240	8322
00:15	MP6461-B1	3804	104850	16611	8450
00:19	MP6461-MB1	3918	107800	16723	9165
00:23	MP6461-S1	3738	102190	16412	8144
00:27	MP6461-S2	3738	102270	16399	8141
00:31	JC62134-95	3769	104410	16527	8468
00:36	MP6461-SD1	3880	106440	16483	8953
00:40	ZZZZZZ	3666	100210	16376	8086
00:44	ZZZZZZ	3745	102290	16423	8243
00:49	MA44135-CCV14	3786	102750	16383	8232
00:53	MA44135-CCB15	3922	108020	16444	9120
00:57	ZZZZZZ	3752	102530	16401	8413
01:01	ZZZZZZ	3776	103740	16450	8434
01:05	ZZZZZZ	3788	103490	16451	8436
01:10	ZZZZZZ	3755	103080	16446	8390
01:14	ZZZZZZ	3743	102450	16387	8303

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44135
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:18	ZZZZZZ	3668	100130	16317	8078
01:23	ZZZZZZ	3753	102950	16501	8370
01:27	ZZZZZZ	3721	101520	16368	8207
01:31	ZZZZZZ	3928	108020	16694	9142
01:35	MA44135-CCV15	3797	102910	16476	8252
01:39	MA44135-CCB16	3923	107680	16457	9136
01:44	ZZZZZZ	3908	107990	16654	9131
01:48	ZZZZZZ	3768	103100	16703	8375
01:52	ZZZZZZ	3683	101040	16495	8118
01:57	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:01	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:05	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:10	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:14	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:18	MA44135-CCV16	3792	103060	16315	8247
02:22	MA44135-CCB17	3919	107790	16450	9115
02:27	MA44135-CRI3	3873	106060	16488	8903
02:31	MA44135-CRID5	3912	107080	16496	9063
02:35	MA44135-CCV17	3791	102730	16358	8233
02:39	MA44135-CCB18	3927	107360	16497	9120

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44135 Units: ug/l

Time: / Sample ID:			13:46 ICB1		13:58 CCB1		14:44 CCB2		15:35 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	15.1	<200	12.6	<200	13.0	<200	18.3	<200
Antimony	6.0	1.4	0.70	<6.0	1.4	<6.0	-0.70	<6.0	-0.10	<6.0
Arsenic	3.0	1.4	0.30	<3.0	0.10	<3.0	0.40	<3.0	0.10	<3.0
Barium	200	.5	-0.10	<200	-0.10	<200	0.20	<200	0.10	<200
Beryllium	1.0	.2	0.0	<1.0	0.20	<1.0	0.10	<1.0	0.10	<1.0
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	0.30	<3.0	0.20	<3.0	0.0	<3.0	0.50	<3.0
Calcium	2000	8.7	1.4	<5000	0.80	<5000	1.8	<5000	-1.4	<5000
Chromium	10	.6	-0.20	<10	0.10	<10	0.20	<10	0.70	<10
Cobalt	50	.5	-0.20	<50	0.0	<50	0.0	<50	0.0	<50
Copper	10	1.2	0.40	<10	-0.30	<10	0.0	<10	0.0	<10
Iron	100	4.6	1.7	<100	2.4	<100	3.9	<100	3.3	<100
Lead	3.0	1.4	0.50	<3.0	0.40	<3.0	0.80	<3.0	1.2	<3.0
Lithium	50	2.8								
Magnesium	2000	33	-12	<5000	-12	<5000	-10	<5000	-22	<5000
Manganese	15	.1	0.10	<15	0.10	<15	0.10	<15	0.20	<15
Molybdenum	20	.4								
Nickel	10	.5	0.60	<10	-0.10	<10	0.0	<10	0.30	<10
Phosphorus	50	1.7								
Potassium	2000	68	47.4	<10000	63.5	<10000	63.9	<10000	50.2	<10000
Selenium	10	3.8	0.50	<10	-1.7	<10	-1.4	<10	-0.40	<10
Silicon	200	2.1								
Silver	10	.5	-0.30	<10	0.0	<10	0.10	<10	-0.80	<10
Sodium	2000	15	-6.0	<10000	6.0	<10000	8.6	<10000	14.1	<10000
Strontium	10	.2								
Sulfur	50	20								
Thallium	2.0	1.6	-0.30	<2.0	-0.10	<2.0	1.3	<2.0	0.70	<2.0
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4	0.20	<50	0.0	<50	0.10	<50	0.10	<50
Zinc	20	.3	0.10	<20	0.10	<20	0.10	<20	0.30	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44135 Units: ug/l

Time:			13:46		13:58		14:44		15:35	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44135 Units: ug/l

Time: / Sample ID:			16:23 CCB4		17:09 CCB5		17:56 CCB6		18:39 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	16.0	<200	16.2	<200	16.6	<200	-4.1	<200
Antimony	6.0	1.4	0.0	<6.0	0.0	<100	-0.40	<6.0	0.40	<6.0
Arsenic	3.0	1.4	0.10	<3.0	-0.60	<100	0.50	<3.0	-0.20	<3.0
Barium	200	.5	0.20	<200	0.30	<200	0.40	<200	0.30	<200
Beryllium	1.0	.2	0.10	<1.0	0.20	<5.0	0.20	<1.0	-0.10	<1.0
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	0.50	<3.0	0.40	<5.0	0.30	<3.0	0.10	<3.0
Calcium	2000	8.7	-1.0	<5000	0.80	<2000	1.7	<5000	-7.8	<5000
Chromium	10	.6	0.40	<10	0.0	<10	0.10	<10	-0.20	<10
Cobalt	50	.5	0.0	<50	0.30	<50	0.20	<50	-0.30	<50
Copper	10	1.2	0.0	<10	0.0	<10	0.40	<10	-0.30	<10
Iron	100	4.6	4.9	<100	5.2	<100	9.9	<100	0.0	<100
Lead	3.0	1.4	0.90	<3.0	1.0	<100	0.40	<3.0	1.1	<3.0
Lithium	50	2.8								
Magnesium	2000	33	-42	<5000	-7.4	<2000	6.2	<5000	-30	<5000
Manganese	15	.1	0.60	<15	0.40	<15	0.40	<15	-0.10	<15
Molybdenum	20	.4								
Nickel	10	.5	0.10	<10	0.0	<10	0.50	<10	0.0	<10
Phosphorus	50	1.7								
Potassium	2000	68	62.1	<10000	13.3	<2000	48.6	<10000	39.0	<10000
Selenium	10	3.8	0.20	<10	-0.50	<100	-0.80	<10	0.70	<10
Silicon	200	2.1								
Silver	10	.5	-0.20	<10	0.20	<10	0.30	<10	0.0	<10
Sodium	2000	15	9.6	<10000	20.5	<2000	23.4	<10000	15.3	<10000
Strontium	10	.2								
Sulfur	50	20								
Thallium	2.0	1.6	-0.20	<2.0	-1.0	<100	0.20	<2.0	-0.10	<2.0
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4	0.60	<50	0.40	<50	0.20	<50	0.10	<50
Zinc	20	.3	0.40	<20	0.20	<20	0.30	<20	0.0	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44135 Units: ug/l

Time:			16:23		17:09		17:56		18:39	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44135 Units: ug/l

Time: / Sample ID:			19:25 CCB8		20:13 CCB9		20:44 CCB10	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	34	23.0	<200	12.6	<200	15.7	<200
Antimony	6.0	1.4	-0.40	<6.0	0.40	<6.0	-0.10	<6.0
Arsenic	3.0	1.4	0.10	<3.0	0.30	<3.0	0.10	<3.0
Barium	200	.5	0.20	<200	0.40	<200	0.40	<200
Beryllium	1.0	.2	0.20	<1.0	0.30	<1.0	0.10	<1.0
Bismuth	20	2.5						
Boron	100	1.9						
Cadmium	3.0	.3	0.30	<3.0	0.70	<3.0	0.40	<3.0
Calcium	2000	8.7	4.1	<5000	3.3	<5000	3.2	<5000
Chromium	10	.6	0.10	<10	0.30	<10	0.30	<10
Cobalt	50	.5	0.10	<50	0.10	<50	0.20	<50
Copper	10	1.2	0.30	<10	0.60	<10	0.20	<10
Iron	100	4.6	7.3	<100	8.4	<100	3.2	<100
Lead	3.0	1.4	1.1	<3.0	1.4	<3.0	0.20	<3.0
Lithium	50	2.8						
Magnesium	2000	33	-17	<5000	-20	<5000	-24	<5000
Manganese	15	.1	0.50	<15	0.50	<15	0.30	<15
Molybdenum	20	.4						
Nickel	10	.5	0.10	<10	0.30	<10	0.50	<10
Phosphorus	50	1.7						
Potassium	2000	68	65.2	<10000	5.5	<10000	6.7	<10000
Selenium	10	3.8	-1.0	<10	-0.20	<10	-0.80	<10
Silicon	200	2.1						
Silver	10	.5	0.40	<10	0.0	<10	-0.10	<10
Sodium	2000	15	30.3	<10000	50.9	<10000	16.9	<10000
Strontium	10	.2						
Sulfur	50	20						
Thallium	2.0	1.6	0.10	<2.0	1.7	<2.0	0.80	<2.0
Tin	10	1						
Titanium	10	.7						
Tungsten	50	1.8						
Vanadium	50	.4	0.40	<50	0.70	<50	0.10	<50
Zinc	20	.3	0.50	<20	0.60	<20	0.50	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44135 Units: ug/l

Time:			19:25		20:13		20:44	
Sample ID:			CCB8		CCB9		CCB10	
Metal	RL	IDL	raw	final	raw	final	raw	final
Zirconium	10	.3						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44135 Units: ug/l

Time:		13:50	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Aluminum	40000	38900	97.3
Antimony	2000	1970	98.5
Arsenic	2000	1960	98.0
Barium	2000	1970	98.5
Beryllium	2000	1980	99.0
Bismuth			
Boron			
Cadmium	2000	1980	99.0
Calcium	40000	39500	98.8
Chromium	2000	1990	99.5
Cobalt	2000	1960	98.0
Copper	2000	1930	96.5
Iron	40000	39700	99.3
Lead	2000	2000	100.0
Lithium			
Magnesium	40000	39300	98.3
Manganese	2000	2010	100.5
Molybdenum			
Nickel	2000	1980	99.0
Phosphorus			
Potassium	40000	38900	97.3
Selenium	2000	1960	98.0
Silicon			
Silver	250	244	97.6
Sodium	40000	39200	98.0
Strontium			
Sulfur			
Thallium	2000	2020	101.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	1970	98.5
Zinc	2000	2010	100.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44135 Units: ug/l

Time:		13:50	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44135 Units: ug/l

Time:		13:36			14:40			15:31	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39300	98.3	40000	38800	97.0	40000	39300	98.3
Antimony	2000	1980	99.0	2000	1980	99.0	2000	1970	98.5
Arsenic	2000	1960	98.0	2000	1960	98.0	2000	1950	97.5
Barium	2000	1980	99.0	2000	1970	98.5	2000	1980	99.0
Beryllium	2000	2000	100.0	2000	1970	98.5	2000	1990	99.5
Bismuth									
Boron									
Cadmium	2000	1980	99.0	2000	1980	99.0	2000	1970	98.5
Calcium	40000	39800	99.5	40000	39400	98.5	40000	39600	99.0
Chromium	2000	2010	100.5	2000	1980	99.0	2000	1980	99.0
Cobalt	2000	1970	98.5	2000	1960	98.0	2000	1950	97.5
Copper	2000	1940	97.0	2000	1930	96.5	2000	1940	97.0
Iron	40000	40100	100.3	40000	39500	98.8	40000	39600	99.0
Lead	2000	2010	100.5	2000	2010	100.5	2000	2020	101.0
Lithium									
Magnesium	40000	39600	99.0	40000	39100	97.8	40000	39300	98.3
Manganese	2000	2020	101.0	2000	2000	100.0	2000	2020	101.0
Molybdenum									
Nickel	2000	1990	99.5	2000	1990	99.5	2000	1990	99.5
Phosphorus									
Potassium	40000	39200	98.0	40000	38700	96.8	40000	39200	98.0
Selenium	2000	1970	98.5	2000	1970	98.5	2000	1970	98.5
Silicon									
Silver	250	245	98.0	250	244	97.6	250	243	97.2
Sodium	40000	39400	98.5	40000	39200	98.0	40000	39600	99.0
Strontium									
Sulfur									
Thallium	2000	2030	101.5	2000	2010	100.5	2000	1980	99.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1990	99.5	2000	1970	98.5	2000	1980	99.0
Zinc	2000	2010	100.5	2000	2010	100.5	2000	2010	100.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44135 Units: ug/l

Time:		13:36			14:40			15:31	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44135 Units: ug/l

Time:		16:19			17:05			17:52	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39200	98.0	40000	39400	98.5	40000	39200	98.0
Antimony	2000	1960	98.0	2000	1950	97.5	2000	1950	97.5
Arsenic	2000	1930	96.5	2000	1930	96.5	2000	1930	96.5
Barium	2000	1980	99.0	2000	1970	98.5	2000	1980	99.0
Beryllium	2000	1970	98.5	2000	1960	98.0	2000	1960	98.0
Bismuth									
Boron									
Cadmium	2000	1960	98.0	2000	1960	98.0	2000	1960	98.0
Calcium	40000	39400	98.5	40000	39400	98.5	40000	39300	98.3
Chromium	2000	1980	99.0	2000	1980	99.0	2000	1980	99.0
Cobalt	2000	1950	97.5	2000	1950	97.5	2000	1950	97.5
Copper	2000	1940	97.0	2000	1940	97.0	2000	1940	97.0
Iron	40000	39200	98.0	40000	38900	97.3	40000	38700	96.8
Lead	2000	2020	101.0	2000	2020	101.0	2000	2020	101.0
Lithium									
Magnesium	40000	39000	97.5	40000	38700	96.8	40000	38500	96.3
Manganese	2000	2010	100.5	2000	2020	101.0	2000	2010	100.5
Molybdenum									
Nickel	2000	1990	99.5	2000	1990	99.5	2000	1990	99.5
Phosphorus									
Potassium	40000	38900	97.3	40000	38900	97.3	40000	38800	97.0
Selenium	2000	1970	98.5	2000	1970	98.5	2000	1960	98.0
Silicon									
Silver	250	245	98.0	250	244	97.6	250	243	97.2
Sodium	40000	39400	98.5	40000	39400	98.5	40000	39400	98.5
Strontium									
Sulfur									
Thallium	2000	1970	98.5	2000	1970	98.5	2000	1970	98.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	1980	99.0	2000	1990	99.5	2000	1980	99.0
Zinc	2000	2000	100.0	2000	2010	100.5	2000	2000	100.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44135 Units: ug/l

Time:		16:19			17:05			17:52	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44135 Units: ug/l

Time:		18:35			19:21			20:09	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39200	98.0	40000	39400	98.5	40000	39100	97.8
Antimony	2000	1950	97.5	2000	1960	98.0	2000	1950	97.5
Arsenic	2000	1930	96.5	2000	1940	97.0	2000	1930	96.5
Barium	2000	1980	99.0	2000	1980	99.0	2000	1980	99.0
Beryllium	2000	1960	98.0	2000	1970	98.5	2000	1950	97.5
Bismuth									
Boron									
Cadmium	2000	1950	97.5	2000	1970	98.5	2000	1960	98.0
Calcium	40000	39200	98.0	40000	39300	98.3	40000	39300	98.3
Chromium	2000	1960	98.0	2000	1980	99.0	2000	1970	98.5
Cobalt	2000	1940	97.0	2000	1950	97.5	2000	1940	97.0
Copper	2000	1940	97.0	2000	1950	97.5	2000	1940	97.0
Iron	40000	38600	96.5	40000	38700	96.8	40000	38300	95.8
Lead	2000	2010	100.5	2000	2020	101.0	2000	2010	100.5
Lithium									
Magnesium	40000	38600	96.5	40000	38500	96.3	40000	38300	95.8
Manganese	2000	2010	100.5	2000	2020	101.0	2000	2010	100.5
Molybdenum									
Nickel	2000	1980	99.0	2000	1990	99.5	2000	1990	99.5
Phosphorus									
Potassium	40000	38800	97.0	40000	38900	97.3	40000	38600	96.5
Selenium	2000	1970	98.5	2000	1970	98.5	2000	1960	98.0
Silicon									
Silver	250	242	96.8	250	245	98.0	250	243	97.2
Sodium	40000	39400	98.5	40000	39400	98.5	40000	39300	98.3
Strontium									
Sulfur									
Thallium	2000	1960	98.0	2000	1960	98.0	2000	1960	98.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1970	98.5	2000	1990	99.5	2000	1980	99.0
Zinc	2000	2000	100.0	2000	2010	100.5	2000	2000	100.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44135 Units: ug/l

Time:		18:35			19:21			20:09	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44135 Units: ug/l

Time:		20:40	
Sample ID:	CCV	CCV9	
Metal	True	Results	% Rec
Aluminum	40000	39300	98.3
Antimony	2000	1950	97.5
Arsenic	2000	1930	96.5
Barium	2000	1970	98.5
Beryllium	2000	1950	97.5
Bismuth			
Boron			
Cadmium	2000	1960	98.0
Calcium	40000	39200	98.0
Chromium	2000	1980	99.0
Cobalt	2000	1940	97.0
Copper	2000	1940	97.0
Iron	40000	38300	95.8
Lead	2000	2010	100.5
Lithium			
Magnesium	40000	38100	95.3
Manganese	2000	2010	100.5
Molybdenum			
Nickel	2000	1990	99.5
Phosphorus			
Potassium	40000	38700	96.8
Selenium	2000	1970	98.5
Silicon			
Silver	250	245	98.0
Sodium	40000	39300	98.3
Strontium			
Sulfur			
Thallium	2000	1960	98.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	1990	99.5
Zinc	2000	2000	100.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44135 Units: ug/l

Time:		20:40	
Sample ID:	CCV	CCV9	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44135 Units: ug/l

Time:		14:18			14:23	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum				300000	314000	104.7
Antimony	5000	5050	101.0			
Arsenic	5000	4960	99.2			
Barium	5000	5070	101.4			
Beryllium	5000	5120	102.4			
Bismuth						
Boron						
Cadmium	5000	5000	100.0			
Calcium				150000	147000	98.0
Chromium	5000	5190	103.8			
Cobalt	5000	5020	100.4			
Copper	5000	5090	101.8			
Iron				150000	154000	102.7
Lead	5000	5090	101.8			
Lithium						
Magnesium				300000	317000	105.7
Manganese	5000	5190	103.8			
Molybdenum						
Nickel	5000	5030	100.6			
Phosphorus						
Potassium				150000	159000	106.0
Selenium	5000	5010	100.2			
Silicon						
Silver	625	616	98.6			
Sodium				150000	152000	101.3
Strontium						
Sulfur						
Thallium	5000	5200	104.0			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5120	102.4			
Zinc	5000	5250	105.0			

HIGH STANDARD CHECK SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44135 Units: ug/l

Time:		14:18			14:23	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44135 Units: ug/l

Time:				14:01		14:48		15:10	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID2		CRID3	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200	500	100	215	107.5	104	104.0	122	122.0
Antimony	6.0	20	3.0	6.1	101.7				
Arsenic	8.0	20	3.0	8.1	101.3	3.8	126.7	2.4	80.0
Barium	200		4.0	196	98.0	4.4	110.0	4.2	105.0
Beryllium	2.0		1.0	2.0	100.0	1.1	110.0	1.1	110.0
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.3	110.0	1.1	110.0	1.3	130.0
Calcium	5000	2000	1000	5080	101.6	1090	109.0	1080	108.0
Chromium	10		2.0	10.5	105.0	2.2	110.0	1.8	90.0
Cobalt	50		3.0	48.8	97.6	2.8	93.3	2.8	93.3
Copper	10		2.0	10.2	102.0				
Iron	100	500		106	106.0				
Lead	3.0	20	2.5	3.2	106.7				
Lithium	50								
Magnesium	5000	2000	100	5060	101.2			85.9	85.9
Manganese	15		3.0	16.1	107.3	3.3	110.0	3.3	110.0
Molybdenum	20								
Nickel	10		4.0	9.9	99.0	4.1	102.5	4.2	105.0
Phosphorus	50								
Potassium	5000		2000	4970	99.4	2190	109.5	2150	107.5
Selenium	10	20	5.0	9.1	91.0			3.8	76.0
Silicon	200								
Silver	5.0		2.0	4.1	82.0				
Sodium	5000		1000	4920	98.4	1080	108.0	1060	106.0
Strontium	10								
Sulfur	50								
Thallium	10		2.0	9.1	91.0	1.4	70.0	1.6	80.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	50.5	101.0	2.2	110.0	2.2	110.0
Zinc	20		10	20.8	104.0	11.7	117.0	11.8	118.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44135 Units: ug/l

Time:				14:01		14:48		15:10	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID2		CRID3	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium	10								

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44135 Units: ug/l

Time:				20:17		20:21	
Sample ID:	CRI	CRIA	CRID	CRI2		CRID4	
Metal	True	True	True	Results	% Rec	Results	% Rec
Aluminum	200	500	100	210	105.0	119	119.0
Antimony	6.0	20	3.0	4.7	78.3		
Arsenic	8.0	20	3.0	7.2	90.0	2.2	73.3
Barium	200		4.0	201	100.5	4.6	115.0
Beryllium	2.0		1.0	2.0	100.0	1.0	100.0
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0	3.3	110.0	1.2	120.0
Calcium	5000	2000	1000	5060	101.2	1080	108.0
Chromium	10		2.0	10.5	105.0	2.1	105.0
Cobalt	50		3.0	47.6	95.2	2.6	86.7
Copper	10		2.0	9.8	98.0		
Iron	100	500		101	101.0		
Lead	3.0	20	2.5	3.4	113.3		
Lithium	50						
Magnesium	5000	2000	100	4930	98.6	77.1	77.1
Manganese	15		3.0	16.0	106.7	3.4	113.3
Molybdenum	20						
Nickel	10		4.0	9.7	97.0	4.3	107.5
Phosphorus	50						
Potassium	5000		2000	4940	98.8	2120	106.0
Selenium	10	20	5.0	10.1	101.0		
Silicon	200						
Silver	5.0		2.0	4.6	92.0		
Sodium	5000		1000	5040	100.8	1090	109.0
Strontium	10						
Sulfur	50						
Thallium	10		2.0	8.8	88.0	2.3	115.0
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	50.4	100.8	1.9	95.0
Zinc	20		10	20.5	102.5	11.6	116.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44135 Units: ug/l

Time:				20:17		20:21	
Sample ID:	CRI	CRIA	CRID	CRI2		CRID4	
Metal	True	True	True	Results	% Rec	Results	% Rec
Zirconium	10						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44135 Units: ug/l

Time:			14:10		14:14		20:26		20:30	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	503000	100.6	519000	103.8	517000	103.4	520000	104.0
Antimony		1000	0.20		1060	106.0	-6.6		1050	105.0
Arsenic		1000	-0.80		1040	104.0	-0.90		1030	103.0
Barium		500	0.0		513	102.6	0.20		515	103.0
Beryllium		500	0.30		500	100.0	0.20		494	98.8
Bismuth		500	-0.90		527	105.4	-2.9		522	104.4
Boron		500	-1.6		498	99.6	-2.8		488	97.6
Cadmium		1000	0.40		1040	104.0	0.20		1030	103.0
Calcium	400000	400000	386000	96.5	391000	97.8	383000	95.8	391000	97.8
Chromium		500	-1.3		491	98.2	-1.2		484	96.8
Cobalt		500	1.1		495	99.0	1.3		490	98.0
Copper		500	1.4		513	102.6	1.2		517	103.4
Iron	200000	200000	191000	95.5	187000	93.5	186000	93.0	181000	90.5
Lead		1000	-1.2		990	99.0	3.2		998	99.8
Lithium		500	-5.0		517	103.4	-5.9		512	102.4
Magnesium	500000	500000	502000	100.4	507000	101.4	495000	99.0	496000	99.2
Manganese		500	-1.4		505	101.0	-2.7		505	101.0
Molybdenum		500	-1.5		495	99.0	-1.4		495	99.0
Nickel		1000	-3.4		988	98.8	-3.3		987	98.7
Phosphorus		500	-9.9		516	103.2	0.80		523	104.6
Potassium			-410		-370		-430		-410	
Selenium		1000	-0.90		1000	100.0	-6.8		1000	100.0
Silicon		500	-22		490	98.0	-21		475	95.0
Silver		1000	3.8		1050	105.0	-7.0		1050	105.0
Sodium			27.4		17.5		29.5		25.5	
Strontium		500	4.6		534	106.8	4.8		536	107.2
Sulfur		500	46.9		546	109.2	47.1		546	109.2
Thallium		1000	1.8		1090	109.0	-2.3		1060	106.0
Tin		500	-2.9		473	94.6	-3.4		463	92.6
Titanium		500	-0.80		515	103.0	-1.0		514	102.8
Tungsten		500	8.7		495	99.0	9.1		486	97.2
Vanadium		500	-0.90		494	98.8	-0.50		494	98.8
Zinc		1000	4.9		975	97.5	4.8		969	96.9

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040318M2.ICP Date Analyzed: 04/03/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44135 Units: ug/l

Time:			14:10		14:14		20:26		20:30	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	3.4		513	102.6	2.1		513	102.6

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:32	MA44142-STD1	1		STDA
09:36	MA44142-STD2	1		STDB
09:40	ZZZZZZ	1		
09:44	ZZZZZZ	1		
09:52	MA44142-ICV1	1		
10:02	MA44142-ICB1	1		
10:08	MA44142-ICV2	1		
10:21	MA44142-ICB2	1		
10:24	MA44142-ICCV1	1		
10:32	MA44142-CCB1	1		
10:36	MA44142-CRI1	1		
10:41	MA44142-CRID1	1		
10:45	MA44142-ICSA1	1		
10:50	MA44142-ICSAB1	1		
10:54	MA44142-HSTD1	1		
10:58	MA44142-HSTD2	1		
11:02	ZZZZZZ	1		
11:07	ZZZZZZ	1		
11:11	ZZZZZZ	1		
11:15	MA44142-CCV1	1		
11:19	MA44142-CCB2	1		
11:24	MA44142-CRID2	1		
11:28	ZZZZZZ	1		
11:33	ZZZZZZ	3		
11:37	ZZZZZZ	1		
11:41	ZZZZZZ	1		
11:45	MP6387-S1	2		
11:49	MP6387-S2	2		
11:54	JC62857-4	2		(sample used for QC only; not part of login JC62879)
11:58	MP6387-SD1	10		
12:02	MA44142-CCV2	1		
12:06	MA44142-CCB3	1		
12:11	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:15	ZZZZZZ	1		
12:19	ZZZZZZ	2		
12:24	ZZZZZZ	2		
12:28	ZZZZZZ	1		
12:32	ZZZZZZ	1		
12:37	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:45	ZZZZZZ	1		
12:50	MA44142-CCV3	1		
12:54	MA44142-CCB4	1		
12:58	ZZZZZZ	1		
13:02	ZZZZZZ	2		
13:06	ZZZZZZ	2		
13:10	ZZZZZZ	2		
13:15	ZZZZZZ	10		
13:19	ZZZZZZ	5		
13:24	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:32	MA44142-CCV4	1		
13:36	MA44142-CCB5	1		
13:41	MP6466-MB1	5		
13:45	MP6466-B1	5		
13:49	MP6466-S1	5		
13:53	MP6466-S2	5		
13:58	FA52915-1	5		(sample used for QC only; not part of login JC62879)
14:02	MP6466-SD1	25		
14:06	ZZZZZZ	1		
14:10	ZZZZZZ	10		
14:15	ZZZZZZ	10		
14:19	MA44142-CCV5	1		
14:23	MA44142-CCB6	1		
14:28	ZZZZZZ	1		
14:32	JC62879-3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:36	JC62879-6	5		
14:40	JC62879-10	5		
14:45	JC62879-17	3		
---------->	Last reportable sample/prep for job JC62879			
14:49	ZZZZZZ	1		
14:53	ZZZZZZ	1		
14:57	MP6401-S1	5		
15:01	MP6401-S2	5		
15:05	MA44142-CCV6	1		
15:10	MA44142-CCB7	1		
15:14	JC62909-1F	5		(sample used for QC only; not part of login JC62879)
15:18	MP6401-SD1	25		
15:23	MP6334-PS1	1		
15:27	MP6334-B3	1		
15:31	MP6334-B4	1		
15:35	ZZZZZZ	1		
15:39	MP6334-MB3	1		
15:44	MP6334-MB4	1		
15:48	ZZZZZZ	1		
15:52	MA44142-CCV7	1		
15:56	MA44142-CCB8	1		
16:01	ZZZZZZ	1		
16:05	ZZZZZZ	1		
16:10	ZZZZZZ	1		
16:14	ZZZZZZ	50		
16:18	ZZZZZZ	1		
16:22	ZZZZZZ	1		
16:26	ZZZZZZ	2		
16:30	ZZZZZZ	1		
16:35	ZZZZZZ	1		
16:39	MA44142-CCV8	1		
16:43	MA44142-CCB9	1		
16:47	ZZZZZZ	1		
16:51	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:56	ZZZZZZ	1		
17:00	MP6465-S1	2		
17:04	MP6465-S2	2		
17:08	ZZZZZZ	1		
17:12	ZZZZZZ	1		
17:16	MA44142-CCV9	1		
17:21	MA44142-CCB10	1		
17:25	MA44142-CRID3	1		
17:29	MA44142-CRI2	1		
17:34	MA44142-ICSA2	1		
17:38	MA44142-ICSAB2	1		
17:42	MA44142-CCV10	1		
17:46	MA44142-CCB11	1		
---------->	Last reportable CCB for job JC62879			
17:51	MP6468-MB1	1		
17:55	MP6468-B1	1		
17:59	MP6468-S1	1		
18:03	MP6468-S2	1		
18:07	JC63128-1	1		(sample used for QC only; not part of login JC62879)
18:12	MP6468-SD1	5		
18:16	ZZZZZZ	1		
18:20	ZZZZZZ	1		
18:24	ZZZZZZ	1		
18:29	MA44142-CCV11	1		
18:33	MA44142-CCB12	1		
18:37	ZZZZZZ	1		
18:41	ZZZZZZ	1		
18:46	ZZZZZZ	1		
18:50	ZZZZZZ	1		
18:54	ZZZZZZ	1		
18:59	ZZZZZZ	1		
19:03	ZZZZZZ	1		
19:07	ZZZZZZ	1		
19:11	MA44142-CCV12	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:16	MA44142-CCB13	1		
19:20	ZZZZZZ	1		
19:24	ZZZZZZ	1		
19:29	ZZZZZZ	1		
19:33	ZZZZZZ	1		
19:37	ZZZZZZ	1		
19:42	ZZZZZZ	1		
19:46	ZZZZZZ	1		
19:50	MA44142-CCV13	1		
19:54	MA44142-CCB14	1		
19:59	MA44142-CRID4	1		
20:03	MA44142-CRI3	1		
20:07	MA44142-ICSA3	1		
20:12	MA44142-ICSAB3	1		
20:16	MA44142-CCV14	1		
20:20	MA44142-CCB15	1		
20:25	ZZZZZZ	1		
20:29	ZZZZZZ	1		
20:33	ZZZZZZ	1		
20:38	ZZZZZZ	1		
20:42	ZZZZZZ	1		
20:46	ZZZZZZ	1		
20:51	ZZZZZZ	1		
20:55	ZZZZZZ	1		
21:00	ZZZZZZ	1		
21:04	ZZZZZZ	1		
21:08	ZZZZZZ	1		
21:13	ZZZZZZ	1		
21:17	MA44142-CCV15	1		
21:21	MA44142-CCB16	1		
21:26	ZZZZZZ	5		
21:30	ZZZZZZ	5		
21:34	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:39	ZZZZZZ	5		
21:43	ZZZZZZ	5		
21:48	ZZZZZZ	5		
21:52	ZZZZZZ	5		
21:56	ZZZZZZ	5		
22:01	ZZZZZZ	5		
22:05	MA44142-CCV16	1		
22:09	MA44142-CCB17	1		
22:13	MP6414-S1	10		
22:18	MP6414-S2	10		
22:22	JC63032-3	10		(sample used for QC only; not part of login JC62879)
22:26	MP6414-SD1	50		
22:31	MA44142-CCV17	1		
22:35	MA44142-CCB18	1		
22:39	MA44142-CRI4	1		
22:43	MA44142-CRID5	1		
22:48	MP6477-MB1	1		
22:52	MP6477-B1	1		
22:56	MP6477-S1	1		
23:00	MP6477-S2	1		
23:04	JC63299-1	1		(sample used for QC only; not part of login JC62879)
23:09	MP6477-SD1	5		
23:13	MA44142-CCV18	1		
23:17	MA44142-CCB19	1		
23:21	ZZZZZZ	1		
23:26	ZZZZZZ	1		
23:30	ZZZZZZ	1		
23:34	ZZZZZZ	1		
23:38	ZZZZZZ	1		
23:43	ZZZZZZ	1		
23:47	ZZZZZZ	1		
23:51	ZZZZZZ	1		
23:56	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:00	MA44142-CCV19	1		
00:04	MA44142-CCB20	1		
00:08	MP6482-MB1	1		
00:13	MP6482-B1	1		
00:17	MP6482-S1	1		S high
00:21	MP6482-S2	1		S high
00:25	JC63425-1	1		(sample used for QC only; not part of login JC62879)
00:29	MP6482-SD1	5		S high
00:33	ZZZZZZ	1		
00:38	ZZZZZZ	1		
00:42	ZZZZZZ	1		
00:47	ZZZZZZ	1		
00:51	MA44142-CCV20	1		
00:55	MA44142-CCB21	1		
00:59	ZZZZZZ	1		
01:04	ZZZZZZ	1		
01:08	ZZZZZZ	1		
01:12	ZZZZZZ	1		
01:16	ZZZZZZ	1		
01:21	MA44142-CCV21	1		
01:25	MA44142-CCB22	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:32	MA44142-STD1	3998 R	108650 R	14838 R	9224 R
09:36	MA44142-STD2	3757	101720	14664	7970
09:40	ZZZZZZ	3842	104120	14733	8282
09:44	ZZZZZZ	3952	109080	14890	9137
09:52	MA44142-ICV1	No results reported for the elements associated with this internal standard.			
10:02	MA44142-ICB1	No results reported for the elements associated with this internal standard.			
10:08	MA44142-ICV2	3836	104420	14837	8285
10:21	MA44142-ICB2	3977	109420	14907	9206
10:24	MA44142-ICCV1	3852	105050	14828	8317
10:32	MA44142-CCB1	3950	108750	15006	9148
10:36	MA44142-CRI1	3924	107940	15019	8980
10:41	MA44142-CRID1	3933	108400	14947	9080
10:45	MA44142-ICSA1	3510	94539	14332	7177
10:50	MA44142-ICSAB1	3513	94632	14358	7184
10:54	MA44142-HSTD1	3888	106930	15025	8869
10:58	MA44142-HSTD2	3568	96550	14457	7305
11:02	ZZZZZZ	3830	105560	14885	8899
11:07	ZZZZZZ	3842	107910	15024	9041
11:11	ZZZZZZ	3886	107860	14979	9027
11:15	MA44142-CCV1	3741	102900	14777	8115
11:19	MA44142-CCB2	3879	107210	14867	9011
11:24	MA44142-CRID2	3882	106480	14868	8990
11:28	ZZZZZZ	3889	107720	14912	9024
11:33	ZZZZZZ	3739	101460	14823	8100
11:37	ZZZZZZ	3895	108110	15052	9049
11:41	ZZZZZZ	3813	104790	14983	8352
11:45	MP6387-S1	3803	104480	14850	8347
11:49	MP6387-S2	3818	104540	14894	8375
11:54	JC62857-4	3848	105650	14788	8658
11:58	MP6387-SD1	3909	106710	14957	8953
12:02	MA44142-CCV2	3819	103400	14823	8166
12:06	MA44142-CCB3	3955	108120	15043	9071
12:11	ZZZZZZ	3860	105370	14934	8597

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:15	ZZZZZZ	3936	108200	15035	9042
12:19	ZZZZZZ	3736	102320	14904	8250
12:24	ZZZZZZ	3715	101340	14761	8103
12:28	ZZZZZZ	4046	110030	15300	9264
12:32	ZZZZZZ	4051	109470	15298	9271
12:37	ZZZZZZ	3986	107120	15029	9094
12:41	ZZZZZZ	4059	109530	15415	9296
12:45	ZZZZZZ	3963	108340	15212	9078
12:50	MA44142-CCV3	3852	103130	14886	8204
12:54	MA44142-CCB4	3972	107530	15033	9089
12:58	ZZZZZZ	3867	104270	15083	8388
13:02	ZZZZZZ	3532	93566	14691	7067
13:06	ZZZZZZ	3545	94133	14609	7097
13:10	ZZZZZZ	3527	93458	14667	7169
13:15	ZZZZZZ	3792	101050	14965	8126
13:19	ZZZZZZ	3851	103910	14916	8523
13:24	ZZZZZZ	3971	108260	14901	9109
13:28	ZZZZZZ	3962	107720	15145	8788
13:32	MA44142-CCV4	3851	103720	14770	8233
13:36	MA44142-CCB5	3960	107910	14918	9094
13:41	MP6466-MB1	3347	87449	14013	6959
13:45	MP6466-B1	3363	88551	14049	6929
13:49	MP6466-S1	3675	98149	14649	7734
13:53	MP6466-S2	3656	98394	14662	7700
13:58	FA52915-1	3561	96104	14368	7671
14:02	MP6466-SD1	3801	102920	14703	8450
14:06	ZZZZZZ	3909	108280	15020	9083
14:10	ZZZZZZ	3818	104350	14781	8522
14:15	ZZZZZZ	3800	104310	14789	8492
14:19	MA44142-CCV5	3778	102590	14722	8192
14:23	MA44142-CCB6	3906	108110	14945	9087
14:28	ZZZZZZ	3877	108260	14916	9047
14:32	JC62879-3	3552	99150	14413	7845

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:36	JC62879-6	3759	103920	14568	8526
14:40	JC62879-10	3824	105880	14766	8768
14:45	JC62879-17	3682	102330	14509	8274
14:49	ZZZZZZ	3868	108030	14904	9049
14:53	ZZZZZZ	3778	104730	14775	8358
14:57	MP6401-S1	3741	103190	14363	8321
15:01	MP6401-S2	3746	103740	14608	8342
15:05	MA44142-CCV6	3752	103140	14490	8178
15:10	MA44142-CCB7	3896	107830	14784	9087
15:14	JC62909-1F	3744	103260	14559	8396
15:18	MP6401-SD1	3838	106290	14717	8844
15:23	MP6334-PS1	4022	113700	17209	7761
15:27	MP6334-B3	3747	103730	14446	8315
15:31	MP6334-B4	3743	103890	14520	8298
15:35	ZZZZZZ	3844	108040	14826	9015
15:39	MP6334-MB3	3835	107840	14881	9002
15:44	MP6334-MB4	3848	108270	14896	9036
15:48	ZZZZZZ	3843	108050	14938	9026
15:52	MA44142-CCV7	3750	103240	14584	8171
15:56	MA44142-CCB8	3882	108440	14726	9083
16:01	ZZZZZZ	3836	108020	14768	9018
16:05	ZZZZZZ	3865	108450	14847	9049
16:10	ZZZZZZ	3766	104580	14833	8357
16:14	ZZZZZZ	3741	102720	14587	8349
16:18	ZZZZZZ	3850	107610	14857	9012
16:22	ZZZZZZ	3728	103230	14428	8279
16:26	ZZZZZZ	3790	105110	14712	8256
16:30	ZZZZZZ	3855	107640	14677	9034
16:35	ZZZZZZ	3721	103030	14350	8278
16:39	MA44142-CCV8	3742	103160	14572	8189
16:43	MA44142-CCB9	3888	108310	14683	9074
16:47	ZZZZZZ	3924	107820	15185	8385
16:51	ZZZZZZ	3832	107060	14466	8991

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:56	ZZZZZZ	3715	102650	14192	8252
17:00	MP6465-S1	3780	104090	14659	8359
17:04	MP6465-S2	3807	104500	14744	8366
17:08	ZZZZZZ	3904	105900	14828	8370
17:12	ZZZZZZ	3863	106030	14773	8363
17:16	MA44142-CCV9	3764	103090	14356	8209
17:21	MA44142-CCB10	3914	108280	14626	9146
17:25	MA44142-CRID3	3874	107660	14433	9027
17:29	MA44142-CRI2	3847	106630	14424	8889
17:34	MA44142-ICSA2	3462	94082	14198	7177
17:38	MA44142-ICSAB2	3448	93782	13835	7158
17:42	MA44142-CCV10	3760	103330	14267	8209
17:46	MA44142-CCB11	3908	108280	14524	9130
17:51	MP6468-MB1	3874	108220	14579	9085
17:55	MP6468-B1	3781	104620	14484	8404
17:59	MP6468-S1	3671	101600	14279	7924
18:03	MP6468-S2	3658	100970	14129	7879
18:07	JC63128-1	3659	101970	14168	8201
18:12	MP6468-SD1	3833	106180	14287	8819
18:16	ZZZZZZ	3707	103180	14205	8358
18:20	ZZZZZZ	3645	100600	14124	8101
18:24	ZZZZZZ	3698	102840	14149	8321
18:29	MA44142-CCV11	3788	103590	14197	8250
18:33	MA44142-CCB12	3936	108380	14521	9182
18:37	ZZZZZZ	3658	100910	14122	8132
18:41	ZZZZZZ	3910	108480	14469	9152
18:46	ZZZZZZ	3684	102230	14216	8273
18:50	ZZZZZZ	3714	103550	14205	8384
18:54	ZZZZZZ	3664	101240	14104	8160
18:59	ZZZZZZ	3680	103620	14160	8290
19:03	ZZZZZZ	3685	101500	14187	8202
19:07	ZZZZZZ	3894	108430	14430	9118
19:11	MA44142-CCV12	3788	103570	14215	8269

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:16	MA44142-CCB13	3941	108640	14320	9202
19:20	ZZZZZZ	3392	91583	13609	7113
19:24	ZZZZZZ	3322	90139	13586	6867
19:29	ZZZZZZ	3573	98408	13681	7708
19:33	ZZZZZZ	3326	90649	13562	6964
19:37	ZZZZZZ	3925	109230	14441	9181
19:42	ZZZZZZ	3742	102280	14203	8232
19:46	ZZZZZZ	3919	109260	14363	9174
19:50	MA44142-CCV13	3810	103780	14138	8293
19:54	MA44142-CCB14	3953	108830	14340	9205
19:59	MA44142-CRID4	3929	108310	14270	9133
20:03	MA44142-CRI3	3891	107270	14157	8973
20:07	MA44142-ICSA3	3514	95014	13617	7260
20:12	MA44142-ICSAB3	3533	95440	13610	7292
20:16	MA44142-CCV14	3815	103970	14032	8297
20:20	MA44142-CCB15	3962	109120	14240	9225
20:25	ZZZZZZ	3960	109010	14205	9193
20:29	ZZZZZZ	3960	109300	14290	9201
20:33	ZZZZZZ	3958	108790	14188	9187
20:38	ZZZZZZ	3981	109570	14324	9293
20:42	ZZZZZZ	3988	109230	14318	9241
20:46	ZZZZZZ	3991	109600	14278	9291
20:51	ZZZZZZ	3607	97905	13536	7879
20:55	ZZZZZZ	4083	102850	14533	8229
21:00	ZZZZZZ	3644	99455	13699	7984
21:04	ZZZZZZ	3984	109150	14204	9258
21:08	ZZZZZZ	3970	108570	14126	9251
21:13	ZZZZZZ	4005	109930	14287	9294
21:17	MA44142-CCV15	3862	104850	14023	8389
21:21	MA44142-CCB16	4024	110060	14357	9339
21:26	ZZZZZZ	3778	101850	14044	8190
21:30	ZZZZZZ	3801	102380	13998	8131
21:34	ZZZZZZ	3785	101670	13980	8157

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:39	ZZZZZZ	3795	102110	14083	8191
21:43	ZZZZZZ	3795	101790	13999	8199
21:48	ZZZZZZ	3783	101760	13938	8160
21:52	ZZZZZZ	3800	101740	14045	8200
21:56	ZZZZZZ	3814	102120	14002	8245
22:01	ZZZZZZ	3803	101830	13978	8199
22:05	MA44142-CCV16	3900	105520	14060	8446
22:09	MA44142-CCB17	4059	111120	14167	9400
22:13	MP6414-S1	3852	103910	14100	8300
22:18	MP6414-S2	3858	104070	14050	8331
22:22	JC63032-3	3854	103520	14147	8349
22:26	MP6414-SD1	3983	107630	14162	8957
22:31	MA44142-CCV17	3939	106370	14211	8512
22:35	MA44142-CCB18	4070	110890	14285	9414
22:39	MA44142-CRI4	4016	109310	14208	9193
22:43	MA44142-CRID5	4048	110550	14164	9357
22:48	MP6477-MB1	4139	113930	14767	9656
22:52	MP6477-B1	4054	110620	14753	8951
22:56	MP6477-S1	3909	107300	14599	8436
23:00	MP6477-S2	3905	107070	14633	8431
23:04	JC63299-1	3935	108460	14609	8746
23:09	MP6477-SD1	3984	108730	14332	9055
23:13	MA44142-CCV18	3923	106110	14094	8495
23:17	MA44142-CCB19	4074	111140	14311	9430
23:21	ZZZZZZ	3920	107160	14602	8635
23:26	ZZZZZZ	3815	104170	14437	8279
23:30	ZZZZZZ	3966	108730	14575	8837
23:34	ZZZZZZ	4007	110030	14690	8982
23:38	ZZZZZZ	3778	108840	14503	8845
23:43	ZZZZZZ	3747	108030	14466	8747
23:47	ZZZZZZ	3910	109120	14592	8943
23:51	ZZZZZZ	3963	109750	14561	8994
23:56	ZZZZZZ	3888	106700	14404	8582

INTERNAL STANDARD SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
Analyst: Run ID: MA44142
Parameters: As,Ca,Pb,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:00	MA44142-CCV19	3913	105870	14116	8481
00:04	MA44142-CCB20	4066	111160	14212	9420
00:08	MP6482-MB1	4137	113750	14667	9656
00:13	MP6482-B1	4041	110610	14654	8922
00:17	MP6482-S1	3965	108740	14921	8324
00:21	MP6482-S2	3968	108680	14886	8340
00:25	JC63425-1	4007	110560	14901	8582
00:29	MP6482-SD1	4043	109920	14243	9046
00:33	ZZZZZZ	3770	101050	14205	7971
00:38	ZZZZZZ	3961	107720	14558	8660
00:42	ZZZZZZ	3704	102100	14135	8029
00:47	ZZZZZZ	3821	104970	14219	8371
00:51	MA44142-CCV20	3930	106100	14019	8516
00:55	MA44142-CCB21	4071	111220	14092	9426
00:59	ZZZZZZ	3848	105520	14220	8403
01:04	ZZZZZZ	3831	105040	14312	8365
01:08	ZZZZZZ	4023	109990	14984	8562
01:12	ZZZZZZ	3851	105350	14358	8418
01:16	ZZZZZZ	3977	108890	14537	8942
01:21	MA44142-CCV21	3927	105910	13976	8508
01:25	MA44142-CCB22	4073	111470	14236	9435

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time: / Sample ID:			10:21 ICB2		10:32 CCB1		11:19 CCB2		12:06 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	0.80	<3.0	0.20	<3.0	0.70	<3.0	-0.50	<3.0
Barium	200	.5	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9	anr							
Cadmium	3.0	.3	anr							
Calcium	5000	8.7	-0.70	<5000	-1.3	<5000	-0.40	<5000	-1.7	<5000
Chromium	10	.6	anr							
Cobalt	50	.5	anr							
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	-0.30	<3.0	0.70	<3.0	0.40	<3.0	-0.10	<3.0
Lithium	50	2.8								
Magnesium	5000	33	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.5	anr							
Phosphorus	50	1.7								
Potassium	10000	68	anr							
Selenium	10	3.8	anr							
Silicon	200	2.1								
Silver	10	.5	anr							
Sodium	10000	15	anr							
Strontium	10	.2								
Sulfur	50	20								
Thallium	2.0	1.6	0.0	<2.0	-0.30	<2.0	0.50	<2.0	0.50	<2.0
Tin	10	1	anr							
Titanium	10	.7	anr							
Tungsten	50	1.8								
Vanadium	50	.4	anr							
Zinc	20	.3	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time:			10:21		10:32		11:19		12:06	
Sample ID:			ICB2		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time:			12:54		13:36		14:23		15:10	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	-0.90	<3.0	0.30	<3.0	0.10	<3.0	0.20	<3.0
Barium	200	.5	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9	anr							
Cadmium	3.0	.3	anr							
Calcium	5000	8.7	-5.8	<5000	0.20	<5000	2.6	<5000	3.6	<5000
Chromium	10	.6	anr							
Cobalt	50	.5	anr							
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	0.80	<3.0	0.0	<3.0	0.40	<3.0	-0.50	<3.0
Lithium	50	2.8								
Magnesium	5000	33	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.5	anr							
Phosphorus	50	1.7								
Potassium	10000	68	anr							
Selenium	10	3.8	anr							
Silicon	200	2.1								
Silver	10	.5	anr							
Sodium	10000	15	anr							
Strontium	10	.2								
Sulfur	50	20								
Thallium	2.0	1.6	0.0	<2.0	0.60	<2.0	0.80	<2.0	0.70	<2.0
Tin	10	1	anr							
Titanium	10	.7	anr							
Tungsten	50	1.8								
Vanadium	50	.4	anr							
Zinc	20	.3	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time: / Sample ID:			12:54 CCB4		13:36 CCB5		14:23 CCB6		15:10 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time: / Sample ID:			15:56 CCB8		16:43 CCB9		17:21 CCB10		17:46 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	0.80	<3.0	2.5	<3.0	0.30	<3.0	1.3	<3.0
Barium	200	.5	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9	anr							
Cadmium	3.0	.3	anr							
Calcium	5000	8.7	7.0	<5000	10.0	<5000	12.2	<5000	15.9	<5000
Chromium	10	.6	anr							
Cobalt	50	.5	anr							
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	0.50	<3.0	-0.80	<3.0	-0.40	<3.0	0.0	<3.0
Lithium	50	2.8								
Magnesium	5000	33	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.5	anr							
Phosphorus	50	1.7								
Potassium	10000	68	anr							
Selenium	10	3.8	anr							
Silicon	200	2.1								
Silver	10	.5	anr							
Sodium	10000	15	anr							
Strontium	10	.2								
Sulfur	50	20								
Thallium	2.0	1.6	0.50	<2.0	0.80	<2.0	1.3	<2.0	1.6	<2.0
Tin	10	1	anr							
Titanium	10	.7	anr							
Tungsten	50	1.8								
Vanadium	50	.4	anr							
Zinc	20	.3	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44142 Units: ug/l

Time: / Sample ID:			15:56 CCB8		16:43 CCB9		17:21 CCB10		17:46 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:24	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	2000	1980	99.0
Barium	anr		
Beryllium	anr		
Bismuth			
Boron	anr		
Cadmium	anr		
Calcium	40000	40100	100.3
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	2000	2000	100.0
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	anr		
Silicon			
Silver	anr		
Sodium	anr		
Strontium			
Sulfur			
Thallium	2000	2030	101.5
Tin	anr		
Titanium	anr		
Tungsten			
Vanadium	anr		
Zinc	anr		

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:24	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:08			11:15			12:02	
Sample ID:	ICV	ICV2		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1990	99.5	2000	2050	102.5	2000	1950	97.5
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	40000	40000	100.0	40000	40700	101.8	40000	38900	97.3
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2020	101.0	2000	2050	102.5	2000	2050	102.5
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	2000	2030	101.5	2000	2070	103.5	2000	2150	107.5
Tin	anr								
Titanium	anr								
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:08			11:15			12:02	
Sample ID:	ICV	ICV2		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		12:50			13:32			14:19	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1940	97.0	2000	1980	99.0	2000	2040	102.0
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	40000	38700	96.8	40000	39400	98.5	40000	40700	101.8
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2070	103.5	2000	2070	103.5	2000	2040	102.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	2000	2180	109.0	2000	2140	107.0	2000	2050	102.5
Tin	anr								
Titanium	anr								
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		12:50			13:32			14:19	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		15:05			15:52			16:39	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2040	102.0	2000	2060	103.0	2000	2090	104.5
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	40000	41100	102.8	40000	41300	103.3	40000	41500	103.8
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	2000	2000	100.0	2000	1980	99.0	2000	1970	98.5
Tin	anr								
Titanium	anr								
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		15:05			15:52			16:39	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		17:16			17:42	
Sample ID:	CCV	CCV9		CCV	CCV10	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	2000	2070	103.5	2000	2080	104.0
Barium	anr					
Beryllium	anr					
Bismuth						
Boron	anr					
Cadmium	anr					
Calcium	40000	41700	104.3	40000	41600	104.0
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	2030	101.5	2000	2040	102.0
Lithium						
Magnesium	anr					
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium	anr					
Selenium	anr					
Silicon						
Silver	anr					
Sodium	anr					
Strontium						
Sulfur						
Thallium	2000	1950	97.5	2000	1950	97.5
Tin	anr					
Titanium	anr					
Tungsten						
Vanadium	anr					
Zinc	anr					

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44142 Units: ug/l

Time:		17:16			17:42	
Sample ID:	CCV	CCV9		CCV	CCV10	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:54			10:58	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	anr					
Arsenic	5000	4990	99.8			
Barium	anr					
Beryllium	anr					
Bismuth						
Boron	anr					
Cadmium	anr					
Calcium				150000	148000	98.7
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron						
Lead	5000	5080	101.6			
Lithium						
Magnesium						
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Sulfur						
Thallium	5000	5220	104.4			
Tin	anr					
Titanium	anr					
Tungsten						
Vanadium	anr					
Zinc	anr					

HIGH STANDARD CHECK SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44142 Units: ug/l

Time:		10:54			10:58	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44142 Units: ug/l

Time:				10:36		10:41		11:24	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRID2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	anr					
Arsenic	8.0	20	3.0	8.0	100.0	3.1	103.3	3.6	120.0
Barium	200		4.0	anr					
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10	anr					
Cadmium	3.0		1.0	anr					
Calcium	5000	2000	1000	5220	104.4	1110	111.0	1080	108.0
Chromium	10		2.0	anr					
Cobalt	50		3.0	anr					
Copper	10		2.0	anr					
Iron	100	500		anr					
Lead	3.0	20	2.5	3.1	103.3				
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20			anr					
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	anr					
Silicon	200								
Silver	5.0		2.0	anr					
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50								
Thallium	10		2.0	11.0	110.0	2.1	105.0	2.2	110.0
Tin	10			anr					
Titanium	10			anr					
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44142 Units: ug/l

Time:				10:36		10:41		11:24	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRID2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium	10								

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44142 Units: ug/l

Time:				17:25		17:29	
Sample ID:	CRI	CRIA	CRID	CRID3		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec
Aluminum	200	500	100	anr			
Antimony	6.0	20	3.0				
Arsenic	8.0	20	3.0	3.8	126.7	8.8	110.0
Barium	200		4.0	anr			
Beryllium	2.0		1.0	anr			
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0	anr			
Calcium	5000	2000	1000	1140	114.0	5400	108.0
Chromium	10		2.0	anr			
Cobalt	50		3.0	anr			
Copper	10		2.0				
Iron	100	500					
Lead	3.0	20	2.5			2.7	90.0
Lithium	50						
Magnesium	5000	2000	100	anr			
Manganese	15		3.0	anr			
Molybdenum	20						
Nickel	10		4.0	anr			
Phosphorus	50						
Potassium	5000		2000	anr			
Selenium	10	20	5.0	anr			
Silicon	200						
Silver	5.0		2.0				
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50						
Thallium	10		2.0	2.6	130.0	10.6	106.0
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	anr			
Zinc	20		10	anr			

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44142 Units: ug/l

Time:				17:25		17:29	
Sample ID:	CRI	CRIA	CRID	CRID3		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec
Zirconium	10						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44142 Units: ug/l

Time:			10:45		10:50		17:34		17:38	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	518000	103.6	524000	104.8	518000	103.6	527000	105.4
Antimony		1000	-6.3		1090	109.0	-4.0		1110	111.0
Arsenic		1000	2.0		1080	108.0	0.0		1110	111.0
Barium		500	-0.20		531	106.2	-0.30		533	106.6
Beryllium		500	0.20		513	102.6	0.20		500	100.0
Bismuth		500	-8.2		544	108.8	-4.6		548	109.6
Boron		500	-2.4		515	103.0	-1.4		503	100.6
Cadmium		1000	0.10		1070	107.0	0.10		1090	109.0
Calcium	400000	400000	393000	98.3	398000	99.5	398000	99.5	405000	101.3
Chromium		500	-3.0		502	100.4	-2.7		496	99.2
Cobalt		500	-1.1		509	101.8	-0.60		492	98.4
Copper		500	5.3		534	106.8	3.1		523	104.6
Iron	200000	200000	195000	97.5	192000	96.0	190000	95.0	191000	95.5
Lead		1000	1.0		1010	101.0	1.1		995	99.5
Lithium		500	-8.8		535	107.0	-9.5		520	104.0
Magnesium	500000	500000	514000	102.8	518000	103.6	505000	101.0	522000	104.4
Manganese		500	-4.8		514	102.8	-3.3		509	101.8
Molybdenum		500	-1.1		510	102.0	-1.4		506	101.2
Nickel		1000	-3.2		1020	102.0	-2.6		1010	101.0
Phosphorus		500	-5.7		531	106.2	-18		538	107.6
Potassium			-420		-450		-510		-460	
Selenium		1000	3.6		1030	103.0	-0.70		1040	104.0
Silicon		500	-15		492	98.4	-16		476	95.2
Silver		1000	-0.40		1070	107.0	2.9		1070	107.0
Sodium			32.5		34.3		22.9		33.8	
Strontium		500	4.9		551	110.2	4.4		548	109.6
Sulfur		500	53.7		574	114.8	54.9		569	113.8
Thallium		1000	-0.90		1110	111.0	-0.70		1030	103.0
Tin		500	-2.0		486	97.2	-1.4		486	97.2
Titanium		500	-0.70		529	105.8	-0.90		528	105.6
Tungsten		500	9.0		507	101.4	8.5		507	101.4
Vanadium		500	-0.20		509	101.8	-0.90		506	101.2
Zinc		1000	4.2		998	99.8	4.1		997	99.7

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SE040418M1.ICP Date Analyzed: 04/04/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44142 Units: ug/l

Time:			10:45		10:50		17:34		17:38	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	1.2		529	105.8	2.2		530	106.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6364 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/27/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.059	.13	0.062	<0.20

Associated samples MP6364: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6364 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/27/18

Metal	JC62879-9 Original	MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0	5.6 (a)	6	93.3	75-125

Associated samples MP6364: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated sample detection limit due to difficult sample matrix.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6364 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/27/18

Metal	JC62879-9 Original	MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	5.4 (a)	6	90.0	3.6	20

Associated samples MP6364: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated sample detection limit due to difficult sample matrix.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6364 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/27/18

Metal	JC62879-11 Original	MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0	1.9	2	95.0	75-125

Associated samples MP6364: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6364 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/27/18

Metal	JC62879-11 Original	MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	1.9	2	95.0	0.0	20

Associated samples MP6364: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6364
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 03/27/18

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	1.9	2	95.0	80-120

Associated samples MP6364: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:				03/29/18		03/29/18	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	19	33	1.9	<200	-2.1	<200
Antimony	6.0	2.4	4.3	1.1	<6.0	1.1	<6.0
Arsenic	3.0	1.2	2.7	1.7	<3.0	1.5	<3.0
Barium	200	.6	1.3	0.60	<200	-0.10	<200
Beryllium	1.0	.2	.4	-0.10	<1.0	0.0	<1.0
Bismuth	20	3.2	5				
Boron	100	1.5	13				
Cadmium	3.0	.4	.7	0.20	<3.0	0.20	<3.0
Calcium	5000	5.5	29	3.2	<5000	2.7	<5000
Chromium	10	.7	.85	0.40	<10	0.0	<10
Cobalt	50	.4	.72	-0.20	<50	-0.10	<50
Copper	10	1.1	3.2	2.5	<10	0.40	<10
Iron	100	3.5	32	1.1	<100	4.0	<100
Lead	3.0	2.2	2.6	-0.50	<3.0	0.10	<3.0
Lithium	50	3.4	15				
Magnesium	5000	25	64	-0.30	<5000	-20	<5000
Manganese	15	.14	.42	0.10	<15	0.10	<15
Molybdenum	20	.4	1.4				
Nickel	10	.5	1.3	-0.40	<10	0.10	<10
Phosphorus	50	2	13				
Potassium	10000	60	230	39.8	<10000	-4.2	<10000
Selenium	10	3.7	6.6	-1.0	<10	1.8	<10
Silicon	200	1.8	45				
Silver	10	.7	3.1	0.70	<10	0.20	<10
Sodium	10000	35	130	42.8	<10000	58.4	<10000
Strontium	10	.2	.3				
Sulfur	50	3.1	15				
Thallium	2.0	1.8	1.6	-0.30	<2.0	-0.90	<2.0
Tin	10	.9	2.4				
Titanium	10	.7	1.8				
Tungsten	50	2.2	14				
Vanadium	50	.8	1.3	0.0	<50	-0.10	<50
Zinc	20	.2	4	2.5	<20	0.80	<20

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date:				03/29/18		03/29/18	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Zirconium	10	.3	2				

Associated samples MP6399: JC62879-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-9 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	0.00	120000	125000	96.0	75-125
Antimony	0.0	9870	10000	98.7	75-125
Arsenic	0.0	9830	10000	98.3	75-125
Barium	403	10100	10000	97.0	75-125
Beryllium	0.0	9790	10000	97.9	75-125
Bismuth					
Boron	anr				
Cadmium	0.0	9760	10000	97.6	75-125
Calcium	63500	178000	125000	91.6	75-125
Chromium	0.0	9940	10000	99.4	75-125
Cobalt	0.0	9990	10000	99.9	75-125
Copper	0.0	9920	10000	99.2	75-125
Iron	165000	269000	125000	83.2	75-125
Lead	0.0	10000	10000	100.0	75-125
Lithium					
Magnesium	26800	145000	125000	94.6	75-125
Manganese	6640	16100	10000	94.6	75-125
Molybdenum					
Nickel	0.0	10100	10000	101.0	75-125
Phosphorus					
Potassium	2470	122000	125000	95.6	75-125
Selenium	0.00	9780	10000	97.8	75-125
Silicon					
Silver	0.0	1200	1250	96.0	75-125
Sodium	79000	192000	125000	90.4	75-125
Strontium					
Sulfur					
Thallium	0.0	10200	10000	102.0	75-125
Tin					
Titanium					
Tungsten					
Vanadium	5.5	9890	10000	98.8	75-125
Zinc	4.0	9850	10000	98.5	75-125

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-9 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP6399: JC62879-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-9 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	0.00	120000	125000	96.0	0.0	20
Antimony	0.0	9500	10000	95.0	3.8	20
Arsenic	0.0	9470	10000	94.7	3.7	20
Barium	403	10100	10000	97.0	0.0	20
Beryllium	0.0	9660	10000	96.6	1.3	20
Bismuth						
Boron	anr					
Cadmium	0.0	9350	10000	93.5	4.3	20
Calcium	63500	182000	125000	94.8	2.2	20
Chromium	0.0	9590	10000	95.9	3.6	20
Cobalt	0.0	9740	10000	97.4	2.5	20
Copper	0.0	9640	10000	96.4	2.9	20
Iron	165000	270000	125000	84.0	0.4	20
Lead	0.0	9930	10000	99.3	0.7	20
Lithium						
Magnesium	26800	150000	125000	98.6	3.4	20
Manganese	6640	15500	10000	88.6	3.8	20
Molybdenum						
Nickel	0.0	10000	10000	100.0	1.0	20
Phosphorus						
Potassium	2470	121000	125000	94.8	0.8	20
Selenium	0.00	9540	10000	95.4	2.5	20
Silicon						
Silver	0.0	1150	1250	92.0	4.3	20
Sodium	79000	194000	125000	92.0	1.0	20
Strontium						
Sulfur						
Thallium	0.0	10100	10000	101.0	1.0	20
Tin						
Titanium						
Tungsten						
Vanadium	5.5	9340	10000	93.3	5.7	20
Zinc	4.0	9540	10000	95.4	3.2	20

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-9 Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zirconium					

Associated samples MP6399: JC62879-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			03/29/18				03/29/18	
Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	23800	25000	95.2	80-120	24100	25000	96.4	80-120
Antimony	1980	2000	99.0	80-120	1930	2000	96.5	80-120
Arsenic	1960	2000	98.0	80-120	1920	2000	96.0	80-120
Barium	1950	2000	97.5	80-120	1940	2000	97.0	80-120
Beryllium	1960	2000	98.0	80-120	1950	2000	97.5	80-120
Bismuth								
Boron	anr							
Cadmium	1980	2000	99.0	80-120	1920	2000	96.0	80-120
Calcium	24200	25000	96.8	80-120	24400	25000	97.6	80-120
Chromium	1960	2000	98.0	80-120	1930	2000	96.5	80-120
Cobalt	2010	2000	100.5	80-120	1970	2000	98.5	80-120
Copper	1950	2000	97.5	80-120	1920	2000	96.0	80-120
Iron	24100	25000	96.4	80-120	24300	25000	97.2	80-120
Lead	2020	2000	101.0	80-120	1980	2000	99.0	80-120
Lithium								
Magnesium	24300	25000	97.2	80-120	24500	25000	98.0	80-120
Manganese	2020	2000	101.0	80-120	1980	2000	99.0	80-120
Molybdenum								
Nickel	2020	2000	101.0	80-120	1980	2000	99.0	80-120
Phosphorus								
Potassium	23800	25000	95.2	80-120	23800	25000	95.2	80-120
Selenium	1970	2000	98.5	80-120	1910	2000	95.5	80-120
Silicon								
Silver	237	250	94.8	80-120	231	250	92.4	80-120
Sodium	24300	25000	97.2	80-120	24200	25000	96.8	80-120
Strontium								
Sulfur								
Thallium	2060	2000	103.0	80-120	2030	2000	101.5	80-120
Tin								
Titanium								
Tungsten								
Vanadium	1950	2000	97.5	80-120	1910	2000	95.5	80-120
Zinc	2000	2000	100.0	80-120	1950	2000	97.5	80-120

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:					03/29/18			
Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zirconium								

Associated samples MP6399: JC62879-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-9 Original	SDL 1:5	%DIF	QC Limits
Aluminum	0.00	0.00	NC	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	0.00	6.90	NC	0-10
Barium	80.5	87.9	9.2	0-10
Beryllium	0.00	0.00	NC	0-10
Bismuth				
Boron	anr			
Cadmium	0.00	0.00	NC	0-10
Calcium	12700	13100	3.2	0-10
Chromium	0.00	0.00	NC	0-10
Cobalt	0.00	0.00	NC	0-10
Copper	0.00	0.00	NC	0-10
Iron	33000	33900	2.7	0-10
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium	5360	5350	0.1	0-10
Manganese	1330	1350	1.7	0-10
Molybdenum				
Nickel	0.00	0.00	NC	0-10
Phosphorus				
Potassium	494	590	19.5 (a)	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	15800	16200	2.4	0-10
Strontium				
Sulfur				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	1.10	0.00	100.0(a)	0-10
Zinc	0.800	2.20	175.0(a)	0-10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6399 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/29/18

	JC62879-9		QC
Metal	Original SDL 1:5	%DIF	Limits
Zirconium			

Associated samples MP6399: JC62879-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6402
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	19	33	6.5	<200
Antimony	6.0	2.4	4.3	2.0	<6.0
Arsenic	3.0	1.2	2.7	0.40	<3.0
Barium	200	.6	1.3	0.40	<200
Beryllium	1.0	.2	.4	0.0	<1.0
Bismuth	20	3.2	5		
Boron	100	1.5	13		
Cadmium	3.0	.4	.7	0.10	<3.0
Calcium	5000	5.5	29	10.9	<5000
Chromium	10	.7	.85	-0.30	<10
Cobalt	50	.4	.72	-0.30	<50
Copper	10	1.1	3.2	0.70	<10
Iron	100	3.5	32	2.4	<100
Lead	3.0	2.2	2.6	-0.30	<3.0
Lithium	50	3.4	15		
Magnesium	5000	25	64	13.9	<5000
Manganese	15	.14	.42	0.0	<15
Molybdenum	20	.4	1.4		
Nickel	10	.5	1.3	0.20	<10
Phosphorus	50	2	13		
Potassium	10000	60	230	62.4	<10000
Selenium	10	3.7	6.6	2.1	<10
Silicon	200	1.8	45		
Silver	10	.7	3.1	0.30	<10
Sodium	10000	35	130	-8.8	<10000
Strontium	10	.2	.3		
Sulfur	50	3.1	15		
Thallium	2.0	1.8	1.6	0.0	<2.0
Tin	10	.9	2.4		
Titanium	10	.7	1.8		
Tungsten	50	2.2	14		
Vanadium	50	.8	1.3	-0.10	<50
Zinc	20	.2	4	1.6	<20

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6402 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/29/18

Metal	RL	IDL	MDL	MB raw	final
Zirconium	10	.3	2		

Associated samples MP6402: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6402
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-11 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	1170	27800	25000	106.5	75-125
Antimony	0.0	2030	2000	101.5	75-125
Arsenic	1.8	2030	2000	101.4	75-125
Barium	60.8	2090	2000	101.5	75-125
Beryllium	0.0	2080	2000	104.0	75-125
Bismuth					
Boron					
Cadmium	0.0	2010	2000	100.5	75-125
Calcium	58900	85000	25000	104.4	75-125
Chromium	3.0	2030	2000	101.4	75-125
Cobalt	5.5	2040	2000	101.7	75-125
Copper	4.9	2030	2000	101.3	75-125
Iron	5830	31200	25000	101.5	75-125
Lead	0.0	2040	2000	102.0	75-125
Lithium					
Magnesium	32000	57800	25000	103.2	75-125
Manganese	4750	6710	2000	98.0	75-125
Molybdenum					
Nickel	3.5	2050	2000	102.3	75-125
Phosphorus					
Potassium	6290	31500	25000	100.8	75-125
Selenium	0.0	2000	2000	100.0	75-125
Silicon					
Silver	0.0	246	250	98.4	75-125
Sodium	50100	76300	25000	104.8	75-125
Strontium					
Sulfur					
Thallium	0.0	2050	2000	102.5	75-125
Tin					
Titanium					
Tungsten					
Vanadium	11.2	2050	2000	101.9	75-125
Zinc	12.0	2030	2000	100.9	75-125

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6402 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-11 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP6402: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6402
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-11 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	1170	26200	25000	100.1	5.9	20
Antimony	0.0	2020	2000	101.0	0.5	20
Arsenic	1.8	2010	2000	100.4	1.0	20
Barium	60.8	1980	2000	96.0	5.4	20
Beryllium	0.0	1960	2000	98.0	5.9	20
Bismuth						
Boron						
Cadmium	0.0	2000	2000	100.0	0.5	20
Calcium	58900	81300	25000	89.6	4.4	20
Chromium	3.0	2060	2000	102.9	1.5	20
Cobalt	5.5	2030	2000	101.2	0.5	20
Copper	4.9	2060	2000	102.8	1.5	20
Iron	5830	29500	25000	94.7	5.6	20
Lead	0.0	2030	2000	101.5	0.5	20
Lithium						
Magnesium	32000	54900	25000	91.6	5.1	20
Manganese	4750	6790	2000	102.0	1.2	20
Molybdenum						
Nickel	3.5	2040	2000	101.8	0.5	20
Phosphorus						
Potassium	6290	30600	25000	97.2	2.9	20
Selenium	0.0	1980	2000	99.0	1.0	20
Silicon						
Silver	0.0	249	250	99.6	1.2	20
Sodium	50100	73600	25000	94.0	3.6	20
Strontium						
Sulfur						
Thallium	0.0	2040	2000	102.0	0.5	20
Tin						
Titanium						
Tungsten						
Vanadium	11.2	2090	2000	103.9	1.9	20
Zinc	12.0	2010	2000	99.9	1.0	20

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6402 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-11 Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zirconium					

Associated samples MP6402: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6402
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	24700	25000	98.8	80-120
Antimony	2010	2000	100.5	80-120
Arsenic	2000	2000	100.0	80-120
Barium	2000	2000	100.0	80-120
Beryllium	2030	2000	101.5	80-120
Bismuth				
Boron				
Cadmium	2010	2000	100.5	80-120
Calcium	25000	25000	100.0	80-120
Chromium	2050	2000	102.5	80-120
Cobalt	2050	2000	102.5	80-120
Copper	2040	2000	102.0	80-120
Iron	24900	25000	99.6	80-120
Lead	2060	2000	103.0	80-120
Lithium				
Magnesium	25100	25000	100.4	80-120
Manganese	2100	2000	105.0	80-120
Molybdenum				
Nickel	2060	2000	103.0	80-120
Phosphorus				
Potassium	24500	25000	98.0	80-120
Selenium	2000	2000	100.0	80-120
Silicon				
Silver	246	250	98.4	80-120
Sodium	24900	25000	99.6	80-120
Strontium				
Sulfur				
Thallium	2070	2000	103.5	80-120
Tin				
Titanium				
Tungsten				
Vanadium	2050	2000	102.5	80-120
Zinc	2050	2000	102.5	80-120

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6402
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP6402: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6402
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/29/18

Metal	JC62879-11 Original	SDL 1:5	%DIF	QC Limits
Aluminum	1170	1130	3.1	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	1.80	0.00	100.0(a)	0-10
Barium	60.8	63.4	4.3	0-10
Beryllium	0.00	0.00	NC	0-10
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium	58900	58700	0.4	0-10
Chromium	3.00	3.70	23.3 (a)	0-10
Cobalt	5.50	4.50	18.2 (a)	0-10
Copper	4.90	0.00	100.0(a)	0-10
Iron	5830	5850	0.3	0-10
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium	32000	32200	0.8	0-10
Manganese	4750	4870	2.4	0-10
Molybdenum				
Nickel	3.50	6.00	71.4 (a)	0-10
Phosphorus				
Potassium	6290	6740	7.3	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	50100	50100	0.0	0-10
Strontium				
Sulfur				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	11.2	11.0	1.8	0-10
Zinc	12.0	17.5	45.8*(b)	0-10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP6402 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/29/18

	JC62879-11		QC
Metal	Original SDL 1:5	%DIF	Limits
Zirconium			

Associated samples MP6402: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

Instrument Detection Limits

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: LEEMANHG7 **Effective Date:** 02/14/18

Analyte	IDL ug/l
Mercury	.05937

The above applies to the following instrument runs:
MA44080

Instrument Detection Limits

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: SSTRACE3 **Effective Date:** 03/16/18

Analyte	IDL ug/l
Aluminum	18.9
Antimony	2.4
Arsenic	1.2
Barium	.6
Beryllium	.2
Bismuth	3.2
Boron	1.5
Cadmium	.4
Calcium	5.5
Chromium	.7
Cobalt	.4
Copper	1.1
Iron	3.5
Lead	2.2
Lithium	3.4
Magnesium	24.5
Manganese	.14
Molybdenum	.4
Nickel	.5
Phosphorus	2
Potassium	59.5
Selenium	3.7
Silicon	1.8
Silver	.7
Sodium	34.5
Sulfur	3.1
Strontium	.2
Thallium	1.8
Tin	.9
Titanium	.7
Tungsten	2.2
Vanadium	.8
Yttrium	5
Zinc	.2
Zirconium	.3

The above applies to the following instrument runs:
MA44103,MA44114

Instrument Detection Limits

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: SSTRACE5 **Effective Date:** 03/05/18

Analyte	IDL ug/l
Aluminum	34.2
Antimony	1.4
Arsenic	1.4
Barium	.5
Beryllium	.2
Bismuth	2.5
Boron	1.9
Cadmium	.3
Calcium	8.7
Chromium	.6
Cobalt	.5
Copper	1.2
Iron	4.6
Lead	1.4
Lithium	2.8
Magnesium	32.6
Manganese	.1
Molybdenum	.4
Nickel	.5
Phosphorus	1.7
Potassium	68.4
Selenium	3.8
Silicon	2.1
Silver	.5
Sodium	15.3
Sulfur	19.9
Strontium	.2
Thallium	1.6
Tin	1
Titanium	.7
Tungsten	1.8
Vanadium	.4
Zinc	.3
Zirconium	.3

The above applies to the following instrument runs:
MA44135,MA44142

Instrument Linear Ranges

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: LEEMANHG7 **Effective Date:** 03/10/17

Analyte	Linear Range ug/l
Mercury	5

The above applies to the following instrument runs:
MA44080

Instrument Linear Ranges

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: SSTRACE3 **Effective Date:** 12/09/15

Analyte	Linear Range ug/l
Aluminum	600000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Bismuth	10000
Boron	10000
Cadmium	10000
Calcium	300000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	300000
Lead	10000
Lithium	10000
Magnesium	600000
Manganese	10000
Molybdenum	10000
Nickel	10000
Palladium	10000
Potassium	300000
Selenium	10000
Silicon	50000
Silver	1250
Sodium	300000
Sulfur	100000
Strontium	10000
Thallium	10000
Tin	10000
Titanium	10000
Tungsten	10000
Vanadium	10000
Zinc	10000
Zirconium	10000

The above applies to the following instrument runs:
MA44103,MA44114

Instrument Linear Ranges

Job Number: JC62879
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: SSTRACE5 **Effective Date:** 11/30/17

Analyte	Linear Range ug/l
Aluminum	600000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Bismuth	10000
Boron	10000
Cadmium	10000
Calcium	300000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	300000
Lead	10000
Lithium	10000
Magnesium	600000
Manganese	10000
Molybdenum	10000
Nickel	10000
Palladium	10000
Phosphorus	50000
Potassium	300000
Selenium	10000
Silicon	50000
Silver	1250
Sodium	300000
Sulfur	100000
Strontium	10000
Thallium	10000
Tin	10000
Titanium	10000
Tungsten	10000
Vanadium	10000
Zinc	10000
Zirconium	10000

The above applies to the following instrument runs:
MA44135,MA44142

Metals Analysis

Raw Data

MA44080

Method: ACCUTEST Operator: Admin Date of Analysis: 27 Mar 2018 08:35:16

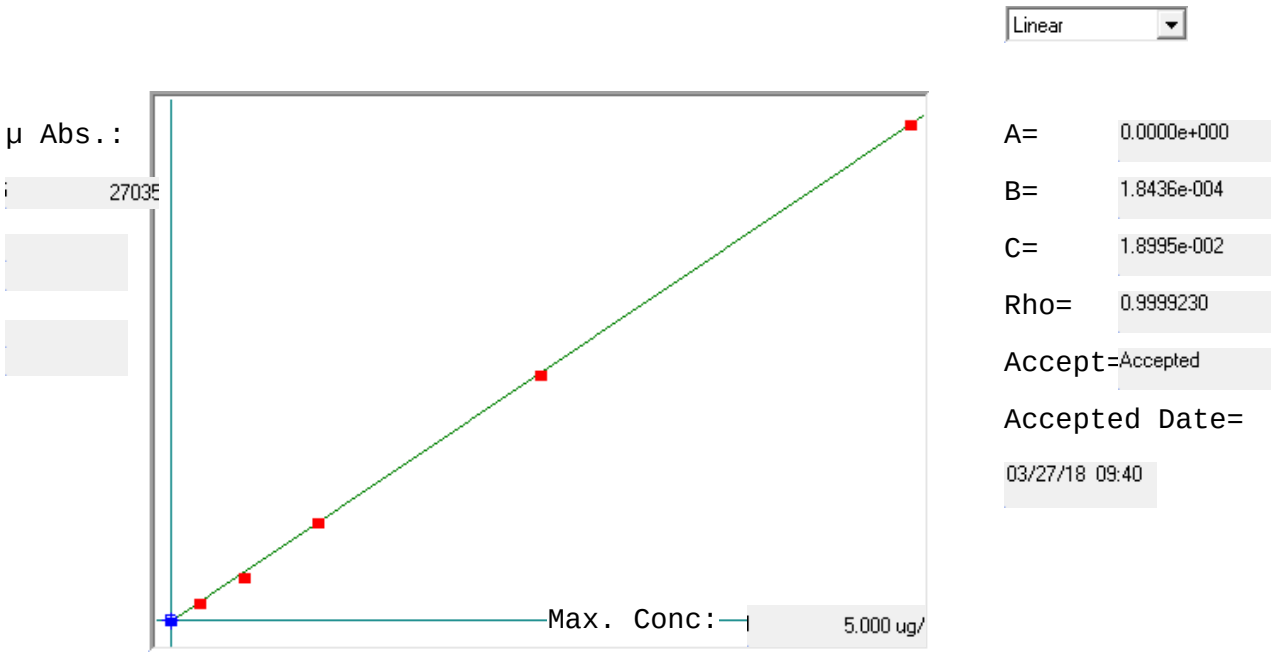
Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
STDA - 1	27 Mar 2018 09:30:25	Std	ug/l	-	73	1.000	1.000
STDB - 1	27 Mar 2018 09:31:43	Std	ug/l	-	1003	1.000	1.000
STDC - 1	27 Mar 2018 09:33:01	Std	ug/l	-	2382	1.000	1.000
STDD - 1	27 Mar 2018 09:34:23	Std	ug/l	-	5337	1.000	1.000
STDE - 1	27 Mar 2018 09:35:58	Std	ug/l	-	13454	1.000	1.000
STDF - 1	27 Mar 2018 09:37:41	Std	ug/l	-	27035	1.000	1.000
ICV - 1	27 Mar 2018 09:41:34	SMPL	ug/l	2.9822	16073	1.000	1.000
ICB - 1	27 Mar 2018 09:43:56	SMPL	ug/l	-0.0409	-325	1.000	1.000
CCV - 1	27 Mar 2018 09:45:27	CK STND	ug/l	104.7% 2.6166	14090	1.000	1.000
CCB - 1	27 Mar 2018 09:46:42	CK STND	ug/l	-0.0418	-330	1.000	1.000
CRI - 1	27 Mar 2018 09:48:35	SMPL	ug/l	0.2209	1095	1.000	1.000
MP6363-MB1 - 1	27 Mar 2018 09:50:37	SMPL	ug/l	-0.0085	-149	1.000	1.000
MP6363-B1 - 1	27 Mar 2018 09:51:56	SMPL	ug/l	2.0215	10862	1.000	1.000
MP6363-S1 - 1	27 Mar 2018 09:53:12	SMPL	ug/l	2.0683	11116	1.000	1.000
MP6363-S2 - 1	27 Mar 2018 09:55:02	SMPL	ug/l	1.9170	10295	1.000	1.000
JC62872-1 - 1	27 Mar 2018 09:57:06	SMPL	ug/l	0.1208	552	1.000	1.000
JC62872-1FCONF - 1	27 Mar 2018 09:59:07	SMPL	ug/l	-0.1998	-1187	1.000	1.000
JC62872-1F - 1	27 Mar 2018 10:01:04	SMPL	ug/l	-0.0072	-142	1.000	1.000
CCV - 1	27 Mar 2018 10:02:24	CK STND	ug/l	98.0% 2.4503	13188	1.000	1.000
CCB - 1	27 Mar 2018 10:03:40	CK STND	ug/l	-0.0312	-272	1.000	1.000
JC62872-2 - 1	27 Mar 2018 10:05:30	SMPL	ug/l	0.2421	1210	1.000	1.000
JC62872-2FCONF - 1	27 Mar 2018 10:06:48	SMPL	ug/l	-0.1399	-862	1.000	1.000
JC62872-3 - 1	27 Mar 2018 10:08:09	SMPL	ug/l	-0.0630	-445	1.000	1.000
JC62872-3FCONF - 1	27 Mar 2018 10:09:28	SMPL	ug/l	-0.1292	-804	1.000	1.000
JC62872-4 - 1	27 Mar 2018 10:10:46	SMPL	ug/l	-0.0842	-560	1.000	1.000
JC62872-4F - 1	27 Mar 2018 10:12:03	SMPL	ug/l	0.0079	-60	1.000	1.000
JC62872-5 - 1	27 Mar 2018 10:13:22	SMPL	ug/l	0.0498	167	1.000	1.000
JC62872-5F - 1	27 Mar 2018 10:14:39	SMPL	ug/l	-0.0524	-387	1.000	1.000
CCV - 1	27 Mar 2018 10:16:56	CK STND	ug/l	98.7% 2.4668	13277	1.000	1.000
CCB - 1	27 Mar 2018 10:18:12	CK STND	ug/l	-0.0310	-271	1.000	1.000
JC62872-6 - 1	27 Mar 2018 10:20:01	SMPL	ug/l	0.4043	2090	1.000	1.000
JC62872-6F - 1	27 Mar 2018 10:21:18	SMPL	ug/l	0.1552	739	1.000	1.000
JC62872-7 - 1	27 Mar 2018 10:23:12	SMPL	ug/l	0.0190	0	1.000	1.000
JC62872-7F - 1	27 Mar 2018 10:25:17	SMPL	ug/l	0.0411	120	1.000	1.000
JC62872-8 - 1	27 Mar 2018 10:26:34	SMPL	ug/l	0.0332	77	1.000	1.000
JC62872-8F - 1	27 Mar 2018 10:27:52	SMPL	ug/l	0.0203	7	1.000	1.000
JC62872-9 - 1	27 Mar 2018 10:29:10	SMPL	ug/l	0.0240	27	1.000	1.000
JC62872-9F - 1	27 Mar 2018 10:30:29	SMPL	ug/l	0.0216	14	1.000	1.000
CCV - 1	27 Mar 2018 10:31:45	CK STND	ug/l	100.2% 2.5060	13490	1.000	1.000
CCB - 1	27 Mar 2018 10:33:01	CK STND	ug/l	-0.0396	-318	1.000	1.000
JC62872-10 - 1	27 Mar 2018 10:34:49	SMPL	ug/l	0.1562	744	1.000	1.000
JC62872-10F - 1	27 Mar 2018 10:36:06	SMPL	ug/l	-0.0931	-608	1.000	1.000
JC62872-2FCONF - 1	27 Mar 2018 10:37:23	SMPL	ug/l	-0.1171	-738	1.000	1.000
JC62872-3F - 1	27 Mar 2018 10:38:42	SMPL	ug/l	0.0153	-20	1.000	1.000
JC62872-2F - 1	27 Mar 2018 10:40:35	SMPL	ug/l	0.0184	-3	1.000	1.000
MP6364-MB1 - 1	27 Mar 2018 10:41:52	SMPL	ug/l	0.0616	231	1.000	1.000
MP6364-B1 - 1	27 Mar 2018 10:43:09	SMPL	ug/l	1.9091	10252	1.000	1.000
CCV - 1	27 Mar 2018 10:46:00	CK STND	ug/l	102.0% 2.5490	13723	1.000	1.000
CCB - 1	27 Mar 2018 10:47:15	CK STND	ug/l	-0.0300	-266	1.000	1.000
MP6364-S1 - 1	27 Mar 2018 10:49:03	SMPL	ug/l	1.8504	9934	1.000	1.000
MP6364-S2 - 1	27 Mar 2018 10:50:21	SMPL	ug/l	1.7975	9647	1.000	1.000
MP6364-S3 - 1	27 Mar 2018 10:52:09	SMPL	ug/l	1.8792	10090	1.000	1.000
MP6364-S4 - 1	27 Mar 2018 10:53:59	SMPL	ug/l	1.8573	9971	1.000	1.000
JC62879-9 - 1	27 Mar 2018 10:55:46	SMPL	ug/l	-0.0265	-247	1.000	1.000
JC62879-11 - 1	27 Mar 2018 10:57:33	SMPL	ug/l	-0.0098	-156	1.000	1.000
JC62879-1 - 1	27 Mar 2018 10:59:07	SMPL	ug/l	0.0242	28	1.000	1.000
CCV - 1	27 Mar 2018 11:00:24	CK STND	ug/l	102.5% 2.5630	13799	1.000	1.000
CCB - 1	27 Mar 2018 11:01:40	CK STND	ug/l	-0.0424	-333	1.000	1.000
JC62879-2 - 1	27 Mar 2018 11:03:30	SMPL	ug/l	0.0490	163	1.000	1.000
JC62879-3 - 1	27 Mar 2018 11:04:47	SMPL	ug/l	0.0802	332	1.000	1.000
JC62879-4 - 1	27 Mar 2018 11:06:06	SMPL	ug/l	0.0081	-59	1.000	1.000
JC62879-5 - 1	27 Mar 2018 11:07:26	SMPL	ug/l	0.0142	-26	1.000	1.000
JC62879-6 - 1	27 Mar 2018 11:08:43	SMPL	ug/l	0.2883	1461	1.000	1.000
JC62879-7 - 1	27 Mar 2018 11:10:00	SMPL	ug/l	-0.0267	-248	1.000	1.000
JC62879-8 - 1	27 Mar 2018 11:11:26	SMPL	ug/l	0.0323	72	1.000	1.000
JC62879-10 - 1	27 Mar 2018 11:12:44	SMPL	ug/l	0.0581	212	1.000	1.000
CCV - 1	27 Mar 2018 11:14:02	CK STND	ug/l	104.2% 2.6059	14032	1.000	1.000
CCB - 1	27 Mar 2018 11:15:19	CK STND	ug/l	-0.0271	-250	1.000	1.000
JC62879-12 - 1	27 Mar 2018 11:17:10	SMPL	ug/l	0.0407	118	1.000	1.000

MA44080

Method: ACCUTEST Operator: Admin Date of Analysis: 27 Mar 2018 08:35:16

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
JC62879-13 - 1	27 Mar 2018 11:18:28	SMPL	ug/l	0.0177	-7	1.000	1.000
JC62879-14 - 1	27 Mar 2018 11:19:48	SMPL	ug/l	0.0581	212	1.000	1.000
JC62879-15 - 1	27 Mar 2018 11:21:05	SMPL	ug/l	0.0227	20	1.000	1.000
JC62879-16 - 1	27 Mar 2018 11:22:24	SMPL	ug/l	0.0358	91	1.000	1.000
JC62879-17 - 1	27 Mar 2018 11:23:41	SMPL	ug/l	0.0181	-5	1.000	1.000
JC62879-18 - 1	27 Mar 2018 11:24:59	SMPL	ug/l	0.0195	3	1.000	1.000
JC62879-20 - 1	27 Mar 2018 11:26:16	SMPL	ug/l	0.0308	64	1.000	1.000
JC62942-6 - 1	27 Mar 2018 11:27:33	SMPL	ug/l	0.0286	52	1.000	1.000
CCV - 1	27 Mar 2018 11:28:50	CK STND	ug/l	102.0% 2.5490	13723	1.000	1.000
CCB - 1	27 Mar 2018 11:30:06	CK STND	ug/l	-0.0249	-238	1.000	1.000
JC62872-6FCONF - 1	27 Mar 2018 11:31:57	SMPL	ug/l	0.1567	747	1.000	1.000
JC62569-1CONF - 1	27 Mar 2018 11:35:00	SMPL	ug/l	0.2360	1177	1.000	1.000
MP6365-MB1 - 1	27 Mar 2018 11:40:11	SMPL	ug/l	0.0393	110	1.000	1.000
MP6365-B1 - 1	27 Mar 2018 11:41:29	SMPL	ug/l	1.9081	10247	1.000	1.000
MP6365-S1 - 1	27 Mar 2018 11:42:46	SMPL	ug/l	2.0368	10945	1.000	1.000
MP6365-S2 - 1	27 Mar 2018 11:44:35	SMPL	ug/l	1.9133	10275	1.000	1.000
JC62351-1 - 1	27 Mar 2018 11:46:25	SMPL	ug/l	-0.0203	-213	1.000	1.000
CCV - 1	27 Mar 2018 11:48:14	CK STND	ug/l	99.4% 2.4848	13375	1.000	1.000
CCB - 1	27 Mar 2018 11:49:30	CK STND	ug/l	-0.0302	-267	1.000	1.000
MP6369-MB1 - 1	27 Mar 2018 11:51:21	SMPL	ug/l	0.0205	8	1.000	1.000
MP6369-B1 - 1	27 Mar 2018 11:52:38	SMPL	ug/l	2.0154	10829	1.000	1.000
MP6369-S1 - 1	27 Mar 2018 11:53:56	SMPL	ug/l	2.1028	11303	1.000	1.000
MP6369-S2 - 1	27 Mar 2018 11:55:44	SMPL	ug/l	2.0046	10770	1.000	1.000
JC62494-5 - 1	27 Mar 2018 11:57:34	SMPL	ug/l	-0.0070	-141	1.000	1.000
MP6370-FMBCONF - 1	27 Mar 2018 11:59:26	SMPL	ug/l	-0.0007	-107	1.000	1.000
MP6370-FLCCONF - 1	27 Mar 2018 12:00:43	SMPL	ug/l	1.8768	10077	1.000	1.000
MP6371-FMBCONF - 1	27 Mar 2018 12:02:00	SMPL	ug/l	-0.0179	-200	1.000	1.000
CCV - 1	27 Mar 2018 12:03:50	CK STND	ug/l	101.2% 2.5302	13621	1.000	1.000
CCB - 1	27 Mar 2018 12:05:06	CK STND	ug/l	-0.0253	-240	1.000	1.000
MP6371-FLCCONF - 1	27 Mar 2018 12:06:57	SMPL	ug/l	1.8803	10096	1.000	1.000
RINSECONF - 1	27 Mar 2018 12:08:15	SMPL	ug/l	-0.0164	-192	1.000	1.000
CRI - 1	27 Mar 2018 12:10:06	SMPL	ug/l	0.2177	1078	1.000	1.000
CCV - 1	27 Mar 2018 12:12:13	CK STND	ug/l	101.2% 2.5289	13614	1.000	1.000
CCB - 1	27 Mar 2018 12:13:29	CK STND	ug/l	-0.0306	-269	1.000	1.000

ACCUTEST



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	0.032	0.032	73	0.000	73				
STDB	0.200	0.204	0.004	1003	0.0 %	1003				
STDC	0.500	0.458	-0.042	2382	0.0 %	2382				
STDD	1.000	1.003	0.003	5337	0.0 %	5337				
STDE	2.500	2.499	-0.001	13454	0.0 %	13454				
STDF	5.000	5.003	0.003	27035	0.0 %	27035				

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/30/2018 13:11:41 Type: Cal
Method: Accutest XPress(v85) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0012**	**.0002**	**.0003**	**-.0001**	**.0036**	**.0000**	**-.0002**	**-.0005**
Stddev	.0004	.0003	.0002	.0001	.0000	.0000	.0000	.0001	.0001
%RSD	1179.	23.28	96.62	41.74	8.790	.3403	78.97	29.87	14.82
#1	-.0003	.0014	.0004	.0002	-.0001	.0037	.0001	-.0002	-.0005
#2	.0004	.0010	.0001	.0004	-.0001	.0036	.0000	-.0002	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0003**	**-.0003**	**-.0002**	**-.0002**	**-.0002**	**-.0000**	**.0002**	**-.0011**	**.0092**
Stddev	.0000	.0001	.0001	.0002	.0000	.0000	.0000	.0005	.0001
%RSD	17.57	32.73	38.91	75.68	27.04	572.7	23.52	46.40	1.369
#1	.0002	-.0003	-.0002	-.0001	-.0002	-.0000	.0002	-.0015	.0091
#2	.0003	-.0004	-.0001	-.0003	-.0001	.0000	.0001	-.0007	.0093

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**-.0000**	**.0021**	**-.0054**	**.0011**	**-.0006**	**.0029**	**.0002**	**-.0001**
Stddev	.0001	.0000	.0006	.0016	.0002	.0000	.0001	.0000	.0005
%RSD	210.8	80.02	28.91	29.40	14.72	6.979	4.615	10.82	522.7
#1	-.0000	-.0001	.0026	-.0065	.0013	-.0006	.0030	.0002	-.0004
#2	.0002	-.0000	.0017	-.0043	.0010	-.0005	.0028	.0002	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**.0003**	**-.0006**	**-.0026**	**.0004**	**-.0067**	**-.0134**
Stddev	.0000	.0000	.0000	.0000	.0004	.0003	.0000
%RSD	26.79	3.782	1.191	.5435	115.9	4.039	.3673
#1	-.0001	.0003	-.0006	-.0026	.0007	-.0065	-.0135
#2	-.0001	.0003	-.0006	-.0026	.0001	-.0069	-.0134

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/30/2018 13:11:41 Type: Cal
Method: Accutest XPress(v85) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**162010.**	**18993.**	**7097.6**	**10764.**
Stddev	228.	1364.	9.3	13.
%RSD	.14070	7.1800	.13166	.12075
#1	161850.	19957.	7091.0	10755.
#2	162170.	18029.	7104.2	10773.

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 3/30/2018 13:14:40 Type: Cal
Method: Accutest XPress(v85) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.075**	**9.349**	**3.817**	**2.364**	**.4514**	**.8075**	**2.610**	**1.852**	**.0620**
Stddev	.028	.035	.007	.008	.0103	.0181	.081	.007	.0014
%RSD	.4633	.3696	.1858	.3353	2.276	2.239	3.105	.3592	2.215
#1	6.095	9.374	3.812	2.358	.4587	.8202	2.667	1.847	.0630
#2	6.056	9.325	3.822	2.369	.4442	.7947	2.552	1.857	.0610

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.6158**	**5.201**	**.4321**	**.3022**	**.7860**	**.3128**	**.5305**	**3.083**	**6.698**
Stddev	.0133	.014	.0010	.0009	.0033	.0009	.0005	.011	.015
%RSD	2.154	.2760	.2226	.2886	.4181	.2772	.0924	.3423	.2247
#1	.6252	5.191	.4314	.3016	.7837	.3122	.5302	3.090	6.708
#2	.6064	5.211	.4328	.3028	.7884	.3135	.5309	3.076	6.687

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.564**	**.7422**	**1.497**	**6.035**	**.8557**	**2.537**	**1.795**	**.8768**	**12.07**
Stddev	.012	.0014	.001	.011	.0023	.004	.005	.0019	.01
%RSD	.2605	.1832	.0332	.1837	.2712	.1520	.2945	.2126	.0545
#1	4.573	.7432	1.498	6.028	.8540	2.534	1.792	.8755	12.08
#2	4.556	.7413	1.497	6.043	.8573	2.540	1.799	.8781	12.07

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4684**	**1.210**	**1.618**	**.2229**	**.5344**	**1.737**	**.4868**
Stddev	.0112	.002	.027	.0007	.0004	.004	.0016
%RSD	2.386	.1719	1.658	.3256	.0753	.2149	.3375
#1	.4763	1.208	1.637	.2223	.5341	1.739	.4856
#2	.4605	1.211	1.599	.2234	.5346	1.734	.4880

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 3/30/2018 13:14:40 Type: Cal
Method: Accutest XPress(v85) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151940.**	**17452.**	**6713.5**	**9848.3**
Stddev	2733.	9.	18.8	17.7
%RSD	1.7984	.04972	.27998	.17966
#1	150010.	17446.	6700.2	9835.8
#2	153880.	17458.	6726.8	9860.8

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 3/30/2018 13:17:38 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.916**	**1.922**	**1.952**	**1.985**	**2.076**	**2.041**	**2.135**	**1.989**	**.2569**
Stddev	.035	.035	.065	.059	.003	.002	.001	.059	.0012
%RSD	1.829	1.848	3.345	2.959	.1245	.0800	.0671	2.971	.4540
#1	1.891	1.897	1.906	1.943	2.078	2.040	2.136	1.948	.2561
#2	1.941	1.947	1.998	2.026	2.074	2.043	2.134	2.031	.2577
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.061**	**1.985**	**1.941**	**2.002**	**1.983**	**1.942**	**1.941**	**37.56**	**38.31**
Stddev	.002	.065	.062	.061	.060	.065	.068	.76	.75
%RSD	.1040	3.267	3.186	3.061	3.011	3.368	3.517	2.021	1.961
#1	2.063	1.939	1.897	1.959	1.941	1.896	1.893	37.02	37.77
#2	2.060	2.031	1.984	2.046	2.025	1.988	1.990	38.09	38.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.10**	**38.30**	**38.59**	**38.76**	**1.961**	**1.959**	**4.840**	**1.983**	**1.922**
Stddev	.77	.79	.54	.63	.065	.066	.167	.064	.037
%RSD	2.021	2.055	1.408	1.625	3.312	3.353	3.446	3.233	1.937
#1	37.56	37.74	38.21	38.32	1.915	1.913	4.722	1.938	1.896
#2	38.65	38.85	38.97	39.21	2.007	2.006	4.958	2.028	1.949
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 3/30/2018 13:17:38 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**1.931**	**2.064**	**1.920**	**1.978**	**1.924**	**1.950**
Stddev	.002	.063	.001	.064	.055	.033	.065
%RSD	.1141	3.281	.0247	3.320	2.764	1.730	3.314
#1	2.055	1.886	2.065	1.875	1.939	1.900	1.904
#2	2.052	1.976	2.064	1.965	2.016	1.947	1.995
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**153610.**	**17651.**	**7009.4**	**10265.**
Stddev	475.	171.	201.0	262.
%RSD	.30891	.97097	2.8679	2.5503
#1	153270.	17773.	7151.5	10450.
#2	153940.	17530.	6867.2	10080.

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 3/30/2018 13:20:28 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0001**	**.0003**	**-.0001**	**-.0005**	**.0007**	**.0000**	**.0004**	**.0004**
Stddev	.0000	.0001	.0000	.0001	.0002	.0002	.0000	.0001	.0005
%RSD	2.503	39.67	7.774	122.5	33.83	26.61	196.4	27.66	153.4
#1	.0003	.0001	.0003	-.0000	-.0004	.0005	.0001	.0005	.0007
#2	.0003	.0002	.0003	-.0002	-.0007	.0008	-.0000	.0004	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0001**	**.0004**	**-.0001**	**-.0008**	**.0002**	**-.0007**	**-.0008**	**.0041**
Stddev	.0001	.0000	.0006	.0003	.0004	.0011	.0005	.0069	.0030
%RSD	55.62	54.79	127.2	247.7	46.51	544.1	64.44	817.0	72.36
#1	-.0001	.0001	.0000	.0001	-.0005	.0010	-.0010	.0040	.0020
#2	-.0002	.0000	.0008	-.0004	-.0011	-.0006	-.0004	-.0057	.0062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0142**	**.0898**	**.0024**	**.0047**	**.0004**	**-.0003**	**-.0002**	**.0000**
Stddev	.0038	.0257	.0184	.0055	.0008	.0004	.0003	.0002	.0001
%RSD	2377.	181.0	20.53	226.7	17.46	106.8	114.4	131.3	182.4
#1	.0025	.0323	.1028	.0063	.0053	.0001	-.0001	-.0003	-.0000
#2	-.0028	-.0040	.0768	-.0015	.0041	.0007	-.0006	-.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 3/30/2018 13:20:28 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0008**	**.0003**	**-.0010**	**-.0025**	**.0012**	**-.0018**
Stddev	.0006	.0005	.0001	.0032	.0025	.0010	.0003
%RSD	418.2	54.44	31.77	306.8	100.1	82.34	17.33
#1	.0005	-.0005	.0002	-.0033	-.0042	.0019	-.0020
#2	-.0003	-.0012	.0004	.0012	-.0007	.0005	-.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**160470.**	**18046.**	**7261.1**	**11009.**
Stddev	571.	91.	304.4	425.
%RSD	.35565	.50181	4.1923	3.8571
#1	160070.	17982.	7045.9	10708.
#2	160870.	18110.	7476.4	11309.

Zoom In Zoom Out

Sample Name: icv Acquired: 3/30/2018 13:24:13 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.006**	**2.007**	**1.994**	**2.011**	**2.032**	**2.002**	**2.088**	**2.013**	**.2520**
Stddev	.018	.019	.017	.016	.009	.008	.006	.017	.0006
%RSD	.9225	.9637	.8482	.8040	.4565	.4068	.2709	.8315	.2288
#1	1.987	1.985	1.975	1.993	2.042	2.009	2.095	1.993	.2521
#2	2.024	2.023	2.008	2.022	2.023	1.993	2.084	2.023	.2514
#3	2.007	2.011	2.000	2.019	2.031	2.004	2.086	2.022	.2526
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.013**	**2.020**	**1.975**	**2.034**	**2.011**	**1.980**	**1.983**	**39.40**	**39.92**
Stddev	.008	.020	.016	.015	.017	.014	.016	.41	.35
%RSD	.4004	.9925	.8228	.7206	.8363	.7177	.8263	1.042	.8719
#1	2.022	1.997	1.957	2.017	1.992	1.964	1.965	38.93	39.54
#2	2.006	2.035	1.986	2.044	2.020	1.987	1.997	39.71	40.21
#3	2.012	2.028	1.984	2.040	2.021	1.990	1.989	39.55	40.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.82**	**39.85**	**39.77**	**39.93**	**1.998**	**1.994**	**4.945**	**2.024**	**2.003**
Stddev	.37	.44	.28	.32	.017	.018	.047	.018	.018
%RSD	.9402	1.099	.6967	.8088	.8284	.8923	.9568	.8942	.9151
#1	39.40	39.35	39.51	39.58	1.979	1.973	4.890	2.004	1.984
#2	40.13	40.18	40.06	40.22	2.010	2.007	4.977	2.039	2.020
#3	39.93	40.03	39.75	39.98	2.005	2.000	4.966	2.030	2.006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: icv Acquired: 3/30/2018 13:24:13 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.014**	**1.968**	**2.021**	**1.961**	**2.005**	**2.000**	**1.982**
Stddev	.012	.019	.007	.019	.013	.016	.019
%RSD	.5740	.9805	.3723	.9905	.6342	.8161	.9504
#1	2.025	1.946	2.030	1.939	1.990	1.982	1.960
#2	2.002	1.982	2.016	1.975	2.015	2.015	1.993
#3	2.015	1.975	2.018	1.970	2.009	2.002	1.993
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**156390.**	**17975.**	**6906.8**	**10173.**
Stddev	386.	41.	59.1	84.
%RSD	.24695	.22568	.85598	.82574
#1	156100.	17975.	6974.6	10270.
#2	156830.	18016.	6866.4	10123.
#3	156240.	17935.	6879.3	10127.

Zoom In Zoom Out

Sample Name: icb Acquired: 3/30/2018 13:28:06 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0001**	**.0001**	**-.0002**	**.0001**	**.0006**	**.0000**	**.0001**	**.0004**
Stddev	.0001	.0001	.0002	.0002	.0001	.0011	.0000	.0004	.0003
%RSD	30.45	82.81	112.2	127.1	165.5	168.1	115.1	352.5	67.98
#1	.0003	.0001	.0000	-.0003	-.0000	-.0001	.0001	.0004	.0002
#2	.0002	.0002	.0002	-.0000	.0001	.0014	.0000	-.0002	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0001**	**.0012**	**-.0009**	**.0001**	**-.0002**	**.0011**	**.0040**	**.0033**
Stddev	.0001	.0001	.0014	.0021	.0013	.0007	.0001	.0004	.0001
%RSD	42.98	184.7	122.1	240.6	2489.	477.5	12.16	8.756	3.705
#1	-.0004	.0002	.0022	.0006	-.0009	-.0007	.0012	.0038	.0034
#2	-.0002	-.0000	.0002	-.0024	.0010	.0004	.0010	.0042	.0033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0184**	**.0603**	**.0132**	**.0047**	**.0003**	**.0012**	**.0002**	**.0001**
Stddev	.0029	.0158	.0215	.0009	.0005	.0001	.0019	.0002	.0001
%RSD	273.7	85.73	35.70	6.970	9.855	24.23	151.8	80.94	97.67
#1	.0031	.0073	.0451	.0125	.0044	.0002	-.0001	.0001	.0001
#2	-.0010	.0296	.0755	.0138	.0051	.0004	.0026	.0003	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icb Acquired: 3/30/2018 13:28:06 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**-.0009**	**-.0001**	**-.0032**	**-.0031**	**-.0011**	**-.0025**
Stddev	.0005	.0001	.0001	.0009	.0010	.0020	.0009
%RSD	71.51	14.64	180.1	29.07	31.12	183.0	36.21
#1	.0003	-.0008	.0000	-.0039	-.0038	-.0026	-.0031
#2	.0010	-.0010	-.0002	-.0026	-.0024	.0003	-.0019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152880.**	**18349.**	**6949.7**	**10589.**
Stddev	12409.	40.	41.3	57.
%RSD	8.1167	.21916	.59389	.53547
#1	161650.	18377.	6920.5	10549.
#2	144100.	18320.	6978.9	10629.

Zoom In Zoom Out

Sample Name: iccv Acquired: 3/30/2018 13:32:24 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.013**	**2.011**	**1.962**	**1.978**	**2.024**	**1.991**	**2.078**	**1.977**	**.2510**
Stddev	.066	.067	.012	.011	.007	.005	.007	.010	.0008
%RSD	3.269	3.327	.5838	.5504	.3535	.2678	.3347	.5219	.3330
#1	2.065	2.065	1.974	1.988	2.033	1.999	2.086	1.985	.2521
#2	2.067	2.069	1.969	1.983	2.028	1.992	2.080	1.984	.2513
#3	1.986	1.979	1.959	1.977	2.019	1.987	2.075	1.976	.2502
#4	1.932	1.933	1.948	1.963	2.018	1.988	2.070	1.963	.2506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.001**	**1.991**	**1.939**	**1.998**	**1.976**	**1.942**	**1.949**	**39.54**	**40.04**
Stddev	.006	.010	.010	.012	.010	.011	.013	1.29	1.34
%RSD	.3127	.5021	.5351	.5998	.5099	.5738	.6411	3.269	3.339
#1	2.009	2.002	1.948	2.007	1.986	1.953	1.962	40.52	41.11
#2	2.001	1.993	1.946	2.008	1.979	1.947	1.956	40.65	41.16
#3	1.997	1.990	1.938	1.995	1.976	1.942	1.947	39.04	39.43
#4	1.995	1.977	1.925	1.982	1.962	1.927	1.933	37.94	38.43
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: iccv Acquired: 3/30/2018 13:32:24 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.95**	**39.91**	**39.71**	**39.91**	**1.963**	**1.959**	**4.857**	**1.993**	**2.005**
Stddev	1.31	1.32	1.26	1.27	.012	.009	.027	.010	.066
%RSD	3.290	3.318	3.164	3.194	.6047	.4838	.5508	.5208	3.282
#1	41.01	41.01	40.84	40.97	1.974	1.968	4.882	2.004	2.059
#2	41.05	41.00	40.67	40.96	1.971	1.965	4.872	1.995	2.061
#3	39.37	39.26	39.05	39.32	1.960	1.956	4.852	1.993	1.976
#4	38.36	38.35	38.26	38.40	1.948	1.947	4.821	1.979	1.926
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.008**	**1.933**	**2.012**	**1.925**	**1.972**	**2.002**	**1.946**
Stddev	.005	.011	.008	.011	.008	.066	.008
%RSD	.2708	.5450	.3825	.5765	.3868	3.280	.4180
#1	2.015	1.944	2.022	1.934	1.980	2.058	1.955
#2	2.008	1.938	2.013	1.929	1.977	2.055	1.951
#3	2.004	1.930	2.009	1.930	1.969	1.974	1.942
#4	2.003	1.919	2.003	1.909	1.963	1.923	1.937
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Zoom In Zoom Out

Sample Name: iccv Acquired: 3/30/2018 13:32:24 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**156280.**	**18029.**	**6955.4**	**10257.**
Stddev	352.	533.	15.3	25.
%RSD	.22538	2.9537	.22021	.24433
#1	156110.	17524.	6935.3	10235.
#2	156040.	17698.	6954.9	10246.
#3	156170.	18188.	6959.0	10256.
#4	156800.	18708.	6972.4	10293.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/30/2018 13:37:38 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**-.0000**	**-.0003**	**-.0001**	**.0000**	**-.0000**	**.0003**	**.0007**
Stddev	.0001	.0000	.0003	.0002	.0002	.0003	.0001	.0002	.0000
%RSD	103.6	99.62	3370.	78.14	163.4	2064.	231.6	59.74	1.603
#1	-.0000	.0000	-.0002	-.0001	.0000	.0002	.0000	.0002	.0007
#2	-.0002	.0001	.0002	-.0004	-.0003	-.0002	-.0001	.0004	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0000**	**.0010**	**-.0003**	**-.0009**	**.0007**	**-.0008**	**-.0024**	**.0030**
Stddev	.0000	.0000	.0004	.0001	.0009	.0025	.0008	.0025	.0009
%RSD	11.07	122.8	35.06	24.11	99.51	382.5	92.87	104.4	30.12
#1	-.0002	-.0001	.0013	-.0003	-.0003	.0024	-.0003	-.0006	.0024
#2	-.0002	-.0000	.0008	-.0004	-.0015	-.0011	-.0014	-.0042	.0036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0013**	**-.0063**	**.1335**	**.0146**	**.0051**	**.0004**	**.0001**	**.0006**	**-.0000**
Stddev	.0014	.0032	.0266	.0035	.0011	.0005	.0007	.0003	.0000
%RSD	112.3	49.96	19.93	23.62	21.39	133.3	790.3	54.69	39.02
#1	-.0003	-.0086	.1146	.0122	.0059	.0000	.0005	.0009	-.0000
#2	-.0023	-.0041	.1523	.0171	.0044	.0007	-.0004	.0004	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/30/2018 13:37:38 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0004**	**.0002**	**-.0043**	**-.0004**	**-.0012**	**-.0014**
Stddev	.0006	.0001	.0000	.0025	.0006	.0007	.0004
%RSD	186.2	19.54	13.12	57.29	142.8	56.05	27.17
#1	.0008	-.0005	.0002	-.0060	-.0008	-.0017	-.0011
#2	-.0001	-.0004	.0002	-.0026	.0000	-.0007	-.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**159130.**	**18001.**	**6929.2**	**10578.**
Stddev	6193.	89.	73.7	104.
%RSD	3.8915	.49627	1.0639	.98384
#1	163510.	17938.	6877.1	10505.
#2	154760.	18064.	6981.3	10652.

Zoom In Zoom Out

Sample Name: CRI Acquired: 3/30/2018 13:41:15 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2038**	**.0020**	**.0033**	**.0521**	**.0107**	**.0102**	**.0168**	**.0111**
Stddev	.0000	.0000	.0002	.0003	.0003	.0001	.0000	.0001
%RSD	.0154	2.119	6.266	.6059	2.465	1.005	.0836	1.250
#1	.2038	.0020	.0034	.0519	.0109	.0103	.0168	.0110
#2	.2039	.0019	.0031	.0523	.0105	.0101	.0168	.0112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0054**	**.0525**	**.0223**	**.0092**	**.0087**	**.0030**	**.0114**	W **.0075**
Stddev	.0001	.0005	.0000	.0006	.0000	.0009	.0020	.0014
%RSD	1.904	.9315	.0608	6.095	.4331	30.67	17.59	19.24
#1	.0054	.0521	.0223	.0088	.0087	.0036	.0100	.0064
#2	.0053	.0528	.0223	.0096	.0087	.0023	.0129	.0085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn
Value								.0060
Range								20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1978**	**5.268**	**.1075**	**5.331**	**5.156**	**5.251**	**.1048**	**.0213**
Stddev	.0101	.012	.0009	.027	.021	.018	.0002	.0001
%RSD	5.127	.2267	.8366	.5095	.3991	.3410	.1679	.3192
#1	.1906	5.276	.1081	5.312	5.141	5.239	.1049	.0213
#2	.2050	5.259	.1068	5.351	5.171	5.264	.1047	.0214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: CRI Acquired: 3/30/2018 13:41:15 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2184**	**.0106**	**.0101**	**.0104**	**.0493**	**.0111**	**.0465**	**.0219**
Stddev	.0007	.0003	.0003	.0004	.0019	.0001	.0001	.0039
%RSD	.3149	2.785	2.610	3.954	3.838	1.269	.2681	17.96
#1	.2179	.0108	.0099	.0107	.0480	.0112	.0466	.0191
#2	.2189	.0104	.0103	.0101	.0506	.0110	.0464	.0247
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0527**	**.0508**
Stddev	.0036	.0002
%RSD	6.858	.3937
#1	.0502	.0507
#2	.0553	.0509
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**155420.**	**17421.**	**6810.3**	**10331.**
Stddev	281.	73.	22.1	26.
%RSD	.18111	.41752	.32455	.25609
#1	155220.	17369.	6794.7	10312.
#2	155620.	17472.	6826.0	10350.

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/30/2018 13:44:12 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0011**	**.0008**	**.0029**	**.0026**	F **.0006**	**.0033**	**.0048**	F **.0003**
Stddev	.0002	.0001	.0000	.0000	.0001	.0002	.0001	.0001	.0005
%RSD	4.633	6.060	2.569	1.675	3.898	38.38	2.083	1.826	156.2
#1	.0041	.0010	.0009	.0030	.0025	.0008	.0034	.0048	.0007
#2	.0043	.0011	.0008	.0029	.0026	.0004	.0033	.0049	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value						.0020			.0020
Range						-30.00%			-30.00%

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**.0110**	**.0025**	F **.0010**	F **.0008**	**.0048**	F **.0002**	**.1018**	**1.062**
Stddev	.0002	.0001	.0006	.0009	.0002	.0002	.0000	.0052	.001
%RSD	12.10	1.240	24.74	95.62	18.52	3.331	.7086	5.087	.1092
#1	.0019	.0111	.0021	.0016	.0007	.0049	.0002	.1055	1.063
#2	.0016	.0109	.0030	.0003	.0009	.0047	.0002	.0982	1.061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value				.0020	.0025		.0030		
Range				-30.00%	-30.00%		-30.00%		

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.1137**	**2.157**	**1.045**	**.0005**	**.0003**	**.0018**	**.0001**	**-.0000**
Stddev	.0002	.0022	.014	.011	.0007	.0003	.0020	.0001	.0001
%RSD	15.32	1.929	.6436	1.074	139.6	77.81	110.9	105.8	957.4
#1	.0012	.1152	2.167	1.037	.0010	.0005	.0032	.0000	-.0001
#2	.0010	.1121	2.147	1.053	.0000	.0001	.0004	.0001	.0001
Check ?	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/30/2018 13:44:12 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0005**	**-.0001**	**-.0029**	**-.0015**	**-.0022**	**-.0001**
Stddev	.0003	.0010	.0002	.0008	.0020	.0015	.0007
%RSD	108.3	187.6	230.0	26.36	130.9	65.56	842.4
#1	-.0004	.0002	.0001	-.0034	-.0001	-.0032	-.0005
#2	-.0001	-.0012	-.0002	-.0023	-.0029	-.0012	.0004
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**153520.**	**17404.**	**6842.3**	**10424.**
Stddev	2976.	62.	22.7	13.
%RSD	1.9387	.35400	.33195	.12521
#1	151410.	17360.	6826.2	10414.
#2	155620.	17447.	6858.3	10433.

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/30/2018 13:47:13 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**-.0000**	**.0009**	**-.0000**	**.0012**	**.0056**	**-.0031**	**-.0015**	**-.0009**
Stddev	.0000	.0001	.0002	.0000	.0002	.0005	.0001	.0004	.0010
%RSD	.9478	314.9	17.28	892.5	17.18	9.474	3.383	24.22	105.5
#1	.0018	-.0001	.0008	-.0000	.0011	.0052	-.0032	-.0018	-.0016
#2	.0019	.0000	.0011	.0000	.0014	.0060	-.0031	-.0013	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0022**	**.0025**	**-.0015**	**-.0004**	**.0018**	**.0093**	**.0011**	**502.7**	**383.5**
Stddev	.0000	.0001	.0007	.0009	.0012	.0019	.0005	2.8	4.3
%RSD	1.098	2.467	46.39	239.0	67.43	20.67	44.02	.5539	1.132
#1	-.0022	.0024	-.0010	.0003	.0026	.0079	.0008	504.7	386.6
#2	-.0022	.0025	-.0020	-.0010	.0009	.0106	.0014	500.7	380.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**192.6**	**500.2**	**.2377**	**-.0007**	**-.0002**	**.0011**	**-.0130**	**-.0063**	**-.0025**
Stddev	.3	.6	.0416	.0056	.0007	.0001	.0002	.0000	.0002
%RSD	.1776	.1110	17.52	821.0	339.2	13.15	1.301	.1640	8.515
#1	192.8	500.6	.2672	.0033	-.0007	.0012	-.0131	-.0063	-.0026
#2	192.3	499.8	.2083	-.0047	.0003	.0010	-.0129	-.0063	-.0023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/30/2018 13:47:13 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0020**	**.0005**	**-.0026**	**-.0000**	**.0071**	**-.0102**	**.0006**
Stddev	.0001	.0009	.0002	.0008	.0039	.0001	.0006
%RSD	3.079	180.1	6.761	1681.	55.94	1.163	100.1
#1	-.0020	.0011	-.0028	.0005	.0099	-.0103	.0010
#2	-.0019	-.0001	-.0025	-.0006	.0043	-.0101	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142690.**	**17003.**	**6437.0**	**9295.6**
Stddev	1035.	42.	.0	2.6
%RSD	.72538	.24530	.00006	.02759
#1	141960.	16973.	6437.0	9293.8
#2	143420.	17032.	6437.0	9297.4

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/30/2018 13:50:17 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5114**	**.5060**	**1.028**	**.4985**	**.5016**	**.5231**	**.5214**	**.9836**	**1.043**
Stddev	.0010	.0001	.001	.0007	.0007	.0003	.0001	.0014	.002
%RSD	.1936	.0247	.1137	.1332	.1351	.0576	.0119	.1428	.1711
#1	.5107	.5060	1.027	.4980	.5011	.5233	.5213	.9826	1.041
#2	.5121	.5059	1.029	.4990	.5021	.5229	.5214	.9846	1.044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5071**	**.9712**	**1.048**	**1.103**	**.9811**	**1.022**	**1.067**	**516.8**	**395.8**
Stddev	.0007	.0003	.002	.001	.0050	.003	.004	1.1	.8
%RSD	.1308	.0313	.2120	.0650	.5086	.3228	.3370	.2082	.2017
#1	.5067	.9709	1.047	1.103	.9775	1.019	1.065	516.0	395.3
#2	.5076	.9714	1.050	1.102	.9846	1.024	1.070	517.5	396.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**201.4**	**507.6**	**.2887**	**-.0216**	**.5092**	**.5002**	**.4884**	**.4802**	**.5208**
Stddev	.2	1.0	.0245	.0080	.0033	.0006	.0016	.0012	.0000
%RSD	.0777	.1950	8.479	36.86	.6456	.1199	.3332	.2573	.0054
#1	201.5	508.3	.3060	-.0160	.5069	.4998	.4872	.4793	.5208
#2	201.3	506.9	.2714	-.0273	.5115	.5006	.4895	.4811	.5207
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/30/2018 13:50:17 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5124**	**.4919**	**.5594**	**.4998**	**.5266**	**.5232**	**.5090**
Stddev	.0000	.0038	.0007	.0026	.0002	.0025	.0014
%RSD	.0009	.7658	.1172	.5171	.0450	.4762	.2703
#1	.5124	.4892	.5599	.4979	.5268	.5250	.5080
#2	.5124	.4945	.5589	.5016	.5264	.5214	.5099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141520.**	**17040.**	**6386.2**	**9248.2**
Stddev	402.	68.	4.6	5.2
%RSD	.28414	.39953	.07219	.05670
#1	141810.	16991.	6382.9	9244.5
#2	141240.	17088.	6389.5	9251.9

Zoom In Zoom Out

Sample Name: HSTD 2 Acquired: 3/30/2018 13:53:17 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.927**	**4.902**	**4.933**	**4.967**	**5.086**	**5.082**	**5.145**	**5.000**	**.6228**
Stddev	.018	.028	.006	.004	.002	.025	.001	.004	.0019
%RSD	.3568	.5742	.1133	.0707	.0403	.5009	.0258	.0860	.2980
#1	4.940	4.882	4.937	4.964	5.084	5.064	5.146	4.997	.6215
#2	4.915	4.922	4.930	4.969	5.087	5.100	5.144	5.003	.6241
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.020**	**5.081**	**4.822**	**5.052**	**5.034**	**4.857**	**4.907**	**2.205**	**.9084**
Stddev	.003	.002	.009	.003	.004	.022	.005	.015	.0095
%RSD	.0552	.0405	.1756	.0564	.0765	.4531	.1087	.6949	1.045
#1	5.018	5.080	4.828	5.054	5.031	4.872	4.911	2.194	.9151
#2	5.022	5.083	4.816	5.049	5.036	4.841	4.903	2.216	.9016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.078**	**2.277**	**1.435**	**1.084**	**4.917**	**4.938**	**24.93**	**4.998**	**4.998**
Stddev	.005	.001	.022	.002	.009	.006	.01	.002	.079
%RSD	.4841	.0527	1.548	.1541	.1895	.1216	.0521	.0302	1.587
#1	1.081	2.276	1.420	1.082	4.923	4.943	24.94	4.999	5.054
#2	1.074	2.278	1.451	1.085	4.910	4.934	24.92	4.997	4.942
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD 2 Acquired: 3/30/2018 13:53:17 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.974**	**4.965**	**4.895**	**46.14**	**4.997**	**4.927**	**4.863**
Stddev	.007	.006	.002	.05	.009	.016	.002
%RSD	.1393	.1139	.0387	.1167	.1782	.3169	.0403
#1	4.970	4.969	4.893	46.18	5.003	4.938	4.862
#2	4.979	4.961	4.896	46.10	4.991	4.916	4.865
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**158350.**	**17924.**	**7005.3**	**10632.**
Stddev	177.	125.	12.7	.
%RSD	.11154	.69862	.18084	.00296
#1	158220.	17835.	6996.4	10632.
#2	158470.	18012.	7014.3	10632.

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/30/2018 13:56:27 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0118**	**.0106**	**.0117**	**.0114**	**.0121**	**.0134**	**.0082**	**.0109**	**-.0015**
Stddev	.0006	.0001	.0004	.0000	.0003	.0016	.0002	.0004	.0014
%RSD	5.142	.5449	3.274	.3786	2.182	11.91	2.816	4.020	95.74
#1	.0122	.0106	.0120	.0114	.0123	.0145	.0083	.0106	-.0005
#2	.0114	.0106	.0114	.0114	.0119	.0123	.0080	.0112	-.0024
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0092**	**.0128**	**.0101**	**.0106**	**.0111**	**.0198**	**.0107**	**289.2**	**138.0**
Stddev	.0007	.0000	.0004	.0006	.0026	.0020	.0006	6.3	2.5
%RSD	7.245	.2486	4.030	5.944	23.45	9.938	5.857	2.185	1.821
#1	.0088	.0128	.0098	.0110	.0130	.0212	.0103	293.7	139.8
#2	.0097	.0127	.0103	.0101	.0093	.0184	.0111	284.7	136.3
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**145.1**	**294.8**	**152.8**	**145.3**	**.0169**	**.0120**	**.0643**	**.0060**	**.0094**
Stddev	3.0	5.7	1.3	1.8	.0006	.0001	.0004	.0005	.0001
%RSD	2.046	1.933	.8463	1.249	3.526	.7393	.6581	7.573	.9214
#1	147.2	298.8	153.8	146.6	.0173	.0119	.0646	.0057	.0094
#2	143.0	290.8	151.9	144.0	.0165	.0120	.0640	.0063	.0093
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/30/2018 13:56:27 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0101**	**.0108**	**.0086**	**.1028**	**.0154**	**.0092**	**.0113**
Stddev	.0008	.0004	.0000	.0042	.0001	.0013	.0003
%RSD	8.113	3.613	.3285	4.121	.8907	13.69	3.062
#1	.0106	.0111	.0086	.1058	.0153	.0100	.0115
#2	.0095	.0105	.0086	.0998	.0155	.0083	.0110
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**145990.**	**17357.**	**6583.2**	**9371.2**
Stddev	78.	120.	17.9	21.4
%RSD	.05315	.68863	.27148	.22828
#1	145940.	17273.	6570.5	9356.1
#2	146050.	17442.	6595.8	9386.3

Zoom In Zoom Out

Sample Name: FECONF Acquired: 3/30/2018 13:59:22 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0010**	**.0000**	**.0003**	**.0001**	**.0007**	**.0035**	**-.0012**	**-.0004**	**-.0008**
Stddev	.0002	.0001	.0003	.0001	.0004	.0010	.0001	.0002	.0009
%RSD	15.92	226.5	87.32	196.2	61.24	28.93	9.384	57.08	111.4
#1	.0012	-.0000	.0005	-.0000	.0004	.0043	-.0011	-.0005	-.0002
#2	.0009	.0001	.0001	.0002	.0010	.0028	-.0013	-.0002	-.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0032**	**-.0023**	**-.0025**	**-.0006**	**-.0008**	**.0085**	**-.0012**	**.7159**	**.3642**
Stddev	.0002	.0002	.0002	.0010	.0003	.0015	.0020	.0015	.0002
%RSD	7.433	8.519	9.603	163.9	44.31	17.65	169.4	.2037	.0540
#1	-.0030	-.0021	-.0027	-.0013	-.0005	.0095	.0002	.7169	.3643
#2	-.0033	-.0024	-.0023	.0001	-.0010	.0074	-.0025	.7148	.3640

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**193.9**	**.7286**	**.7107**	**.3595**	**.0006**	**.0007**	**.0156**	**-.0017**	**.0001**
Stddev	.5	.0106	.0169	.0165	.0001	.0001	.0010	.0004	.0001
%RSD	.2721	1.455	2.384	4.584	12.08	7.464	6.268	23.08	130.3
#1	194.3	.7361	.6987	.3479	.0007	.0008	.0162	-.0014	.0000
#2	193.5	.7211	.7227	.3712	.0006	.0007	.0149	-.0020	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**-.0009**	**-.0020**	**-.0308**	**.0000**	**-.0026**	**-.0110**
Stddev	.0000	.0002	.0001	.0008	.0005	.0028	.0017
%RSD	33.29	19.76	6.602	2.502	1353.	110.4	15.33
#1	.0001	-.0010	-.0019	-.0303	.0004	-.0006	-.0122
#2	.0001	-.0008	-.0021	-.0314	-.0003	-.0046	-.0098

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159450.**	**17972.**	**7030.7**	**10788.**
Stddev	688.	36.	12.6	39.
%RSD	.43136	.19881	.17935	.35902
#1	158960.	17946.	7021.8	10760.
#2	159930.	17997.	7039.6	10815.

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 3/30/2018 14:02:21 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0010**	**-.0000**	**-.0000**	**-.0004**	F **10.39**	**-.0013**	**-.0013**	**.0004**	**.0002**
Stddev	.0005	.0001	.0002	.0003	.14	.0000	.0000	.0000	.0003
%RSD	50.31	580.7	1035.	76.89	1.305	1.062	1.468	1.923	154.4
#1	.0006	-.0001	.0001	-.0002	10.30	-.0013	-.0013	.0004	.0004
#2	.0014	.0000	-.0002	-.0006	10.49	-.0013	-.0013	.0004	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0017**	**-.0004**	**-.0011**	**-.0001**	**-.0015**	**.0034**	**-.0038**	**.0296**
Stddev	.0005	.0000	.0003	.0003	.0011	.0005	.0037	.0134	.0027
%RSD	163.6	.1284	98.65	24.06	832.9	33.45	108.2	353.5	8.951
#1	.0000	.0017	-.0006	-.0013	.0007	-.0012	.0060	-.0132	.0315
#2	-.0006	.0017	-.0001	-.0009	-.0009	-.0019	.0008	.0057	.0277

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.5192**	**.0033**	**.1462**	**-.0001**	**.0016**	**.0007**	**.0133**	**-.0010**	**.0001**
Stddev	.0086	.0181	.0039	.0007	.0004	.0002	.0004	.0001	.0000
%RSD	1.665	552.6	2.667	771.9	21.96	25.43	2.983	8.653	34.63
#1	.5253	-.0095	.1435	-.0006	.0014	.0008	.0130	-.0010	.0001
#2	.5130	.0161	.1490	.0004	.0019	.0006	.0136	-.0011	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0018**	**.0039**	**.0036**	**.0006**	**.0121**	**.0018**	**-.0033**
Stddev	.0002	.0001	.0002	.0045	.0008	.0006	.0001
%RSD	13.64	3.449	5.003	702.8	6.840	31.23	3.195
#1	-.0019	.0040	.0038	-.0025	.0127	.0022	-.0033
#2	-.0016	.0038	.0035	.0038	.0115	.0014	-.0032

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161480.**	**18073.**	**6969.7**	**10764.**
Stddev	208.	47.	8.3	20.
%RSD	.12902	.25839	.11907	.18143
#1	161330.	18106.	6963.8	10750.
#2	161620.	18040.	6975.6	10777.

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 3/30/2018 14:05:22 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0012**	**.0001**	**-.0001**	**-.0001**	**.0204**	**.0006**	**.0001**	**.0005**	**.0005**
Stddev	.0000	.0000	.0002	.0000	.0005	.0001	.0000	.0003	.0002
%RSD	3.183	2.165	174.2	60.14	2.232	15.53	13.35	51.91	39.20
#1	.0012	.0001	.0000	-.0001	.0201	.0006	.0001	.0003	.0004
#2	.0012	.0001	-.0002	-.0000	.0207	.0007	.0001	.0007	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**.0003**	**5.201**	**-.0004**	**.0007**	**-.0017**	**.0002**	**.0011**	**-.0348**
Stddev	.0006	.0001	.020	.0025	.0012	.0004	.0000	.0001	.0032
%RSD	1237.	21.71	.3742	602.7	164.0	21.80	11.03	12.43	9.111
#1	.0004	.0003	5.187	.0014	-.0001	-.0019	.0002	.0012	-.0326
#2	-.0004	.0004	5.215	-.0022	.0016	-.0014	.0003	.0010	-.0370

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0183**	**-.0035**	**.1183**	**-.0176**	**.0004**	**.0004**	**.0019**	**-.0002**	**-.0000**
Stddev	.0031	.0070	.0415	.0058	.0000	.0004	.0002	.0006	.0003
%RSD	16.78	201.2	35.12	32.84	10.29	87.56	12.88	281.6	723.1
#1	.0205	-.0085	.1477	-.0135	.0004	.0007	.0017	-.0007	.0001
#2	.0162	.0015	.0889	-.0216	.0004	.0002	.0021	.0002	-.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0006**	**-.0017**	**.0001**	**-.0012**	**-.0016**	**.0007**	**-.0015**
Stddev	.0002	.0006	.0002	.0017	.0006	.0004	.0002
%RSD	40.68	37.37	145.9	133.8	39.03	61.36	14.47
#1	.0007	-.0013	-.0000	-.0024	-.0012	.0004	-.0014
#2	.0004	-.0022	.0003	-.0001	-.0020	.0010	-.0017

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157850.**	**17542.**	**6920.9**	**10535.**
Stddev	536.	68.	3.9	4.
%RSD	.33925	.38697	.05585	.04257
#1	157470.	17494.	6918.2	10532.
#2	158230.	17590.	6923.7	10538.

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/30/2018 14:08:20 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.916**	**1.928**	**1.960**	**1.987**	**1.944**	**1.925**	**1.998**	**1.995**	**.2438**
Stddev	.005	.009	.003	.002	.045	.046	.042	.002	.0041
%RSD	.2701	.4605	.1753	.1031	2.329	2.390	2.112	.1124	1.679
#1	1.920	1.934	1.963	1.988	1.912	1.893	1.968	1.997	.2409
#2	1.912	1.922	1.958	1.985	1.976	1.958	2.028	1.994	.2467
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.943**	**1.996**	**1.945**	**1.997**	**1.985**	**1.947**	**1.949**	**37.72**	**38.28**
Stddev	.044	.001	.005	.004	.003	.002	.004	.18	.13
%RSD	2.291	.0410	.2342	.1773	.1344	.1011	.2161	.4860	.3412
#1	1.911	1.996	1.949	2.000	1.987	1.948	1.952	37.85	38.37
#2	1.974	1.995	1.942	1.995	1.983	1.946	1.946	37.59	38.18
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**37.99**	**38.38**	**38.40**	**38.45**	**1.962**	**1.976**	**4.871**	**1.980**	**1.907**
Stddev	.22	.18	.06	.02	.001	.002	.012	.003	.006
%RSD	.5741	.4565	.1609	.0541	.0575	.0842	.2537	.1315	.3361
#1	38.14	38.50	38.36	38.44	1.962	1.977	4.880	1.982	1.912
#2	37.84	38.25	38.44	38.47	1.961	1.975	4.862	1.978	1.902
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/30/2018 14:08:20 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.937**	**1.941**	**1.926**	**1.916**	**1.983**	**1.928**	**1.958**
Stddev	.044	.001	.047	.000	.006	.000	.004
%RSD	2.262	.0597	2.440	.0128	.2849	.0088	.1914
#1	1.906	1.942	1.893	1.915	1.979	1.928	1.960
#2	1.967	1.940	1.959	1.916	1.987	1.928	1.955
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**155270.**	**17689.**	**6904.2**	**10142.**
Stddev	727.	45.	13.5	24.
%RSD	.46792	.25520	.19536	.23351
#1	154760.	17657.	6894.7	10125.
#2	155780.	17721.	6913.8	10159.

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/30/2018 14:11:10 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0001**	**.0001**	**-.0001**	**.0000**	**.0005**	**.0000**	**.0001**	**.0010**
Stddev	.0002	.0000	.0000	.0002	.0000	.0004	.0001	.0004	.0007
%RSD	22.86	7.595	11.15	284.1	126.3	82.22	348.6	302.2	71.96
#1	.0007	.0001	.0001	-.0002	.0000	.0007	.0001	-.0001	.0005
#2	.0010	.0001	.0001	.0001	.0000	.0002	-.0000	.0004	.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0001**	**.0002**	**.0009**	**-.0001**	**.0012**	**-.0003**	**.0062**	**.0047**
Stddev	.0002	.0000	.0008	.0016	.0002	.0017	.0001	.0070	.0011
%RSD	47.26	29.52	431.2	174.6	155.1	145.6	42.99	112.8	23.62
#1	-.0002	.0001	-.0004	.0020	.0000	-.0000	-.0002	.0112	.0054
#2	-.0005	.0001	.0007	-.0002	-.0003	.0024	-.0004	.0013	.0039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0178**	**.1318**	**-.0159**	**.0012**	**.0004**	**.0000**	**-.0004**	**-.0000**
Stddev	.0001	.0286	.0102	.0002	.0010	.0003	.0004	.0002	.0001
%RSD	13.50	160.7	7.730	1.049	83.28	85.63	1089.	57.74	341.3
#1	.0010	-.0024	.1246	-.0157	.0018	.0006	-.0002	-.0005	.0000
#2	.0012	.0380	.1390	-.0160	.0005	.0001	.0003	-.0002	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/30/2018 14:11:10 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0003**	**.0000**	**-.0035**	**-.0014**	**.0025**	**-.0014**
Stddev	.0001	.0003	.0001	.0007	.0019	.0019	.0008
%RSD	28.25	93.32	270.7	19.39	136.8	75.32	56.27
#1	.0003	.0001	-.0000	-.0040	-.0000	.0038	-.0008
#2	.0002	.0005	.0001	-.0031	-.0028	.0012	-.0019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**157440.**	**17603.**	**6927.8**	**10528.**
Stddev	937.	35.	20.3	21.
%RSD	.59544	.19610	.29264	.19729
#1	156780.	17627.	6913.5	10513.
#2	158100.	17578.	6942.2	10543.

Zoom In Zoom Out

Sample Name: crid Acquired: 3/30/2018 14:14:10 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046**	**.0010**	**.0011**	**.0029**	**.0021**	F **.0005**	**.0033**	**.0042**
Stddev	.0000	.0000	.0001	.0002	.0001	.0005	.0001	.0001
%RSD	.7455	3.515	5.244	5.367	2.767	88.41	4.444	1.979
#1	.0046	.0010	.0010	.0030	.0020	.0002	.0034	.0041
#2	.0046	.0009	.0011	.0028	.0021	.0009	.0032	.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0001**	**.0016**	**.0105**	**.0036**	**.0021**	F **-.0009**	**.0049**	F **-.0006**
Stddev	.0005	.0001	.0001	.0003	.0011	.0004	.0012	.0002
%RSD	974.2	5.650	1.270	8.279	52.47	45.76	24.22	30.20
#1	-.0003	.0017	.0104	.0038	.0013	-.0006	.0041	-.0008
#2	.0004	.0016	.0106	.0034	.0029	-.0012	.0058	-.0005
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-30.00%					-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0952**	**1.009**	**-.0002**	**.1203**	**2.033**	**.9949**	**.0002**	**.0002**
Stddev	.0073	.004	.0036	.0117	.035	.0090	.0008	.0001
%RSD	7.631	.3611	1531.	9.696	1.702	.9029	433.1	29.04
#1	.0901	1.012	.0023	.1286	2.058	1.001	.0008	.0002
#2	.1004	1.007	-.0028	.1121	2.009	.9886	-.0004	.0001
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: crid Acquired: 3/30/2018 14:14:10 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**.0001**	**-.0000**	**.0002**	**-.0009**	**.0001**	**-.0025**	**-.0016**
Stddev	.0013	.0010	.0001	.0001	.0010	.0003	.0012	.0002
%RSD	68.42	820.5	406.7	55.99	105.5	187.0	48.92	13.30
#1	.0010	-.0006	.0000	.0001	-.0002	-.0000	-.0016	-.0015
#2	.0029	.0008	-.0001	.0003	-.0016	.0003	-.0034	-.0018
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0017**	**.0001**
Stddev	.0045	.0001
%RSD	263.5	74.97
#1	.0049	.0001
#2	-.0015	.0002
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**156040.**	**18021.**	**7135.4**	**10780.**
Stddev	6440.	30.	7.8	21.
%RSD	4.1272	.16815	.10996	.19903
#1	151490.	18000.	7129.8	10765.
#2	160590.	18042.	7140.9	10795.

Zoom In Zoom Out

Sample Name: mp6402-mb1 2 Acquired: 3/30/2018 14:17:09 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0004**	**-.0000**	**.0001**	**-.0003**	**-.0003**	**.0007**	**-.0000**	**.0002**	**.0003**
Stddev	.0000	.0000	.0000	.0001	.0004	.0007	.0000	.0005	.0002
%RSD	10.34	95.25	36.44	38.61	121.3	92.68	34.48	217.4	57.42
#1	.0004	-.0001	.0000	-.0004	-.0006	.0012	-.0000	-.0001	.0002
#2	.0004	-.0000	.0001	-.0002	-.0000	.0002	-.0001	.0005	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0016**	**.0004**	**.0000**	**-.0003**	**.0021**	**.0020**	**.0065**	**.0109**
Stddev	.0002	.0002	.0002	.0014	.0011	.0000	.0004	.0054	.0032
%RSD	288.9	14.13	56.20	8450.	349.6	.4577	20.52	82.02	29.76
#1	.0001	.0018	.0002	.0010	.0005	.0021	.0017	.0103	.0131
#2	-.0002	.0015	.0005	-.0010	-.0011	.0021	.0023	.0027	.0086

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0024**	**.0139**	**.0624**	**-.0088**	**-.0001**	**.0002**	**-.0011**	**-.0006**	**.0000**
Stddev	.0054	.0064	.0182	.0072	.0004	.0001	.0011	.0001	.0002
%RSD	224.5	46.26	29.21	81.41	472.5	27.28	108.6	17.99	5375.
#1	.0062	.0093	.0495	-.0038	.0002	.0002	-.0002	-.0005	-.0001
#2	-.0014	.0184	.0753	-.0139	-.0004	.0002	-.0019	-.0007	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0009**	**.0003**	**.0002**	**.0022**	**-.0003**	**.0008**	**.0012**
Stddev	.0003	.0001	.0001	.0028	.0012	.0009	.0006
%RSD	34.58	24.21	56.00	126.7	424.7	120.4	51.58
#1	.0011	.0003	.0003	.0002	.0006	.0014	.0007
#2	.0007	.0004	.0001	.0042	-.0011	.0001	.0016

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161360.**	**18179.**	**7079.9**	**10711.**
Stddev	13.	54.	5.3	5.
%RSD	.00822	.29821	.07548	.04631
#1	161350.	18218.	7083.7	10715.
#2	161370.	18141.	7076.1	10708.

Zoom In Zoom Out

Sample Name: mp6402-b1 Acquired: 3/30/2018 14:20:09 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.997**	**2.030**	**2.014**	**2.045**	**2.047**	**2.038**	**2.099**	**2.060**	**.2459**
Stddev	.009	.009	.003	.003	.002	.003	.002	.004	.0007
%RSD	.4307	.4328	.1706	.1289	.0943	.1238	.1000	.1784	.3019
#1	1.991	2.024	2.012	2.043	2.046	2.040	2.097	2.057	.2453
#2	2.003	2.036	2.016	2.047	2.049	2.037	2.100	2.062	.2464

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.047**	**2.048**	**1.998**	**2.072**	**2.056**	**1.997**	**2.014**	**24.68**	**24.98**
Stddev	.002	.001	.006	.008	.006	.007	.001	.09	.10
%RSD	.1168	.0512	.2879	.3754	.3040	.3616	.0458	.3533	.4199
#1	2.045	2.047	1.994	2.067	2.051	1.992	2.014	24.62	24.91
#2	2.048	2.048	2.002	2.078	2.060	2.002	2.013	24.75	25.06

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.94**	**25.11**	**24.53**	**24.93**	**2.012**	**2.053**	**-.0366**	**2.038**	**1.994**
Stddev	.08	.13	.13	.14	.000	.003	.0019	.002	.008
%RSD	.3096	.5129	.5322	.5545	.0066	.1663	5.171	.0823	.3909
#1	24.88	25.02	24.44	24.84	2.012	2.051	-.0379	2.039	1.989
#2	24.99	25.20	24.62	25.03	2.012	2.056	-.0352	2.037	2.000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.038**	**1.965**	**2.029**	**.0278**	**.1724**	**.0001**	**2.011**
Stddev	.002	.005	.000	.0015	.0025	.0000	.004
%RSD	.0984	.2791	.0126	5.249	1.438	19.43	.2141
#1	2.036	1.962	2.029	.0268	.1707	.0001	2.008
#2	2.039	1.969	2.029	.0289	.1742	.0001	2.014

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156150.**	**17834.**	**6889.7**	**10164.**
Stddev	756.	36.	19.2	23.
%RSD	.48442	.20435	.27800	.22954
#1	156680.	17808.	6876.1	10148.
#2	155620.	17860.	6903.2	10181.

Zoom In Zoom Out

Sample Name: mp6402-s1 Acquired: 3/30/2018 14:22:56 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.094**	**2.080**	**2.010**	**2.041**	**2.025**	**2.032**	**6.708**	**2.051**	**.2455**
Stddev	.010	.010	.006	.005	.057	.052	.271	.003	.0067
%RSD	.4815	.4971	.3027	.2667	2.826	2.577	4.036	.1519	2.718
#1	2.101	2.087	2.005	2.037	1.984	1.995	6.517	2.049	.2407
#2	2.087	2.073	2.014	2.044	2.065	2.069	6.900	2.053	.2502

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.053**	**2.025**	**2.026**	**2.048**	**2.037**	**1.997**	**2.029**	**27.79**	**85.04**
Stddev	.061	.002	.007	.004	.007	.013	.006	.10	.35
%RSD	2.978	.1114	.3555	.1715	.3447	.6350	.3090	.3610	.4122
#1	2.010	2.023	2.021	2.046	2.032	1.988	2.025	27.86	85.29
#2	2.097	2.026	2.032	2.050	2.042	2.006	2.034	27.72	84.79

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**31.23**	**57.76**	**31.49**	**76.34**	**2.092**	**2.053**	**8.812**	**2.023**	**2.301**
Stddev	.13	.23	.11	.23	.010	.004	.019	.002	.010
%RSD	.4285	.4055	.3461	.2956	.4856	.2201	.2129	.1120	.4472
#1	31.33	57.93	31.57	76.50	2.085	2.049	8.799	2.021	2.308
#2	31.14	57.59	31.41	76.18	2.099	2.056	8.826	2.024	2.293

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.079**	**2.011**	**2.036**	**30.13**	**.1789**	**.0028**	**2.177**
Stddev	.058	.004	.055	.09	.0084	.0028	.009
%RSD	2.767	.1860	2.712	.3112	4.721	99.69	.4184
#1	2.038	2.009	1.997	30.06	.1729	.0008	2.170
#2	2.119	2.014	2.075	30.19	.1849	.0048	2.183

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155060.**	**17675.**	**6779.1**	**9829.1**
Stddev	4067.	45.	11.4	10.2
%RSD	2.6230	.25250	.16830	.10384
#1	157940.	17707.	6771.1	9821.9
#2	152190.	17644.	6787.2	9836.4

Zoom In Zoom Out

Sample Name: mp6402-s2 Acquired: 3/30/2018 14:25:50 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.980**	**1.958**	**2.000**	**2.030**	**2.058**	**2.062**	**6.793**	**2.038**	**.2491**
Stddev	.095	.096	.004	.004	.002	.009	.081	.005	.0010
%RSD	4.776	4.913	.1910	.2028	.1027	.4111	1.190	.2368	.3824
#1	1.913	1.890	2.003	2.033	2.056	2.068	6.850	2.041	.2497
#2	2.047	2.026	1.997	2.027	2.059	2.056	6.736	2.034	.2484

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.086**	**2.006**	**2.013**	**2.039**	**2.025**	**1.982**	**2.018**	**26.17**	**81.31**
Stddev	.004	.002	.002	.003	.004	.002	.004	1.39	3.84
%RSD	.1859	.0723	.0919	.1219	.2066	.0834	.1969	5.315	4.724
#1	2.089	2.007	2.015	2.041	2.028	1.983	2.021	25.19	78.59
#2	2.083	2.005	2.012	2.037	2.022	1.981	2.015	27.15	84.03

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**29.48**	**54.93**	**30.57**	**73.58**	**2.082**	**2.037**	**8.810**	**2.007**	**2.173**
Stddev	1.49	2.66	1.14	2.95	.001	.005	.018	.005	.102
%RSD	5.061	4.836	3.713	4.003	.0682	.2602	.2042	.2366	4.714
#1	28.43	53.05	29.77	71.50	2.083	2.041	8.823	2.011	2.101
#2	30.54	56.81	31.37	75.66	2.081	2.033	8.797	2.004	2.246

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.115**	**1.996**	**2.071**	**30.39**	**.1842**	**.0034**	**2.161**
Stddev	.000	.006	.008	.02	.0012	.0012	.004
%RSD	.0054	.3217	.3988	.0596	.6572	34.26	.1814
#1	2.115	2.001	2.077	30.40	.1850	.0042	2.164
#2	2.114	1.992	2.065	30.37	.1833	.0026	2.158

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**153860.**	**17822.**	**6873.3**	**9949.9**
Stddev	639.	15.	5.2	15.5
%RSD	.41558	.08270	.07495	.15568
#1	154310.	17812.	6869.7	9938.9
#2	153410.	17833.	6877.0	9960.9

Zoom In Zoom Out

Sample Name: jc62879-11 Acquired: 3/30/2018 14:28:43 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0608**	**.0001**	**-.0000**	**.0055**	**.0030**	**.0049**	**4.750**	**.0035**	**-.0000**
Stddev	.0002	.0000	.0000	.0000	.0004	.0005	.043	.0001	.0003
%RSD	.3971	9.374	271.8	.7280	12.41	9.907	.9090	2.583	795.2
#1	.0610	.0001	-.0000	.0055	.0033	.0053	4.719	.0035	.0002
#2	.0607	.0001	.0000	.0055	.0028	.0046	4.780	.0034	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0112**	**.0120**	**.0018**	**.0012**	**.0006**	**-.0003**	**-.0005**	**1.170**	**58.88**
Stddev	.0005	.0000	.0015	.0009	.0005	.0006	.0018	.003	.32
%RSD	4.800	.3719	83.06	74.91	83.91	166.3	354.5	.2405	.5503
#1	.0108	.0119	.0007	.0006	.0002	.0001	.0008	1.168	59.11
#2	.0116	.0120	.0028	.0019	.0009	-.0007	-.0018	1.172	58.65

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**5.828**	**31.97**	**6.286**	**50.13**	**.0819**	**.0003**	**6.547**	**-.0011**	**.2616**
Stddev	.030	.11	.021	.19	.0004	.0003	.012	.0012	.0014
%RSD	.5079	.3365	.3287	.3876	.5172	105.2	.1804	116.2	.5313
#1	5.849	32.05	6.300	50.27	.0822	.0005	6.538	-.0002	.2626
#2	5.807	31.90	6.271	49.99	.0816	.0001	6.555	-.0019	.2606

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0360**	**.0009**	**-.0026**	**29.69**	**.0016**	**.0036**	**.1436**
Stddev	.0002	.0014	.0001	.05	.0030	.0001	.0011
%RSD	.6193	155.0	4.213	.1626	183.0	1.972	.7758
#1	.0358	-.0001	-.0026	29.66	-.0005	.0036	.1428
#2	.0361	.0019	-.0025	29.73	.0037	.0035	.1444

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157950.**	**18107.**	**7009.9**	**10278.**
Stddev	268.	23.	1.8	2.
%RSD	.16937	.12761	.02609	.02217
#1	157760.	18091.	7008.6	10276.
#2	158140.	18123.	7011.2	10280.

Zoom In Zoom Out

Sample Name: mp6402-sd1 Acquired: 3/30/2018 14:31:45 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0634**	**-.0000**	**.0001**	**.0045**	**.0037**	**.0032**	**4.866**	**.0060**	**.0018**
Stddev	.0004	.0004	.0003	.0001	.0007	.0020	.037	.0002	.0036
%RSD	.6146	6822.	340.5	2.619	18.18	63.73	.7524	2.736	196.5
#1	.0631	.0003	-.0001	.0044	.0042	.0047	4.892	.0061	.0044
#2	.0637	-.0003	.0003	.0046	.0032	.0018	4.840	.0059	-.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0110**	**.0175**	**.0054**	**.0037**	**.0023**	**-.0008**	**.0031**	**1.134**	**58.66**
Stddev	.0003	.0005	.0020	.0081	.0039	.0066	.0028	.062	.25
%RSD	2.280	2.690	37.59	215.8	167.5	841.1	89.49	5.490	.4226
#1	.0112	.0178	.0069	-.0020	-.0004	.0039	.0050	1.178	58.84
#2	.0109	.0172	.0040	.0094	.0051	-.0054	.0011	1.090	58.49

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**5.848**	**32.24**	**6.744**	**50.14**	**.0844**	**.0022**	**6.558**	**-.0030**	**.2610**
Stddev	.041	.03	.130	.05	.0027	.0002	.016	.0024	.0002
%RSD	.6927	.1027	1.928	.0977	3.158	10.56	.2456	78.97	.0742
#1	5.876	32.22	6.652	50.17	.0863	.0024	6.570	-.0047	.2609
#2	5.819	32.27	6.836	50.10	.0825	.0021	6.547	-.0013	.2611

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0366**	**.0037**	**-.0016**	**29.43**	**-.0040**	**.0060**	**.1413**
Stddev	.0011	.0018	.0005	.12	.0069	.0013	.0033
%RSD	3.043	49.39	31.59	.3946	175.3	20.97	2.345
#1	.0358	.0050	-.0019	29.34	-.0089	.0069	.1389
#2	.0374	.0024	-.0012	29.51	.0009	.0051	.1436

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161220.**	**18074.**	**7151.1**	**10695.**
Stddev	1302.	127.	15.6	3.
%RSD	.80746	.70402	.21785	.03251
#1	160300.	17984.	7140.1	10692.
#2	162140.	18164.	7162.1	10697.

Zoom In Zoom Out

Sample Name: jc63151-3 Acquired: 3/30/2018 14:34:43 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0653**	**.0001**	**.0002**	**.0008**	**.0122**	**.0066**	**.2746**	**.0043**	**.0001**
Stddev	.0006	.0001	.0001	.0001	.0001	.0004	.0002	.0008	.0003
%RSD	.9021	43.98	45.90	9.366	.8011	5.856	.0627	19.67	438.2
#1	.0649	.0002	.0002	.0007	.0123	.0063	.2748	.0049	.0003
#2	.0657	.0001	.0003	.0008	.0122	.0068	.2745	.0037	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0071**	**.0304**	**.0020**	**-.0018**	**.0076**	**-.0016**	**.0020**	**4.598**	**36.47**
Stddev	.0000	.0000	.0003	.0012	.0000	.0012	.0002	.009	.20
%RSD	.4767	.0050	16.88	66.52	.3753	74.02	10.90	.1858	.5533
#1	.0071	.0304	.0017	-.0010	.0076	-.0024	.0019	4.604	36.32
#2	.0071	.0304	.0022	-.0027	.0076	-.0007	.0022	4.592	36.61

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.04**	**23.22**	**4.399**	**22.82**	**.0235**	**.0027**	**9.136**	**-.0013**	**.1139**
Stddev	.05	.11	.051	.13	.0001	.0000	.032	.0005	.0005
%RSD	.4477	.4751	1.154	.5757	.2277	.7398	.3490	34.03	.4588
#1	12.00	23.15	4.364	22.73	.0235	.0027	9.158	-.0010	.1136
#2	12.08	23.30	4.435	22.92	.0234	.0027	9.113	-.0017	.1143

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0708**	**-.0000**	**-.0028**	**6.514**	**.0031**	**.0047**	**.0854**
Stddev	.0011	.0002	.0005	.002	.0013	.0015	.0001
%RSD	1.487	460.2	17.11	.0342	41.93	32.46	.1040
#1	.0715	-.0002	-.0031	6.515	.0040	.0058	.0853
#2	.0700	.0001	-.0024	6.512	.0021	.0036	.0854

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160550.**	**18279.**	**7117.1**	**10429.**
Stddev	188.	96.	21.6	37.
%RSD	.11735	.52422	.30354	.35349
#1	160680.	18347.	7101.8	10403.
#2	160410.	18211.	7132.4	10455.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/30/2018 14:37:40 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.961**	**1.986**	**1.921**	**1.953**	**1.987**	**1.963**	**2.032**	**1.966**	**.2460**
Stddev	.003	.003	.008	.007	.015	.019	.013	.005	.0026
%RSD	.1361	.1602	.4250	.3602	.7730	.9629	.6276	.2541	1.062
#1	1.960	1.988	1.926	1.958	1.998	1.977	2.041	1.969	.2478
#2	1.963	1.984	1.915	1.948	1.976	1.950	2.023	1.962	.2441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.983**	**1.954**	**1.909**	**1.976**	**1.957**	**1.914**	**1.914**	**38.75**	**39.30**
Stddev	.013	.005	.005	.007	.006	.004	.007	.01	.06
%RSD	.6443	.2544	.2667	.3770	.2862	.2221	.3547	.0178	.1558
#1	1.992	1.958	1.913	1.982	1.961	1.917	1.918	38.75	39.34
#2	1.974	1.951	1.905	1.971	1.953	1.911	1.909	38.75	39.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.99**	**39.32**	**38.93**	**39.16**	**1.930**	**1.941**	**4.769**	**1.936**	**1.955**
Stddev	.08	.14	.04	.06	.011	.007	.015	.009	.004
%RSD	.1992	.3599	.1075	.1576	.5824	.3868	.3075	.4738	.1859
#1	39.04	39.42	38.96	39.20	1.938	1.947	4.780	1.942	1.958
#2	38.93	39.22	38.90	39.11	1.922	1.936	4.759	1.929	1.953
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/30/2018 14:37:40 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.974**	**1.908**	**1.965**	**1.874**	**1.953**	**1.972**	**1.929**
Stddev	.019	.009	.015	.008	.012	.001	.004
%RSD	.9514	.4958	.7364	.4298	.5915	.0609	.2041
#1	1.987	1.915	1.976	1.880	1.962	1.972	1.932
#2	1.960	1.902	1.955	1.868	1.945	1.973	1.926
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**156080.**	**17848.**	**6980.5**	**10194.**
Stddev	911.	143.	31.9	41.
%RSD	.58389	.80330	.45682	.40161
#1	155440.	17747.	6958.0	10165.
#2	156730.	17949.	7003.1	10223.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/30/2018 14:40:30 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0000**	**.0002**	**-.0002**	**.0002**	**-.0001**	**.0000**	**.0004**	**.0007**
Stddev	.0004	.0001	.0002	.0003	.0003	.0002	.0001	.0002	.0001
%RSD	84.92	325.2	67.58	147.7	124.3	174.2	338.3	52.75	17.97
#1	.0002	.0001	.0001	-.0004	.0004	.0000	.0001	.0003	.0008
#2	.0007	-.0001	.0003	.0000	.0000	-.0002	-.0000	.0006	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0011**	**-.0004**	**.0001**	**-.0001**	**.0004**	**.0022**	**.0001**
Stddev	.0004	.0002	.0006	.0001	.0012	.0015	.0007	.0151	.0026
%RSD	382.6	134.0	57.00	15.49	993.0	1133.	188.1	672.0	2829.
#1	-.0002	.0003	.0007	-.0004	.0010	.0009	-.0001	.0129	.0019
#2	.0004	.0000	.0016	-.0003	-.0007	-.0012	.0009	-.0084	-.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0280**	**.0449**	**.0062**	**.0023**	**-.0000**	**.0001**	**-.0001**	**.0001**
Stddev	.0004	.0204	.0022	.0055	.0001	.0000	.0012	.0001	.0001
%RSD	84.08	72.83	4.817	89.00	2.774	51.72	2176.	38.44	124.3
#1	.0007	.0423	.0433	.0023	.0024	-.0000	.0009	-.0001	.0001
#2	.0002	.0136	.0464	.0101	.0023	-.0000	-.0008	-.0002	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/30/2018 14:40:30 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0005**	**.0000**	**.0009**	**-.0021**	**.0006**	**-.0005**
Stddev	.0003	.0014	.0000	.0015	.0002	.0005	.0008
%RSD	69.86	308.0	60.60	169.5	9.178	89.97	175.1
#1	.0002	.0014	.0000	-.0002	-.0020	.0010	.0001
#2	.0007	-.0005	.0000	.0020	-.0023	.0002	-.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**161400.**	**18617.**	**7160.8**	**10803.**
Stddev	433.	1021.	4.8	1.
%RSD	.26826	5.4828	.06770	.00532
#1	161700.	17895.	7157.4	10804.
#2	161090.	19338.	7164.2	10803.

Zoom In Zoom Out

Sample Name: mp6412-mb1 2 Acquired: 3/30/2018 14:43:30 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0010**	**-.0000**	**.0003**	**-.0002**	**.0015**	**.0015**	**.0005**	**.0013**	**.0006**
Stddev	.0001	.0001	.0000	.0001	.0002	.0004	.0000	.0000	.0004
%RSD	7.847	270.7	19.83	53.30	10.48	23.82	4.640	1.716	72.79
#1	.0009	.0000	.0002	-.0003	.0016	.0018	.0005	.0013	.0009
#2	.0011	-.0001	.0003	-.0001	.0014	.0013	.0005	.0013	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0002**	**.0022**	**.0003**	**-.0013**	**.0006**	**.0003**	**-.0006**	**.0035**	**.1270**
Stddev	.0002	.0001	.0007	.0001	.0009	.0008	.0006	.0179	.0028
%RSD	88.18	3.750	238.1	6.568	152.6	319.1	102.5	506.4	2.195
#1	-.0001	.0021	.0008	-.0013	.0012	.0009	-.0002	-.0091	.1250
#2	-.0004	.0022	-.0002	-.0014	-.0000	-.0003	-.0010	.0162	.1289

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0343**	**.0620**	**.0492**	**.1370**	**.0011**	**.0007**	**.0422**	**.0278**	**.0006**
Stddev	.0023	.0091	.0232	.0026	.0001	.0001	.0014	.0003	.0001
%RSD	6.851	14.68	47.19	1.887	10.93	8.644	3.392	1.253	15.25
#1	.0326	.0556	.0328	.1388	.0011	.0007	.0432	.0281	.0005
#2	.0360	.0685	.0656	.1352	.0010	.0007	.0412	.0276	.0006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0010**	**.0021**	**.0003**	**.0069**	**-.0007**	**.0003**	**.0284**
Stddev	.0001	.0010	.0001	.0019	.0001	.0001	.0009
%RSD	13.69	47.30	18.44	26.97	14.26	33.97	3.267
#1	.0009	.0014	.0002	.0056	-.0006	.0004	.0291
#2	.0011	.0028	.0003	.0082	-.0007	.0002	.0278

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162880.**	**18218.**	**7116.2**	**10711.**
Stddev	73.	183.	61.3	80.
%RSD	.04483	1.0049	.86188	.74515
#1	162830.	18347.	7072.8	10655.
#2	162930.	18088.	7159.6	10768.

Zoom In Zoom Out

Sample Name: mp6412-b1 Acquired: 3/30/2018 14:46:30 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.067**	**2.105**	**2.007**	**2.058**	**2.098**	**2.084**	**2.155**	**2.072**	**.2469**
Stddev	.012	.007	.010	.006	.006	.003	.009	.006	.0003
%RSD	.5635	.3528	.4900	.2852	.2897	.1214	.4176	.3044	.1249
#1	2.075	2.110	2.014	2.062	2.102	2.086	2.161	2.077	.2472
#2	2.058	2.100	2.000	2.053	2.094	2.083	2.148	2.068	.2467

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.100**	**2.059**	**2.016**	**2.074**	**2.060**	**1.978**	**2.020**	**25.44**	**26.02**
Stddev	.009	.009	.012	.003	.005	.008	.009	.06	.11
%RSD	.4036	.4158	.5712	.1544	.2310	.4039	.4559	.2292	.4033
#1	2.106	2.065	2.024	2.076	2.063	1.984	2.026	25.48	26.10
#2	2.094	2.053	2.008	2.071	2.057	1.973	2.013	25.40	25.95

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.78**	**26.08**	**25.54**	**26.17**	**1.972**	**2.070**	**.0940**	**2.087**	**2.076**
Stddev	.09	.12	.12	.06	.007	.010	.0003	.009	.007
%RSD	.3590	.4445	.4662	.2384	.3627	.4847	.3682	.4358	.3245
#1	25.85	26.17	25.63	26.22	1.977	2.077	.0938	2.093	2.081
#2	25.72	26.00	25.46	26.13	1.967	2.063	.0943	2.080	2.071

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.106**	**2.028**	**2.101**	**1.945**	**.1803**	**-.0017**	**2.034**
Stddev	.005	.009	.005	.005	.0007	.0018	.015
%RSD	.2226	.4526	.2373	.2786	.4081	106.4	.7107
#1	2.109	2.035	2.105	1.949	.1808	-.0029	2.045
#2	2.102	2.022	2.098	1.941	.1798	-.0004	2.024

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156380.**	**17879.**	**6979.3**	**10260.**
Stddev	1048.	111.	23.9	22.
%RSD	.67027	.61916	.34311	.21804
#1	155640.	17800.	6962.3	10244.
#2	157120.	17957.	6996.2	10276.

Zoom In Zoom Out

Sample Name: mp6412-lc1 Acquired: 3/30/2018 14:49:18 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.9950**	**.6866**	**.4067**	**.6343**	**.5437**	**.7765**	**1.515**	**.2606**	**.1853**
Stddev	.0000	.0010	.0014	.0007	.0045	.0068	.012	.0004	.0019
%RSD	.0005	.1504	.3400	.1139	.8262	.8737	.7616	.1430	1.050
#1	.9950	.6859	.4058	.6338	.5405	.7717	1.507	.2604	.1839
#2	.9950	.6873	.4077	.6348	.5469	.7813	1.523	.2609	.1867

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.6778**	**.7540**	**.4646**	**.2983**	**.4239**	**.4190**	**.4423**	**39.27**	**28.47**
Stddev	.0061	.0026	.0009	.0002	.0014	.0027	.0013	.03	.06
%RSD	.8997	.3502	.1940	.0631	.3379	.6368	.2852	.0780	.2191
#1	.6735	.7522	.4640	.2985	.4229	.4171	.4414	39.30	28.43
#2	.6821	.7559	.4652	.2982	.4249	.4209	.4432	39.25	28.52

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**66.95**	**14.06**	**12.85**	**1.322**	**.4262**	**.2668**	**6.244**	**.7491**	**.2812**
Stddev	.04	.06	.02	.002	.0009	.0005	.006	.0005	.0006
%RSD	.0595	.4178	.1421	.1250	.2136	.1833	.0952	.0661	.2015
#1	66.92	14.01	12.86	1.320	.4256	.2665	6.240	.7488	.2808
#2	66.98	14.10	12.83	1.323	.4269	.2672	6.248	.7495	.2816

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.148**	**.0074**	**.0267**	**.5620**	**.1692**	**.0307**	**2.869**
Stddev	.025	.0017	.0007	.0012	.0034	.0009	.008
%RSD	1.180	22.39	2.512	.2201	2.012	2.853	.2751
#1	2.130	.0086	.0263	.5629	.1668	.0301	2.864
#2	2.166	.0062	.0272	.5612	.1716	.0313	2.875

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163480.**	**18566.**	**7247.4**	**10488.**
Stddev	14.	44.	21.7	36.
%RSD	.00832	.23644	.29892	.34465
#1	163470.	18597.	7232.1	10462.
#2	163490.	18535.	7262.8	10513.

Zoom In Zoom Out

Sample Name: mp6412-s1 Acquired: 3/30/2018 14:52:06 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	F **12.75**	**1.849**	**1.825**	**1.993**	**2.222**	**2.433**	**5.509**	**2.302**
Stddev	.21	.003	.062	.063	.002	.001	.007	.070
%RSD	1.621	.1443	3.386	3.166	.1063	.0322	.1285	3.063
#1	12.60	1.851	1.782	1.948	2.220	2.433	5.514	2.253
#2	12.89	1.848	1.869	2.038	2.223	2.434	5.504	2.352

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2289**	**3.352**	**3.467**	**1.839**	**1.807**	F **12.89**	**1.781**	**1.076**
Stddev	.0012	.001	.112	.059	.052	.39	.056	.035
%RSD	.5102	.0283	3.242	3.185	2.899	2.989	3.162	3.303
#1	.2280	3.351	3.387	1.797	1.770	12.62	1.741	1.051
#2	.2297	3.352	3.546	1.880	1.844	13.17	1.821	1.101

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**159.2**	**199.0**	W **289.5**	**103.3**	**33.00**	**32.05**	**1.987**	**1.783**
Stddev	.3	.5	1.3	.1	.16	.14	.064	.057
%RSD	.2183	.2263	.4543	.1135	.4807	.4237	3.231	3.167
#1	159.4	199.3	290.4	103.2	32.89	31.95	1.942	1.743
#2	158.9	198.7	288.5	103.4	33.11	32.14	2.033	1.823

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**8.506**	**1.744**	**2.810**	F **17.70**	**1.731**	**2.012**	**10.02**	**1.398**
Stddev	.261	.053	.002	.12	.054	.000	.32	.061
%RSD	3.072	3.070	.0780	.7033	3.114	.0143	3.158	4.390
#1	8.321	1.706	2.808	17.79	1.693	2.011	9.793	1.441
#2	8.691	1.782	2.811	17.61	1.769	2.012	10.24	1.354

Elem	Li6707	P_1774
Avg	**.1081**	W **9.361**
Stddev	.0014	.291
%RSD	1.324	3.109
#1	.1071	9.155
#2	.1091	9.567

Zoom In Zoom Out

Sample Name: mp6412-s1 Acquired: 3/30/2018 14:52:06 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161600.**	**19004.**	**7312.6**	**10358.**
Stddev	542.	23.	166.2	218.
%RSD	.33526	.12068	2.2724	2.1019
#1	161220.	19020.	7430.1	10512.
#2	161980.	18987.	7195.1	10204.

Zoom In Zoom Out

Sample Name: mp6412-s2 Acquired: 3/30/2018 14:55:23 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	F **10.87**	**1.755**	**1.789**	**1.917**	**2.249**	**2.381**	**6.135**	**2.209**
Stddev	.08	.009	.004	.003	.033	.041	.005	.002
%RSD	.7048	.5366	.2432	.1293	1.459	1.706	.0894	.0688
#1	10.82	1.762	1.786	1.915	2.272	2.410	6.139	2.208
#2	10.93	1.748	1.792	1.918	2.226	2.352	6.131	2.210

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2188**	**3.182**	**4.230**	**1.779**	**1.720**	**3.177**	**1.723**	**1.125**
Stddev	.0028	.052	.007	.003	.003	.002	.004	.001
%RSD	1.270	1.637	.1750	.1883	.1580	.0555	.2286	.0900
#1	.2208	3.219	4.225	1.777	1.722	3.179	1.721	1.126
#2	.2169	3.145	4.235	1.781	1.718	3.176	1.726	1.125

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**167.1**	**158.2**	F **347.0**	**121.7**	**30.11**	**29.11**	**1.863**	**1.734**
Stddev	1.2	1.1	3.4	.6	.01	.09	.004	.003
%RSD	.7195	.6950	.9833	.4579	.0271	.3026	.1904	.1693
#1	168.0	159.0	349.4	122.1	30.12	29.18	1.860	1.732
#2	166.3	157.4	344.6	121.3	30.11	29.05	1.865	1.736

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**10.27**	**1.719**	**2.449**	F **19.21**	**1.669**	**1.906**	**8.662**	**1.486**
Stddev	.02	.002	.012	.21	.006	.033	.015	.037
%RSD	.1825	.1182	.4767	1.075	.3383	1.722	.1689	2.497
#1	10.28	1.717	2.458	19.35	1.665	1.929	8.651	1.513
#2	10.25	1.720	2.441	19.06	1.673	1.882	8.672	1.460

Elem	Li6707	P_1774
Avg	**.1364**	W **9.557**
Stddev	.0019	.016
%RSD	1.413	.1707
#1	.1350	9.546
#2	.1377	9.569

Zoom In Zoom Out

Sample Name: mp6412-s2 Acquired: 3/30/2018 14:55:23 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158140.**	**18895.**	**7066.1**	**10244.**
Stddev	1764.	108.	7.4	27.
%RSD	1.1156	.57019	.10445	.26665
#1	156890.	18819.	7060.9	10224.
#2	159390.	18971.	7071.3	10263.

Zoom In Zoom Out

Sample Name: jc63077-1 Acquired: 3/30/2018 14:58:38 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	F **10.71**	**.0068**	**.0171**	**.1678**	**.3910**	**.5888**	**3.569**	**.4868**
Stddev	.05	.0001	.0009	.0077	.0004	.0017	.012	.0173
%RSD	.4351	2.036	5.187	4.612	.1133	.2958	.3469	3.551
#1	10.67	.0067	.0178	.1733	.3907	.5876	3.577	.4990
#2	10.74	.0069	.0165	.1624	.3913	.5900	3.560	.4745

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0008**	**1.279**	**2.660**	**.0606**	F **-.0103**	**1.883**	**.0152**	**.0026**
Stddev	.0003	.002	.108	.0017	.0017	.067	.0014	.0021
%RSD	38.67	.1888	4.068	2.841	16.16	3.581	9.461	80.98
#1	.0006	1.277	2.737	.0618	-.0114	1.930	.0142	.0041
#2	.0010	1.280	2.584	.0594	-.0091	1.835	.0162	.0011

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**113.3**	**121.7**	F **300.8**	**72.22**	**8.935**	**6.275**	**.1597**	**.0124**
Stddev	.0	.4	2.5	.31	.083	.050	.0065	.0008
%RSD	.0346	.3060	.8179	.4286	.9332	.7929	4.049	6.193
#1	113.3	121.5	299.0	72.00	8.876	6.240	.1643	.0129
#2	113.3	122.0	302.5	72.44	8.994	6.310	.1552	.0119

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**4.692**	**.0830**	**.6528**	F **13.37**	**.1582**	**.1249**	**6.299**	**1.041**
Stddev	.208	.0019	.0015	.16	.0079	.0002	.255	.053
%RSD	4.440	2.241	.2318	1.174	4.999	.1619	4.045	5.133
#1	4.840	.0843	.6518	13.26	.1638	.1247	6.480	1.003
#2	4.545	.0817	.6539	13.48	.1526	.1250	6.119	1.079

Elem	Li6707	P_1774
Avg	**.0943**	**8.750**
Stddev	.0005	.366
%RSD	.5287	4.182
#1	.0946	9.009
#2	.0939	8.491

Zoom In Zoom Out

Sample Name: jc63077-1 Acquired: 3/30/2018 14:58:38 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163510.**	**19035.**	**7117.9**	**10249.**
Stddev	554.	10.	302.7	385.
%RSD	.33873	.05045	4.2525	3.7522
#1	163120.	19029.	6903.8	9976.9
#2	163900.	19042.	7331.9	10521.

Zoom In Zoom Out

Sample Name: mp6412-sd1 Acquired: 3/30/2018 15:01:52 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**12.17**	**.0082**	**.0183**	**.1809**	**.4564**	**.6533**	**4.264**	**.5349**	**.0036**
Stddev	.06	.0001	.0001	.0011	.0007	.0013	.008	.0004	.0000
%RSD	.5039	1.784	.8061	.5950	.1497	.1939	.1878	.0667	.4772
#1	12.13	.0083	.0184	.1817	.4559	.6524	4.270	.5352	.0036
#2	12.22	.0081	.0182	.1802	.4569	.6542	4.258	.5346	.0036

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.469**	**3.013**	**.0727**	**-.0026**	**2.091**	**.0236**	**.0011**	**128.3**	**141.2**
Stddev	.009	.004	.0038	.0042	.001	.0038	.0054	.6	.4
%RSD	.5782	.1440	5.190	161.8	.0270	16.19	506.1	.4677	.2753
#1	1.475	3.016	.0754	-.0056	2.091	.0209	-.0027	127.9	140.9
#2	1.463	3.010	.0701	.0004	2.090	.0263	.0048	128.7	141.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**358.3**	**84.48**	**10.31**	**7.219**	**.1840**	**.0128**	**5.122**	**.0920**	**.7464**
Stddev	.9	.12	.19	.002	.0001	.0008	.020	.0006	.0037
%RSD	.2567	.1383	1.873	.0208	.0591	5.962	.3974	.6679	.4935
#1	357.6	84.40	10.17	7.220	.1839	.0133	5.107	.0924	.7438
#2	358.9	84.56	10.44	7.218	.1840	.0123	5.136	.0915	.7490

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**15.53**	**.1789**	**.1431**	**6.765**	**1.292**	**.0968**	**9.664**
Stddev	.06	.0010	.0004	.030	.001	.0014	.019
%RSD	.3586	.5522	.2527	.4438	.0684	1.415	.1991
#1	15.57	.1796	.1428	6.744	1.293	.0977	9.650
#2	15.49	.1782	.1434	6.786	1.292	.0958	9.678

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162960.**	**18530.**	**7238.5**	**10674.**
Stddev	888.	82.	6.9	14.
%RSD	.54490	.44352	.09585	.12735
#1	162330.	18471.	7233.6	10664.
#2	163590.	18588.	7243.5	10683.

Zoom In Zoom Out

Sample Name: jc63151-1 Acquired: 3/30/2018 15:04:45 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.7231**	**.0041**	**.0014**	**.0321**	**.2563**	**.1799**	**1.139**	**.0683**	**-.0012**
Stddev	.0002	.0002	.0001	.0000	.0002	.0005	.003	.0001	.0002
%RSD	.0238	4.473	7.889	.0747	.0651	.2633	.2725	.1436	15.15
#1	.7230	.0040	.0015	.0321	.2564	.1795	1.137	.0682	-.0011
#2	.7233	.0043	.0013	.0320	.2561	.1802	1.141	.0684	-.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.4790**	**.3958**	**.0796**	**.0005**	**.2772**	**.0198**	**.0006**	**246.1**	**19.23**
Stddev	.0011	.0019	.0014	.0006	.0027	.0004	.0017	.5	.01
%RSD	.2369	.4675	1.703	109.8	.9703	2.249	265.5	.2093	.0737
#1	.4782	.3945	.0787	.0001	.2753	.0201	.0018	246.4	19.24
#2	.4798	.3971	.0806	.0010	.2791	.0195	-.0006	245.7	19.22

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**238.7**	**21.36**	**9.913**	**.9032**	**.0292**	**.0118**	**6.483**	**.0223**	**.1230**
Stddev	.3	.08	.053	.0002	.0001	.0003	.006	.0003	.0002
%RSD	.1166	.3797	.5358	.0233	.3230	2.937	.0871	1.379	.1497
#1	238.5	21.42	9.876	.9033	.0291	.0115	6.479	.0221	.1232
#2	238.9	21.31	9.951	.9030	.0293	.0120	6.487	.0225	.1229

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.337**	**.0003**	**.1060**	**.6418**	**.1027**	**.0891**	**.9506**
Stddev	.005	.0008	.0003	.0074	.0007	.0028	.0034
%RSD	.3656	284.9	.2865	1.159	.6886	3.093	.3609
#1	1.333	-.0003	.1058	.6365	.1032	.0911	.9482
#2	1.340	.0009	.1062	.6471	.1022	.0872	.9530

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161150.**	**18730.**	**7299.3**	**10620.**
Stddev	1214.	65.	18.8	22.
%RSD	.75306	.34784	.25787	.20547
#1	160290.	18684.	7286.0	10604.
#2	162010.	18777.	7312.6	10635.

Zoom In Zoom Out

Sample Name: jc63151-2 Acquired: 3/30/2018 15:07:41 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.003**	**.0153**	**.0021**	**.0680**	**.2521**	**.2627**	**1.354**	**.1966**
Stddev	.001	.0001	.0003	.0008	.0012	.0011	.002	.0033
%RSD	.1410	.5262	12.11	1.107	.4915	.4022	.1532	1.701
#1	1.004	.0153	.0023	.0685	.2512	.2634	1.353	.1989
#2	1.002	.0152	.0019	.0674	.2530	.2619	1.355	.1942

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0030**	**.4518**	**2.000**	**.0961**	F **-.0038**	**.7748**	**.0107**	**-.0008**
Stddev	.0000	.0013	.020	.0012	.0010	.0060	.0022	.0025
%RSD	.2705	.2865	1.014	1.300	25.18	.7771	20.16	304.8
#1	-.0030	.4509	2.015	.0970	-.0045	.7790	.0092	.0010
#2	-.0030	.4528	1.986	.0952	-.0032	.7705	.0123	-.0026

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**276.1**	**148.0**	**254.4**	**125.4**	**15.41**	**1.927**	**.0223**	**.0039**
Stddev	8.2	4.6	1.8	.0	.12	.002	.0011	.0001
%RSD	2.983	3.098	.7200	.0087	.7842	.1253	4.825	3.523
#1	270.3	151.2	255.7	125.4	15.32	1.929	.0231	.0038
#2	281.9	144.8	253.1	125.4	15.49	1.925	.0216	.0040

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**6.633**	**.0197**	**.1338**	**1.101**	**.0016**	**.1183**	**.1872**	**.0808**
Stddev	.084	.0004	.0002	.002	.0006	.0001	.0002	.0008
%RSD	1.260	1.886	.1213	.1664	37.22	.0682	.1000	.9333
#1	6.692	.0194	.1337	1.100	.0012	.1183	.1870	.0802
#2	6.574	.0199	.1339	1.103	.0020	.1182	.1873	.0813

Elem	Li6707	P_1774
Avg	**.1519**	**.8173**
Stddev	.0002	.0089
%RSD	.1111	1.084
#1	.1518	.8236
#2	.1520	.8111

Zoom In Zoom Out

Sample Name: jc63151-2 Acquired: 3/30/2018 15:07:41 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**168060.**	**19680.**	**7517.2**	**10115.**
Stddev	239.	6.	96.9	130.
%RSD	.14228	.02829	1.2890	1.2872
#1	167890.	19684.	7448.6	10023.
#2	168230.	19677.	7585.7	10207.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/30/2018 15:10:50 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.998**	**2.008**	**1.957**	**1.992**	**2.025**	**1.984**	**2.085**	**1.995**	**.2500**
Stddev	.011	.010	.002	.002	.012	.010	.008	.003	.0011
%RSD	.5334	.4980	.0880	.1013	.5712	.5208	.3906	.1456	.4452
#1	2.006	2.016	1.958	1.994	2.033	1.991	2.091	1.997	.2508
#2	1.991	2.001	1.956	1.991	2.017	1.976	2.080	1.993	.2492
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.012**	**1.999**	**1.949**	**2.016**	**1.992**	**1.958**	**1.951**	**39.54**	**40.02**
Stddev	.006	.001	.001	.003	.001	.006	.001	.24	.18
%RSD	.2818	.0366	.0516	.1483	.0439	.3029	.0264	.6193	.4541
#1	2.016	1.999	1.950	2.018	1.993	1.962	1.950	39.71	40.15
#2	2.008	1.998	1.948	2.014	1.991	1.954	1.951	39.37	39.89
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.01**	**40.21**	**39.50**	**39.91**	**1.967**	**1.960**	**4.875**	**1.990**	**2.004**
Stddev	.26	.24	.11	.18	.003	.001	.002	.003	.010
%RSD	.6374	.5947	.2785	.4544	.1330	.0694	.0306	.1556	.5144
#1	40.19	40.38	39.58	40.04	1.969	1.961	4.876	1.992	2.011
#2	39.83	40.04	39.42	39.78	1.965	1.959	4.874	1.988	1.996
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/30/2018 15:10:50 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.994**	**1.935**	**2.010**	**1.932**	**1.975**	**1.983**	**1.960**
Stddev	.012	.000	.008	.004	.008	.011	.003
%RSD	.5976	.0191	.4031	.2030	.3958	.5339	.1418
#1	2.003	1.935	2.016	1.930	1.980	1.991	1.962
#2	1.986	1.935	2.004	1.935	1.969	1.976	1.958
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**156000.**	**17812.**	**6989.5**	**10254.**
Stddev	383.	149.	11.2	21.
%RSD	.24537	.83379	.15970	.20517
#1	155730.	17707.	6981.6	10239.
#2	156270.	17917.	6997.4	10269.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/30/2018 15:15:54 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0001**	**.0000**	**-.0002**	**-.0001**	**-.0000**	**-.0000**	**-.0001**	**.0005**
Stddev	.0004	.0001	.0001	.0002	.0001	.0005	.0000	.0002	.0001
%RSD	135.9	105.3	137.7	102.9	140.7	2479.	12.71	303.0	13.18
#1	-.0006	.0001	.0001	-.0001	-.0001	-.0004	-.0000	.0001	.0005
#2	-.0000	.0000	.0000	-.0004	-.0000	.0003	-.0000	-.0003	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**.0006**	**.0000**	**.0013**	**.0003**	**-.0002**	**.0054**	**-.0007**
Stddev	.0001	.0000	.0009	.0003	.0007	.0004	.0002	.0091	.0013
%RSD	56.85	4.796	148.2	642.9	51.28	135.2	121.7	168.1	187.3
#1	.0001	.0002	.0012	-.0001	.0018	.0006	-.0004	-.0010	-.0016
#2	.0003	.0002	-.0000	.0002	.0008	.0000	-.0000	.0118	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021**	**.0162**	**.1061**	**.0301**	**.0036**	**.0003**	**.0036**	**.0002**	**.0000**
Stddev	.0005	.0033	.0534	.0018	.0003	.0001	.0013	.0002	.0001
%RSD	22.66	20.12	50.28	6.037	8.151	26.18	36.23	135.6	206.3
#1	.0017	.0139	.1439	.0314	.0033	.0002	.0046	.0003	.0001
#2	.0024	.0185	.0684	.0288	.0038	.0003	.0027	.0000	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/30/2018 15:15:54 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0003**	**.0002**	**-.0015**	**-.0013**	**.0009**	**-.0025**
Stddev	.0002	.0007	.0000	.0004	.0023	.0003	.0005
%RSD	35.33	230.0	21.20	28.89	179.2	31.26	19.38
#1	.0006	.0007	.0002	-.0012	.0003	.0011	-.0029
#2	.0004	-.0002	.0002	-.0018	-.0029	.0007	-.0022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**164220.**	**18465.**	**7204.8**	**10933.**
Stddev	3.	112.	6.3	15.
%RSD	.00187	.60499	.08716	.13817
#1	164220.	18544.	7209.2	10944.
#2	164220.	18386.	7200.3	10923.

Zoom In Zoom Out

Sample Name: mp6412-s2 Acquired: 3/30/2018 15:18:52 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**11.73**	**1.853**	**1.885**	**2.055**	**2.393**	**2.395**	**6.739**	**2.357**	**.2393**
Stddev	.01	.007	.005	.005	.009	.007	.087	.005	.0006
%RSD	.1122	.3840	.2516	.2670	.3748	.2946	1.288	.2190	.2651
#1	11.74	1.858	1.882	2.051	2.386	2.390	6.678	2.353	.2398
#2	11.72	1.848	1.888	2.059	2.399	2.400	6.801	2.360	.2389

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**3.304**	**4.632**	**1.856**	**1.876**	**3.434**	**1.832**	**1.191**	**177.5**	**172.8**
Stddev	.008	.006	.014	.008	.009	.000	.002	.4	.5
%RSD	.2555	.1245	.7311	.4413	.2732	.0152	.2037	.2319	.2625
#1	3.298	4.628	1.846	1.870	3.427	1.833	1.193	177.7	173.1
#2	3.310	4.636	1.865	1.882	3.440	1.832	1.189	177.2	172.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**388.3**	**131.3**	**31.92**	**30.69**	**1.991**	**1.836**	**10.90**	**1.898**	**2.600**
Stddev	.9	.4	.07	.13	.006	.005	.03	.004	.001
%RSD	.2285	.2830	.2210	.4151	.3234	.3004	.2799	.2147	.0356
#1	388.9	131.6	31.87	30.60	1.986	1.832	10.92	1.895	2.599
#2	387.7	131.1	31.97	30.78	1.995	1.840	10.88	1.900	2.601

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**20.52**	**1.778**	**1.994**	**9.212**	**1.624**	**.1413**	**10.15**
Stddev	.04	.008	.004	.024	.003	.0010	.05
%RSD	.1837	.4427	.1895	.2550	.1728	.6728	.4925
#1	20.49	1.773	1.991	9.195	1.622	.1407	10.11
#2	20.55	1.784	1.996	9.229	1.626	.1420	10.19

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160120.**	**18322.**	**7110.6**	**10513.**
Stddev	675.	106.	29.3	35.
%RSD	.42177	.57771	.41255	.33674
#1	160600.	18247.	7089.9	10488.
#2	159650.	18397.	7131.4	10538.

Zoom In Zoom Out

Sample Name: mp6412-s1 Acquired: 3/30/2018 15:22:16 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**14.21**	**1.986**	**2.024**	**2.209**	**2.443**	**2.524**	**6.284**	**2.540**	**.2487**
Stddev	.01	.001	.003	.003	.002	.000	.002	.006	.0032
%RSD	.0725	.0410	.1666	.1538	.0626	.0049	.0342	.2555	1.275
#1	14.21	1.985	2.027	2.207	2.444	2.523	6.282	2.535	.2464
#2	14.20	1.986	2.022	2.212	2.442	2.524	6.285	2.545	.2509

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**3.595**	**3.994**	**2.026**	**2.037**	**14.20**	**1.983**	**1.191**	**172.4**	**224.9**
Stddev	.002	.005	.007	.008	.01	.004	.003	.2	.1
%RSD	.0458	.1143	.3427	.3718	.0841	.1833	.2275	.1082	.0569
#1	3.596	3.990	2.021	2.032	14.19	1.985	1.189	172.5	224.8
#2	3.594	3.997	2.031	2.043	14.21	1.980	1.193	172.2	225.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**330.8**	**114.0**	**35.51**	**34.55**	**2.234**	**1.990**	**9.621**	**2.025**	**3.058**
Stddev	.0	.1	.17	.08	.001	.001	.019	.008	.001
%RSD	.0151	.0793	.4672	.2338	.0453	.0575	.1936	.4022	.0364
#1	330.7	114.0	35.39	34.49	2.233	1.991	9.634	2.019	3.058
#2	330.8	114.1	35.63	34.61	2.235	1.989	9.608	2.030	3.057

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**19.42**	**1.935**	**2.183**	**11.23**	**1.529**	**.1127**	**10.47**
Stddev	.01	.006	.002	.01	.018	.0002	.01
%RSD	.0493	.3381	.0874	.0463	1.163	.1559	.0506
#1	19.41	1.930	2.184	11.24	1.516	.1128	10.46
#2	19.42	1.940	2.181	11.23	1.542	.1125	10.47

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160350.**	**18414.**	**7062.4**	**10385.**
Stddev	18.	20.	35.8	39.
%RSD	.01140	.11009	.50760	.37675
#1	160360.	18400.	7037.0	10358.
#2	160330.	18429.	7087.7	10413.

Zoom In Zoom Out

Sample Name: jc63077-1 Acquired: 3/30/2018 15:25:04 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**11.39**	**.0070**	**.0185**	**.1679**	**.4175**	**.5994**	**3.924**	**.4957**
Stddev	.04	.0002	.0012	.0004	.0010	.0008	.007	.0035
%RSD	.3952	3.236	6.436	.2305	.2298	.1326	.1671	.7039
#1	11.36	.0071	.0193	.1676	.4182	.5999	3.920	.4933
#2	11.42	.0068	.0176	.1681	.4168	.5988	3.929	.4982

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0098**	**1.335**	**2.798**	**.0600**	F **-.0061**	**1.936**	**.0197**	**.0011**
Stddev	.0002	.000	.012	.0009	.0036	.007	.0026	.0009
%RSD	1.568	.0164	.4237	1.425	58.58	.3571	13.02	80.96
#1	.0096	1.335	2.790	.0606	-.0036	1.931	.0215	.0005
#2	.0099	1.335	2.807	.0594	-.0086	1.941	.0179	.0018

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**120.3**	**130.9**	**334.0**	**78.09**	**9.400**	**6.625**	**.1632**	**.0129**
Stddev	.2	.2	.0	.03	.179	.016	.0024	.0011
%RSD	.1776	.1223	.0108	.0340	1.906	.2447	1.469	8.783
#1	120.1	130.8	334.0	78.11	9.273	6.614	.1648	.0137
#2	120.4	131.0	334.1	78.07	9.526	6.637	.1615	.0121

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**4.782**	**.0864**	**.6954**	**14.18**	**.1647**	**.1316**	**6.435**	**1.107**
Stddev	.014	.0009	.0011	.05	.0018	.0007	.008	.012
%RSD	.2848	1.068	.1563	.3279	1.095	.5374	.1236	1.081
#1	4.791	.0857	.6946	14.21	.1634	.1321	6.429	1.115
#2	4.772	.0870	.6962	14.15	.1660	.1311	6.440	1.098

Elem	Li6707	P_1774
Avg	**.0920**	**8.964**
Stddev	.0079	.014
%RSD	8.617	.1537
#1	.0864	8.954
#2	.0976	8.974

Zoom In Zoom Out

Sample Name: jc63077-1 Acquired: 3/30/2018 15:25:04 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162370.**	**18394.**	**7206.6**	**10677.**
Stddev	154.	134.	15.2	8.
%RSD	.09510	.72619	.21026	.07688
#1	162260.	18299.	7195.9	10671.
#2	162480.	18488.	7217.4	10683.

Zoom In Zoom Out

Sample Name: mp6412-sd1 Acquired: 3/30/2018 15:27:57 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 15.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**11.69**	**.0062**	**.0176**	**.1714**	**.4159**	**.5905**	**3.913**	**.5211**	**.0181**
Stddev	.01	.0006	.0028	.0003	.0077	.0255	.126	.0114	.0020
%RSD	.0994	9.402	16.16	.1508	1.841	4.317	3.216	2.178	10.76
#1	11.68	.0058	.0156	.1716	.4105	.5724	3.824	.5130	.0195
#2	11.70	.0066	.0196	.1712	.4213	.6085	4.002	.5291	.0168

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.318**	**2.953**	**.0640**	**-.0106**	**2.011**	**-.0184**	**-.0033**	**124.5**	**135.6**
Stddev	.045	.031	.0057	.0046	.037	.0384	.0159	.2	.3
%RSD	3.383	1.042	8.933	43.47	1.847	209.0	478.0	.1272	.2125
#1	1.287	2.932	.0599	-.0073	1.985	-.0456	-.0146	124.4	135.4
#2	1.350	2.975	.0680	-.0138	2.037	.0088	.0079	124.7	135.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**347.4**	**81.71**	**9.846**	**6.964**	**.1651**	**.0155**	**4.922**	**.0824**	**.7203**
Stddev	.2	.02	1.417	.037	.0066	.0058	.087	.0009	.0010
%RSD	.0542	.0300	14.39	.5378	3.997	37.69	1.770	1.152	.1420
#1	347.5	81.69	8.845	6.991	.1604	.0196	4.860	.0817	.7196
#2	347.3	81.73	10.85	6.938	.1698	.0113	4.983	.0830	.7210

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**13.91**	**.1735**	**.1340**	**6.570**	**1.013**	**.0761**	**9.180**
Stddev	.47	.0180	.0028	.048	.055	.0198	.112
%RSD	3.365	10.35	2.111	.7257	5.428	26.04	1.215
#1	13.58	.1862	.1320	6.537	.9742	.0901	9.101
#2	14.24	.1608	.1360	6.604	1.052	.0621	9.259

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**170680.**	**18449.**	**7227.6**	**10825.**
Stddev	4089.	103.	44.6	74.
%RSD	2.3957	.55812	.61737	.68342
#1	173570.	18522.	7259.2	10877.
#2	167790.	18376.	7196.1	10773.

Zoom In Zoom Out

Sample Name: mp5814-b1conf Acquired: 3/30/2018 15:30:54 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.116**	**2.109**	**2.187**	**2.203**	**2.136**	**2.116**	**2.198**	**2.191**	**.2540**
Stddev	.017	.018	.173	.154	.014	.008	.029	.150	.0002
%RSD	.8073	.8598	7.907	6.998	.6579	.3871	1.299	6.865	.0800
#1	2.128	2.122	2.065	2.094	2.146	2.122	2.218	2.085	.2539
#2	2.104	2.096	2.309	2.312	2.126	2.110	2.178	2.298	.2542

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.108**	**2.215**	**2.108**	**2.216**	**2.195**	**2.159**	**2.140**	**26.06**	**26.41**
Stddev	.009	.170	.168	.157	.151	.175	.173	.22	.22
%RSD	.4319	7.651	7.964	7.101	6.880	8.095	8.078	.8369	.8283
#1	2.115	2.096	1.990	2.105	2.088	2.035	2.017	26.22	26.56
#2	2.102	2.335	2.227	2.328	2.301	2.282	2.262	25.91	26.25

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**26.52**	**26.50**	**25.89**	**26.49**	**2.167**	**2.146**	**5.304**	**2.203**	**2.124**
Stddev	.19	.24	.11	.18	.170	.168	.427	.170	.016
%RSD	.7093	.8926	.4136	.6917	7.854	7.824	8.049	7.693	.7421
#1	26.65	26.67	25.97	26.62	2.047	2.027	5.003	2.083	2.135
#2	26.39	26.33	25.82	26.36	2.288	2.264	5.606	2.323	2.113

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.068**	**2.116**	**2.088**	**.0275**	**.1557**	**-.0029**	**2.144**
Stddev	.012	.165	.009	.0035	.0133	.0017	.165
%RSD	.5728	7.802	.4220	12.92	8.534	59.17	7.700
#1	2.077	1.999	2.095	.0250	.1651	-.0017	2.027
#2	2.060	2.232	2.082	.0300	.1463	-.0041	2.261

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158870.**	**18179.**	**6730.9**	**10059.**
Stddev	1081.	159.	408.5	524.
%RSD	.68031	.87524	6.0685	5.2087
#1	158110.	18067.	7019.7	10430.
#2	159640.	18292.	6442.0	9688.9

Zoom In Zoom Out

Sample Name: mp5814-mb1 Acquired: 3/30/2018 15:33:46 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0002**	**.0000**	**.0001**	**-.0004**	**-.0000**	**.0002**	**.0000**	**.0003**	**.0008**
Stddev	.0000	.0001	.0001	.0000	.0000	.0000	.0000	.0001	.0002
%RSD	13.26	904.4	68.78	9.168	49.62	22.07	62.65	28.72	18.94
#1	.0002	.0001	.0001	-.0004	-.0000	.0002	.0000	.0003	.0009
#2	.0002	-.0001	.0002	-.0005	-.0000	.0002	.0001	.0004	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0006**	**.0008**	**.0007**	**.0011**	**.0005**	**.0005**	**.0011**	**-.0071**	**.0069**
Stddev	.0000	.0000	.0003	.0001	.0007	.0009	.0013	.0139	.0050
%RSD	3.919	.4126	48.44	5.049	144.5	204.0	118.8	194.9	72.82
#1	-.0006	.0008	.0009	.0011	-.0000	-.0002	.0020	.0027	.0104
#2	-.0006	.0008	.0005	.0010	.0010	.0011	.0002	-.0169	.0033

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0064**	**.0236**	**-.0189**	**.0105**	**.0018**	**.0004**	**-.0010**	**-.0007**	**-.0002**
Stddev	.0005	.0011	.0142	.0137	.0009	.0001	.0002	.0006	.0001
%RSD	8.374	4.578	75.25	130.6	52.90	28.28	19.70	79.55	45.34
#1	.0068	.0229	-.0289	.0202	.0024	.0003	-.0012	-.0011	-.0002
#2	.0060	.0244	-.0088	.0008	.0011	.0005	-.0009	-.0003	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0006**	**.0003**	**-.0004**	**.0006**	**-.0029**	**-.0027**
Stddev	.0000	.0012	.0000	.0005	.0028	.0015	.0006
%RSD	5.611	188.9	5.564	131.9	449.9	52.45	23.40
#1	.0002	-.0002	.0004	-.0000	.0026	-.0040	-.0032
#2	.0002	.0015	.0003	-.0007	-.0014	-.0018	-.0023

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**167780.**	**18950.**	**7310.8**	**11136.**
Stddev	343.	94.	2.6	15.
%RSD	.20440	.49647	.03552	.13562
#1	167540.	19017.	7308.9	11125.
#2	168030.	18884.	7312.6	11147.

Zoom In Zoom Out

Sample Name: mp5814-mb2 Acquired: 3/30/2018 15:36:47 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0007**	**.0001**	**.0001**	**-.0002**	**.0001**	**.0007**	**.0001**	**.0005**	**.0008**
Stddev	.0002	.0000	.0001	.0001	.0002	.0003	.0000	.0004	.0003
%RSD	32.27	15.79	51.12	44.50	273.8	35.63	42.69	77.27	36.68
#1	-.0008	.0000	.0001	-.0002	-.0001	.0006	.0000	.0008	.0006
#2	-.0005	.0001	.0002	-.0003	.0003	.0009	.0001	.0002	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0009**	**.0015**	**-.0007**	**.0000**	**.0019**	**.0004**	**.0038**	**.0061**
Stddev	.0000	.0000	.0006	.0006	.0001	.0014	.0003	.0015	.0008
%RSD	86.52	2.812	42.28	83.84	198.1	75.03	73.27	41.21	13.62
#1	-.0000	.0009	.0019	-.0003	.0001	.0028	.0006	.0048	.0066
#2	-.0001	.0009	.0010	-.0012	-.0000	.0009	.0002	.0027	.0055

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0050**	**.0080**	**-.0602**	**.0172**	**.0002**	**.0004**	**-.0035**	**-.0003**	**-.0001**
Stddev	.0019	.0017	.0174	.0141	.0009	.0001	.0008	.0005	.0000
%RSD	37.52	21.82	28.88	81.99	590.1	31.01	21.69	173.4	13.31
#1	.0037	.0067	-.0725	.0271	.0008	.0004	-.0030	.0001	-.0001
#2	.0063	.0092	-.0479	.0072	-.0005	.0003	-.0041	-.0006	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**-.0007**	**.0001**	**.0005**	**-.0005**	**-.0021**	**-.0033**
Stddev	.0000	.0004	.0000	.0013	.0005	.0001	.0010
%RSD	9.633	52.67	17.81	262.2	95.80	2.482	30.48
#1	.0002	-.0004	.0001	.0014	-.0009	-.0021	-.0040
#2	.0002	-.0010	.0001	-.0004	-.0002	-.0021	-.0026

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**165600.**	**18722.**	**7223.0**	**11020.**
Stddev	1486.	40.	132.9	196.
%RSD	.89732	.21283	1.8403	1.7758
#1	166650.	18750.	7129.0	10881.
#2	164550.	18694.	7317.0	11158.

Zoom In Zoom Out

Sample Name: mp5814-b1 Acquired: 3/30/2018 15:39:47 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.003**	**1.991**	**2.020**	**2.039**	**2.010**	**1.992**	**2.096**	**2.023**	**.2421**
Stddev	.004	.002	.010	.011	.017	.017	.015	.012	.0022
%RSD	.2032	.1122	.4787	.5337	.8530	.8344	.7067	.5686	.9181
#1	2.000	1.990	2.013	2.031	1.998	1.980	2.085	2.015	.2405
#2	2.006	1.993	2.027	2.046	2.022	2.004	2.106	2.031	.2437

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.985**	**2.043**	**1.937**	**2.053**	**2.031**	**1.985**	**1.965**	**24.86**	**25.08**
Stddev	.013	.008	.012	.011	.013	.008	.008	.01	.04
%RSD	.6698	.4051	.6248	.5105	.6206	.4140	.4158	.0211	.1469
#1	1.975	2.037	1.929	2.046	2.022	1.980	1.959	24.86	25.06
#2	1.994	2.049	1.946	2.061	2.040	1.991	1.971	24.85	25.11

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.30**	**25.17**	**24.79**	**25.18**	**1.997**	**1.965**	**4.902**	**2.027**	**2.012**
Stddev	.02	.00	.15	.06	.007	.009	.021	.005	.003
%RSD	.0766	.0177	.5984	.2412	.3751	.4827	.4236	.2560	.1341
#1	25.28	25.18	24.68	25.14	1.991	1.959	4.888	2.024	2.010
#2	25.31	25.17	24.89	25.23	2.002	1.972	4.917	2.031	2.014

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.936**	**1.942**	**1.971**	**.0268**	**.1425**	**-.0023**	**1.975**
Stddev	.018	.006	.014	.0045	.0001	.0003	.012
%RSD	.9449	.3249	.7323	16.93	.0749	11.44	.6027
#1	1.923	1.938	1.961	.0236	.1426	-.0025	1.967
#2	1.949	1.947	1.981	.0300	.1425	-.0021	1.984

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162640.**	**18451.**	**7128.9**	**10631.**
Stddev	325.	51.	33.5	33.
%RSD	.20006	.27626	.46956	.30625
#1	162870.	18415.	7105.2	10608.
#2	162410.	18487.	7152.5	10654.

Zoom In Zoom Out

Sample Name: jc59183-57a Acquired: 3/30/2018 15:42:35 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0002**	**.0000**	**.0001**	**-.0001**	**.0001**	**.0007**	**-.0000**	**-.0000**	**.0108**
Stddev	.0002	.0000	.0003	.0000	.0001	.0002	.0000	.0000	.0004
%RSD	102.6	2444.	227.0	44.81	113.8	31.24	36.06	52.84	4.147
#1	.0001	.0000	-.0001	-.0000	.0002	.0009	-.0000	-.0000	.0112
#2	.0004	-.0000	.0004	-.0001	.0000	.0006	-.0000	-.0001	.0105

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0004**	**.0103**	**.0136**	**.0092**	**.0017**	**.0006**	**-.0062**	**.0040**
Stddev	.0000	.0001	.0002	.0011	.0027	.0013	.0005	.0002	.0021
%RSD	13.88	21.98	1.728	7.995	29.08	74.05	85.38	3.212	52.32
#1	-.0004	.0003	.0102	.0144	.0073	.0008	.0010	-.0063	.0025
#2	-.0003	.0005	.0104	.0128	.0111	.0026	.0003	-.0061	.0055

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0031**	**.0037**	**-.0006**	**.0140**	**.0945**	**.0005**	**.1869**	**-.0002**	**-.0000**
Stddev	.0033	.0077	.0391	.0025	.0053	.0001	.0115	.0004	.0001
%RSD	106.3	207.6	6156.	17.92	5.606	27.76	6.131	192.1	132.3
#1	.0008	-.0017	.0270	.0158	.0907	.0005	.1788	.0001	-.0000
#2	.0055	.0092	-.0283	.0122	.0982	.0004	.1951	-.0005	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0458**	**.0002**	**-.0000**	**-.0025**	**-.0026**	**-.0034**
Stddev	.0003	.0041	.0000	.0011	.0005	.0002	.0001
%RSD	245.6	8.953	3.316	65640.	18.33	6.850	1.654
#1	-.0001	.0429	.0002	.0008	-.0029	-.0025	-.0034
#2	.0003	.0487	.0002	-.0008	-.0022	-.0028	-.0033

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**166710.**	**18676.**	**7389.9**	**11250.**
Stddev	147.	36.	319.6	441.
%RSD	.08790	.19176	4.3255	3.9195
#1	166600.	18651.	7615.9	11562.
#2	166810.	18701.	7163.9	10938.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/30/2018 15:45:36 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.950**	**1.940**	**1.960**	**1.975**	**1.983**	**1.946**	**2.060**	**1.962**	**.2476**
Stddev	.005	.005	.001	.004	.005	.006	.010	.003	.0008
%RSD	.2387	.2395	.0448	.2046	.2471	.3081	.5030	.1542	.3173
#1	1.947	1.936	1.959	1.972	1.979	1.942	2.053	1.960	.2471
#2	1.953	1.943	1.961	1.978	1.986	1.950	2.068	1.964	.2482
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.956**	**1.992**	**1.936**	**1.992**	**1.968**	**1.941**	**1.948**	**38.56**	**38.95**
Stddev	.010	.008	.004	.001	.001	.005	.005	.01	.09
%RSD	.5195	.3856	.2050	.0636	.0499	.2640	.2603	.0307	.2343
#1	1.948	1.986	1.933	1.992	1.967	1.937	1.945	38.55	38.88
#2	1.963	1.997	1.939	1.993	1.968	1.944	1.952	38.57	39.01
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.09**	**39.00**	**38.82**	**39.18**	**1.958**	**1.936**	**4.856**	**2.009**	**1.958**
Stddev	.05	.00	.05	.06	.000	.003	.004	.007	.003
%RSD	.1260	.0108	.1345	.1403	.0016	.1397	.0780	.3486	.1623
#1	39.05	39.00	38.78	39.14	1.958	1.935	4.853	2.004	1.956
#2	39.12	39.00	38.85	39.22	1.958	1.938	4.858	2.014	1.960
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/30/2018 15:45:36 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.949**	**1.919**	**1.984**	**1.942**	**1.943**	**1.931**	**1.936**
Stddev	.002	.008	.008	.006	.001	.006	.002
%RSD	.1086	.4035	.3859	.3193	.0510	.2899	.0760
#1	1.948	1.913	1.978	1.938	1.943	1.927	1.934
#2	1.951	1.924	1.989	1.946	1.942	1.935	1.937
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**157630.**	**17940.**	**6989.9**	**10368.**
Stddev	482.	94.	12.4	22.
%RSD	.30567	.52260	.17720	.21494
#1	157970.	17874.	6981.1	10353.
#2	157290.	18006.	6998.6	10384.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/30/2018 15:48:25 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0001**	**.0001**	**-.0002**	**-.0001**	**.0001**	**.0000**	**.0000**	**.0010**
Stddev	.0003	.0001	.0000	.0000	.0002	.0005	.0000	.0000	.0006
%RSD	192.4	76.72	3.478	23.12	131.7	550.1	1919.	447.0	54.36
#1	-.0004	.0001	.0001	-.0001	-.0000	.0005	-.0000	.0000	.0006
#2	.0001	.0000	.0001	-.0002	-.0003	-.0003	.0000	-.0000	.0014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0001**	**.0002**	**-.0000**	**-.0010**	**-.0007**	**.0001**	**.0031**	**.0023**
Stddev	.0004	.0001	.0006	.0008	.0002	.0007	.0004	.0052	.0001
%RSD	183.6	174.7	294.3	4408.	18.44	100.4	289.8	167.8	3.637
#1	.0001	.0000	-.0002	.0006	-.0011	-.0002	-.0001	.0068	.0022
#2	-.0005	-.0001	.0006	-.0006	-.0009	-.0012	.0004	-.0006	.0023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0264**	**-.0037**	**.0266**	**.0030**	**.0005**	**.0015**	**.0003**	**.0000**
Stddev	.0002	.0049	.0418	.0081	.0011	.0000	.0017	.0001	.0000
%RSD	12.17	18.56	1116.	30.36	36.74	6.154	112.7	50.24	253.2
#1	.0014	.0299	-.0333	.0209	.0022	.0005	.0003	.0002	.0000
#2	.0012	.0230	.0258	.0323	.0038	.0005	.0028	.0004	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/30/2018 15:48:25 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0011**	**.0001**	**-.0046**	**-.0018**	**-.0020**	**-.0047**
Stddev	.0002	.0007	.0003	.0040	.0001	.0012	.0008
%RSD	127.3	62.27	513.5	87.44	3.861	60.17	16.90
#1	.0000	-.0006	-.0002	-.0017	-.0018	-.0011	-.0052
#2	.0003	-.0015	.0003	-.0074	-.0019	-.0028	-.0041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**169350.**	**17810.**	**6953.6**	**10679.**
Stddev	12369.	55.	358.3	485.
%RSD	7.3038	.31043	5.1532	4.5388
#1	160600.	17771.	7207.0	11022.
#2	178100.	17849.	6700.3	10337.

Zoom In Zoom Out

Sample Name: jc59183-58a Acquired: 3/30/2018 15:51:24 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0003**	**-.0000**	**.0002**	**-.0002**	**.0001**	**.0005**	**-.0001**	**.0003**	**.0108**
Stddev	.0001	.0001	.0000	.0001	.0001	.0003	.0000	.0006	.0002
%RSD	45.94	678.4	2.718	39.61	112.5	59.96	26.49	229.7	2.106
#1	-.0004	-.0001	.0002	-.0003	.0000	.0003	-.0001	-.0002	.0106
#2	-.0002	.0001	.0002	-.0001	.0001	.0007	-.0001	.0007	.0109

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0011**	**.0092**	**.0135**	**.0101**	**.0003**	**-.0010**	**-.0071**	**.0137**
Stddev	.0005	.0001	.0003	.0002	.0008	.0029	.0006	.0180	.0045
%RSD	158.3	12.56	3.421	1.429	7.545	1041.	57.48	253.4	32.44
#1	-.0006	.0010	.0094	.0137	.0096	.0023	-.0014	.0056	.0106
#2	.0000	.0012	.0090	.0134	.0107	-.0018	-.0006	-.0198	.0169

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0019**	**.0048**	**.0110**	**.0081**	**.0974**	**.0003**	**.1961**	**-.0001**	**-.0000**
Stddev	.0020	.0015	.0208	.0027	.0005	.0001	.0012	.0004	.0000
%RSD	108.9	30.49	189.6	33.97	.4740	18.15	.6274	598.3	38410.
#1	.0033	.0059	.0256	.0061	.0971	.0003	.1952	.0002	.0000
#2	.0004	.0038	-.0037	.0100	.0977	.0004	.1969	-.0003	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0464**	**.0002**	**.0003**	**-.0018**	**-.0015**	**-.0022**
Stddev	.0001	.0000	.0001	.0022	.0009	.0004	.0001
%RSD	125.9	.0355	32.17	823.4	47.51	24.04	4.724
#1	-.0001	.0464	.0002	-.0013	-.0024	-.0012	-.0023
#2	-.0000	.0464	.0001	.0019	-.0012	-.0017	-.0021

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162660.**	**18143.**	**7114.7**	**10883.**
Stddev	319.	60.	46.9	62.
%RSD	.19598	.33221	.65867	.56615
#1	162890.	18100.	7081.6	10840.
#2	162440.	18185.	7147.8	10927.

Zoom In Zoom Out

Sample Name: jc59183-57a Acquired: 3/30/2018 15:56:44 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0005**	**.0001**	**.0002**	**-.0002**	**-.0000**	**.0012**	**.0001**	**.0001**	**.0116**
Stddev	.0005	.0000	.0001	.0001	.0001	.0006	.0001	.0001	.0007
%RSD	99.22	76.20	78.64	61.42	253.4	47.90	47.66	198.7	6.122
#1	.0008	.0000	.0003	-.0003	-.0001	.0017	.0002	.0001	.0121
#2	.0001	.0001	.0001	-.0001	.0000	.0008	.0001	-.0000	.0111

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0005**	**.0041**	**.0109**	**.0134**	**.0098**	**.0004**	**.0007**	**.0330**	**.0727**
Stddev	.0002	.0001	.0008	.0014	.0018	.0008	.0021	.0047	.0029
%RSD	48.50	2.312	7.158	10.78	18.31	205.2	292.4	14.34	3.949
#1	-.0003	.0042	.0103	.0144	.0085	.0009	-.0008	.0363	.0747
#2	-.0007	.0040	.0114	.0124	.0111	-.0002	.0022	.0296	.0706

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0058**	**.0248**	**.0016**	**.0296**	**.1000**	**.0004**	**.2031**	**-.0002**	**.0000**
Stddev	.0007	.0020	.0105	.0045	.0017	.0000	.0004	.0001	.0002
%RSD	12.68	8.126	668.4	15.10	1.697	12.55	.1980	44.76	416.2
#1	.0053	.0262	.0090	.0264	.1012	.0004	.2034	-.0002	.0001
#2	.0063	.0234	-.0059	.0327	.0988	.0003	.2029	-.0003	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**.0489**	**-.0000**	**.0065**	**-.0001**	**-.0010**	**-.0030**
Stddev	.0002	.0015	.0002	.0004	.0010	.0007	.0008
%RSD	64.38	2.964	644.0	5.446	856.5	69.69	28.04
#1	.0004	.0500	-.0001	.0062	-.0008	-.0016	-.0024
#2	.0002	.0479	.0001	.0067	.0006	-.0005	-.0036

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160420.**	**18158.**	**7124.9**	**10933.**
Stddev	9068.	114.	36.4	53.
%RSD	5.6524	.63046	.51032	.48065
#1	154010.	18239.	7099.2	10896.
#2	166830.	18077.	7150.6	10970.

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 3/30/2018 15:59:44 Type: Unk
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0040**	**.0011**	**.0010**	**.0029**	**.0020**	**.0004**	**.0032**	**.0046**	**.0007**
Stddev	.0001	.0001	.0002	.0004	.0002	.0001	.0000	.0013	.0000
%RSD	3.589	4.916	21.92	13.49	11.16	13.61	.3622	29.28	.4513
#1	.0041	.0011	.0012	.0032	.0022	.0004	.0032	.0055	.0007
#2	.0039	.0010	.0009	.0026	.0019	.0004	.0032	.0036	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0017**	**.0111**	**.0027**	**.0009**	**.0008**	**.0048**	**.0013**	**.1000**	**1.033**
Stddev	.0001	.0014	.0008	.0004	.0022	.0020	.0009	.0029	.002
%RSD	4.752	12.67	29.93	50.12	280.9	42.02	68.41	2.888	.1981
#1	.0016	.0121	.0033	.0012	.0023	.0062	.0019	.1021	1.031
#2	.0017	.0101	.0021	.0006	-.0008	.0034	.0007	.0980	1.034

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0007**	**.1210**	**2.037**	**1.047**	**.0002**	**.0002**	**.0024**	**.0006**	**-.0001**
Stddev	.0021	.0007	.039	.010	.0006	.0000	.0033	.0005	.0001
%RSD	309.7	.5374	1.907	.9794	321.3	11.26	136.2	82.30	97.66
#1	.0021	.1206	2.009	1.054	.0006	.0002	.0047	.0002	-.0000
#2	-.0008	.1215	2.064	1.039	-.0002	.0002	.0001	.0009	-.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0004**	**-.0007**	**.0002**	**-.0038**	**-.0027**	**-.0032**	**-.0049**
Stddev	.0004	.0005	.0000	.0030	.0001	.0008	.0015
%RSD	120.0	70.75	10.71	78.84	3.650	24.90	29.66
#1	-.0001	-.0010	.0002	-.0059	-.0027	-.0038	-.0039
#2	-.0006	-.0003	.0001	-.0017	-.0026	-.0026	-.0060

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164010.**	**18177.**	**6961.7**	**10718.**
Stddev	441.	128.	907.2	1252.
%RSD	.26910	.70168	13.031	11.684
#1	163700.	18267.	6320.2	9832.8
#2	164320.	18086.	7603.1	11604.

Zoom In Zoom Out

Sample Name: cri Acquired: 3/30/2018 16:02:45 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1924**	**.0020**	**.0031**	**.0498**	**.0100**	**.0098**	**.0161**	**.0100**
Stddev	.0008	.0000	.0001	.0007	.0003	.0002	.0001	.0001
%RSD	.4061	.2066	2.940	1.500	2.774	2.126	.4782	.7284
#1	.1930	.0020	.0030	.0493	.0098	.0100	.0160	.0100
#2	.1919	.0020	.0031	.0504	.0102	.0097	.0161	.0099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**.0485**	**.0214**	**.0076**	**.0085**	W **.0024**	**.0102**	**.0057**
Stddev	.0003	.0003	.0002	.0015	.0014	.0007	.0006	.0004
%RSD	5.923	.5182	.8945	19.60	17.05	30.20	5.959	7.086
#1	.0047	.0487	.0212	.0066	.0074	.0019	.0097	.0060
#2	.0051	.0483	.0215	.0087	.0095	.0029	.0106	.0054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value						.0030		
Range						-20.00%		

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2008**	**4.966**	**.1021**	**5.021**	**4.831**	**4.971**	**.0980**	**.0204**
Stddev	.0148	.022	.0031	.043	.062	.003	.0003	.0003
%RSD	7.351	.4408	3.077	.8562	1.278	.0508	.3151	1.637
#1	.2112	4.981	.1043	5.052	4.787	4.969	.0977	.0201
#2	.1903	4.950	.0999	4.991	4.875	4.972	.0982	.0206
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: cri Acquired: 3/30/2018 16:02:45 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2081**	**.0098**	**.0097**	**.0094**	**.0485**	**.0103**	**.0497**	**.0185**
Stddev	.0008	.0008	.0002	.0002	.0007	.0000	.0006	.0016
%RSD	.4030	8.384	1.812	1.905	1.393	.1505	1.201	8.464
#1	.2075	.0093	.0098	.0092	.0490	.0103	.0493	.0174
#2	.2087	.0104	.0095	.0095	.0480	.0103	.0501	.0196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0464**	**.0442**
Stddev	.0012	.0004
%RSD	2.529	.8471
#1	.0456	.0440
#2	.0473	.0445
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**163020.**	**18354.**	**7142.9**	**10907.**
Stddev	211.	77.	2.1	10.
%RSD	.12915	.42091	.02940	.09166
#1	162880.	18300.	7141.4	10900.
#2	163170.	18409.	7144.4	10914.

Zoom In Zoom Out

Sample Name: crid Acquired: 3/30/2018 16:05:44 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**.0010**	**.0012**	**.0028**	**.0020**	F **.0004**	**.0031**	**.0040**
Stddev	.0002	.0001	.0001	.0000	.0000	.0001	.0000	.0003
%RSD	5.243	6.177	10.99	.6494	.6449	12.25	.0156	6.392
#1	.0034	.0009	.0012	.0029	.0020	.0004	.0031	.0038
#2	.0037	.0010	.0011	.0028	.0020	.0004	.0031	.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0007**	**.0017**	**.0106**	**.0037**	**.0018**	F **.0007**	**.0038**	F **-.0010**
Stddev	.0000	.0005	.0001	.0000	.0016	.0004	.0009	.0001
%RSD	5.628	26.62	.5139	.5822	92.76	58.19	22.84	12.73
#1	.0007	.0014	.0105	.0037	.0006	.0010	.0032	-.0009
#2	.0007	.0021	.0106	.0037	.0029	.0004	.0044	-.0010
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-30.00%					-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0995**	**1.008**	**-.0002**	**.1065**	**1.893**	**1.004**	**-.0013**	**.0003**
Stddev	.0177	.006	.0018	.0102	.009	.001	.0006	.0002
%RSD	17.83	.6408	714.4	9.561	.4825	.0534	48.40	66.04
#1	.1121	1.013	.0010	.0993	1.900	1.004	-.0017	.0002
#2	.0870	1.004	-.0015	.1137	1.887	1.003	-.0008	.0005
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: crid Acquired: 3/30/2018 16:05:44 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0003**	**-.0002**	**-.0000**	**-.0008**	**-.0001**	**-.0012**	**-.0014**
Stddev	.0005	.0004	.0001	.0001	.0019	.0002	.0022	.0012
%RSD	73.71	117.5	44.35	836.4	240.9	236.6	180.4	84.24
#1	.0003	.0006	-.0002	.0000	-.0022	-.0003	-.0028	-.0023
#2	.0009	.0001	-.0003	-.0001	.0006	.0001	.0003	-.0006
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**-.0011**	**-.0054**
Stddev	.0034	.0013
%RSD	317.5	24.89
#1	-.0034	-.0064
#2	.0013	-.0045
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**165100.**	**18253.**	**7211.8**	**11066.**
Stddev	629.	193.	37.8	40.
%RSD	.38071	1.0576	.52349	.36211
#1	165550.	18117.	7185.1	11038.
#2	164660.	18390.	7238.5	11094.

Zoom In Zoom Out

Sample Name: icsa Acquired: 3/30/2018 16:08:43 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0001**	**.0009**	**.0001**	**.0012**	**.0037**	**-.0032**	**-.0017**	**.0004**
Stddev	.0002	.0001	.0002	.0000	.0001	.0005	.0004	.0000	.0010
%RSD	10.95	63.52	22.05	14.03	5.403	12.47	13.80	.9846	281.2
#1	.0014	.0001	.0008	.0001	.0012	.0034	-.0035	-.0017	-.0004
#2	.0017	.0001	.0011	.0002	.0012	.0041	-.0029	-.0017	.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0023**	**.0028**	**-.0003**	**-.0024**	**-.0008**	**.0042**	**.0011**	**488.5**	**373.3**
Stddev	.0002	.0000	.0015	.0027	.0010	.0034	.0018	11.9	1.2
%RSD	9.686	.7942	444.1	114.2	114.5	81.17	167.2	2.426	.3313
#1	-.0021	.0028	.0007	-.0005	-.0002	.0018	-.0002	496.9	374.2
#2	-.0024	.0028	-.0014	-.0043	-.0015	.0066	.0024	480.2	372.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**187.9**	**483.4**	**.1831**	**.0109**	**-.0044**	**.0008**	**-.0074**	**-.0066**	**-.0026**
Stddev	3.4	8.7	.0378	.0095	.0007	.0005	.0001	.0007	.0006
%RSD	1.825	1.809	20.65	86.67	16.66	70.09	1.673	10.51	22.55
#1	185.5	477.2	.1563	.0042	-.0049	.0004	-.0073	-.0062	-.0030
#2	190.3	489.6	.2098	.0176	-.0038	.0011	-.0075	-.0071	-.0022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icsa Acquired: 3/30/2018 16:08:43 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0024**	**-.0001**	**-.0026**	**-.0012**	**.0086**	**-.0105**	**-.0034**
Stddev	.0005	.0005	.0003	.0056	.0022	.0018	.0001
%RSD	20.93	375.7	11.39	484.6	25.10	16.90	2.466
#1	-.0028	.0002	-.0028	.0028	.0101	-.0093	-.0035
#2	-.0021	-.0005	-.0024	-.0051	.0071	-.0118	-.0034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146960.**	**17359.**	**6539.3**	**9573.8**
Stddev	130.	109.	33.1	35.1
%RSD	.08825	.62918	.50624	.36676
#1	146870.	17436.	6515.8	9549.0
#2	147060.	17282.	6562.7	9598.7

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/30/2018 16:11:46 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5024**	**.4882**	**1.021**	**.4923**	**.4841**	**.5028**	**.5113**	**.9578**	**1.012**
Stddev	.0026	.0034	.007	.0025	.0021	.0032	.0016	.0060	.005
%RSD	.5239	.6924	.6538	.5030	.4272	.6435	.3164	.6249	.4619
#1	.5043	.4906	1.016	.4905	.4826	.5005	.5101	.9536	1.008
#2	.5006	.4858	1.025	.4940	.4855	.5051	.5124	.9620	1.015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4837**	**.9613**	**1.033**	**1.079**	**.9619**	**1.007**	**1.055**	**516.7**	**386.6**
Stddev	.0015	.0060	.006	.005	.0045	.003	.008	5.1	3.9
%RSD	.3063	.6236	.6030	.4437	.4641	.3398	.7522	.9876	1.002
#1	.4826	.9570	1.028	1.075	.9587	1.005	1.049	520.3	389.4
#2	.4847	.9655	1.037	1.082	.9651	1.010	1.061	513.1	383.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**199.1**	**496.1**	**.2207**	**-.0042**	**.4993**	**.4861**	**.4851**	**.4842**	**.5129**
Stddev	1.9	4.7	.0504	.0107	.0033	.0013	.0022	.0040	.0043
%RSD	.9421	.9426	22.85	255.5	.6515	.2670	.4464	.8194	.8480
#1	200.4	499.4	.2563	.0034	.4970	.4852	.4836	.4814	.5160
#2	197.8	492.8	.1850	-.0118	.5016	.4870	.4867	.4871	.5098
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/30/2018 16:11:46 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4890**	**.4829**	**.5451**	**.4998**	**.5120**	**.5000**	**.4913**
Stddev	.0017	.0022	.0027	.0038	.0039	.0026	.0016
%RSD	.3525	.4514	.5030	.7597	.7570	.5100	.3170
#1	.4877	.4814	.5431	.4971	.5093	.4982	.4902
#2	.4902	.4845	.5470	.5025	.5147	.5018	.4924
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146250.**	**16982.**	**6515.1**	**9552.7**
Stddev	837.	236.	10.0	.8
%RSD	.57260	1.3924	.15302	.00803
#1	145660.	16815.	6522.2	9552.2
#2	146840.	17149.	6508.1	9553.3

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/30/2018 16:14:47 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.959**	**1.944**	**1.950**	**1.956**	**1.992**	**1.947**	**2.074**	**1.938**	**.2477**
Stddev	.002	.002	.004	.001	.016	.017	.017	.001	.0024
%RSD	.0815	.0773	.2229	.0310	.7878	.8489	.8189	.0392	.9856
#1	1.960	1.943	1.953	1.957	1.981	1.936	2.062	1.939	.2460
#2	1.958	1.945	1.946	1.956	2.003	1.959	2.086	1.938	.2494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.954**	**1.975**	**1.916**	**1.977**	**1.947**	**1.925**	**1.934**	**38.87**	**39.06**
Stddev	.016	.004	.000	.006	.001	.000	.005	.08	.06
%RSD	.8376	.1817	.0078	.3103	.0562	.0041	.2381	.1938	.1468
#1	1.943	1.978	1.916	1.981	1.948	1.925	1.937	38.93	39.02
#2	1.966	1.972	1.916	1.972	1.946	1.925	1.931	38.82	39.10
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.40**	**39.20**	**38.90**	**39.25**	**1.943**	**1.914**	**4.822**	**1.998**	**1.969**
Stddev	.04	.05	.13	.02	.002	.001	.007	.004	.004
%RSD	.0943	.1294	.3296	.0524	.0998	.0414	.1558	.1849	.1869
#1	39.43	39.16	38.81	39.24	1.945	1.915	4.827	2.000	1.972
#2	39.38	39.23	38.99	39.27	1.942	1.914	4.816	1.995	1.967
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/30/2018 16:14:47 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.949**	**1.898**	**1.995**	**1.930**	**1.928**	**1.932**	**1.912**
Stddev	.018	.004	.016	.002	.002	.003	.002
%RSD	.8977	.2199	.7777	.0926	.0888	.1666	.1016
#1	1.937	1.901	1.984	1.931	1.926	1.930	1.910
#2	1.961	1.895	2.006	1.929	1.929	1.935	1.913
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**155180.**	**17658.**	**6937.7**	**10340.**
Stddev	617.	63.	50.5	67.
%RSD	.39787	.35766	.72721	.64523
#1	155620.	17703.	6902.0	10293.
#2	154740.	17613.	6973.3	10387.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/30/2018 16:17:36 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0001**	**-.0001**	**.0001**	**.0003**	**.0000**	**.0002**	**.0011**
Stddev	.0000	.0001	.0001	.0001	.0002	.0002	.0000	.0003	.0001
%RSD	14.97	55.55	99.65	117.4	136.0	77.94	6647.	187.7	4.760
#1	.0001	.0001	.0002	-.0000	.0000	.0004	-.0000	.0004	.0011
#2	.0001	.0001	.0000	-.0002	.0002	.0001	.0000	-.0001	.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0000**	**.0006**	**.0003**	**-.0002**	**-.0008**	**.0002**	**.0016**	**.0068**
Stddev	.0001	.0000	.0002	.0007	.0019	.0013	.0016	.0043	.0004
%RSD	30.12	63.95	24.74	219.6	1072.	155.0	834.0	275.2	6.198
#1	-.0002	.0000	.0005	-.0002	-.0016	.0001	.0014	-.0015	.0065
#2	-.0002	.0000	.0007	.0009	.0012	-.0017	-.0010	.0046	.0071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0006**	**.0180**	**.0087**	**.0002**	**.0004**	**.0011**	**-.0001**	**-.0000**
Stddev	.0018	.0052	.0260	.0087	.0004	.0001	.0006	.0004	.0001
%RSD	1211.	817.3	144.2	99.77	171.5	19.71	53.79	463.9	333.1
#1	.0011	-.0031	.0364	.0148	.0005	.0003	.0015	.0002	.0000
#2	-.0014	.0043	-.0004	.0026	-.0000	.0004	.0007	-.0003	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/30/2018 16:17:36 Type: QC
Method: Accutest XPress(v85) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0007**	**.0000**	**-.0022**	**-.0016**	**-.0024**	**-.0048**
Stddev	.0001	.0006	.0001	.0009	.0006	.0017	.0002
%RSD	36.84	85.05	842.5	40.22	36.03	73.82	3.827
#1	.0004	-.0011	-.0000	-.0016	-.0021	-.0011	-.0047
#2	.0003	-.0003	.0000	-.0029	-.0012	-.0036	-.0049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**162320.**	**17941.**	**7105.2**	**10924.**
Stddev	1123.	60.	12.3	26.
%RSD	.69192	.33468	.17370	.24223
#1	161530.	17983.	7096.5	10905.
#2	163120.	17899.	7113.9	10943.

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	1	Zr	0.001380	0.000000	No
Be 313.042 {108}	☒	6	V	0.000093	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.001115	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
Cd 228.802 {448}	☒	11	As	0.013236	0.000000	No
			Ni	-0.000511	0.000000	No
			Fe	0.000002	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.001492	0.000000	No
			Sr	-0.000020	0.000000	No
			Mn	0.000050	0.000000	No
			Cu	-0.000026	0.000000	No
			Zn	0.000000	0.000000	No
			W	-0.001000	0.000000	No
Co 228.616 {448}	☒	7	Fe	0.000024	0.000000	No
			Mo	-0.001050	0.000000	No
			Ni	0.000256	0.000000	No
			Ti	0.002036	0.000000	No
			Ba	0.000329	0.000000	No
			W	-0.001840	0.000000	No
			Cd	-0.000510	0.000000	No
Cr 267.716 {126}	☒	8	Mn	0.000495	0.000000	No
			V	-0.000027	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000013	0.000000	No
			Ti	0.000060	0.000000	No
			Ba	0.000045	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
Cu 324.754 {104}2	☒	13	Cr	0.000100	0.000000	No
			V	-0.000428	0.000000	No
			Mo	0.000672	0.000000	No
			Ti	-0.000185	0.000000	No
			Fe	-0.000231	0.000000	No
			Zn	-0.000004	0.000000	No
			Co	-0.000820	0.000000	No
			Si	0.000028	0.000000	No
			Mn	-0.000102	0.000000	No
			Se	0.000050	0.000000	No
			Sb	-0.000130	0.000000	No
			W	0.000000	0.000000	No
			Al	-0.000001	0.000000	No
Mn 257.610 {131}	☒	4	Fe	-0.000077	0.000000	No
			Si	0.000050	0.000000	No
			Ba	0.000100	0.000000	No
			Ni	0.000028	0.000000	No
Ni 231.604 {446}	☒	8	Fe	0.000035	0.000000	No
			Zn	0.000079	0.000000	No
			Be	0.000213	0.000000	No
			Co	-0.000125	0.000000	No
			Tl	0.000209	0.000000	No
			Mo	0.000026	0.000000	No
			Cu	0.000050	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Se	0.000100	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000249	0.000000	No
			Mo	-0.000015	-0.000003	No
			Ti	-0.000417	0.000000	No
			Fe	-0.000222	0.000000	No
			Zn	-0.000104	0.000000	No
			Ca	0.000002	0.000000	No
			Zr	0.007638	0.000000	No
			Sr	-0.000020	0.000000	No
			Mg	0.000001	0.000000	No
			Ba	-0.000000	0.000000	No
			Cr	0.000039	0.000000	No
			V	-0.004034	0.000000	No
			Al	-0.000003	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	☒	6	Ti	0.000689	0.000000	No
			Mo	-0.000100	0.000000	No
			Fe	0.000014	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.012058	0.000000	No
			Mn	-0.001937	0.000000	No
Zn 206.200 {464}	☒	9	Cr	-0.000850	0.000000	No
			Fe	0.000021	0.000000	No
			Si	-0.000035	0.000000	No
			Mn	-0.000045	0.000000	No
			Ba	-0.000060	0.000000	No
			Sn	0.000255	0.000000	No
			Cu	0.001248	0.000000	No
			As	0.000055	0.000000	No
			Be	0.000364	0.000000	No
As 189.042 {478}	☒	17	Al	-0.000003	0.000000	No
			Fe	-0.000003	0.000000	No
			Ca	0.000005	0.000000	No
			Mo	0.003357	0.000000	No
			Cr	0.002128	0.000000	No
			Ba	0.000083	0.000000	No
			Sn	-0.000037	0.000000	No
			Cd	-0.000328	0.000000	No
			Si	0.000031	0.000000	No
			Zn	0.000020	0.000000	No
			Sr	-0.000045	0.000000	No
			W	0.000000	0.000000	No
			Cu	0.000143	0.000000	No
			Co	-0.000466	0.000000	No
			Zr	0.000036	0.000000	No
			Mn	-0.000095	0.000000	No
			S	0.000004	0.000000	No
Tl 190.856 {477}	☒	24	Cr	0.000303	0.000000	No
			Mo	-0.005710	0.000000	No
			Al	-0.000002	0.000000	No
			Fe	-0.000039	0.000000	No
			V	-0.028482	0.000000	No
			Mn	0.001100	0.000000	No
			Si	0.000303	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.001721	0.000000	No
			Mg	-0.000002	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Co	0.003822	0.000000	No
			Sr	0.000610	0.000000	No
			B	0.000205	0.000000	No
			Ba	0.000100	0.000000	No
			Zn	-0.000023	0.000000	No
			As	0.000101	0.000000	No
			W	0.000000	0.000000	No
			Cu	-0.000010	0.000000	No
			Zr	0.000056	0.000000	No
			Pb	-0.000020	0.000000	No
			S	0.000010	0.000000	No
			Sn	-0.000086	0.000000	No
			Li	0.000000	0.000000	No
			K	0.000000	0.000000	No
Pb 220.353 {453}	☒	20	Al	-0.000148	0.000000	No
			Fe	0.000032	0.000000	No
			Ca	0.000002	0.000000	No
			Mn	0.000008	0.000000	No
			Mo	-0.001150	0.000000	No
			Cu	0.000313	0.000000	No
			Co	0.000110	0.000000	No
			Ti	0.000039	0.000000	No
			Si	0.000207	0.000000	No
			Ba	0.000020	0.000000	No
			Sb	-0.000200	0.000000	No
			Sr	-0.000033	0.000000	No
			W	0.000000	0.000000	No
			Mg	-0.000000	0.000000	No
			Cd	0.000012	0.000000	No
			Cr	-0.000037	0.000000	No
			Zr	-0.000280	0.000000	No
			Ni	0.000270	0.000000	No
			S	0.000008	0.000000	No
			Zn	-0.000050	0.000000	No
Se 196.090 {472}	☒	22	Al	-0.000004	0.000000	No
			Ca	0.000002	0.000000	No
			Mn	0.000824	0.000000	No
			Mo	0.000381	0.000000	No
			Fe	-0.000251	0.000000	No
			Co	-0.000241	0.000000	No
			Sr	-0.000011	0.000000	No
			Cu	0.000059	0.000000	No
			W	0.000000	0.000000	No
			Si	-0.000053	0.000000	No
			Be	-0.000143	0.000000	No
			Zn	0.000050	0.000000	No
			B	-0.000097	0.000000	No
			Ti	0.000045	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000300	0.000000	No
			Ba	-0.000045	0.000000	No
			Mg	-0.000001	0.000000	No
			Pb	-0.000011	0.000000	No
			Ni	-0.000100	0.000000	No
			Cr	-0.000024	0.000000	No
			S	-0.000009	0.000000	No
Sb 206.833 {463}	☒	16	Fe	0.000023	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Al	-0.000006	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000600	0.000000	No
			Cr	0.021012	0.000000	No
			V	-0.002875	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	-0.000380	0.000000	No
			Ti	0.000839	0.000000	No
			Sn	-0.007300	0.000000	No
			Mg	-0.000001	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	0.000050	0.000000	No
			W	0.010000	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000652	0.000000	No
			Ca	0.000101	0.000000	No
			Mo	0.034800	0.000000	No
			Zr	-0.005018	0.000000	No
			Ti	0.000419	0.000000	No
Ca 317.933 {106}	☒	14	Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004950	0.000000	No
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	0.003280	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
			As	0.010000	0.000000	No
Fe 259.940 {130}	☒	10	Si	0.000819	0.000000	No
			Tl	-0.002602	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	0.000778	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.000953	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	3	Mo	-0.020250	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.005360	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.015570	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Ba	-0.002700	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.010000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	☒	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.037400	0.000000	No
Mo 202.030 {467}	☒	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	☒	12	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.031055	0.000000	No
			V	0.030619	0.000000	No
			Ti	0.003744	0.000000	No
			Al	0.000014	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	0.003000	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	☒	4	Ti	-0.002900	0.000000	No
			Fe	0.000018	0.000000	No
			Si	0.000131	0.000000	No
			Zr	-0.000500	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000043	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000189	0.000000	No
			Mo	0.001070	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	20	Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.009921	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	-0.002570	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	-0.001000	0.000000	No
			Ni	-0.003000	0.000000	No
			Be	-0.001000	0.000000	No
			Se	-0.002600	0.000000	No
			Cu	-0.001300	0.000000	No
			Tl	-0.002600	0.000000	No
Zr 339.198 { 99}	☒	6	Mo	0.001069	0.000000	No
			Ti	0.000400	0.000000	No
			Fe	-0.000055	0.000000	No
			Si	0.000615	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				S	-0.000030	0.000000	No
				Cr	-0.000700	0.000000	No
	S 182.034 {485}	☒	7	Mo	-0.005000	0.000000	No
				Al	-0.000087	0.000000	No
				Fe	0.000143	0.000000	No
				Mn	0.005000	0.000000	No
				W	-0.045000	0.000000	No
				Ca	0.000015	0.000000	No
				Mg	0.000009	0.000000	No
	Bi 223.061 {451}	☒	6	Ti	-0.140123	0.000000	No
				V	-0.000680	0.000000	No
				Co	-0.003770	0.000000	No
				Ca	-0.000015	0.000000	No
				Mg	-0.000014	0.000000	No
				Fe	0.000190	0.000000	No
	Li 670.784 { 50}	☒	2	Ca	0.000038	0.000000	No
				Fe	0.000040	0.000000	No
	P 177.495 {490}	☒	1	Mn	-0.005212	0.000000	No

	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
	Ba 455.403 { 74}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.000038	1.516751	0.000000	1.000000
	Be 313.042 {108}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.001171	2.339317	0.000000	1.000000
	Cd 228.802 {448}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.000215	0.944324	0.000000	1.000000
	Co 228.616 {448}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.000340	0.591013	0.000000	1.000000
	Cr 267.716 {126}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000108	0.112861	0.000000	1.000000
	Cu 324.754 {104}2	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.003647	0.202044	0.000000	1.000000
	Mn 257.610 {131}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.000040	0.653257	0.000000	1.000000
	Ni 231.604 {446}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000196	0.462460	0.000000	1.000000
	Ag 328.068 {103}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000471	0.126059	0.000000	1.000000
	V 292.402 {115}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.000275	0.155943	0.000000	1.000000
	Zn 206.200 {464}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000336	1.298697	0.000000	1.000000
	As 189.042 {478}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000165	0.107547	0.000000	1.000000
	Tl 190.856 {477}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000219	0.077920	0.000000	1.000000
	Pb 220.353 {453}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000151	0.197085	0.000000	1.000000
	Se 196.090 {472}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000008	0.078586	0.000000	1.000000
	Sb 206.833 {463}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.000157	0.129935	0.000000	1.000000
	Al 396.152 { 85}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.001099	0.038486	0.000000	1.000000
	Ca 317.933 {106}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.009170	0.083460	0.000000	1.000000
	Fe 259.940 {130}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.000065	0.057048	0.000000	1.000000
	Mg 279.079 {121}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000042	0.009294	0.000000	1.000000
	K 766.490 { 44}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.002121	0.018751	0.000000	1.000000
	Na 589.592 { 57}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.005373	0.075555	0.000000	1.000000
	B 208.959 {462}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.001144	0.205926	0.000000	1.000000
	Mo 202.030 {467}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000558	0.634524	0.000000	1.000000
	Si 212.412 {459}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.002864	0.173813	0.000000	1.000000
	Sn 189.989 {478}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.000227	0.219734	0.000000	1.000000
	Sr 407.771 { 83}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000092	3.015305	0.000000	1.000000
	Ti 334.904 {101}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000110	0.116958	0.000000	1.000000
	Y 360.073 { 94}*	3/30/2018 17:06:56	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 371.030 { 91}*	3/30/2018 17:06:56	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 224.306 {451}*	3/30/2018 17:06:56	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	In 230.606 {446}*	3/30/2018 17:06:56	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	W 207.911 {462}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.000325	0.304674	0.000000	1.000000
	Zr 339.198 { 99}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.000621	0.404287	0.000000	1.000000
	S 182.034 {485}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.002618	0.058927	0.000000	1.000000
	Bi 223.061 {451}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	0.000374	0.155474	0.000000	1.000000
	Li 670.784 { 50}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	None	-0.006709	0.435191	0.000000	1.000000
	P 177.495 {490}	3/30/2018 17:06:56	3/30/2018 13:17:23	Linear	1/Conc	-0.013422	0.125713	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ba 455.403 { 74}	1.000000	0.000000	0.000452	0.001507	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000109	0.000363	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000259	0.000864	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000325	0.001084	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000436	0.001455	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000565	0.001883	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000068	0.000228	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000477	0.001589	OK.	1.000000	0.000000	1	0
	Ag 328.068 {103}	1.000000	0.000000	0.000599	0.001998	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000544	0.001812	OK.	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000158	0.000525	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.001447	0.004825	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.001595	0.005318	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.001556	0.005186	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.002723	0.009078	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.002049	0.006829	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.014457	0.048191	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.003859	0.012862	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.002908	0.009692	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.022677	0.075590	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.055281	0.184271	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.013773	0.045911	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.000918	0.003059	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000370	0.001232	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.001522	0.005074	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000722	0.002407	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000154	0.000515	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000541	0.001804	OK.	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	W 207.911 {462}	1.000000	0.000000	0.001501	0.005002	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000238	0.000793	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.002822	0.009407	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.002264	0.007548	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.002468	0.008228	OK.	1.000000	0.000000	1	0
	P 177.495 {490}	1.000000	0.000000	0.001489	0.004963	OK.	1.000000	0.000000	1	0

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/31/2018 13:32:18 Type: Cal
Method: Accutest XPress(v95) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0008**	**.0002**	**.0002**	**.0003**	**-.0001**	**.0041**	**.0000**	**-.0000**	**-.0003**
Stddev	.0005	.0004	.0000	.0001	.0000	.0000	.0000	.0000	.0000
%RSD	68.21	191.5	9.008	17.34	18.81	.6961	21.44	90.76	2.856
#1	-.0004	.0005	.0002	.0004	-.0001	.0040	.0000	-.0000	-.0003
#2	-.0012	-.0001	.0002	.0003	-.0001	.0041	.0000	-.0001	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**-.0001**	**-.0001**	**-.0003**	**-.0002**	**-.0000**	**.0002**	**-.0010**	**.0082**
Stddev	.0001	.0000	.0000	.0001	.0001	.0000	.0000	.0001	.0001
%RSD	29.47	24.50	9.105	29.76	29.66	90.42	20.74	7.027	.9543
#1	.0002	-.0002	-.0001	-.0002	-.0001	-.0000	.0002	-.0009	.0082
#2	.0002	-.0001	-.0001	-.0003	-.0002	-.0000	.0002	-.0010	.0083

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0001**	**.0019**	**-.0059**	**.0009**	**-.0007**	**.0030**	**.0000**	**-.0005**
Stddev	.0000	.0001	.0000	.0001	.0001	.0000	.0000	.0001	.0002
%RSD	33.88	106.8	1.188	1.869	8.872	1.922	1.007	289.4	42.21
#1	.0001	.0000	.0018	-.0059	.0010	-.0007	.0030	-.0000	-.0004
#2	.0001	.0002	.0019	-.0060	.0009	-.0007	.0031	.0001	-.0007

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**.0001**	**-.0007**	**-.0031**	**.0003**	**-.0067**	**-.0096**
Stddev	.0001	.0002	.0001	.0000	.0003	.0001	.0000
%RSD	70.75	147.2	8.636	1.223	101.0	1.524	.4181
#1	-.0000	-.0000	-.0008	-.0031	.0004	-.0067	-.0096
#2	-.0001	.0003	-.0007	-.0031	.0001	-.0066	-.0097

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/31/2018 13:32:18 Type: Cal
Method: Accutest XPress(v95) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**159920.**	**21139.**	**6846.2**	**11271.**
Stddev	835.	85.	33.8	60.
%RSD	.52212	.40220	.49319	.53538
#1	159330.	21200.	6822.3	11228.
#2	160510.	21079.	6870.0	11314.

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 3/31/2018 13:35:18 Type: Cal
Method: Accutest XPress(v95) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.732**	**8.892**	**3.854**	**2.279**	**.4395**	**.7574**	**2.706**	**1.692**	**.0604**
Stddev	.025	.045	.004	.001	.0008	.0013	.032	.001	.0000
%RSD	.5252	.5069	.0905	.0358	.1870	.1698	1.172	.0642	.0450
#1	4.749	8.924	3.857	2.280	.4401	.7583	2.729	1.693	.0604
#2	4.714	8.860	3.852	2.278	.4390	.7565	2.684	1.691	.0604

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7047**	**5.272**	**.4211**	**.2848**	**.7313**	**.2989**	**.5067**	**2.481**	**5.156**
Stddev	.0005	.000	.0004	.0003	.0002	.0006	.0017	.014	.020
%RSD	.0639	.0075	.0860	.0915	.0267	.1990	.3306	.5422	.3796
#1	.7050	5.271	.4214	.2850	.7314	.2993	.5078	2.491	5.170
#2	.7044	5.272	.4209	.2846	.7311	.2985	.5055	2.472	5.143

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.701**	**.5767**	**1.192**	**4.811**	**.8225**	**2.992**	**1.763**	**.9536**	**9.451**
Stddev	.016	.0017	.003	.002	.0002	.002	.003	.0001	.036
%RSD	.4362	.2919	.2353	.0439	.0210	.0725	.1488	.0053	.3785
#1	3.713	.5779	1.194	4.813	.8226	2.993	1.765	.9537	9.477
#2	3.690	.5755	1.190	4.810	.8224	2.990	1.761	.9536	9.426

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4238**	**1.156**	**1.636**	**.2294**	**.4824**	**1.521**	**.5682**
Stddev	.0012	.000	.003	.0004	.0011	.006	.0005
%RSD	.2780	.0231	.1909	.1677	.2280	.3999	.0879
#1	.4246	1.157	1.639	.2297	.4832	1.525	.5686
#2	.4230	1.156	1.634	.2291	.4816	1.516	.5679

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 3/31/2018 13:35:18 Type: Cal
Method: Accutest XPress(v95) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151770.**	**20889.**	**6517.3**	**10409.**
Stddev	117.	137.	10.7	20.
%RSD	.07701	.65600	.16443	.19450
#1	151690.	20986.	6509.7	10394.
#2	151850.	20792.	6524.9	10423.

Zoom In Zoom Out

Sample Name: ccvconf Acquired: 3/31/2018 13:38:19 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.911**	**1.920**	**1.968**	**2.005**	**2.003**	**1.964**	**2.050**	**2.012**	**.2459**
Stddev	.099	.102	.003	.002	.003	.002	.003	.002	.0002
%RSD	5.178	5.300	.1702	.1020	.1606	.0801	.1364	.0842	.0747
#1	1.841	1.848	1.970	2.006	2.005	1.963	2.052	2.013	.2458
#2	1.981	1.992	1.965	2.003	2.001	1.965	2.048	2.011	.2460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.991**	**2.001**	**1.959**	**2.038**	**2.003**	**1.972**	**1.960**	**37.85**	**38.42**
Stddev	.002	.003	.001	.001	.004	.002	.000	2.17	1.93
%RSD	.0769	.1568	.0491	.0445	.1809	.1113	.0002	5.733	5.022
#1	1.992	1.999	1.959	2.039	2.005	1.971	1.960	36.32	37.06
#2	1.989	2.003	1.958	2.038	2.000	1.974	1.960	39.39	39.79
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.18**	**38.47**	**38.66**	**38.73**	**1.987**	**1.972**	**5.014**	**1.991**	**1.920**
Stddev	2.12	1.95	1.20	1.48	.003	.001	.002	.001	.097
%RSD	5.542	5.075	3.112	3.824	.1497	.0418	.0317	.0554	5.040
#1	36.68	37.09	37.81	37.68	1.989	1.972	5.015	1.992	1.852
#2	39.68	39.85	39.51	39.78	1.985	1.971	5.012	1.990	1.989
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccvconf Acquired: 3/31/2018 13:38:19 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.982**	**1.941**	**1.982**	**1.947**	**1.995**	**1.925**	**1.973**
Stddev	.003	.000	.001	.001	.008	.087	.002
%RSD	.1250	.0068	.0650	.0681	.3842	4.530	.1015
#1	1.984	1.941	1.983	1.947	2.000	1.863	1.972
#2	1.981	1.941	1.981	1.948	1.990	1.987	1.975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**158180.**	**21525.**	**6816.8**	**10841.**
Stddev	481.	80.	4.3	4.
%RSD	.30390	.36956	.06243	.03471
#1	157840.	21469.	6819.8	10839.
#2	158520.	21582.	6813.8	10844.

Zoom In Zoom Out

Sample Name: ccbconf Acquired: 3/31/2018 13:41:08 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0002**	**.0000**	**-.0001**	**.0000**	**-.0000**	**-.0001**	**.0003**
Stddev	.0005	.0001	.0000	.0003	.0001	.0001	.0001	.0002	.0003
%RSD	1876.	377.1	.6603	606.8	60.86	363.2	114.5	202.1	94.15
#1	-.0003	-.0000	.0002	.0002	-.0001	-.0001	-.0000	-.0002	.0001
#2	.0004	.0001	.0002	-.0001	-.0001	.0001	-.0001	.0000	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0000**	**-.0001**	F **.0025**	**-.0002**	**.0006**	**-.0019**	**.0041**	**.0033**
Stddev	.0001	.0001	.0008	.0009	.0014	.0019	.0008	.0038	.0013
%RSD	17.04	265.4	745.1	36.67	845.7	308.3	44.12	93.26	38.90
#1	-.0005	-.0000	.0004	.0031	-.0011	.0020	-.0013	.0014	.0024
#2	-.0007	.0001	-.0007	.0018	.0008	-.0007	-.0025	.0068	.0043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0020					
Low Limit				-.0020					

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0027**	**-.0201**	**.1219**	**.0339**	**.0055**	**.0005**	**.0003**	**.0003**	**-.0002**
Stddev	.0006	.0235	.0159	.0205	.0008	.0001	.0003	.0000	.0001
%RSD	22.35	117.1	13.03	60.52	14.49	16.92	116.5	5.200	34.32
#1	-.0032	-.0034	.1107	.0484	.0060	.0005	.0005	.0003	-.0001
#2	-.0023	-.0367	.1331	.0194	.0049	.0004	.0001	.0003	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccbconf Acquired: 3/31/2018 13:41:08 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0009**	**.0002**	**.0031**	**.0005**	**.0030**	**-.0005**
Stddev	.0002	.0024	.0001	.0010	.0016	.0024	.0005
%RSD	117.5	281.3	80.15	30.68	316.0	79.00	108.1
#1	-.0003	-.0008	.0001	.0024	-.0006	.0047	-.0009
#2	-.0000	.0026	.0003	.0038	.0017	.0013	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**162550.**	**21644.**	**6926.7**	**11420.**
Stddev	591.	127.	26.4	52.
%RSD	.36373	.58637	.38170	.45185
#1	162970.	21555.	6908.0	11384.
#2	162130.	21734.	6945.4	11457.

Zoom In Zoom Out

Sample Name: icv Acquired: 3/31/2018 13:55:04 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.971**	**1.985**	**1.971**	**2.002**	**1.989**	**1.951**	**2.041**	**2.005**	**.2456**
Stddev	.009	.008	.003	.005	.005	.006	.004	.004	.0009
%RSD	.4638	.4014	.1646	.2617	.2546	.3316	.1983	.2193	.3655
#1	1.968	1.983	1.975	2.008	1.994	1.957	2.044	2.009	.2464
#2	1.982	1.993	1.971	2.001	1.990	1.953	2.043	2.004	.2456
#3	1.964	1.977	1.968	1.997	1.984	1.944	2.036	2.001	.2446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.985**	**2.001**	**1.959**	**2.026**	**1.996**	**1.964**	**1.961**	**39.21**	**39.54**
Stddev	.005	.006	.003	.003	.006	.008	.005	.19	.15
%RSD	.2511	.2875	.1685	.1224	.3069	.4079	.2350	.4814	.3698
#1	1.989	2.007	1.962	2.029	2.002	1.973	1.967	39.19	39.48
#2	1.987	2.000	1.957	2.024	1.996	1.961	1.958	39.41	39.70
#3	1.979	1.996	1.957	2.024	1.990	1.958	1.960	39.03	39.43
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.57**	**39.63**	**39.23**	**39.47**	**1.981**	**1.982**	**5.019**	**1.993**	**1.972**
Stddev	.14	.20	.08	.11	.002	.003	.009	.005	.007
%RSD	.3572	.5033	.2090	.2884	.0935	.1401	.1817	.2455	.3523
#1	39.57	39.56	39.17	39.42	1.983	1.984	5.029	1.998	1.973
#2	39.71	39.85	39.32	39.61	1.980	1.983	5.014	1.993	1.978
#3	39.43	39.47	39.20	39.40	1.980	1.978	5.013	1.988	1.965
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: icv Acquired: 3/31/2018 13:55:04 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.962**	**1.939**	**1.972**	**1.951**	**1.982**	**1.974**	**1.983**
Stddev	.008	.005	.005	.006	.008	.011	.004
%RSD	.3955	.2759	.2467	.2864	.4126	.5672	.1815
#1	1.969	1.944	1.977	1.956	1.991	1.967	1.987
#2	1.962	1.938	1.973	1.951	1.981	1.987	1.982
#3	1.954	1.933	1.967	1.945	1.975	1.969	1.979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**158180.**	**21394.**	**6788.3**	**10845.**
Stddev	771.	134.	21.6	40.
%RSD	.48748	.62664	.31868	.36490
#1	157800.	21394.	6763.7	10800.
#2	157680.	21260.	6804.1	10873.
#3	159070.	21528.	6797.3	10864.

Zoom In Zoom Out

Sample Name: icb Acquired: 3/31/2018 14:08:56 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0000**	**.0001**	**.0001**	**.0003**	**.0007**	**-.0000**	**.0000**	**.0002**
Stddev	.0001	.0001	.0001	.0002	.0006	.0002	.0000	.0004	.0000
%RSD	511.5	4200.	110.1	217.6	237.2	27.16	79.26	8896.	24.75
#1	-.0001	-.0001	.0000	.0002	.0007	.0005	-.0000	.0003	.0001
#2	.0001	.0001	.0001	-.0000	-.0002	.0008	-.0000	-.0003	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0000**	**-.0006**	**-.0002**	**-.0003**	**-.0012**	**-.0008**	**-.0001**	**-.0024**
Stddev	.0002	.0002	.0003	.0006	.0002	.0005	.0017	.0000	.0065
%RSD	63.21	932.3	46.83	330.7	74.85	40.75	206.4	6.177	274.9
#1	-.0005	-.0002	-.0004	.0002	-.0005	-.0008	.0004	-.0001	.0022
#2	-.0002	.0001	-.0009	-.0006	-.0002	-.0015	-.0020	-.0001	-.0070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0023**	**.0009**	**-.0213**	**.0214**	**.0006**	**.0001**	**-.0016**	**-.0000**	**-.0001**
Stddev	.0003	.0190	.0595	.0003	.0004	.0002	.0010	.0002	.0000
%RSD	11.36	2039.	278.9	1.337	77.75	244.7	64.86	697.6	36.03
#1	-.0021	-.0125	.0207	.0212	.0009	-.0001	-.0023	.0001	-.0001
#2	-.0024	.0144	-.0634	.0216	.0002	.0002	-.0009	-.0002	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icb Acquired: 3/31/2018 14:08:56 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0010**	**.0001**	**.0005**	**.0004**	**.0013**	**-.0008**
Stddev	.0005	.0018	.0001	.0002	.0001	.0004	.0006
%RSD	151.7	172.7	92.92	44.46	18.46	26.96	82.90
#1	-.0000	-.0002	.0001	.0007	.0003	.0011	-.0012
#2	.0007	.0023	.0000	.0004	.0004	.0016	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**161300.**	**21393.**	**6851.3**	**11360.**
Stddev	903.	151.	18.2	18.
%RSD	.55962	.70537	.26566	.16247
#1	161940.	21286.	6838.4	11347.
#2	160660.	21500.	6864.2	11373.

Zoom In Zoom Out

Sample Name: iccv Acquired: 3/31/2018 14:12:30 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.980**	**1.994**	**2.011**	**2.041**	**2.080**	**2.042**	F **2.136**	**2.046**	**.2557**
Stddev	.008	.009	.023	.020	.132	.125	.133	.020	.0152
%RSD	.4000	.4548	1.139	.9620	6.334	6.123	6.225	.9644	5.944
#1	1.988	2.006	2.036	2.062	2.005	1.968	2.060	2.067	.2474
#2	1.972	1.986	2.024	2.051	2.007	1.974	2.060	2.056	.2477
#3	1.975	1.988	2.001	2.035	2.277	2.228	2.334	2.040	.2785
#4	1.985	1.995	1.985	2.017	2.031	1.995	2.088	2.022	.2493
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value							2.000		
Range							5.000%		

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.072**	**2.046**	**2.002**	**2.065**	**2.038**	**2.016**	**2.000**	**39.27**	**39.70**
Stddev	.130	.020	.021	.022	.022	.022	.022	.23	.21
%RSD	6.255	.9602	1.058	1.086	1.096	1.089	1.099	.5748	.5211
#1	1.999	2.065	2.022	2.088	2.058	2.033	2.026	39.58	39.91
#2	1.998	2.059	2.017	2.077	2.052	2.035	2.010	39.09	39.49
#3	2.265	2.037	1.992	2.060	2.033	2.004	1.988	39.11	39.56
#4	2.024	2.022	1.977	2.037	2.008	1.991	1.977	39.30	39.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: iccv Acquired: 3/31/2018 14:12:30 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.63**	**39.68**	**39.60**	**39.70**	**2.024**	**2.020**	**5.117**	**2.041**	**1.980**
Stddev	.22	.21	.22	.21	.024	.020	.059	.018	.009
%RSD	.5509	.5293	.5553	.5324	1.200	.9964	1.152	.9055	.4630
#1	39.93	39.94	39.70	39.86	2.048	2.042	5.178	2.060	1.991
#2	39.46	39.45	39.31	39.40	2.040	2.031	5.150	2.052	1.972
#3	39.48	39.58	39.58	39.69	2.014	2.012	5.091	2.033	1.973
#4	39.63	39.74	39.82	39.84	1.995	1.997	5.047	2.019	1.984
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.051**	**1.983**	**2.062**	**1.995**	**2.032**	**1.988**	**2.021**
Stddev	.127	.018	.129	.030	.019	.008	.022
%RSD	6.204	.9320	6.255	1.498	.9399	.3882	1.103
#1	1.977	2.003	1.988	2.025	2.043	1.994	2.043
#2	1.984	1.994	1.991	2.013	2.028	1.979	2.033
#3	2.242	1.973	2.255	1.979	2.049	1.984	2.014
#4	2.003	1.963	2.015	1.961	2.006	1.995	1.993
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Zoom In Zoom Out

Sample Name: iccv Acquired: 3/31/2018 14:12:30 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152040.**	**21107.**	**6676.9**	**10676.**
Stddev	7540.	135.	43.5	59.
%RSD	4.9589	.64066	.65094	.54955
#1	155200.	20942.	6648.0	10637.
#2	156730.	21268.	6633.2	10622.
#3	140780.	21078.	6701.6	10695.
#4	155470.	21139.	6725.0	10750.

Zoom In Zoom Out

Sample Name: iccv Acquired: 3/31/2018 14:17:06 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**2.063**	**2.017**	**2.050**	**2.043**	**2.007**	**2.097**	**2.056**	**.2515**
Stddev	.008	.006	.014	.013	.021	.015	.017	.014	.0018
%RSD	.3756	.3138	.6756	.6452	1.005	.7450	.7912	.6648	.7241
#1	2.051	2.064	2.023	2.055	2.068	2.027	2.117	2.062	.2538
#2	2.063	2.070	2.028	2.062	2.042	2.007	2.096	2.068	.2510
#3	2.057	2.064	2.021	2.052	2.044	2.003	2.098	2.056	.2517
#4	2.044	2.055	1.997	2.031	2.018	1.992	2.076	2.037	.2494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.036**	**2.050**	**2.010**	**2.079**	**2.048**	**2.027**	**2.009**	**40.78**	**41.16**
Stddev	.017	.013	.014	.015	.016	.018	.013	.17	.16
%RSD	.8255	.6440	.7072	.7120	.7781	.8647	.6693	.4160	.3985
#1	2.057	2.057	2.017	2.082	2.053	2.032	2.011	40.65	41.07
#2	2.036	2.062	2.021	2.094	2.066	2.041	2.022	41.00	41.38
#3	2.037	2.049	2.011	2.082	2.046	2.033	2.011	40.82	41.19
#4	2.016	2.032	1.989	2.059	2.028	2.001	1.990	40.64	41.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: iccv Acquired: 3/31/2018 14:17:06 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.13**	**41.24**	**40.70**	**40.98**	**2.035**	**2.024**	**5.140**	**2.045**	**2.055**
Stddev	.16	.23	.12	.22	.015	.014	.039	.014	.009
%RSD	.3916	.5574	.2902	.5350	.7287	.7015	.7543	.6792	.4275
#1	40.99	41.01	40.66	40.82	2.039	2.031	5.153	2.051	2.047
#2	41.31	41.53	40.86	41.18	2.048	2.035	5.176	2.057	2.062
#3	41.23	41.30	40.69	41.15	2.041	2.026	5.146	2.049	2.063
#4	41.01	41.11	40.58	40.75	2.014	2.003	5.085	2.025	2.047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.015**	**1.989**	**2.030**	**2.002**	**2.034**	**2.053**	**2.026**
Stddev	.020	.016	.015	.017	.018	.009	.014
%RSD	.9898	.8009	.7322	.8263	.9032	.4236	.7070
#1	2.040	1.995	2.048	2.008	2.042	2.053	2.033
#2	2.014	2.005	2.029	2.018	2.048	2.060	2.036
#3	2.013	1.988	2.031	2.003	2.040	2.057	2.029
#4	1.991	1.968	2.012	1.979	2.007	2.041	2.005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Zoom In Zoom Out

Sample Name: iccv Acquired: 3/31/2018 14:17:06 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**156530.**	**21144.**	**6710.1**	**10703.**
Stddev	1591.	73.	35.0	52.
%RSD	1.0166	.34372	.52232	.48632
#1	154530.	21229.	6688.3	10674.
#2	156740.	21051.	6685.2	10657.
#3	156420.	21153.	6705.9	10706.
#4	158410.	21144.	6760.8	10775.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 14:22:30 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0001**	**.0001**	**-.0001**	**-.0002**	**.0004**	**.0000**	**.0000**	**.0005**
Stddev	.0002	.0001	.0002	.0002	.0001	.0004	.0000	.0001	.0002
%RSD	37.45	108.7	130.8	167.5	20.91	108.5	171.8	307.2	44.08
#1	.0003	.0001	.0002	-.0002	-.0003	.0007	.0000	-.0000	.0004
#2	.0006	.0000	.0000	.0000	-.0002	.0001	-.0000	.0001	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0001**	**-.0017**	**.0017**	**-.0004**	**-.0010**	**-.0008**	**.0107**	**-.0015**
Stddev	.0001	.0001	.0000	.0004	.0011	.0006	.0007	.0181	.0014
%RSD	57.31	171.6	2.228	25.00	265.8	61.87	93.35	168.8	93.08
#1	-.0001	.0001	-.0018	.0020	-.0012	-.0005	-.0003	-.0021	-.0025
#2	-.0003	-.0000	-.0017	.0014	.0004	-.0014	-.0013	.0235	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**-.0091**	**.1193**	**.0356**	**.0055**	**.0005**	**-.0000**	**.0000**	**-.0003**
Stddev	.0015	.0072	.0334	.0069	.0002	.0001	.0011	.0004	.0000
%RSD	130.6	79.68	27.99	19.39	3.238	22.88	48240.	7498.	3.869
#1	.0001	-.0142	.0957	.0307	.0057	.0006	-.0008	-.0003	-.0003
#2	.0023	-.0040	.1429	.0404	.0054	.0005	.0008	.0003	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 14:22:30 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0022**	**.0001**	**.0014**	**.0023**	**.0015**	**-.0008**
Stddev	.0001	.0011	.0002	.0010	.0006	.0046	.0003
%RSD	1136.	47.98	164.6	72.87	26.17	302.8	35.07
#1	-.0001	.0030	-.0000	.0021	.0027	.0048	-.0010
#2	.0001	.0015	.0002	.0007	.0019	-.0017	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**160670.**	**21551.**	**6847.7**	**11316.**
Stddev	465.	10.	13.1	16.
%RSD	.28930	.04640	.19161	.14370
#1	161000.	21558.	6838.5	11305.
#2	160340.	21544.	6857.0	11328.

Zoom In Zoom Out

Sample Name: cri Acquired: 3/31/2018 14:32:03 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1938**	**.0019**	**.0031**	**.0498**	**.0100**	**.0101**	**.0158**	**.0099**	**.0043**
Stddev	.0001	.0001	.0000	.0001	.0001	.0007	.0001	.0000	.0009
%RSD	.0686	3.253	.5734	.3006	.7194	6.680	.5031	.4571	20.74
#1	.1939	.0019	.0031	.0499	.0099	.0096	.0158	.0099	.0036
#2	.1937	.0020	.0031	.0497	.0100	.0106	.0159	.0099	.0049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0490**	**.0208**	**.0088**	**.0107**	F **.0020**	**.0109**	**.0054**	**.1925**	**4.970**
Stddev	.0002	.0001	.0010	.0004	.0002	.0029	.0019	.0148	.001
%RSD	.3791	.5101	11.11	3.911	9.363	26.47	35.83	7.703	.0101
#1	.0492	.0207	.0081	.0110	.0019	.0088	.0068	.1821	4.969
#2	.0489	.0209	.0095	.0104	.0022	.0129	.0040	.2030	4.970
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					.0030				
Range					-30.00%				

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1008**	**5.036**	**4.886**	**4.990**	**.0998**	**.0202**	**.1739**	**.0105**	**.0095**
Stddev	.0046	.013	.075	.025	.0002	.0002	.0020	.0002	.0001
%RSD	4.553	.2588	1.545	.4913	.2005	.8322	1.148	2.077	.8475
#1	.1041	5.046	4.832	4.973	.0999	.0204	.1725	.0107	.0095
#2	.0976	5.027	4.939	5.008	.0997	.0201	.1753	.0104	.0096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: cri Acquired: 3/31/2018 14:32:03 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0091**	**.0489**	**.0102**	**.0476**	**.0220**	**.0512**	**.0490**
Stddev	.0003	.0035	.0001	.0023	.0017	.0020	.0001
%RSD	3.806	7.156	.6175	4.825	7.761	3.956	.2739
#1	.0093	.0464	.0102	.0460	.0208	.0527	.0490
#2	.0088	.0513	.0101	.0492	.0232	.0498	.0491
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**160130.**	**21400.**	**6788.6**	**11176.**
Stddev	1001.	194.	51.5	73.
%RSD	.62528	.90488	.75843	.65479
#1	159420.	21263.	6752.2	11124.
#2	160840.	21537.	6825.0	11228.

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 14:35:00 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0010**	**.0009**	**.0030**	**.0020**	F **.0001**	**.0033**	**.0044**
Stddev	.0004	.0000	.0000	.0003	.0000	.0003	.0000	.0003
%RSD	8.349	3.413	2.839	8.802	1.643	231.2	1.396	6.542
#1	.0048	.0010	.0009	.0028	.0020	.0003	.0034	.0046
#2	.0042	.0009	.0009	.0032	.0020	-.0001	.0033	.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0006**	**.0016**	**.0110**	**.0029**	F **.0028**	F **.0005**	**.0046**	F **-.0011**
Stddev	.0002	.0001	.0001	.0005	.0010	.0002	.0028	.0015
%RSD	29.23	7.831	.9343	18.86	34.14	39.00	61.38	131.2
#1	.0005	.0015	.0109	.0025	.0021	.0007	.0065	-.0001
#2	.0008	.0017	.0111	.0033	.0035	.0004	.0026	-.0022
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail
Value	.0020				.0020	.0025		.0030
Range	-30.00%				30.00%	-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1021**	**1.057**	**-.0013**	**.1125**	**2.093**	**1.080**	**.0008**	**.0001**
Stddev	.0089	.005	.0013	.0235	.005	.003	.0006	.0001
%RSD	8.666	.4773	102.8	20.90	.2258	.2603	85.76	78.48
#1	.0959	1.061	-.0022	.1291	2.096	1.078	.0012	.0002
#2	.1084	1.053	-.0004	.0958	2.090	1.082	.0003	.0001
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 14:35:00 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**.0016**	**-.0001**	**-.0000**	**.0002**	**-.0000**	**.0039**	**-.0005**
Stddev	.0006	.0000	.0002	.0001	.0001	.0002	.0006	.0018
%RSD	23.32	2.656	172.5	453.8	76.56	438.9	15.67	370.9
#1	.0029	.0017	-.0003	.0000	.0003	-.0002	.0035	.0008
#2	.0021	.0016	.0000	-.0001	.0001	.0001	.0044	-.0018
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**-.0009**	**-.0007**
Stddev	.0001	.0011
%RSD	12.05	145.8
#1	-.0008	-.0015
#2	-.0010	.0000
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**159150.**	**21296.**	**6910.7**	**11405.**
Stddev	293.	96.	13.4	12.
%RSD	.18425	.45016	.19330	.10715
#1	158950.	21228.	6901.2	11397.
#2	159360.	21363.	6920.1	11414.

Zoom In Zoom Out

Sample Name: icsa Acquired: 3/31/2018 14:38:00 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0000**	**.0011**	**-.0007**	**.0004**	**.0010**	**.0007**	**-.0007**	**.0028**
Stddev	.0003	.0000	.0001	.0005	.0002	.0007	.0001	.0004	.0000
%RSD	23.42	83.42	12.31	71.93	59.19	74.04	12.25	55.21	.1504
#1	.0016	.0000	.0012	-.0011	.0005	.0005	.0007	-.0004	.0028
#2	.0011	.0001	.0010	-.0004	.0002	.0015	.0008	-.0010	.0028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0012**	**.0036**	**-.0005**	**-.0011**	**.0001**	**-.0020**	**.0031**	**510.8**	**386.7**
Stddev	.0003	.0001	.0019	.0016	.0010	.0003	.0010	.3	2.6
%RSD	24.09	3.114	383.7	144.4	736.1	12.72	31.01	.0629	.6687
#1	-.0010	.0037	.0009	-.0023	.0008	-.0018	.0024	511.0	388.5
#2	-.0014	.0035	-.0019	.0000	-.0006	-.0022	.0038	510.5	384.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**191.3**	**501.1**	**.2713**	**.0120**	**-.0024**	**.0012**	**.0420**	**-.0058**	**-.0027**
Stddev	.3	.2	.0471	.0169	.0001	.0002	.0699	.0007	.0000
%RSD	.1518	.0493	17.37	140.1	2.691	17.96	166.6	11.43	.7761
#1	191.5	501.3	.2380	.0240	-.0024	.0014	.0914	-.0054	-.0027
#2	191.1	500.9	.3046	.0001	-.0023	.0011	-.0075	-.0063	-.0027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icsa Acquired: 3/31/2018 14:38:00 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0019**	**-.0004**	**.0002**	**-.0042**	**.0160**	**-.0056**	**.0072**
Stddev	.0006	.0006	.0001	.0003	.0003	.0005	.0007
%RSD	29.74	157.2	33.44	6.994	1.750	9.142	10.03
#1	-.0024	-.0008	.0002	-.0045	.0162	-.0060	.0077
#2	-.0015	.0000	.0002	-.0040	.0158	-.0052	.0067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143980.**	**20432.**	**6226.8**	**9786.8**
Stddev	915.	.	.3	7.2
%RSD	.63549	.00084	.00488	.07336
#1	143340.	20432.	6227.0	9791.9
#2	144630.	20432.	6226.5	9781.7

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/31/2018 14:41:04 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4980**	**.4879**	**1.011**	**.4936**	**.4815**	**.4990**	**.5053**	**.9758**	**.9978**
Stddev	.0014	.0003	.000	.0009	.0003	.0007	.0009	.0003	.0028
%RSD	.2812	.0562	.0278	.1900	.0533	.1448	.1685	.0280	.2835
#1	.4970	.4877	1.011	.4929	.4813	.4985	.5047	.9760	.9958
#2	.4990	.4881	1.011	.4943	.4816	.4995	.5059	.9756	.9998
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4905**	**.9605**	**1.018**	**1.089**	**.9736**	**.9960**	**1.035**	**504.1**	**384.7**
Stddev	.0002	.0004	.003	.002	.0051	.0027	.003	6.1	5.8
%RSD	.0472	.0457	.2792	.1742	.5249	.2759	.2827	1.218	1.504
#1	.4906	.9608	1.016	1.090	.9700	.9940	1.033	499.7	380.6
#2	.4903	.9602	1.020	1.087	.9772	.9979	1.037	508.4	388.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**186.8**	**492.3**	**.2162**	**.0352**	**.5062**	**.4874**	**.5229**	**.4675**	**.5269**
Stddev	.2	1.2	.0474	.0058	.0004	.0001	.0024	.0002	.0012
%RSD	.0814	.2487	21.92	16.58	.0799	.0180	.4563	.0356	.2344
#1	186.7	491.4	.1827	.0311	.5059	.4875	.5212	.4677	.5260
#2	186.9	493.1	.2497	.0393	.5065	.4873	.5245	.4674	.5278
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/31/2018 14:41:04 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4852**	**.4804**	**.4977**	**.4883**	**.5509**	**.5066**	**.5101**
Stddev	.0009	.0020	.0001	.0026	.0025	.0023	.0020
%RSD	.1952	.4202	.0127	.5390	.4511	.4448	.3937
#1	.4846	.4789	.4977	.4865	.5491	.5050	.5087
#2	.4859	.4818	.4977	.4902	.5527	.5082	.5115
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146260.**	**20637.**	**6323.3**	**9922.3**
Stddev	524.	98.	32.0	50.2
%RSD	.35822	.47350	.50648	.50638
#1	146630.	20706.	6300.6	9886.8
#2	145890.	20568.	6345.9	9957.8

Zoom In Zoom Out

Sample Name: hstd Acquired: 3/31/2018 14:44:02 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.016**	**4.892**	**5.096**	**5.133**	**5.144**	**5.134**	**5.203**	**5.162**	**.6295**
Stddev	.005	.093	.000	.004	.031	.035	.042	.005	.0041
%RSD	.1054	1.903	.0018	.0674	.5972	.6827	.8143	.0994	.6519
#1	5.020	4.826	5.097	5.130	5.122	5.109	5.173	5.158	.6266
#2	5.012	4.958	5.096	5.135	5.166	5.158	5.233	5.165	.6324
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.074**	**5.264**	**4.978**	**5.269**	**5.219**	**5.077**	**5.046**	**.0574**	**-.1293**
Stddev	.034	.003	.001	.012	.005	.002	.003	.0009	.0027
%RSD	.6602	.0642	.0184	.2280	.0882	.0432	.0668	1.599	2.099
#1	5.050	5.262	4.978	5.277	5.222	5.078	5.048	.0580	-.1312
#2	5.098	5.267	4.977	5.260	5.216	5.075	5.043	.0567	-.1274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0110**	**.0802**	**.3361**	**.0648**	**5.088**	**5.064**	**25.52**	**5.176**	**4.870**
Stddev	.0032	.0290	.0277	.0115	.003	.000	.02	.001	.060
%RSD	28.59	36.22	8.245	17.75	.0673	.0020	.0763	.0142	1.223
#1	-.0088	.0597	.3165	.0567	5.091	5.064	25.51	5.175	4.912
#2	-.0133	.1007	.3557	.0729	5.086	5.065	25.53	5.176	4.827
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd Acquired: 3/31/2018 14:44:02 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.009**	**5.118**	**4.894**	**47.79**	**5.125**	**5.017**	**5.036**
Stddev	.032	.005	.059	.06	.002	.005	.002
%RSD	.6421	.0980	1.205	.1338	.0442	.0947	.0433
#1	4.987	5.115	4.853	47.83	5.124	5.013	5.038
#2	5.032	5.122	4.936	47.74	5.127	5.020	5.035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**159160.**	**21617.**	**6791.0**	**11252.**
Stddev	414.	24.	19.4	28.
%RSD	.26008	.11158	.28506	.24868
#1	158870.	21600.	6777.3	11232.
#2	159450.	21634.	6804.7	11272.

Zoom In Zoom Out

Sample Name: hstd Acquired: 3/31/2018 14:47:13 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0001**	**.0010**	**-.0003**	**-.0002**	**.0014**	**.0006**	**-.0010**	**.0029**
Stddev	.0004	.0000	.0001	.0000	.0002	.0003	.0001	.0005	.0002
%RSD	32.22	23.17	10.27	13.29	121.9	21.92	26.10	54.04	6.262
#1	.0010	.0001	.0009	-.0004	-.0000	.0012	.0007	-.0006	.0028
#2	.0017	.0001	.0011	-.0003	-.0003	.0016	.0005	-.0013	.0031
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0023**	**.0020**	**.0008**	**-.0010**	**.0020**	**.0026**	**309.3**	**142.8**
Stddev	.0000	.0000	.0002	.0017	.0002	.0027	.0018	.0	1.7
%RSD	4.427	2.016	7.722	205.2	21.81	130.6	71.50	.0014	1.199
#1	-.0007	.0023	.0019	-.0004	-.0012	.0002	.0013	309.3	141.6
#2	-.0008	.0023	.0021	.0020	-.0009	.0039	.0039	309.3	144.0
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**154.5**	**312.3**	**158.6**	**151.0**	**.0048**	**.0008**	**.0003**	**-.0046**	**-.0010**
Stddev	.0	.1	.9	.3	.0004	.0000	.0047	.0006	.0002
%RSD	.0131	.0371	.5715	.1831	8.479	6.022	1515.	12.22	24.35
#1	154.5	312.2	157.9	150.8	.0051	.0009	.0037	-.0042	-.0008
#2	154.5	312.4	159.2	151.2	.0045	.0008	-.0030	-.0050	-.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd Acquired: 3/31/2018 14:47:13 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0023**	**.0005**	**-.0068**	**.0115**	**.0038**	**.0046**
Stddev	.0001	.0021	.0001	.0002	.0034	.0014	.0005
%RSD	38.68	90.66	26.21	3.023	29.78	35.38	11.06
#1	-.0003	.0038	.0006	-.0069	.0091	.0029	.0049
#2	-.0005	.0008	.0004	-.0066	.0140	.0048	.0042
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146970.**	**20594.**	**6333.9**	**9841.0**
Stddev	206.	88.	6.7	18.1
%RSD	.13995	.42961	.10521	.18361
#1	146820.	20657.	6329.2	9828.3
#2	147110.	20531.	6338.6	9853.8

Zoom In Zoom Out

Sample Name: feconf Acquired: 3/31/2018 14:50:11 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0001**	**-.0000**	**.0006**	**-.0007**	**-.0009**	**-.0011**	**.0026**	**-.0008**	**.0033**
Stddev	.0001	.0000	.0000	.0000	.0004	.0002	.0000	.0001	.0006
%RSD	75.38	21.76	.4826	.9004	42.09	14.75	1.472	15.20	19.57
#1	.0001	-.0000	.0006	-.0007	-.0012	-.0010	.0026	-.0007	.0028
#2	.0002	-.0000	.0006	-.0007	-.0007	-.0012	.0026	-.0008	.0037

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0022**	**-.0014**	**-.0000**	**-.0005**	**-.0003**	**.0000**	**.0031**	**.0013**	**.0068**
Stddev	.0000	.0000	.0006	.0009	.0022	.0022	.0003	.0036	.0023
%RSD	.4558	3.133	1282.	202.5	788.8	6194.	10.59	278.2	34.13
#1	-.0023	-.0015	.0004	.0002	.0013	.0016	.0033	.0038	.0084
#2	-.0022	-.0014	-.0005	-.0011	-.0018	-.0015	.0028	-.0012	.0051

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**203.0**	**-.0126**	**.3768**	**.0742**	**.0013**	**.0007**	**.0058**	**-.0011**	**-.0002**
Stddev	.5	.0114	.0190	.0065	.0017	.0002	.0004	.0003	.0001
%RSD	.2477	90.26	5.044	8.785	126.6	28.62	7.613	23.86	86.58
#1	202.6	-.0207	.3902	.0696	.0025	.0005	.0055	-.0013	-.0003
#2	203.4	-.0046	.3634	.0788	.0001	.0008	.0061	-.0009	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0004**	**.0003**	**-.0306**	**.0118**	**-.0024**	**-.0033**
Stddev	.0007	.0019	.0002	.0003	.0012	.0016	.0014
%RSD	555.6	475.5	85.57	1.021	10.43	67.11	42.73
#1	.0004	.0018	.0001	-.0304	.0127	-.0035	-.0023
#2	-.0006	-.0010	.0004	-.0308	.0109	-.0012	-.0043

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159810.**	**21424.**	**6716.4**	**11245.**
Stddev	162.	67.	9.9	31.
%RSD	.10114	.31202	.14680	.27818
#1	159700.	21472.	6709.4	11223.
#2	159930.	21377.	6723.4	11267.

Zoom In Zoom Out

Sample Name: crconf Acquired: 3/31/2018 14:53:08 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0006**	**.0000**	**.0000**	**.0005**	F **10.44**	**-.0013**	**-.0014**	**-.0005**	**-.0000**
Stddev	.0001	.0001	.0000	.0002	.02	.0006	.0000	.0003	.0005
%RSD	19.86	1384.	204.4	52.65	.1954	45.86	.9891	55.05	17950.
#1	.0005	.0000	.0000	.0006	10.43	-.0009	-.0014	-.0006	-.0003
#2	.0007	-.0000	-.0000	.0003	10.46	-.0017	-.0014	-.0003	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0016**	**.0000**	**-.0003**	**-.0007**	**-.0025**	**.0006**	**-.0029**	**.0100**	**-.0017**
Stddev	.0001	.0001	.0009	.0002	.0010	.0024	.0031	.0192	.0015
%RSD	7.560	769.2	263.4	35.69	38.84	400.6	105.7	191.3	84.82
#1	-.0015	.0001	.0003	-.0005	-.0031	-.0011	-.0007	.0236	-.0007
#2	-.0017	-.0000	-.0010	-.0009	-.0018	.0023	-.0051	-.0035	-.0028

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0155**	**-.0024**	**.0091**	**.0397**	**.0014**	**.0009**	**.0027**	**-.0001**	**-.0001**
Stddev	.0005	.0335	.0006	.0013	.0002	.0005	.0005	.0002	.0002
%RSD	3.388	1378.	6.632	3.171	11.29	56.10	18.33	245.7	311.8
#1	.0159	-.0262	.0087	.0388	.0015	.0005	.0023	-.0002	.0001
#2	.0152	.0213	.0095	.0406	.0013	.0012	.0030	.0001	-.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0035**	**.0045**	**.0055**	**.0030**	**.0123**	**.0033**	**-.0021**
Stddev	.0001	.0021	.0002	.0015	.0017	.0021	.0001
%RSD	2.131	46.40	3.703	48.75	13.45	63.01	6.821
#1	-.0035	.0030	.0053	.0020	.0134	.0019	-.0022
#2	-.0036	.0060	.0056	.0040	.0111	.0048	-.0020

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160450.**	**21480.**	**6693.6**	**11258.**
Stddev	271.	103.	15.1	14.
%RSD	.16865	.48003	.22590	.12066
#1	160260.	21407.	6704.3	11268.
#2	160640.	21553.	6682.9	11249.

Zoom In Zoom Out

Sample Name: asconf Acquired: 3/31/2018 14:56:08 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0002**	**-.0000**	**-.0003**	**-.0001**	**.0006**	**.0001**	**-.0000**	**-.0002**	**.0000**
Stddev	.0001	.0000	.0000	.0000	.0002	.0002	.0001	.0001	.0001
%RSD	32.44	137.7	13.53	53.18	37.96	306.2	268.3	63.44	410.3
#1	-.0002	-.0000	-.0003	-.0001	.0008	-.0001	-.0001	-.0002	-.0001
#2	-.0003	-.0000	-.0003	-.0000	.0005	.0002	.0000	-.0001	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0003**	**5.241**	**-.0002**	**.0003**	**-.0006**	**-.0008**	**-.0008**	**-.0389**
Stddev	.0003	.0001	.007	.0005	.0008	.0001	.0002	.0018	.0015
%RSD	96.00	19.50	.1365	227.1	247.5	16.53	23.71	222.2	3.921
#1	-.0001	.0004	5.236	.0001	-.0002	-.0005	-.0006	-.0021	-.0379
#2	-.0005	.0003	5.246	-.0006	.0008	-.0007	-.0009	.0005	-.0400

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0015**	**-.0054**	**.0476**	**.0341**	**.0008**	**-.0001**	**-.0012**	**.0009**	**-.0003**
Stddev	.0009	.0032	.0100	.0082	.0009	.0001	.0008	.0004	.0001
%RSD	56.36	58.87	20.99	24.18	112.7	120.5	67.30	40.35	20.64
#1	.0009	-.0076	.0546	.0283	.0015	-.0000	-.0006	.0011	-.0002
#2	.0021	-.0031	.0405	.0399	.0002	-.0001	-.0018	.0006	-.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0002**	**.0006**	**.0002**	**.0043**	**-.0010**	**.0026**	**.0001**
Stddev	.0000	.0000	.0003	.0004	.0006	.0003	.0001
%RSD	12.78	7.448	182.2	8.455	66.73	11.82	76.28
#1	-.0003	.0005	-.0000	.0041	-.0014	.0024	.0001
#2	-.0002	.0006	.0003	.0046	-.0005	.0028	.0000

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161180.**	**21425.**	**6858.3**	**11300.**
Stddev	285.	105.	7.2	.
%RSD	.17674	.49185	.10554	.00061
#1	161380.	21500.	6853.2	11300.
#2	160980.	21351.	6863.4	11300.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 14:59:06 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.994**	**2.001**	**2.019**	**2.042**	**2.003**	**1.974**	**2.057**	**2.048**	**.2479**
Stddev	.005	.001	.000	.005	.001	.004	.004	.003	.0011
%RSD	.2479	.0316	.0074	.2673	.0673	.2161	.1995	.1334	.4493
#1	1.998	2.002	2.019	2.038	2.002	1.971	2.054	2.046	.2471
#2	1.991	2.001	2.019	2.046	2.004	1.977	2.060	2.050	.2487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.994**	**2.053**	**2.012**	**2.077**	**2.048**	**2.028**	**2.012**	**39.56**	**40.01**
Stddev	.003	.004	.003	.004	.004	.006	.002	.12	.00
%RSD	.1260	.1713	.1698	.1974	.2121	.3107	.1208	.2930	.0119
#1	1.992	2.051	2.009	2.075	2.045	2.023	2.014	39.64	40.02
#2	1.995	2.056	2.014	2.080	2.051	2.032	2.010	39.48	40.01
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.93**	**40.03**	**39.57**	**39.90**	**2.037**	**2.021**	**5.145**	**2.039**	**1.999**
Stddev	.01	.08	.03	.11	.006	.002	.009	.005	.000
%RSD	.0372	.2036	.0853	.2743	.2916	.1166	.1742	.2581	.0194
#1	39.94	39.97	39.59	39.83	2.032	2.019	5.138	2.035	1.999
#2	39.92	40.09	39.54	39.98	2.041	2.022	5.151	2.042	1.998
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 14:59:06 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.985**	**1.994**	**1.990**	**2.009**	**2.029**	**1.988**	**2.024**
Stddev	.006	.008	.005	.000	.002	.002	.001
%RSD	.2993	.4198	.2470	.0214	.1042	.1008	.0608
#1	1.980	1.988	1.986	2.008	2.028	1.989	2.023
#2	1.989	2.000	1.993	2.009	2.031	1.986	2.025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**155750.**	**21202.**	**6613.6**	**10578.**
Stddev	140.	23.	5.6	2.
%RSD	.08967	.10968	.08496	.02166
#1	155650.	21218.	6609.6	10576.
#2	155850.	21185.	6617.6	10579.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 15:01:55 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0000**	**.0002**	**-.0002**	**-.0000**	**.0005**	**-.0001**	**-.0003**	**.0003**
Stddev	.0005	.0001	.0000	.0002	.0001	.0003	.0000	.0001	.0006
%RSD	83.29	479.4	7.175	105.4	470.3	61.94	28.23	51.48	178.3
#1	.0009	-.0000	.0002	-.0003	.0001	.0006	-.0001	-.0002	.0007
#2	.0002	.0001	.0002	-.0000	-.0001	.0003	-.0001	-.0004	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0000**	**.0016**	**.0009**	**.0004**	**.0021**	**-.0005**	**-.0100**	**-.0022**
Stddev	.0000	.0001	.0001	.0003	.0008	.0002	.0002	.0034	.0010
%RSD	9.771	323.3	3.543	26.68	193.3	8.870	38.65	34.01	42.62
#1	-.0003	-.0000	.0016	.0008	-.0002	.0020	-.0004	-.0076	-.0029
#2	-.0003	.0001	.0017	.0011	.0010	.0022	-.0006	-.0124	-.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0133**	**.0685**	**.0511**	**.0029**	**.0001**	**.0004**	**.0002**	**-.0001**
Stddev	.0009	.0151	.0249	.0039	.0001	.0000	.0001	.0007	.0001
%RSD	105.5	113.6	36.36	7.601	4.560	19.52	27.24	364.5	85.17
#1	.0002	-.0026	.0862	.0539	.0030	.0001	.0004	-.0003	-.0000
#2	.0014	-.0240	.0509	.0484	.0028	.0002	.0003	.0007	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 15:01:55 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0004**	**.0001**	**.0018**	**.0016**	**.0028**	**-.0007**
Stddev	.0001	.0010	.0001	.0019	.0015	.0010	.0001
%RSD	29.38	271.6	249.4	105.2	95.13	34.30	8.861
#1	-.0004	-.0010	-.0000	.0032	.0005	.0034	-.0007
#2	-.0003	.0003	.0001	.0005	.0026	.0021	-.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**161330.**	**21403.**	**6853.2**	**11301.**
Stddev	248.	79.	44.6	58.
%RSD	.15399	.37056	.65018	.51510
#1	161500.	21459.	6821.7	11260.
#2	161150.	21347.	6884.7	11342.

Zoom In Zoom Out

Sample Name: mp6393-mb1conf Acquired: 3/31/2018 15:04:55 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0004**	**-.0000**	**.0002**	**-.0002**	**.0005**	**.0013**	**.0003**	**.0005**	**.0008**
Stddev	.0004	.0001	.0000	.0002	.0001	.0001	.0000	.0003	.0004
%RSD	90.40	1702.	9.129	94.39	20.15	4.068	.7692	62.73	44.46
#1	.0002	-.0001	.0002	-.0001	.0005	.0012	.0003	.0007	.0006
#2	.0007	.0000	.0002	-.0004	.0006	.0013	.0003	.0003	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0031**	**-.0004**	**.0011**	**-.0002**	**-.0009**	**.0007**	**.0302**	**.1127**
Stddev	.0002	.0000	.0015	.0005	.0024	.0023	.0003	.0071	.0087
%RSD	92.19	1.505	380.2	46.66	1089.	255.6	47.53	23.35	7.699
#1	-.0001	.0030	-.0014	.0007	.0015	.0007	.0005	.0252	.1188
#2	-.0004	.0031	.0007	.0014	-.0020	-.0025	.0010	.0352	.1065

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0202**	**.0344**	**.0900**	**.1367**	**.0017**	**.0004**	**.0406**	**.0203**	**.0004**
Stddev	.0012	.0181	.0362	.0076	.0004	.0001	.0016	.0005	.0000
%RSD	6.013	52.57	40.21	5.526	25.77	14.68	3.994	2.325	.0690
#1	.0211	.0472	.0644	.1314	.0021	.0005	.0394	.0206	.0004
#2	.0194	.0216	.1156	.1421	.0014	.0004	.0417	.0199	.0004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0005**	**.0016**	**.0001**	**.0113**	**.0015**	**.0040**	**.0197**
Stddev	.0000	.0002	.0001	.0015	.0027	.0016	.0003
%RSD	10.33	13.52	58.65	13.73	182.1	40.99	1.561
#1	.0004	.0014	.0002	.0102	-.0004	.0052	.0195
#2	.0005	.0018	.0001	.0123	.0034	.0028	.0199

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164100.**	**22038.**	**7011.0**	**11509.**
Stddev	768.	20.	39.7	59.
%RSD	.46781	.09200	.56640	.51248
#1	163560.	22052.	6982.9	11468.
#2	164640.	22023.	7039.1	11551.

Zoom In Zoom Out

Sample Name: mp6393-b1conf Acquired: 3/31/2018 15:08:39 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.904**	**1.918**	**1.924**	**1.949**	**1.920**	**1.901**	**1.974**	**1.958**	**.2294**
Stddev	.003	.004	.009	.014	.011	.011	.015	.014	.0017
%RSD	.1358	.1879	.4431	.7269	.5520	.5730	.7542	.7275	.7245
#1	1.902	1.915	1.918	1.939	1.912	1.894	1.963	1.948	.2282
#2	1.906	1.920	1.930	1.959	1.927	1.909	1.984	1.968	.2306

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.902**	**1.962**	**1.918**	**2.005**	**1.964**	**1.909**	**1.918**	**23.40**	**23.79**
Stddev	.010	.014	.010	.017	.015	.012	.011	.03	.05
%RSD	.5289	.7270	.5153	.8648	.7618	.6216	.5888	.1213	.2199
#1	1.895	1.952	1.911	1.993	1.953	1.901	1.910	23.38	23.75
#2	1.909	1.972	1.925	2.017	1.974	1.917	1.926	23.42	23.82

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**23.67**	**23.86**	**23.23**	**23.79**	**1.897**	**1.943**	**.0426**	**1.987**	**1.908**
Stddev	.01	.07	.14	.05	.010	.013	.0015	.008	.000
%RSD	.0491	.2931	.6212	.2100	.5355	.6676	3.476	.3994	.0227
#1	23.66	23.81	23.12	23.76	1.890	1.934	.0416	1.981	1.908
#2	23.68	23.91	23.33	23.83	1.904	1.952	.0436	1.993	1.907

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.920**	**1.637**	**1.921**	**.0257**	**.0433**	**.0015**	**1.924**
Stddev	.010	.008	.012	.0002	.0006	.0004	.010
%RSD	.5254	.5076	.6256	.9314	1.352	24.52	.5003
#1	1.913	1.631	1.913	.0256	.0437	.0017	1.917
#2	1.927	1.643	1.930	.0259	.0429	.0012	1.930

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158990.**	**21525.**	**6742.0**	**10831.**
Stddev	1050.	70.	5.1	24.
%RSD	.66055	.32621	.07508	.22188
#1	159730.	21575.	6745.6	10848.
#2	158240.	21475.	6738.4	10814.

Zoom In Zoom Out

Sample Name: jc63012-5 2 Acquired: 3/31/2018 15:11:28 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.3548**	**.0033**	**.0013**	**.0281**	**.0569**	**.0960**	**3.405**	**.0533**
Stddev	.0008	.0000	.0004	.0004	.0001	.0008	.017	.0001
%RSD	.2312	.4562	32.00	1.269	.0906	.8226	.5114	.1047
#1	.3554	.0033	.0010	.0279	.0569	.0954	3.393	.0532
#2	.3542	.0033	.0016	.0284	.0570	.0965	3.417	.0533

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0028**	**.1046**	**.2720**	**.0144**	F **-.0027**	**.2363**	**-.0017**	**.0006**
Stddev	.0004	.0002	.0001	.0012	.0020	.0018	.0003	.0002
%RSD	15.27	.1953	.0447	8.200	74.73	.7665	14.82	34.71
#1	-.0025	.1047	.2719	.0136	-.0013	.2376	-.0019	.0004
#2	-.0031	.1044	.2721	.0153	-.0041	.2350	-.0016	.0007

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**39.46**	F **1201.**	**64.56**	F **770.5**	**7.661**	**.7768**	**.0232**	**.0023**
Stddev	.09	17.	.16	.9	.037	.0016	.0004	.0001
%RSD	.2310	1.382	.2433	.1207	.4785	.2110	1.527	3.233
#1	39.52	1190.	64.68	771.2	7.687	.7756	.0235	.0022
#2	39.39	1213.	64.45	769.9	7.635	.7779	.0230	.0024

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**5.001**	**.0256**	**.3168**	**.7831**	**.0020**	**.0241**	**1.216**	**.0532**
Stddev	.014	.0002	.0011	.0042	.0009	.0001	.001	.0026
%RSD	.2776	.9299	.3473	.5377	44.28	.5614	.0431	4.961
#1	5.011	.0257	.3175	.7801	.0026	.0241	1.215	.0514
#2	4.991	.0254	.3160	.7861	.0013	.0240	1.216	.0551

Elem	Li6707	P_1774
Avg	**.0685**	**2.356**
Stddev	.0011	.001
%RSD	1.601	.0471
#1	.0693	2.355
#2	.0678	2.357

Zoom In Zoom Out

Sample Name: jc63012-5 2 Acquired: 3/31/2018 15:11:28 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**143250.**	**20442.**	**6040.6**	**9159.4**
Stddev	259.	51.	36.1	33.2
%RSD	.18054	.24724	.59750	.36259
#1	143070.	20478.	6015.1	9135.9
#2	143440.	20407.	6066.1	9182.9

Zoom In Zoom Out

Sample Name: cri Acquired: 3/31/2018 15:14:33 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1994**	**.0019**	**.0030**	**.0500**	**.0100**	**.0087**	**.0154**	**.0096**	**.0047**
Stddev	.0002	.0001	.0003	.0000	.0005	.0003	.0008	.0001	.0004
%RSD	.1086	4.313	9.961	.0306	4.644	3.514	5.120	.6877	8.374
#1	.1993	.0020	.0027	.0500	.0097	.0084	.0148	.0096	.0050
#2	.1996	.0019	.0032	.0500	.0103	.0089	.0159	.0095	.0045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0479**	**.0206**	**.0081**	**.0098**	**.0025**	**.0082**	**.0049**	**.2167**	**5.158**
Stddev	.0024	.0002	.0002	.0002	.0007	.0018	.0008	.0051	.025
%RSD	4.919	1.007	2.152	2.134	26.03	21.90	16.10	2.359	.4745
#1	.0462	.0208	.0082	.0100	.0030	.0069	.0054	.2131	5.175
#2	.0495	.0205	.0080	.0097	.0021	.0094	.0043	.2203	5.140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1048**	**5.242**	**5.080**	**5.164**	**.0988**	**.0201**	**.1729**	**.0106**	**.0099**
Stddev	.0010	.029	.008	.014	.0018	.0002	.0002	.0007	.0001
%RSD	.9174	.5571	.1658	.2662	1.869	1.123	.1385	6.118	.9309
#1	.1041	5.263	5.086	5.173	.1001	.0203	.1731	.0111	.0098
#2	.1055	5.221	5.074	5.154	.0975	.0200	.1728	.0102	.0099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: cri Acquired: 3/31/2018 15:14:33 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0088**	**.0504**	**.0106**	**.0482**	**.0207**	**.0529**	**.0498**
Stddev	.0002	.0006	.0005	.0021	.0003	.0010	.0005
%RSD	1.997	1.235	4.368	4.274	1.366	1.820	.9120
#1	.0087	.0508	.0103	.0468	.0209	.0522	.0501
#2	.0090	.0499	.0109	.0497	.0205	.0535	.0495
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**166690.**	**21259.**	**6920.8**	**11279.**
Stddev	7358.	182.	40.4	63.
%RSD	4.4141	.85426	.58416	.55563
#1	171900.	21130.	6892.2	11234.
#2	161490.	21387.	6949.4	11323.

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 15:17:31 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046**	**.0010**	F **.0013**	**.0030**	**.0023**	F **.0001**	**.0033**	**.0042**	F **.0006**
Stddev	.0001	.0001	.0001	.0003	.0004	.0001	.0000	.0000	.0002
%RSD	1.322	7.593	10.18	8.686	16.31	143.4	.0271	.8656	34.69
#1	.0046	.0010	.0014	.0028	.0025	.0002	.0033	.0042	.0004
#2	.0047	.0009	.0012	.0032	.0020	-.0000	.0033	.0042	.0007
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value			.0010			.0020			.0020
Range			30.00%			-30.00%			-30.00%

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020**	**.0112**	**.0029**	**.0021**	F **.0006**	F **.0067**	F **.0001**	**.1196**	**1.071**
Stddev	.0003	.0002	.0005	.0000	.0005	.0014	.0002	.0050	.002
%RSD	14.64	1.733	16.68	2.025	91.36	21.07	175.0	4.215	.1653
#1	.0017	.0113	.0026	.0021	.0002	.0057	.0003	.1160	1.072
#2	.0022	.0111	.0033	.0021	.0010	.0077	-.0000	.1232	1.070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value					.0025	.0050	.0030		
Range					-30.00%	30.00%	-30.00%		

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0020**	**.1081**	**2.137**	**1.099**	**-.0001**	**.0002**	**.0014**	**.0013**	**-.0002**
Stddev	.0018	.0458	.053	.004	.0003	.0000	.0003	.0004	.0002
%RSD	90.51	42.31	2.479	.3940	492.7	16.90	21.41	32.78	73.87
#1	-.0007	.1405	2.175	1.102	-.0003	.0002	.0016	.0010	-.0001
#2	-.0033	.0758	2.100	1.096	.0001	.0002	.0012	.0016	-.0003
Check ?	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 15:17:31 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0019**	**-.0000**	**.0032**	**.0009**	**.0019**	**.0004**
Stddev	.0002	.0003	.0002	.0021	.0012	.0018	.0004
%RSD	28.63	17.89	764.6	66.71	138.4	95.42	99.78
#1	-.0008	.0021	-.0001	.0017	.0017	.0006	.0006
#2	-.0005	.0016	.0001	.0046	.0000	.0031	.0001
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**160530.**	**21251.**	**6834.5**	**11209.**
Stddev	18.	191.	38.4	53.
%RSD	.01138	.90093	.56113	.47486
#1	160540.	21116.	6807.4	11172.
#2	160520.	21386.	6861.6	11247.

Zoom In Zoom Out

Sample Name: mp6399-mb1 2 Acquired: 3/31/2018 15:20:30 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0006**	**-.0001**	**.0002**	**-.0002**	**.0004**	**.0025**	**.0001**	**-.0004**	**.0007**
Stddev	.0006	.0000	.0001	.0000	.0005	.0005	.0000	.0000	.0004
%RSD	101.2	89.22	44.40	20.91	113.9	18.50	21.31	6.152	52.45
#1	.0010	-.0001	.0002	-.0002	.0008	.0029	.0001	-.0005	.0005
#2	.0002	-.0000	.0001	-.0002	.0001	.0022	.0001	-.0004	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**.0025**	**.0017**	**-.0003**	**-.0005**	**-.0010**	**.0011**	**.0019**	**.0032**
Stddev	.0002	.0000	.0002	.0012	.0003	.0002	.0004	.0137	.0010
%RSD	652.7	1.499	11.34	456.3	51.57	17.75	33.99	704.8	30.60
#1	.0001	.0026	.0016	.0006	-.0003	-.0008	.0014	.0116	.0025
#2	-.0002	.0025	.0018	-.0011	-.0007	-.0011	.0009	-.0077	.0039

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0011**	**-.0003**	**.0398**	**.0428**	**-.0002**	**.0011**	**-.0029**	**.0004**	**-.0001**
Stddev	.0006	.0190	.0071	.0015	.0008	.0002	.0003	.0004	.0000
%RSD	54.24	6127.	17.79	3.421	357.2	20.16	11.34	110.0	3.659
#1	.0015	-.0137	.0448	.0439	-.0008	.0010	-.0032	.0001	-.0001
#2	.0007	.0131	.0348	.0418	.0003	.0013	-.0027	.0007	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0006**	**.0038**	**.0005**	**.0088**	**.0010**	**.0022**	**.0015**
Stddev	.0004	.0002	.0001	.0001	.0004	.0032	.0013
%RSD	72.89	4.534	11.70	1.686	35.07	143.4	84.41
#1	.0003	.0039	.0004	.0089	.0008	.0045	.0024
#2	.0009	.0037	.0005	.0087	.0013	-.0000	.0006

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164720.**	**22007.**	**6997.7**	**11463.**
Stddev	1224.	77.	18.3	11.
%RSD	.74279	.34832	.26088	.10017
#1	163850.	21953.	7010.6	11471.
#2	165580.	22061.	6984.8	11455.

Zoom In Zoom Out

Sample Name: mp6399-mb2 Acquired: 3/31/2018 15:23:30 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0001**	**-.0000**	**.0002**	**-.0001**	**.0000**	**.0004**	**.0001**	**.0001**	**.0002**
Stddev	.0001	.0000	.0000	.0000	.0003	.0006	.0000	.0003	.0005
%RSD	198.0	9.721	18.01	9.495	669.2	161.5	43.42	283.2	224.9
#1	.0000	-.0000	.0002	-.0001	.0003	.0008	.0000	-.0001	-.0001
#2	-.0002	-.0001	.0002	-.0001	-.0002	-.0001	.0001	.0004	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0008**	**.0015**	**-.0009**	**.0001**	**.0018**	**.0011**	**-.0021**	**.0027**
Stddev	.0003	.0000	.0002	.0007	.0008	.0014	.0003	.0019	.0015
%RSD	336.9	.3165	10.70	75.62	743.7	75.15	27.77	88.52	54.73
#1	-.0003	.0008	.0016	-.0013	.0006	.0028	.0013	-.0008	.0037
#2	.0001	.0008	.0014	-.0004	-.0004	.0008	.0008	-.0035	.0017

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0040**	**-.0203**	**-.0042**	**.0584**	**-.0013**	**.0015**	**-.0030**	**.0010**	**-.0001**
Stddev	.0010	.0047	.0402	.0119	.0004	.0001	.0009	.0007	.0001
%RSD	25.84	22.94	954.4	20.29	30.76	3.985	28.75	69.05	99.17
#1	.0033	-.0170	.0242	.0500	-.0016	.0016	-.0024	.0015	-.0000
#2	.0047	-.0236	-.0326	.0668	-.0010	.0015	-.0036	.0005	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0061**	**.0005**	**.0048**	**-.0005**	**.0038**	**.0019**
Stddev	.0001	.0007	.0001	.0014	.0009	.0013	.0001
%RSD	28.40	11.61	12.39	28.97	186.2	33.13	6.942
#1	.0003	.0056	.0004	.0038	-.0011	.0047	.0019
#2	.0002	.0066	.0005	.0058	.0002	.0029	.0018

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164390.**	**21623.**	**6952.9**	**11384.**
Stddev	363.	349.	40.7	57.
%RSD	.22069	1.6143	.58517	.50279
#1	164140.	21376.	6924.1	11344.
#2	164650.	21870.	6981.7	11425.

Zoom In Zoom Out

Sample Name: mp6399-b1 Acquired: 3/31/2018 15:26:29 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.949**	**1.956**	**1.975**	**2.010**	**1.963**	**1.950**	**2.019**	**2.023**	**.2371**
Stddev	.002	.001	.005	.005	.000	.004	.004	.007	.0000
%RSD	.1161	.0439	.2766	.2704	.0219	.2228	.1904	.3302	.0179
#1	1.947	1.956	1.971	2.006	1.964	1.953	2.022	2.019	.2371
#2	1.951	1.955	1.979	2.014	1.963	1.947	2.017	2.028	.2371

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.951**	**2.003**	**1.964**	**2.062**	**2.018**	**1.965**	**1.981**	**23.84**	**24.18**
Stddev	.002	.002	.004	.005	.009	.002	.009	.04	.00
%RSD	.1026	.1187	.2078	.2614	.4533	.0980	.4572	.1849	.0062
#1	1.953	2.001	1.961	2.058	2.012	1.964	1.975	23.87	24.18
#2	1.950	2.004	1.967	2.066	2.025	1.967	1.987	23.81	24.18

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.10**	**24.32**	**23.82**	**24.25**	**1.980**	**1.991**	**-.0348**	**2.005**	**1.952**
Stddev	.01	.03	.10	.04	.005	.002	.0006	.005	.001
%RSD	.0535	.1364	.4063	.1554	.2615	.1084	1.753	.2305	.0378
#1	24.09	24.34	23.75	24.22	1.976	1.990	-.0353	2.002	1.951
#2	24.11	24.29	23.89	24.27	1.984	1.993	-.0344	2.008	1.952

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.961**	**1.939**	**1.956**	**.0229**	**.0481**	**.0001**	**1.955**
Stddev	.002	.001	.003	.0008	.0037	.0017	.001
%RSD	.0960	.0604	.1522	3.372	7.704	1491.	.0628
#1	1.962	1.939	1.958	.0234	.0455	-.0011	1.954
#2	1.959	1.940	1.954	.0223	.0507	.0013	1.956

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157890.**	**21282.**	**6746.8**	**10784.**
Stddev	1344.	47.	14.8	8.
%RSD	.85158	.22087	.22006	.07209
#1	156940.	21315.	6736.3	10779.
#2	158840.	21249.	6757.3	10790.

Zoom In Zoom Out

Sample Name: mp6399-b2 Acquired: 3/31/2018 15:29:17 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.937**	**1.948**	**1.922**	**1.971**	**1.931**	**1.920**	**1.978**	**1.984**	**.2308**
Stddev	.005	.001	.005	.008	.004	.004	.001	.006	.0015
%RSD	.2802	.0352	.2580	.3895	.2053	.2257	.0572	.2929	.6293
#1	1.933	1.949	1.918	1.965	1.929	1.917	1.977	1.980	.2298
#2	1.941	1.948	1.925	1.976	1.934	1.923	1.979	1.988	.2318

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.914**	**1.950**	**1.924**	**2.028**	**1.982**	**1.910**	**1.933**	**24.07**	**24.38**
Stddev	.002	.007	.007	.006	.010	.009	.004	.00	.01
%RSD	.0900	.3399	.3910	.2937	.5059	.4532	.2270	.0007	.0356
#1	1.913	1.946	1.918	2.024	1.975	1.904	1.930	24.07	24.39
#2	1.915	1.955	1.929	2.033	1.989	1.916	1.936	24.07	24.37

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.29**	**24.51**	**23.75**	**24.23**	**1.924**	**1.952**	**-.0115**	**1.959**	**1.941**
Stddev	.02	.05	.06	.05	.005	.005	.0008	.008	.002
%RSD	.0743	.2125	.2363	.2255	.2727	.2825	6.967	.4014	.0901
#1	24.27	24.55	23.71	24.20	1.921	1.948	-.0109	1.953	1.939
#2	24.30	24.47	23.79	24.27	1.928	1.956	-.0120	1.964	1.942

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.940**	**1.824**	**1.931**	**.0230**	**.0549**	**.0013**	**1.898**
Stddev	.006	.008	.001	.0020	.0027	.0001	.006
%RSD	.3250	.4217	.0539	8.565	4.985	8.751	.3226
#1	1.936	1.819	1.930	.0217	.0530	.0012	1.894
#2	1.945	1.829	1.931	.0244	.0568	.0013	1.903

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161340.**	**21615.**	**6847.9**	**10895.**
Stddev	115.	18.	24.2	33.
%RSD	.07127	.08512	.35267	.30419
#1	161420.	21628.	6830.9	10872.
#2	161260.	21602.	6865.0	10919.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 15:32:07 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.979**	**1.978**	**1.975**	**2.023**	**1.973**	**1.951**	**2.022**	**2.040**	**.2442**
Stddev	.009	.008	.004	.006	.001	.002	.001	.007	.0006
%RSD	.4285	.3910	.1775	.3199	.0695	.0837	.0625	.3217	.2410
#1	1.985	1.983	1.973	2.019	1.973	1.950	2.021	2.035	.2438
#2	1.973	1.972	1.978	2.028	1.974	1.952	2.022	2.045	.2446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.959**	**2.006**	**1.977**	**2.062**	**2.026**	**1.992**	**1.980**	**39.35**	**39.85**
Stddev	.002	.007	.006	.005	.007	.004	.001	.23	.12
%RSD	.1085	.3503	.3236	.2601	.3436	.1980	.0530	.5825	.3072
#1	1.958	2.001	1.973	2.058	2.021	1.989	1.979	39.51	39.94
#2	1.961	2.011	1.982	2.066	2.031	1.994	1.981	39.19	39.76
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.62**	**40.08**	**39.38**	**39.89**	**2.009**	**1.972**	**5.052**	**1.982**	**1.992**
Stddev	.16	.18	.04	.05	.005	.004	.008	.004	.005
%RSD	.4049	.4545	.0913	.1133	.2738	.1855	.1669	.2098	.2580
#1	39.74	40.21	39.36	39.92	2.005	1.969	5.046	1.979	1.996
#2	39.51	39.95	39.41	39.85	2.012	1.974	5.058	1.985	1.988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 15:32:07 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.966**	**1.967**	**1.957**	**1.956**	**2.017**	**1.960**	**1.970**
Stddev	.001	.006	.002	.000	.002	.003	.005
%RSD	.0714	.3083	.0859	.0100	.1131	.1301	.2424
#1	1.965	1.963	1.956	1.956	2.016	1.962	1.967
#2	1.967	1.971	1.958	1.956	2.019	1.958	1.974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**157540.**	**21169.**	**6738.2**	**10636.**
Stddev	185.	70.	13.5	15.
%RSD	.11718	.33237	.20069	.14185
#1	157400.	21120.	6728.6	10625.
#2	157670.	21219.	6747.8	10647.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 15:34:57 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0002**	**-.0000**	**-.0001**	**.0003**	**.0000**	**-.0002**	**.0003**
Stddev	.0001	.0001	.0001	.0000	.0005	.0005	.0001	.0001	.0005
%RSD	102.6	853.1	69.90	78.41	487.0	160.1	158.9	70.10	175.6
#1	.0000	.0001	.0002	-.0000	-.0005	.0007	.0001	-.0003	-.0001
#2	.0002	-.0000	.0001	-.0001	.0003	-.0000	-.0000	-.0001	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0000**	**-.0008**	**.0014**	**-.0006**	**.0012**	**.0001**	**.0058**	**-.0028**
Stddev	.0000	.0000	.0003	.0000	.0004	.0007	.0027	.0136	.0037
%RSD	14.29	46.09	34.09	1.955	66.30	62.71	2237.	232.8	132.5
#1	-.0002	.0000	-.0006	.0014	-.0003	.0017	-.0018	.0155	-.0002
#2	-.0003	.0000	-.0010	.0014	-.0008	.0006	.0020	-.0038	-.0054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0099**	**.0955**	**.0382**	**.0036**	**.0002**	**-.0012**	**.0007**	**-.0001**
Stddev	.0024	.0043	.0756	.0009	.0005	.0003	.0010	.0000	.0000
%RSD	3079.	43.39	79.17	2.235	14.89	178.8	84.38	.6684	26.49
#1	-.0018	-.0068	.1489	.0376	.0032	.0004	-.0005	.0007	-.0002
#2	.0016	-.0129	.0420	.0388	.0040	-.0000	-.0018	.0007	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 15:34:57 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0046**	**.0002**	**.0028**	**.0017**	**.0010**	**.0022**
Stddev	.0004	.0004	.0001	.0027	.0014	.0033	.0008
%RSD	437.7	9.635	38.15	95.96	80.10	339.5	37.51
#1	-.0003	.0043	.0001	.0009	.0027	.0033	.0016
#2	.0002	.0049	.0002	.0046	.0007	-.0014	.0028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**161730.**	**21414.**	**6853.1**	**11206.**
Stddev	70.	78.	.2	6.
%RSD	.04327	.36312	.00260	.05110
#1	161780.	21359.	6853.0	11202.
#2	161680.	21469.	6853.3	11210.

Zoom In Zoom Out

Sample Name: mp6399-s1 Acquired: 3/31/2018 15:37:57 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.028**	**1.957**	**1.951**	**1.997**	**1.988**	**1.984**	**3.222**	**2.011**	**.2393**
Stddev	.048	.048	.004	.001	.007	.009	.052	.003	.0007
%RSD	2.380	2.469	.2301	.0371	.3425	.4295	1.616	.1295	.2980
#1	1.994	1.923	1.954	1.997	1.993	1.990	3.259	2.013	.2398
#2	2.062	1.991	1.947	1.996	1.983	1.978	3.185	2.009	.2388

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.977**	**1.969**	**1.966**	**2.041**	**2.000**	**1.956**	**1.973**	**23.92**	**35.64**
Stddev	.006	.006	.001	.002	.001	.000	.004	.59	.89
%RSD	.3149	.2876	.0405	.0772	.0374	.0216	.1758	2.477	2.499
#1	1.982	1.973	1.966	2.042	2.000	1.956	1.975	23.50	35.01
#2	1.973	1.965	1.965	2.039	1.999	1.955	1.970	24.34	36.27

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**53.87**	**29.06**	**24.32**	**38.40**	**1.967**	**1.968**	**2.057**	**1.981**	**2.026**
Stddev	1.41	.66	.46	.86	.005	.004	.004	.005	.050
%RSD	2.614	2.279	1.903	2.231	.2476	.2064	.1704	.2320	2.452
#1	52.87	28.59	24.00	37.80	1.971	1.971	2.059	1.984	1.991
#2	54.86	29.53	24.65	39.01	1.964	1.965	2.054	1.977	2.062

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.003**	**1.943**	**1.990**	**13.13**	**.0664**	**.0029**	**2.201**
Stddev	.004	.002	.007	.01	.0021	.0010	.007
%RSD	.2205	.0750	.3785	.0899	3.215	33.10	.3403
#1	2.006	1.944	1.996	13.13	.0679	.0022	2.206
#2	2.000	1.942	1.985	13.12	.0649	.0036	2.196

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160710.**	**21761.**	**6885.8**	**10909.**
Stddev	147.	5.	42.7	52.
%RSD	.09133	.02103	.62030	.47669
#1	160810.	21757.	6855.6	10873.
#2	160610.	21764.	6916.0	10946.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 15:40:51 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.948**	**1.950**	**1.953**	**2.002**	**1.960**	**1.938**	**2.007**	**2.019**	**.2428**
Stddev	.003	.005	.010	.011	.006	.007	.005	.010	.0002
%RSD	.1694	.2662	.4931	.5522	.3199	.3552	.2660	.5050	.0868
#1	1.950	1.953	1.946	1.994	1.965	1.942	2.011	2.012	.2429
#2	1.945	1.946	1.960	2.010	1.956	1.933	2.003	2.026	.2426
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.943**	**1.981**	**1.955**	**2.044**	**2.008**	**1.971**	**1.953**	**38.70**	**39.30**
Stddev	.004	.011	.009	.012	.016	.008	.006	.12	.04
%RSD	.2226	.5647	.4605	.5953	.7812	.4054	.3267	.3089	.1092
#1	1.946	1.973	1.949	2.035	1.997	1.965	1.948	38.78	39.33
#2	1.940	1.989	1.962	2.052	2.019	1.976	1.957	38.61	39.27
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.06**	**39.55**	**38.76**	**39.30**	**1.989**	**1.946**	**4.991**	**1.961**	**1.964**
Stddev	.13	.07	.07	.02	.009	.011	.023	.011	.006
%RSD	.3389	.1800	.1874	.0417	.4426	.5645	.4590	.5733	.3015
#1	39.15	39.60	38.71	39.31	1.983	1.938	4.975	1.953	1.968
#2	38.96	39.50	38.81	39.28	1.995	1.954	5.007	1.969	1.960
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 15:40:51 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.954**	**1.937**	**1.943**	**1.937**	**1.994**	**1.927**	**1.949**
Stddev	.008	.009	.007	.011	.002	.005	.007
%RSD	.4178	.4848	.3406	.5680	.0888	.2719	.3849
#1	1.960	1.931	1.948	1.929	1.993	1.931	1.944
#2	1.948	1.944	1.939	1.945	1.995	1.923	1.955
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**157800.**	**21389.**	**6817.9**	**10745.**
Stddev	627.	13.	17.4	29.
%RSD	.39754	.06006	.25523	.27132
#1	157350.	21398.	6830.2	10766.
#2	158240.	21380.	6805.6	10725.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 15:43:40 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0001**	**.0002**	**-.0003**	**-.0004**	**-.0007**	**.0000**	**-.0001**	**.0002**
Stddev	.0001	.0001	.0002	.0002	.0001	.0002	.0000	.0002	.0003
%RSD	16.33	173.6	108.8	79.96	32.36	24.28	3625.	132.1	131.6
#1	.0009	-.0000	.0003	-.0001	-.0003	-.0005	-.0000	-.0003	.0000
#2	.0007	.0001	.0000	-.0005	-.0006	-.0008	.0000	-.0000	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**.0003**	**.0011**	**-.0004**	**.0014**	**.0002**	**.0050**	**-.0028**
Stddev	.0001	.0001	.0007	.0005	.0005	.0000	.0019	.0051	.0051
%RSD	147.8	80.75	229.1	41.15	142.8	.8208	1152.	102.6	180.8
#1	.0001	.0003	-.0002	.0015	.0000	.0014	-.0012	.0014	-.0064
#2	-.0000	.0001	.0008	.0008	-.0007	.0014	.0015	.0086	.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**-.0259**	**.0777**	**.0255**	**.0047**	**.0003**	**.0013**	**.0003**	**-.0002**
Stddev	.0006	.0153	.0557	.0240	.0004	.0001	.0001	.0005	.0000
%RSD	67.36	58.88	71.68	94.23	8.226	48.32	8.273	156.3	16.72
#1	.0005	-.0151	.0383	.0085	.0050	.0004	.0014	-.0000	-.0002
#2	.0013	-.0367	.1170	.0424	.0044	.0002	.0012	.0007	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 15:43:40 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0029**	**.0002**	**.0029**	**-.0005**	**.0011**	**.0022**
Stddev	.0003	.0007	.0002	.0007	.0000	.0026	.0007
%RSD	52810.	23.95	92.15	25.02	1.643	248.2	30.98
#1	-.0002	.0034	.0004	.0024	-.0004	-.0008	.0027
#2	.0002	.0024	.0001	.0035	-.0005	.0029	.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**163320.**	**21436.**	**7022.7**	**11428.**
Stddev	1019.	49.	17.9	20.
%RSD	.62390	.22792	.25423	.17796
#1	162600.	21402.	7010.1	11414.
#2	164050.	21471.	7035.3	11442.

Zoom In Zoom Out

Sample Name: jc63053-7f Acquired: 3/31/2018 15:48:12 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0406**	**.0000**	**.0001**	**.0100**	**.0006**	**.0016**	**.3446**	**.0164**	**.0003**
Stddev	.0003	.0002	.0001	.0000	.0005	.0007	.0024	.0004	.0002
%RSD	.7886	1622.	59.22	.0606	78.61	44.29	.6876	2.270	61.91
#1	.0404	-.0001	.0000	.0100	.0010	.0022	.3463	.0166	.0004
#2	.0408	.0001	.0001	.0100	.0003	.0011	.3430	.0161	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0027**	**-.0007**	**-.0011**	**-.0023**	**.0005**	**-.0010**	**.0160**	**82.32**
Stddev	.0001	.0000	.0006	.0007	.0006	.0022	.0018	.0003	.50
%RSD	43.15	.5050	92.48	62.11	25.12	484.1	180.2	1.823	.6017
#1	.0004	.0027	-.0002	-.0015	-.0027	-.0011	-.0022	.0158	81.97
#2	.0002	.0027	-.0011	-.0006	-.0019	.0020	.0003	.0162	82.67

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0471**	**31.21**	**5.420**	**78.93**	**.1483**	**.0031**	**9.458**	**-.0006**	**.3121**
Stddev	.0007	.21	.014	.68	.0008	.0000	.045	.0001	.0017
%RSD	1.440	.6685	.2532	.8623	.5075	.7943	.4771	10.29	.5467
#1	.0476	31.07	5.411	78.45	.1477	.0032	9.426	-.0005	.3109
#2	.0466	31.36	5.430	79.41	.1488	.0031	9.490	-.0006	.3133

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**.0038**	**-.0045**	**34.50**	**.0005**	**.0055**	**.0409**
Stddev	.0006	.0003	.0000	.12	.0007	.0011	.0013
%RSD	196.9	8.917	.6933	.3340	122.0	20.28	3.230
#1	.0001	.0040	-.0044	34.42	.0010	.0047	.0399
#2	-.0007	.0036	-.0045	34.58	.0001	.0063	.0418

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159380.**	**21722.**	**6771.3**	**10693.**
Stddev	1186.	166.	32.8	35.
%RSD	.74404	.76314	.48385	.32868
#1	158540.	21839.	6748.1	10669.
#2	160220.	21605.	6794.5	10718.

Zoom In Zoom Out

Sample Name: jc63053-8f Acquired: 3/31/2018 15:51:08 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0369**	**-.0000**	**.0002**	**.0001**	**.0014**	**.0007**	**.0756**	**.0054**	**-.0004**
Stddev	.0001	.0000	.0002	.0001	.0006	.0006	.0001	.0004	.0001
%RSD	.2541	99.75	79.39	59.46	40.02	86.45	.1020	7.336	25.84
#1	.0370	-.0001	.0003	.0002	.0018	.0003	.0757	.0057	-.0003
#2	.0369	-.0000	.0001	.0001	.0010	.0011	.0755	.0051	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0033**	**-.0001**	**-.0012**	**-.0013**	**.0032**	**-.0008**	**.0126**	**89.73**
Stddev	.0001	.0000	.0004	.0003	.0000	.0022	.0011	.0059	1.38
%RSD	37.73	1.247	442.4	24.35	1.574	69.26	139.4	46.61	1.543
#1	.0002	.0033	.0002	-.0010	-.0014	.0016	-.0000	.0168	90.71
#2	.0004	.0032	-.0004	-.0014	-.0013	.0048	-.0015	.0085	88.75

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0010**	**38.13**	**2.926**	**60.11**	**.1368**	**.0012**	**11.51**	**-.0018**	**.3169**
Stddev	.0019	.64	.026	.75	.0009	.0002	.01	.0001	.0045
%RSD	181.3	1.671	.8974	1.245	.6616	19.82	.1073	4.718	1.410
#1	.0003	38.58	2.945	60.63	.1374	.0010	11.52	-.0018	.3201
#2	-.0024	37.68	2.908	59.58	.1361	.0014	11.50	-.0019	.3138

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0009**	**.0022**	**-.0060**	**36.90**	**.0004**	**.0047**	**.0812**
Stddev	.0003	.0013	.0001	.01	.0018	.0004	.0004
%RSD	30.14	59.19	1.495	.0151	526.5	7.853	.4622
#1	-.0011	.0031	-.0060	36.91	-.0010	.0044	.0809
#2	-.0007	.0013	-.0059	36.90	.0017	.0050	.0815

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159830.**	**21815.**	**6839.7**	**10809.**
Stddev	633.	175.	35.3	56.
%RSD	.39613	.80041	.51590	.51638
#1	159380.	21692.	6814.7	10769.
#2	160280.	21939.	6864.6	10848.

Zoom In Zoom Out

Sample Name: jc63053-9f Acquired: 3/31/2018 15:54:04 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0134**	**-.0000**	**.0001**	**-.0003**	**.0008**	**.0003**	**.0117**	**.0005**
Stddev	.0007	.0000	.0001	.0001	.0002	.0003	.0000	.0002
%RSD	5.578	224.7	163.9	34.19	21.02	78.93	.1163	34.56
#1	.0129	-.0000	-.0000	-.0002	.0007	.0005	.0117	.0006
#2	.0140	.0000	.0001	-.0004	.0009	.0002	.0118	.0004

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0002**	**.0002**	**.0055**	**.0002**	**.0000**	**-.0017**	**.0025**	F **-.0032**
Stddev	.0010	.0000	.0000	.0009	.0004	.0007	.0007	.0014
%RSD	610.8	11.73	.3832	418.6	1480.	42.07	27.33	44.07
#1	-.0005	.0002	.0054	.0009	-.0002	-.0012	.0020	-.0042
#2	.0008	.0002	.0055	-.0004	.0003	-.0022	.0030	-.0022

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0016**	**128.9**	**-.0032**	**45.84**	**2.941**	**62.95**	**.1437**	**.0020**
Stddev	.0110	.6	.0023	.19	.063	.50	.0001	.0001
%RSD	689.8	.4498	72.38	.4069	2.124	.7945	.0672	4.600
#1	-.0062	128.5	-.0048	45.71	2.897	62.59	.1438	.0021
#2	.0094	129.4	-.0015	45.98	2.985	63.30	.1437	.0019

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**12.20**	**-.0015**	**.3272**	**-.0009**	**.0022**	**-.0059**	**38.14**	**.0024**
Stddev	.03	.0000	.0021	.0006	.0006	.0001	.05	.0006
%RSD	.2603	1.535	.6494	61.47	26.40	.9554	.1230	24.93
#1	12.18	-.0015	.3257	-.0013	.0018	-.0059	38.10	.0020
#2	12.23	-.0015	.3287	-.0005	.0026	-.0060	38.17	.0028

Elem	Li6707	P_1774
Avg	**.0086**	**.0489**
Stddev	.0011	.0009
%RSD	12.48	1.826
#1	.0093	.0495
#2	.0078	.0483

Zoom In Zoom Out

Sample Name: jc63053-9f Acquired: 3/31/2018 15:54:04 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159280.**	**21857.**	**6784.8**	**10698.**
Stddev	513.	49.	29.5	27.
%RSD	.32196	.22273	.43511	.25492
#1	159650.	21823.	6763.9	10678.
#2	158920.	21891.	6805.7	10717.

Zoom In Zoom Out

Sample Name: jc63053-10f Acquired: 3/31/2018 15:57:07 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0336**	**-.0000**	**.0003**	**-.0000**	**.0007**	**.0003**	**.0501**	**.0017**	**.0002**
Stddev	.0004	.0001	.0000	.0002	.0002	.0005	.0003	.0001	.0002
%RSD	1.233	124.2	19.85	849.9	29.30	139.1	.6392	5.118	113.5
#1	.0339	-.0000	.0003	-.0002	.0008	.0007	.0499	.0017	.0003
#2	.0333	-.0001	.0002	.0001	.0005	.0000	.0503	.0018	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0006**	**.0030**	**-.0008**	**-.0006**	**-.0006**	**.0012**	**-.0004**	**-.0005**	**125.5**
Stddev	.0002	.0001	.0001	.0007	.0005	.0026	.0014	.0061	1.5
%RSD	25.58	4.269	13.99	121.8	81.15	221.3	346.8	1179.	1.195
#1	.0007	.0031	-.0007	-.0011	-.0009	.0030	-.0014	-.0048	126.6
#2	.0005	.0029	-.0008	-.0001	-.0002	-.0007	.0006	.0038	124.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0018**	**40.56**	**2.160**	**69.88**	**.1079**	**.0027**	**11.40**	**-.0017**	**.3127**
Stddev	.0019	.47	.017	.55	.0010	.0001	.05	.0004	.0046
%RSD	104.1	1.149	.7717	.7931	.9466	3.311	.4763	20.91	1.459
#1	-.0031	40.89	2.172	70.27	.1087	.0026	11.44	-.0014	.3159
#2	-.0005	40.23	2.148	69.49	.1072	.0027	11.37	-.0019	.3095

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0009**	**.0009**	**-.0063**	**26.91**	**.0012**	**.0092**	**.1198**
Stddev	.0003	.0011	.0000	.11	.0003	.0029	.0005
%RSD	35.09	118.6	.0650	.4246	25.80	31.89	.4383
#1	-.0012	.0001	-.0063	26.99	.0010	.0071	.1202
#2	-.0007	.0017	-.0063	26.83	.0015	.0112	.1194

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157610.**	**21499.**	**6719.6**	**10573.**
Stddev	665.	33.	21.3	27.
%RSD	.42179	.15218	.31727	.25702
#1	157140.	21522.	6704.6	10554.
#2	158080.	21476.	6734.7	10592.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 16:00:07 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.976**	**1.973**	**1.964**	**2.012**	**1.984**	**1.959**	**2.019**	**2.033**	**.2442**
Stddev	.001	.004	.006	.003	.005	.003	.005	.004	.0009
%RSD	.0715	.2153	.3061	.1338	.2726	.1391	.2259	.2079	.3646
#1	1.977	1.976	1.960	2.010	1.980	1.957	2.016	2.030	.2435
#2	1.975	1.970	1.968	2.014	1.988	1.961	2.022	2.036	.2448
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.953**	**1.997**	**1.965**	**2.061**	**2.024**	**1.978**	**1.968**	**39.34**	**39.92**
Stddev	.003	.003	.002	.002	.002	.001	.003	.05	.00
%RSD	.1727	.1479	.1080	.0902	.1184	.0612	.1615	.1249	.0011
#1	1.950	1.995	1.963	2.063	2.023	1.978	1.966	39.37	39.92
#2	1.955	1.999	1.966	2.060	2.026	1.979	1.971	39.30	39.92
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.57**	**40.15**	**39.31**	**39.83**	**1.996**	**1.950**	**5.013**	**1.963**	**1.990**
Stddev	.05	.01	.17	.01	.003	.005	.009	.004	.002
%RSD	.1354	.0240	.4404	.0329	.1431	.2465	.1832	.2038	.0901
#1	39.60	40.15	39.19	39.84	1.994	1.947	5.007	1.960	1.991
#2	39.53	40.14	39.43	39.82	1.998	1.953	5.020	1.966	1.988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 16:00:07 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.987**	**1.953**	**1.954**	**1.945**	**2.013**	**1.949**	**1.950**
Stddev	.007	.004	.004	.002	.002	.001	.000
%RSD	.3506	.2314	.1932	.1147	.0735	.0268	.0177
#1	1.982	1.950	1.952	1.947	2.012	1.949	1.950
#2	1.992	1.956	1.957	1.944	2.014	1.949	1.950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**156440.**	**21171.**	**6767.3**	**10634.**
Stddev	423.	122.	20.3	33.
%RSD	.27047	.57437	.29938	.30601
#1	156740.	21257.	6753.0	10611.
#2	156140.	21085.	6781.6	10657.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 16:02:56 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0001**	**.0002**	**.0001**	**.0000**	**-.0001**	**.0000**	**.0001**	**.0000**
Stddev	.0003	.0000	.0002	.0002	.0002	.0001	.0000	.0002	.0002
%RSD	95.13	.8165	95.50	259.3	676.5	101.1	12.04	147.5	600.7
#1	.0006	-.0001	.0003	-.0001	.0002	-.0000	.0000	.0002	.0002
#2	.0001	-.0001	.0001	.0002	-.0001	-.0001	.0000	-.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0000**	**-.0005**	**.0014**	**-.0001**	**.0009**	**.0002**	**.0040**	**-.0008**
Stddev	.0003	.0002	.0006	.0004	.0001	.0034	.0002	.0128	.0010
%RSD	73.32	1039.	140.5	29.09	108.2	385.1	99.19	319.8	128.5
#1	-.0006	-.0001	-.0009	.0011	-.0000	.0033	.0004	-.0051	-.0015
#2	-.0002	.0001	-.0000	.0017	-.0001	-.0015	.0001	.0131	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0015**	**-.0148**	**.0836**	**.0476**	**.0022**	**.0001**	**.0023**	**.0007**	**-.0001**
Stddev	.0009	.0180	.0649	.0067	.0011	.0001	.0003	.0003	.0000
%RSD	59.95	122.0	77.60	14.07	51.86	134.8	12.31	38.71	5.010
#1	-.0009	-.0275	.0377	.0523	.0030	.0000	.0021	.0009	-.0000
#2	-.0021	-.0020	.1295	.0428	.0014	.0002	.0025	.0005	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 16:02:56 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0034**	**.0003**	**.0042**	**.0017**	**.0033**	**.0032**
Stddev	.0005	.0009	.0001	.0005	.0001	.0002	.0003
%RSD	590.9	25.95	50.50	11.43	6.717	6.752	9.354
#1	.0003	.0027	.0002	.0039	.0018	.0032	.0034
#2	-.0004	.0040	.0004	.0046	.0016	.0035	.0029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**162690.**	**21030.**	**6932.7**	**11268.**
Stddev	335.	159.	28.0	47.
%RSD	.20596	.75666	.40431	.41938
#1	162920.	20918.	6912.9	11235.
#2	162450.	21143.	6952.5	11302.

Zoom In Zoom Out

Sample Name: jc62910-1f Acquired: 3/31/2018 16:09:06 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1637**	**.0004**	**.0003**	**.0029**	**.0004**	**.0041**	**.1024**	**.0028**	**.0007**
Stddev	.0003	.0000	.0000	.0001	.0001	.0000	.0004	.0000	.0000
%RSD	.1878	6.018	14.94	2.140	16.28	.5437	.3633	.1694	5.151
#1	.1635	.0005	.0003	.0028	.0005	.0041	.1026	.0028	.0007
#2	.1639	.0004	.0004	.0029	.0004	.0041	.1021	.0028	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0304**	**.0029**	**-.0000**	**.0013**	**-.0014**	**-.0006**	**.7792**	**6.795**
Stddev	.0003	.0001	.0002	.0009	.0005	.0004	.0013	.0088	.002
%RSD	449.3	.1702	5.549	3648.	36.50	30.31	225.3	1.133	.0263
#1	.0001	.0304	.0027	.0006	.0010	-.0011	.0003	.7729	6.793
#2	-.0003	.0304	.0030	-.0006	.0017	-.0017	-.0014	.7854	6.796

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0376**	**.5208**	**2.005**	F **356.1**	**.0119**	**.0003**	**3.002**	**.0005**	**.0578**
Stddev	.0010	.0020	.059	2.0	.0002	.0001	.014	.0000	.0000
%RSD	2.540	.3844	2.920	.5594	1.413	34.37	.4783	5.715	.0246
#1	.0370	.5193	1.964	357.5	.0118	.0004	2.991	.0005	.0578
#2	.0383	.5222	2.047	354.7	.0120	.0003	3.012	.0005	.0578

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0007**	**.0011**	**-.0012**	**6.188**	**-.0004**	**.0065**	**.0102**
Stddev	.0005	.0000	.0001	.026	.0001	.0014	.0001
%RSD	73.43	3.471	11.04	.4249	19.01	21.61	.6707
#1	.0010	.0012	-.0013	6.169	-.0004	.0055	.0101
#2	.0003	.0011	-.0011	6.206	-.0005	.0075	.0102

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	158510.	21722.	6858.7	10415.
Stddev	1232.	51.	12.3	17.
%RSD	.77737	.23273	.17945	.16544
#1	157640.	21758.	6850.0	10403.
#2	159380.	21687.	6867.4	10427.

Zoom In Zoom Out

Sample Name: jc62910-2f Acquired: 3/31/2018 16:12:10 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0064**	**-.0000**	**.0002**	**-.0003**	**.0002**	**.0033**	**.0008**	**.0007**	**.0001**
Stddev	.0002	.0000	.0001	.0002	.0007	.0003	.0000	.0001	.0002
%RSD	2.484	69.60	62.14	61.64	409.3	9.519	1.574	13.16	228.5
#1	.0066	-.0001	.0001	-.0004	-.0003	.0031	.0008	.0007	-.0001
#2	.0063	-.0000	.0002	-.0001	.0007	.0035	.0008	.0008	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0005**	**.0113**	**-.0001**	**.0006**	**-.0006**	**-.0006**	**.0001**	**.0233**	**22.75**
Stddev	.0004	.0000	.0003	.0005	.0011	.0007	.0006	.0106	.14
%RSD	69.60	.2168	275.0	85.49	175.6	128.9	506.4	45.33	.5977
#1	-.0003	.0113	-.0004	.0010	.0002	-.0001	-.0003	.0308	22.85
#2	-.0008	.0113	.0001	.0002	-.0014	-.0011	.0005	.0158	22.65

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0063**	**4.822**	**2.253**	**12.47**	**.0206**	**.0008**	**7.282**	**-.0009**	**.0716**
Stddev	.0024	.042	.007	.02	.0006	.0000	.025	.0000	.0002
%RSD	38.44	.8669	.3239	.1457	3.035	3.573	.3396	.7717	.3278
#1	.0081	4.851	2.258	12.48	.0202	.0007	7.300	-.0009	.0718
#2	.0046	4.792	2.248	12.46	.0210	.0008	7.265	-.0009	.0714

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**-.0001**	**-.0040**	**4.227**	**-.0018**	**.0171**	**.0076**
Stddev	.0002	.0012	.0001	.008	.0023	.0008	.0007
%RSD	307.4	811.3	1.358	.1900	129.5	4.516	9.823
#1	.0002	.0007	-.0041	4.232	-.0001	.0176	.0071
#2	-.0001	-.0010	-.0040	4.221	-.0034	.0165	.0081

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163990.**	**21720.**	**6989.1**	**11205.**
Stddev	925.	81.	12.7	15.
%RSD	.56409	.37101	.18177	.13549
#1	164640.	21663.	6980.1	11194.
#2	163340.	21777.	6998.1	11215.

Zoom In Zoom Out

Sample Name: jc62923-1 Acquired: 3/31/2018 16:15:08 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0590**	**-.0000**	**-.0001**	**.0001**	**.0021**	**.0082**	**.0234**	**.0009**	**.0001**
Stddev	.0001	.0000	.0000	.0002	.0002	.0002	.0001	.0000	.0000
%RSD	.0940	247.3	41.02	107.6	11.00	1.948	.5107	.5778	46.74
#1	.0589	.0000	-.0001	.0000	.0020	.0083	.0233	.0009	.0001
#2	.0590	-.0000	-.0001	.0002	.0023	.0081	.0234	.0009	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0025**	**.0074**	**.0018**	**-.0001**	**.0012**	**.0013**	**.0008**	**1.170**	**17.90**
Stddev	.0003	.0001	.0011	.0006	.0004	.0031	.0005	.001	.02
%RSD	13.29	1.474	59.01	431.0	33.59	248.9	57.00	.1019	.1015
#1	.0022	.0073	.0011	.0003	.0009	.0035	.0011	1.171	17.92
#2	.0027	.0074	.0026	-.0006	.0015	-.0010	.0005	1.170	17.89

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.091**	**3.815**	**1.762**	**3.366**	**.0546**	**.0010**	**4.943**	**-.0008**	**.0808**
Stddev	.003	.003	.017	.012	.0014	.0001	.001	.0006	.0000
%RSD	.2583	.0899	.9466	.3522	2.603	9.057	.0178	73.38	.0371
#1	1.093	3.818	1.750	3.375	.0536	.0009	4.942	-.0012	.0809
#2	1.089	3.813	1.773	3.358	.0556	.0010	4.943	-.0004	.0808

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0229**	**-.0000**	**-.0021**	**.9507**	**-.0002**	**.0011**	**.0904**
Stddev	.0008	.0014	.0001	.0039	.0015	.0005	.0007
%RSD	3.320	4408.	5.738	.4085	987.1	46.84	.7662
#1	.0235	.0010	-.0022	.9534	.0009	.0015	.0899
#2	.0224	-.0010	-.0020	.9479	-.0012	.0007	.0909

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163480.**	**21609.**	**7027.7**	**11249.**
Stddev	235.	12.	53.6	79.
%RSD	.14369	.05367	.76338	.70652
#1	163650.	21601.	6989.8	11192.
#2	163310.	21617.	7065.6	11305.

Zoom In Zoom Out

Sample Name: jc62923-2 Acquired: 3/31/2018 16:18:06 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0425**	**-.0000**	**.0003**	**.0000**	**.0021**	**.0045**	**.0274**	**.0008**	**-.0001**
Stddev	.0016	.0000	.0001	.0002	.0001	.0002	.0001	.0003	.0001
%RSD	3.685	139.6	23.15	7078.	4.493	4.120	.3667	34.82	125.2
#1	.0414	-.0000	.0003	.0002	.0021	.0043	.0274	.0006	-.0000
#2	.0436	-.0000	.0002	-.0001	.0020	.0046	.0275	.0010	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0029**	**.0076**	**-.0002**	**-.0010**	**.0024**	**.0018**	**.0017**	**.7680**	**37.27**
Stddev	.0002	.0001	.0002	.0009	.0010	.0002	.0020	.0335	.66
%RSD	5.938	.7445	79.83	88.59	43.28	9.891	117.7	4.362	1.776
#1	.0030	.0076	-.0004	-.0004	.0031	.0017	.0030	.7443	36.80
#2	.0027	.0075	-.0001	-.0017	.0017	.0019	.0003	.7917	37.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.7327**	**4.169**	**1.675**	**12.11**	**.0574**	**.0025**	**4.831**	**-.0004**	**.2052**
Stddev	.0111	.070	.082	.18	.0001	.0000	.014	.0007	.0035
%RSD	1.519	1.675	4.884	1.472	.0886	.4183	.2854	185.3	1.696
#1	.7248	4.120	1.733	11.99	.0574	.0025	4.841	-.0009	.2027
#2	.7405	4.218	1.617	12.24	.0574	.0025	4.821	.0001	.2076

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0178**	**-.0004**	**-.0023**	**2.417**	**-.0000**	**.0040**	**.0563**
Stddev	.0008	.0019	.0000	.005	.0011	.0003	.0009
%RSD	4.283	457.8	.7047	.2135	14200.	7.936	1.617
#1	.0183	.0009	-.0023	2.421	-.0008	.0042	.0569
#2	.0173	-.0017	-.0023	2.414	.0007	.0038	.0556

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164700.**	**21884.**	**7093.4**	**11269.**
Stddev	891.	9.	29.5	40.
%RSD	.54098	.04056	.41546	.35769
#1	165330.	21878.	7072.6	11240.
#2	164070.	21890.	7114.3	11297.

Zoom In Zoom Out

Sample Name: jc62923-5 Acquired: 3/31/2018 16:21:05 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.2372**	**-.0003**	**-.0010**	**.0008**	**.0031**	**.0047**	F **26.53**	**.0034**
Stddev	.0005	.0000	.0001	.0001	.0006	.0005	.08	.0002
%RSD	.1979	10.26	6.114	11.05	19.56	10.77	.2998	4.823
#1	.2375	-.0003	-.0010	.0008	.0035	.0051	26.47	.0033
#2	.2369	-.0003	-.0009	.0007	.0027	.0044	26.59	.0035

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0010**	**-.0119**	**.0023**	**.0001**	F **-.0068**	**.0034**	**-.0057**	**-.0011**
Stddev	.0003	.0001	.0001	.0002	.0015	.0001	.0010	.0007
%RSD	26.50	.6880	4.425	136.8	22.69	3.822	16.84	62.67
#1	-.0008	-.0120	.0022	.0000	-.0057	.0033	-.0063	-.0006
#2	-.0012	-.0119	.0024	.0002	-.0079	.0035	-.0050	-.0016

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0796**	**162.0**	**11.20**	**90.31**	**3.315**	**169.3**	**.0543**	**-.0006**
Stddev	.0053	.4	.01	.14	.019	1.0	.0005	.0001
%RSD	6.609	.2187	.0863	.1558	.5788	.5716	.9535	17.81
#1	.0833	162.3	11.19	90.21	3.301	168.6	.0539	-.0006
#2	.0759	161.8	11.21	90.41	3.328	170.0	.0547	-.0005

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**5.073**	**-.0003**	**.6808**	**.0006**	**-.0003**	**-.0022**	**19.95**	**.0044**
Stddev	.018	.0001	.0023	.0002	.0003	.0000	.04	.0004
%RSD	.3522	19.54	.3337	32.10	75.78	.8853	.2190	8.556
#1	5.060	-.0003	.6792	.0005	-.0005	-.0022	19.92	.0046
#2	5.085	-.0002	.6824	.0008	-.0002	-.0022	19.98	.0041

Elem	Li6707	P_1774
Avg	**.0093**	**.2438**
Stddev	.0006	.0001
%RSD	6.917	.0442
#1	.0089	.2438
#2	.0098	.2439

Zoom In Zoom Out

Sample Name: jc62923-5 Acquired: 3/31/2018 16:21:05 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158120.**	**21279.**	**6820.2**	**10428.**
Stddev	598.	37.	10.3	17.
%RSD	.37805	.17500	.15138	.16596
#1	157700.	21252.	6812.9	10416.
#2	158550.	21305.	6827.5	10441.

Zoom In Zoom Out

Sample Name: jc62923-6 Acquired: 3/31/2018 16:24:14 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0024**	**-.0001**	**.0000**	**-.0002**	**-.0004**	**.0001**	**.0006**	**.0006**	**.0001**
Stddev	.0002	.0000	.0001	.0002	.0003	.0007	.0000	.0002	.0001
%RSD	10.51	2.436	478.7	78.41	85.93	1063.	1.977	33.37	120.2
#1	.0022	-.0001	.0001	-.0003	-.0006	-.0004	.0006	.0008	.0002
#2	.0026	-.0001	-.0001	-.0001	-.0002	.0005	.0006	.0005	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0004**	**.0007**	**-.0011**	**.0001**	**.0001**	**.0000**	**.0007**	**.0071**	**.0180**
Stddev	.0000	.0001	.0012	.0008	.0010	.0004	.0005	.0174	.0021
%RSD	4.633	7.983	106.2	924.5	1841.	1186.	63.63	245.5	11.87
#1	-.0004	.0006	-.0020	.0006	-.0006	.0003	.0011	.0194	.0165
#2	-.0004	.0007	-.0003	-.0004	.0007	-.0002	.0004	-.0052	.0195

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0006**	**.0134**	**.1165**	**.1533**	**-.0015**	**-.0000**	**.1673**	**.0002**	**.0016**
Stddev	.0013	.0037	.0208	.0104	.0006	.0000	.0014	.0001	.0000
%RSD	201.6	27.93	17.81	6.807	40.30	882.9	.8618	29.59	1.259
#1	.0003	.0160	.1018	.1607	-.0011	.0000	.1683	.0002	.0016
#2	-.0016	.0107	.1312	.1459	-.0019	-.0000	.1662	.0003	.0016

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**-.0003**	**-.0000**	**.0099**	**.0010**	**.0022**	**.0062**
Stddev	.0000	.0002	.0003	.0002	.0004	.0005	.0000
%RSD	59.16	58.66	879.3	2.523	35.88	25.04	.8019
#1	-.0001	-.0002	.0002	.0100	.0013	.0026	.0063
#2	-.0000	-.0004	-.0002	.0097	.0008	.0018	.0062

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**167980.**	**21866.**	**7190.7**	**11551.**
Stddev	1151.	122.	11.1	15.
%RSD	.68534	.55628	.15497	.12767
#1	168800.	21780.	7182.8	11540.
#2	167170.	21952.	7198.6	11561.

Zoom In Zoom Out

Sample Name: jc62923-7 Acquired: 3/31/2018 16:27:14 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.5357**	**-.0001**	**.0001**	**-.0004**	**.0004**	**.0001**	**.8616**	**.0001**	**.0000**
Stddev	.0032	.0000	.0002	.0001	.0005	.0005	.0222	.0002	.0004
%RSD	.6020	17.87	205.7	35.39	119.3	353.3	2.582	162.8	929.1
#1	.5380	-.0001	-.0000	-.0003	.0008	.0005	.8773	-.0000	.0003
#2	.5334	-.0001	.0002	-.0005	.0001	-.0002	.8459	.0003	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0010**	**.0010**	**.0017**	**-.0017**	**-.0011**	**-.0015**	**-.0007**	**-.0051**	**71.78**
Stddev	.0000	.0001	.0004	.0001	.0017	.0013	.0001	.0019	.66
%RSD	.3352	10.45	26.77	8.008	151.2	89.38	13.22	37.81	.9171
#1	.0010	.0011	.0013	-.0016	.0001	-.0006	-.0006	-.0065	72.25
#2	.0010	.0010	.0020	-.0018	-.0023	-.0024	-.0007	-.0037	71.32

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.3902**	**15.54**	**1.996**	**23.23**	**.1139**	**.0011**	**9.952**	**-.0017**	**.3963**
Stddev	.0018	.18	.080	.16	.0013	.0001	.031	.0009	.0029
%RSD	.4501	1.144	3.985	.6772	1.131	9.506	.3096	52.65	.7290
#1	.3914	15.66	2.053	23.34	.1130	.0012	9.930	-.0011	.3983
#2	.3890	15.41	1.940	23.12	.1148	.0010	9.974	-.0023	.3942

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0010**	**.0000**	**-.0060**	**2.580**	**-.0019**	**.0155**	**.1054**
Stddev	.0003	.0003	.0001	.008	.0038	.0014	.0006
%RSD	29.09	720.2	2.454	.2982	193.7	8.998	.6131
#1	-.0012	.0003	-.0059	2.574	.0007	.0145	.1058
#2	-.0008	-.0002	-.0061	2.585	-.0046	.0164	.1049

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161890.**	**21843.**	**7048.2**	**11055.**
Stddev	3681.	177.	34.9	51.
%RSD	2.2739	.81160	.49471	.46485
#1	159280.	21717.	7023.6	11018.
#2	164490.	21968.	7072.9	11091.

Zoom In Zoom Out

Sample Name: jc62924-5 Acquired: 3/31/2018 16:30:10 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0877**	**-.0001**	**-.0000**	**.0022**	**.0010**	**.0013**	**6.284**	**.0035**	**-.0001**
Stddev	.0005	.0001	.0000	.0001	.0002	.0001	.058	.0001	.0006
%RSD	.5708	115.3	159.2	6.149	22.92	10.85	.9295	2.302	692.2
#1	.0881	-.0002	.0000	.0021	.0009	.0014	6.325	.0034	.0004
#2	.0873	-.0000	-.0001	.0023	.0012	.0012	6.242	.0035	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0042**	**1.203**	**.0005**	**-.0008**	**.0002**	**-.0016**	**.0010**	**.0402**	**50.62**
Stddev	.0002	.003	.0022	.0015	.0006	.0027	.0008	.0074	.25
%RSD	3.812	.2389	445.7	182.9	269.8	168.5	72.66	18.36	.4847
#1	.0043	1.205	-.0010	.0002	-.0002	-.0035	.0016	.0350	50.79
#2	.0041	1.201	.0020	-.0019	.0007	.0003	.0005	.0454	50.44

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2051**	**14.07**	**4.375**	**96.57**	**.3320**	**.0016**	**9.527**	**-.0005**	**.1938**
Stddev	.0015	.07	.028	.23	.0019	.0000	.030	.0008	.0010
%RSD	.7452	.5007	.6484	.2354	.5664	1.002	.3142	166.3	.5124
#1	.2062	14.12	4.355	96.73	.3333	.0016	9.548	.0001	.1945
#2	.2041	14.02	4.395	96.41	.3306	.0016	9.506	-.0011	.1931

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**-.0003**	**-.0054**	**13.14**	**.0005**	**.0041**	**.0341**
Stddev	.0004	.0005	.0001	.04	.0011	.0019	.0002
%RSD	109.6	147.2	2.077	.3098	205.3	45.42	.7286
#1	.0001	.0000	-.0054	13.16	-.0002	.0028	.0343
#2	.0006	-.0007	-.0053	13.11	.0013	.0054	.0339

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163720.**	**21976.**	**7055.7**	**10951.**
Stddev	382.	44.	11.7	.
%RSD	.23349	.20047	.16588	.00256
#1	163990.	21945.	7047.4	10951.
#2	163440.	22007.	7064.0	10951.

Zoom In Zoom Out

Sample Name: jc63032-1 Acquired: 3/31/2018 16:33:13 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2185**	**.0001**	**.0064**	**.0022**	**.0243**	**.1496**	**1.621**	**.0116**	**.0003**
Stddev	.0008	.0000	.0000	.0003	.0001	.0008	.004	.0009	.0001
%RSD	.3476	6.543	.2532	14.40	.3808	.5634	.2497	7.515	54.88
#1	.2190	.0001	.0064	.0020	.0243	.1502	1.624	.0122	.0003
#2	.2180	.0001	.0064	.0025	.0244	.1490	1.618	.0109	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0109**	**.0964**	**.0031**	**-.0016**	**.0119**	**-.0028**	**.0016**	**3.800**	**47.90**
Stddev	.0001	.0013	.0004	.0004	.0016	.0004	.0003	.038	.01
%RSD	1.059	1.369	13.06	24.53	13.33	12.98	19.42	.9958	.0299
#1	.0108	.0973	.0034	-.0019	.0130	-.0030	.0014	3.826	47.89
#2	.0109	.0954	.0028	-.0013	.0108	-.0025	.0019	3.773	47.91

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.745**	**5.132**	**6.445**	**F 416.7**	**.0152**	**.0015**	**9.915**	**-.0001**	**.2015**
Stddev	.015	.034	.142	.2	.0004	.0001	.135	.0000	.0004
%RSD	.2157	.6532	2.199	.0411	2.478	8.293	1.362	19.80	.1949
#1	6.756	5.156	6.344	416.9	.0155	.0016	10.01	-.0001	.2013
#2	6.735	5.109	6.545	416.6	.0150	.0014	9.819	-.0001	.2018

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.1314**	**.0018**	**-.0050**	**4.031**	**.0031**	**.0120**	**.9768**
Stddev	.0005	.0007	.0001	.059	.0001	.0003	.0137
%RSD	.3749	38.02	1.128	1.455	2.917	2.863	1.398
#1	.1317	.0022	-.0051	4.073	.0032	.0118	.9864
#2	.1310	.0013	-.0050	3.990	.0031	.0123	.9671

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158420.**	**21602.**	**6828.9**	**10246.**
Stddev	506.	81.	104.8	155.
%RSD	.31955	.37648	1.5349	1.5086
#1	158060.	21545.	6754.8	10137.
#2	158770.	21660.	6903.0	10355.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 16:36:15 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.025**	**2.015**	**1.889**	**1.964**	**1.964**	**1.952**	**1.992**	**2.004**	**.2433**
Stddev	.048	.046	.007	.006	.053	.047	.049	.005	.0065
%RSD	2.348	2.295	.3840	.2944	2.693	2.406	2.436	.2757	2.663
#1	1.992	1.982	1.894	1.968	2.002	1.985	2.027	2.008	.2479
#2	2.059	2.048	1.884	1.960	1.927	1.918	1.958	2.000	.2387
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.926**	**1.926**	**1.899**	**2.014**	**1.985**	**1.915**	**1.897**	**40.41**	**41.33**
Stddev	.047	.004	.004	.008	.003	.007	.006	1.00	.98
%RSD	2.427	.2243	.2307	.3826	.1450	.3601	.3404	2.476	2.374
#1	1.959	1.929	1.902	2.019	1.987	1.920	1.901	39.71	40.63
#2	1.893	1.923	1.896	2.008	1.983	1.910	1.892	41.12	42.02
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.70**	**41.78**	**40.23**	**41.20**	**1.931**	**1.866**	**4.832**	**1.875**	**2.053**
Stddev	.97	.99	.97	1.12	.004	.007	.015	.006	.052
%RSD	2.395	2.371	2.400	2.714	.1811	.3544	.3119	.3173	2.526
#1	40.02	41.08	39.55	40.41	1.933	1.871	4.843	1.879	2.016
#2	41.39	42.48	40.91	41.99	1.928	1.861	4.821	1.871	2.090
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 16:36:15 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.985**	**1.899**	**1.933**	**1.851**	**1.980**	**1.984**	**1.858**
Stddev	.057	.007	.047	.005	.015	.043	.009
%RSD	2.872	.3644	2.416	.2922	.7460	2.154	.5105
#1	2.025	1.903	1.966	1.854	1.991	1.954	1.865
#2	1.945	1.894	1.900	1.847	1.970	2.015	1.851
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**158390.**	**20594.**	**6968.3**	**10775.**
Stddev	3174.	531.	13.8	16.
%RSD	2.0038	2.5785	.19769	.15240
#1	156140.	20969.	6958.6	10763.
#2	160630.	20218.	6978.1	10786.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 16:39:05 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**-.0001**	**-.0001**	**.0000**	**.0000**	**-.0005**	**.0000**	**-.0003**	**.0003**
Stddev	.0001	.0002	.0001	.0001	.0002	.0004	.0000	.0002	.0002
%RSD	11.01	292.2	127.0	976.2	1750.	82.99	120.6	58.55	65.31
#1	.0010	.0001	-.0000	.0001	-.0001	-.0002	.0000	-.0002	.0004
#2	.0011	-.0002	-.0001	-.0001	.0002	-.0008	.0000	-.0004	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0001**	**.0009**	**.0015**	**-.0005**	**-.0006**	**.0020**	**.0101**	**-.0006**
Stddev	.0004	.0001	.0008	.0010	.0002	.0005	.0004	.0153	.0037
%RSD	143.2	110.0	85.70	65.84	30.33	95.03	18.41	152.2	585.1
#1	-.0006	.0001	.0004	.0023	-.0004	-.0002	.0022	-.0008	-.0032
#2	.0000	.0000	.0015	.0008	-.0007	-.0009	.0017	.0209	.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0012**	**-.0226**	**.1996**	**.0996**	**-.0005**	**.0005**	**.0010**	**.0002**	**-.0002**
Stddev	.0019	.0113	.0268	.0044	.0005	.0001	.0004	.0001	.0000
%RSD	163.1	49.76	13.42	4.455	112.8	28.92	44.27	26.92	5.873
#1	-.0025	-.0306	.2186	.1027	-.0001	.0004	.0007	.0003	-.0002
#2	.0002	-.0147	.1807	.0964	-.0008	.0006	.0013	.0002	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 16:39:05 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0005**	**.0001**	**.0065**	**.0014**	**.0030**	**.0073**
Stddev	.0004	.0010	.0001	.0010	.0016	.0006	.0005
%RSD	124.6	219.9	67.01	15.19	110.7	19.57	6.496
#1	.0000	-.0003	.0002	.0058	.0026	.0026	.0076
#2	.0006	.0012	.0001	.0072	.0003	.0034	.0070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**167510.**	**21654.**	**7232.3**	**11546.**
Stddev	13.	109.	4.9	25.
%RSD	.00772	.50419	.06760	.22000
#1	167520.	21577.	7235.7	11564.
#2	167510.	21731.	7228.8	11528.

Zoom In Zoom Out

Sample Name: jc63032-2 Acquired: 3/31/2018 16:46:42 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.6052**	**.0003**	**.0088**	**.0034**	**.0107**	**.1088**	**1.077**	**.0152**	**-.0001**
Stddev	.0006	.0000	.0002	.0006	.0004	.0004	.002	.0001	.0001
%RSD	.0922	11.80	2.344	16.82	3.717	.3594	.1467	.8234	103.6
#1	.6056	.0004	.0087	.0030	.0104	.1085	1.075	.0151	-.0000
#2	.6048	.0003	.0090	.0038	.0109	.1091	1.078	.0153	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0147**	**.0789**	**.0022**	**-.0005**	**.0096**	**.0008**	**.0009**	**5.078**	**153.4**
Stddev	.0000	.0001	.0000	.0005	.0028	.0006	.0014	.031	.6
%RSD	.1520	.1398	.7358	90.99	29.50	82.81	156.7	.6102	.3769
#1	.0147	.0790	.0022	-.0009	.0076	.0012	.0019	5.100	153.8
#2	.0147	.0788	.0022	-.0002	.0116	.0003	-.0001	5.056	153.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.710**	**25.73**	**5.390**	**214.4**	**.0701**	**.0012**	**14.07**	**.0007**	**.3816**
Stddev	.018	.05	.067	2.3	.0003	.0004	.06	.0007	.0006
%RSD	.2657	.2134	1.237	1.078	.4716	32.94	.4080	101.9	.1461
#1	6.722	25.77	5.343	216.0	.0699	.0015	14.03	.0002	.3820
#2	6.697	25.69	5.437	212.7	.0704	.0009	14.11	.0011	.3812

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.1637**	**.0013**	**-.0074**	**8.933**	**.0090**	**.0135**	**.3835**
Stddev	.0008	.0016	.0002	.026	.0010	.0015	.0018
%RSD	.5061	123.4	2.869	.2874	11.58	10.88	.4824
#1	.1631	.0025	-.0076	8.915	.0083	.0124	.3822
#2	.1643	.0002	-.0073	8.951	.0097	.0145	.3848

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158600.**	**21396.**	**6898.9**	**10409.**
Stddev	208.	131.	30.4	31.
%RSD	.13125	.61021	.44129	.30102
#1	158750.	21304.	6877.4	10387.
#2	158450.	21488.	6920.4	10431.

Zoom In Zoom Out

Sample Name: jc63032-4 Acquired: 3/31/2018 16:49:49 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2859**	**.0002**	**.1469**	**.0057**	**.0189**	**.5467**	**1.434**	**.1627**	**.0008**
Stddev	.0008	.0000	.0002	.0001	.0002	.0007	.002	.0003	.0003
%RSD	.2960	13.78	.1367	2.488	.8682	.1279	.1191	.1921	33.04
#1	.2853	.0002	.1470	.0056	.0190	.5472	1.433	.1625	.0010
#2	.2865	.0001	.1467	.0058	.0188	.5462	1.435	.1629	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0235**	**3.791**	**.0027**	**-.0007**	**.1096**	**-.0010**	**.0024**	**5.637**	**135.1**
Stddev	.0003	.003	.0008	.0009	.0009	.0023	.0010	.015	1.4
%RSD	1.157	.0669	30.12	125.7	.7850	238.4	38.91	.2650	1.008
#1	.0237	3.789	.0033	-.0001	.1102	-.0026	.0031	5.647	136.1
#2	.0233	3.793	.0022	-.0014	.1090	.0007	.0018	5.626	134.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**26.16**	**13.74**	**3.489**	**232.4**	**.0803**	**.0021**	**17.57**	**.0188**	**.3640**
Stddev	.10	.03	.056	3.8	.0011	.0002	.02	.0000	.0005
%RSD	.3998	.2474	1.594	1.639	1.375	8.175	.0874	.2493	.1368
#1	26.23	13.76	3.450	235.1	.0811	.0020	17.56	.0188	.3644
#2	26.08	13.71	3.528	229.7	.0796	.0022	17.58	.0187	.3637

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.1989**	**-.0006**	**-.0079**	**6.123**	**.0112**	**.0157**	**.3644**
Stddev	.0001	.0010	.0001	.014	.0006	.0024	.0006
%RSD	.0401	157.6	.7225	.2200	5.248	15.49	.1559
#1	.1988	-.0013	-.0079	6.132	.0108	.0140	.3640
#2	.1990	.0001	-.0080	6.113	.0117	.0174	.3648

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159530.**	**21271.**	**6924.0**	**10454.**
Stddev	655.	106.	30.5	49.
%RSD	.41061	.50003	.44091	.47078
#1	159990.	21196.	6902.4	10419.
#2	159070.	21346.	6945.6	10488.

Zoom In Zoom Out

Sample Name: jc63032-5 Acquired: 3/31/2018 16:52:52 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.1011**	**.0006**	**.0120**	**.0117**	**.0201**	**.5039**	**.2076**	**.0207**
Stddev	.0002	.0001	.0002	.0002	.0003	.0018	.0004	.0007
%RSD	.2309	9.527	1.306	1.803	1.547	.3593	.1748	3.347
#1	.1012	.0005	.0118	.0116	.0199	.5052	.2079	.0202
#2	.1009	.0006	.0121	.0119	.0203	.5026	.2074	.0212

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0008**	**.0447**	**.3762**	**.0060**	**-.0012**	**.0190**	**.0020**	**.0035**
Stddev	.0000	.0001	.0003	.0006	.0007	.0019	.0003	.0007
%RSD	2.573	.2147	.0860	10.48	56.13	9.994	13.66	18.70
#1	.0008	.0448	.3765	.0065	-.0008	.0203	.0022	.0031
#2	.0008	.0447	.3760	.0056	-.0017	.0176	.0018	.0040

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**13.81**	**9.737**	**20.52**	**6.308**	**2.906**	**34.64**	**.0389**	**.0046**
Stddev	.04	.009	.01	.030	.002	.11	.0000	.0004
%RSD	.2686	.0911	.0674	.4842	.0787	.3201	.0192	9.533
#1	13.84	9.731	20.53	6.330	2.908	34.57	.0389	.0049
#2	13.79	9.744	20.51	6.287	2.905	34.72	.0389	.0043

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**23.01**	**-.0018**	**.0373**	**.3880**	**.0004**	F **-.0132**	**1.643**	**.0151**
Stddev	.02	.0003	.0001	.0016	.0018	.0002	.003	.0016
%RSD	.0776	15.29	.3806	.4016	431.7	1.392	.1759	10.61
#1	23.00	-.0016	.0374	.3891	-.0009	-.0133	1.641	.0163
#2	23.02	-.0020	.0372	.3869	.0017	-.0131	1.645	.0140

Elem	Li6707	P_1774
Avg	**.0103**	**.9259**
Stddev	.0000	.0017
%RSD	.3924	.1810
#1	.0103	.9270
#2	.0103	.9247

Zoom In Zoom Out

Sample Name: jc63032-5 Acquired: 3/31/2018 16:52:52 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**168560.**	**22049.**	**7289.3**	**11241.**
Stddev	53.	79.	58.5	66.
%RSD	.03143	.35676	.80252	.58528
#1	168520.	22105.	7247.9	11194.
#2	168590.	21994.	7330.6	11287.

Zoom In Zoom Out

Sample Name: jc63085-1 Acquired: 3/31/2018 16:55:46 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0246**	**-.0001**	**.0002**	**-.0001**	**.0007**	**.0069**	**.0173**	**.0010**	**.0001**
Stddev	.0000	.0000	.0000	.0000	.0003	.0001	.0001	.0001	.0004
%RSD	.0491	41.34	15.09	60.28	34.01	1.019	.3613	6.581	411.0
#1	.0246	-.0001	.0002	-.0000	.0009	.0068	.0172	.0009	.0003
#2	.0246	-.0000	.0002	-.0001	.0006	.0069	.0173	.0010	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0479**	**-.0002**	**-.0002**	**.0008**	**-.0014**	**.0016**	**.0817**	**6.620**
Stddev	.0002	.0001	.0022	.0009	.0001	.0030	.0014	.0085	.069
%RSD	69.89	.2930	917.6	502.8	10.72	205.9	90.71	10.46	1.040
#1	.0002	.0480	-.0018	.0005	.0009	.0007	.0006	.0757	6.572
#2	.0005	.0478	.0013	-.0008	.0008	-.0035	.0026	.0878	6.669

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2139**	**.5014**	**.6454**	**4.910**	**.0019**	**.0006**	**.1812**	**.0008**	**.0187**
Stddev	.0012	.0024	.0462	.057	.0004	.0001	.0009	.0003	.0000
%RSD	.5488	.4800	7.159	1.158	20.25	15.76	.4992	41.83	.0847
#1	.2148	.4997	.6127	4.870	.0022	.0007	.1819	.0006	.0187
#2	.2131	.5031	.6781	4.950	.0017	.0005	.1806	.0011	.0187

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0017**	**-.0007**	**.0003**	**1.249**	**.0027**	**.0030**	**.0903**
Stddev	.0006	.0017	.0001	.001	.0004	.0003	.0011
%RSD	33.93	258.7	21.56	.0835	16.73	10.46	1.210
#1	.0021	-.0019	.0002	1.250	.0023	.0028	.0911
#2	.0013	.0006	.0003	1.249	.0030	.0032	.0896

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**168710.**	**21750.**	**7255.6**	**11460.**
Stddev	10.	176.	9.8	5.
%RSD	.00567	.80972	.13516	.04103
#1	168700.	21626.	7248.7	11457.
#2	168710.	21875.	7262.5	11464.

Zoom In Zoom Out

Sample Name: jc63108-4 Acquired: 3/31/2018 16:58:44 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1394**	**-.0002**	**.0003**	**.0009**	**.0006**	**.0021**	**1.498**	**.0028**	**-.0001**
Stddev	.0004	.0000	.0002	.0001	.0002	.0003	.003	.0002	.0003
%RSD	.2716	25.45	83.25	5.720	26.81	16.68	.1746	6.442	215.8
#1	.1396	-.0001	.0005	.0009	.0008	.0018	1.496	.0026	.0001
#2	.1391	-.0002	.0001	.0009	.0005	.0023	1.500	.0029	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0017**	**.0512**	**-.0002**	**.0002**	**.0100**	**-.0013**	**-.0009**	**.0221**	**80.83**
Stddev	.0000	.0002	.0018	.0006	.0008	.0005	.0001	.0067	.30
%RSD	.5524	.4445	741.5	313.0	7.641	39.25	6.499	30.35	.3722
#1	.0017	.0510	.0010	.0006	.0105	-.0010	-.0008	.0269	81.05
#2	.0017	.0514	-.0015	-.0002	.0095	-.0017	-.0009	.0174	80.62

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.3828**	**12.60**	**2.308**	F **312.7**	**.0567**	**.0003**	**6.406**	**-.0008**	**.3493**
Stddev	.0026	.06	.057	1.4	.0000	.0002	.035	.0000	.0021
%RSD	.6905	.5155	2.455	.4483	.0329	63.01	.5486	1.084	.6123
#1	.3847	12.64	2.268	311.7	.0567	.0004	6.382	-.0008	.3508
#2	.3809	12.55	2.348	313.7	.0567	.0002	6.431	-.0008	.3478

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0009**	**-.0010**	**-.0035**	**6.834**	**-.0005**	**.0053**	**.0256**
Stddev	.0000	.0009	.0000	.029	.0019	.0010	.0002
%RSD	3.060	85.16	.7719	.4319	387.3	19.79	.8458
#1	-.0009	-.0017	-.0035	6.813	-.0018	.0045	.0257
#2	-.0009	-.0004	-.0034	6.855	.0009	.0060	.0254

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158740.**	**21154.**	**6941.5**	**10452.**
Stddev	112.	10.	24.7	35.
%RSD	.07056	.04552	.35653	.33166
#1	158670.	21161.	6924.0	10428.
#2	158820.	21148.	6959.0	10477.

Zoom In Zoom Out

Sample Name: jc63108-9 Acquired: 3/31/2018 17:01:47 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.2856**	**-.0001**	**-.0002**	**.0058**	**.0008**	**.0014**	**6.570**	**.0042**
Stddev	.0075	.0000	.0001	.0003	.0007	.0007	.020	.0003
%RSD	2.617	1.184	42.79	5.704	90.28	47.95	.3035	7.201
#1	.2804	-.0001	-.0001	.0061	.0003	.0009	6.585	.0040
#2	.2909	-.0001	-.0002	.0056	.0013	.0018	6.556	.0044

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0012**	**.0041**	**.0064**	**.0048**	F **-.0023**	**-.0006**	**-.0009**	**-.0013**
Stddev	.0000	.0001	.0001	.0002	.0007	.0016	.0005	.0013
%RSD	.2735	2.676	.9305	4.767	28.78	254.6	54.05	97.72
#1	-.0012	.0040	.0064	.0049	-.0028	-.0018	-.0006	-.0022
#2	-.0012	.0042	.0064	.0046	-.0019	.0005	-.0013	-.0004

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0316**	F **426.2**	**7.938**	**170.5**	**3.621**	**229.4**	**.0891**	**.0008**
Stddev	.0020	6.6	.186	4.0	.119	4.6	.0016	.0002
%RSD	6.350	1.552	2.347	2.364	3.298	1.988	1.832	18.77
#1	.0330	421.5	7.806	167.6	3.537	226.1	.0902	.0007
#2	.0302	430.8	8.070	173.3	3.706	232.6	.0879	.0009

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**16.42**	**-.0020**	**1.113**	**-.0003**	**-.0007**	**-.0098**	**1.339**	**.0097**
Stddev	.18	.0003	.029	.0008	.0015	.0002	.013	.0015
%RSD	1.084	14.72	2.567	331.4	218.6	2.205	.9939	15.44
#1	16.55	-.0022	1.093	-.0008	.0004	-.0099	1.348	.0086
#2	16.30	-.0018	1.133	.0003	-.0017	-.0096	1.329	.0108

Elem	Li6707	P_1774
Avg	**.0262**	**.0629**
Stddev	.0003	.0017
%RSD	1.087	2.761
#1	.0264	.0642
#2	.0260	.0617

Zoom In Zoom Out

Sample Name: jc63108-9 Acquired: 3/31/2018 17:01:47 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152830.**	**20633.**	**6567.3**	**9847.7**
Stddev	126.	94.	72.1	99.3
%RSD	.08257	.45666	1.0984	1.0087
#1	152920.	20700.	6516.3	9775.5
#2	152740.	20567.	6618.3	9918.0

Zoom In Zoom Out

Sample Name: jc63108-10 Acquired: 3/31/2018 17:05:01 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0530**	**-.0001**	**.0002**	**-.0003**	**.0009**	**-.0000**	**.0782**	**.0002**	**-.0004**
Stddev	.0002	.0000	.0001	.0001	.0000	.0005	.0000	.0001	.0003
%RSD	.4528	18.40	51.85	42.58	3.754	1429.	.0482	27.26	79.74
#1	.0528	-.0001	.0003	-.0002	.0008	-.0004	.0782	.0003	-.0002
#2	.0532	-.0001	.0001	-.0004	.0009	.0003	.0782	.0002	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0005**	**.0032**	**.0038**	**-.0019**	**-.0002**	**.0020**	**-.0008**	**.0784**	**133.8**
Stddev	.0002	.0001	.0002	.0005	.0002	.0027	.0002	.0032	.5
%RSD	43.01	4.262	6.413	25.95	97.71	136.9	20.05	4.084	.3895
#1	.0004	.0031	.0040	-.0023	-.0001	.0001	-.0007	.0761	134.2
#2	.0007	.0033	.0036	-.0016	-.0004	.0039	-.0009	.0806	133.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**2.397**	**46.82**	**1.945**	**22.88**	**.1015**	**.0012**	**12.96**	**-.0003**	**.3917**
Stddev	.015	.16	.012	.07	.0011	.0002	.06	.0004	.0015
%RSD	.6127	.3375	.6157	.2841	1.060	12.99	.4963	123.9	.3760
#1	2.407	46.94	1.953	22.93	.1007	.0011	12.91	-.0005	.3927
#2	2.386	46.71	1.937	22.83	.1022	.0013	13.00	-.0000	.3906

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0016**	**.0015**	**-.0075**	**6.643**	**.0022**	**.0070**	**.0814**
Stddev	.0001	.0022	.0000	.040	.0028	.0007	.0014
%RSD	5.152	151.5	.5809	.6022	122.6	10.39	1.767
#1	.0015	.0031	-.0075	6.615	.0003	.0075	.0824
#2	.0016	-.0001	-.0075	6.671	.0042	.0065	.0804

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161930.**	**21183.**	**7014.9**	**10765.**
Stddev	936.	51.	25.9	38.
%RSD	.57775	.24168	.36990	.34976
#1	161270.	21146.	6996.6	10738.
#2	162590.	21219.	7033.3	10791.

Zoom In Zoom Out

Sample Name: jc63108-11 Acquired: 3/31/2018 17:07:59 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.3518**	**.0001**	**.0002**	**.0006**	**.0026**	**.0053**	**.3164**	**.0051**	**-.0005**
Stddev	.0005	.0000	.0000	.0004	.0002	.0001	.0002	.0016	.0001
%RSD	.1320	80.66	21.92	73.24	7.181	1.246	.0479	31.04	18.03
#1	.3522	.0001	.0001	.0003	.0024	.0053	.3165	.0040	-.0005
#2	.3515	.0000	.0002	.0009	.0027	.0052	.3163	.0062	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0022**	**.0457**	**.0003**	**-.0013**	**.0000**	**-.0005**	**-.0014**	**.5621**	F **367.1**
Stddev	.0000	.0003	.0006	.0004	.0006	.0014	.0008	.0192	5.5
%RSD	.3373	.7270	168.2	27.80	3273.	263.3	56.60	3.422	1.510
#1	.0022	.0460	-.0001	-.0015	.0004	-.0015	-.0020	.5757	363.2
#2	.0022	.0455	.0007	-.0010	-.0004	.0005	-.0009	.5485	371.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**3.453**	**137.9**	**3.794**	**92.63**	**.1430**	**.0005**	**14.36**	**-.0015**	**1.276**
Stddev	.014	.5	.033	.13	.0014	.0001	.29	.0010	.002
%RSD	.4071	.3740	.8707	.1365	.9516	12.08	2.026	65.15	.1476
#1	3.443	137.5	3.770	92.54	.1440	.0005	14.16	-.0021	1.275
#2	3.463	138.3	3.817	92.72	.1421	.0006	14.57	-.0008	1.278

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0137**	**.0009**	**-.0079**	**4.142**	**.0077**	**.0070**	**.0600**
Stddev	.0004	.0012	.0000	.001	.0002	.0013	.0004
%RSD	3.030	134.1	.2340	.0301	2.148	18.88	.5971
#1	.0140	.0000	-.0079	4.143	.0078	.0079	.0602
#2	.0134	.0017	-.0079	4.141	.0076	.0060	.0597

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154610.**	**20649.**	**6694.8**	**10063.**
Stddev	978.	76.	29.7	47.
%RSD	.63265	.36808	.44289	.46623
#1	155300.	20703.	6673.9	10030.
#2	153920.	20596.	6715.8	10096.

Zoom In Zoom Out

Sample Name: jc63108-13 Acquired: 3/31/2018 17:11:01 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.2101**	**-.0000**	**.0002**	**-.0003**	**.0021**	**.0029**	**.6885**	**.0014**
Stddev	.0035	.0001	.0001	.0002	.0000	.0002	.0036	.0009
%RSD	1.643	169.1	39.85	84.52	1.875	8.203	.5299	64.45
#1	.2125	.0000	.0002	-.0001	.0021	.0031	.6859	.0007
#2	.2076	-.0001	.0003	-.0005	.0022	.0027	.6911	.0020

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0012**	**.0014**	**.0078**	**-.0005**	F **-.0031**	**-.0027**	**-.0009**	**-.0012**
Stddev	.0008	.0007	.0000	.0009	.0012	.0006	.0010	.0011
%RSD	62.32	47.80	.5982	159.7	39.26	23.38	103.0	97.67
#1	-.0007	.0009	.0078	.0001	-.0039	-.0023	-.0003	-.0020
#2	-.0018	.0019	.0079	-.0011	-.0022	-.0032	-.0016	-.0004

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.1395**	F **485.8**	**6.555**	**194.4**	**4.943**	**48.71**	**.1092**	**.0049**
Stddev	.0092	.7	.088	1.9	.053	.47	.0006	.0001
%RSD	6.611	.1379	1.351	.9953	1.071	.9604	.5894	2.068
#1	.1330	485.3	6.617	195.8	4.981	49.04	.1087	.0049
#2	.1460	486.3	6.492	193.0	4.906	48.38	.1096	.0048

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**14.56**	**-.0015**	**1.292**	**.0050**	**.0002**	**-.0085**	**1.827**	**.0079**
Stddev	.03	.0005	.018	.0001	.0004	.0000	.003	.0009
%RSD	.2087	31.89	1.374	2.476	183.0	.4429	.1734	10.72
#1	14.54	-.0018	1.305	.0049	.0005	-.0086	1.825	.0073
#2	14.58	-.0011	1.280	.0051	-.0001	-.0085	1.830	.0085

Elem	Li6707	P_1774
Avg	**.0101**	**.0465**
Stddev	.0002	.0006
%RSD	1.544	1.312
#1	.0102	.0469
#2	.0100	.0460

Zoom In Zoom Out

Sample Name: jc63108-13 Acquired: 3/31/2018 17:11:01 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**153720.**	**20357.**	**6621.7**	**9958.9**
Stddev	467.	57.	22.1	30.9
%RSD	.30395	.28189	.33314	.31056
#1	154050.	20316.	6606.1	9937.1
#2	153390.	20398.	6637.3	9980.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 17:14:04 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.904**	**1.892**	**1.842**	**1.933**	**1.893**	**1.888**	**1.909**	**1.985**	**.2340**
Stddev	.010	.009	.003	.001	.011	.017	.009	.002	.0019
%RSD	.5067	.4758	.1433	.0655	.5530	.8770	.4695	.1133	.8294
#1	1.911	1.898	1.841	1.932	1.901	1.900	1.916	1.983	.2353
#2	1.897	1.885	1.844	1.934	1.886	1.877	1.903	1.986	.2326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.844**	**1.887**	**1.861**	**1.994**	**1.966**	**1.886**	**1.850**	**38.16**	**39.26**
Stddev	.012	.001	.000	.001	.001	.006	.003	.13	.19
%RSD	.6211	.0415	.0237	.0453	.0655	.2949	.1347	.3428	.4803
#1	1.852	1.887	1.861	1.993	1.965	1.882	1.848	38.25	39.40
#2	1.835	1.888	1.862	1.994	1.966	1.890	1.852	38.07	39.13
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.38**	**39.85**	**38.13**	**39.21**	**1.893**	**1.809**	**4.726**	**1.819**	**1.941**
Stddev	.19	.26	.11	.09	.005	.000	.007	.002	.010
%RSD	.4850	.6509	.2884	.2280	.2828	.0131	.1418	.0957	.4969
#1	38.52	40.03	38.21	39.28	1.890	1.809	4.721	1.820	1.948
#2	38.25	39.67	38.05	39.15	1.897	1.809	4.731	1.818	1.934
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 17:14:04 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.926**	**1.863**	**1.852**	**1.803**	**1.952**	**1.859**	**1.800**
Stddev	.012	.004	.011	.002	.004	.006	.002
%RSD	.5961	.1896	.5993	.1121	.1817	.3177	.0902
#1	1.934	1.860	1.859	1.802	1.950	1.863	1.801
#2	1.918	1.865	1.844	1.805	1.955	1.855	1.799
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**161440.**	**20860.**	**7060.9**	**10792.**
Stddev	380.	41.	24.0	41.
%RSD	.23518	.19820	.34024	.38307
#1	161180.	20831.	7043.9	10763.
#2	161710.	20890.	7077.9	10822.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 17:16:55 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0001**	**.0002**	**.0001**	**.0003**	**.0001**	**.0001**	**.0006**	**.0001**
Stddev	.0001	.0001	.0002	.0003	.0000	.0000	.0000	.0002	.0005
%RSD	13.00	99.57	120.8	192.4	2.693	11.89	34.74	35.81	397.6
#1	.0009	-.0001	.0000	.0003	.0003	.0001	.0001	.0007	.0005
#2	.0007	-.0000	.0004	-.0001	.0003	.0002	.0001	.0004	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0017**	**.0012**	**.0007**	**.0003**	**-.0010**	**.0012**	**-.0069**	**.0103**
Stddev	.0000	.0001	.0013	.0005	.0004	.0000	.0006	.0173	.0031
%RSD	20.83	5.234	112.1	75.09	117.9	4.902	51.80	252.2	30.37
#1	-.0002	.0016	.0021	.0010	.0006	-.0009	.0008	.0054	.0081
#2	-.0003	.0017	.0002	.0003	.0001	-.0010	.0016	-.0191	.0126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020**	**.0005**	**.1060**	**.0973**	**-.0016**	**-.0001**	**-.0034**	**.0005**	**.0000**
Stddev	.0010	.0243	.0061	.0021	.0002	.0001	.0003	.0006	.0001
%RSD	51.00	5038.	5.752	2.196	13.25	74.77	9.154	128.1	265.8
#1	.0027	-.0167	.1017	.0958	-.0017	-.0001	-.0032	.0009	.0001
#2	.0013	.0177	.1103	.0988	-.0014	-.0002	-.0037	.0000	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 17:16:55 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0002**	**.0003**	**.0036**	**.0016**	**.0010**	**.0091**
Stddev	.0000	.0010	.0001	.0033	.0006	.0014	.0006
%RSD	6.224	632.3	17.48	92.31	36.03	133.1	6.346
#1	.0005	.0006	.0003	.0013	.0021	.0020	.0087
#2	.0005	-.0009	.0003	.0060	.0012	.0001	.0095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**162750.**	**20654.**	**7054.8**	**11202.**
Stddev	207.	4.	27.8	41.
%RSD	.12723	.02026	.39464	.36485
#1	162900.	20657.	7035.1	11174.
#2	162600.	20651.	7074.4	11231.

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 3/31/2018 17:19:54 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.9491**	**.0089**	**.0149**	**.2484**	**.0481**	**.0429**	**.0764**	**.0508**	**.0201**
Stddev	.0133	.0001	.0002	.0022	.0006	.0009	.0009	.0022	.0007
%RSD	1.401	1.008	1.424	.9018	1.246	2.049	1.214	4.413	3.243
#1	.9586	.0090	.0147	.2500	.0477	.0423	.0758	.0523	.0196
#2	.9397	.0089	.0150	.2468	.0485	.0436	.0771	.0492	.0205

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2376**	**.1010**	**.0409**	**.0480**	**.0133**	**.0473**	**.0233**	**1.032**	**24.92**
Stddev	.0050	.0009	.0020	.0072	.0001	.0036	.0134	.054	.24
%RSD	2.086	.8482	4.767	14.94	.6499	7.681	57.59	5.247	.9631
#1	.2341	.1016	.0423	.0429	.0134	.0447	.0328	.9941	25.09
#2	.2411	.1004	.0396	.0530	.0133	.0499	.0138	1.071	24.75

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.4889**	**25.45**	**24.37**	**25.31**	**.4757**	**.0964**	**.8251**	**.0484**	**.0476**
Stddev	.0047	.33	.16	.12	.0065	.0009	.0006	.0001	.0009
%RSD	.9604	1.300	.6417	.4801	1.367	.8890	.0750	.2544	1.839
#1	.4922	25.69	24.48	25.39	.4803	.0970	.8255	.0483	.0483
#2	.4856	25.22	24.26	25.22	.4711	.0958	.8246	.0485	.0470

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0481**	**.2414**	**.0494**	**.2290**	**.1115**	**.2500**	**.2781**
Stddev	.0009	.0090	.0005	.0108	.0170	.0004	.0039
%RSD	1.944	3.729	.9644	4.707	15.21	.1775	1.401
#1	.0474	.2478	.0498	.2367	.1235	.2503	.2808
#2	.0487	.2350	.0491	.2214	.0995	.2497	.2753

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162650.**	**20828.**	**7055.0**	**11110.**
Stddev	434.	64.	39.5	47.
%RSD	.26707	.30954	.55978	.42353
#1	162960.	20873.	7027.1	11077.
#2	162340.	20782.	7082.9	11143.

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 3/31/2018 17:22:52 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1128**	**.0202**	**.0252**	**.0745**	**.0594**	**-.0149**	**.0778**	**.0961**	**-.0128**
Stddev	.0083	.0040	.0003	.0011	.0025	.0140	.0002	.0005	.0073
%RSD	7.354	19.80	1.196	1.520	4.282	94.13	.2926	.5481	56.99
#1	.1069	.0230	.0254	.0753	.0576	-.0248	.0780	.0964	-.0076
#2	.1187	.0174	.0250	.0737	.0612	-.0050	.0777	.0957	-.0179

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0456**	**.2637**	**.0689**	**.0726**	**-.0107**	**.1277**	**.0112**	**2.475**	**25.91**
Stddev	.0131	.0024	.0350	.0133	.0217	.0124	.0107	.236	.18
%RSD	28.78	.9133	50.74	18.33	202.3	9.688	95.42	9.542	.6884
#1	.0549	.2620	.0442	.0632	-.0260	.1364	.0036	2.642	26.04
#2	.0363	.2655	.0936	.0820	.0046	.1189	.0187	2.308	25.78

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0608**	**2.237**	**51.09**	**26.92**	**-.0422**	**.0035**	**.0175**	**.0159**	**-.0004**
Stddev	.0238	.051	.51	.09	.0113	.0032	.0146	.0062	.0003
%RSD	39.20	2.267	.9979	.3474	26.73	89.67	83.58	39.14	80.07
#1	-.0440	2.201	50.73	26.85	-.0502	.0013	.0278	.0203	-.0002
#2	-.0777	2.273	51.45	26.98	-.0342	.0058	.0071	.0115	-.0006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0053**	**.0142**	**.0000**	**.0848**	**.0180**	**.0212**	**.2348**
Stddev	.0065	.0272	.0028	.0007	.0214	.0006	.0088
%RSD	124.0	192.1	9418.	.7830	118.9	2.657	3.734
#1	.0099	-.0051	.0020	.0853	.0029	.0216	.2410
#2	.0006	.0334	-.0020	.0844	.0331	.0208	.2286

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**165760.**	**21083.**	**7236.0**	**11433.**
Stddev	235.	152.	39.2	57.
%RSD	.14172	.72014	.54122	.49968
#1	165600.	20975.	7208.3	11393.
#2	165930.	21190.	7263.7	11473.

Zoom In Zoom Out

Sample Name: mp6399-s2 Acquired: 3/31/2018 17:25:50 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.020**	**1.932**	**1.870**	**1.947**	**1.918**	**1.928**	**3.106**	**2.001**	**.2304**
Stddev	.006	.008	.002	.004	.007	.003	.009	.004	.0002
%RSD	.2929	.4003	.1050	.2088	.3633	.1612	.3035	.1870	.0896
#1	2.016	1.927	1.869	1.944	1.922	1.930	3.113	1.999	.2303
#2	2.025	1.938	1.871	1.949	1.913	1.926	3.099	2.004	.2305

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.868**	**1.907**	**1.893**	**2.024**	**1.985**	**1.908**	**1.899**	**24.03**	**36.32**
Stddev	.004	.002	.001	.005	.005	.004	.000	.09	.18
%RSD	.2275	.0809	.0609	.2461	.2508	.1933	.0019	.3697	.5081
#1	1.871	1.906	1.894	2.020	1.981	1.905	1.899	23.97	36.19
#2	1.865	1.908	1.893	2.027	1.989	1.911	1.899	24.10	36.45

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**54.01**	**29.97**	**24.29**	**38.89**	**1.915**	**1.842**	**2.009**	**1.849**	**2.039**
Stddev	.20	.11	.11	.16	.004	.003	.005	.001	.006
%RSD	.3788	.3547	.4629	.3997	.1999	.1367	.2685	.0308	.2821
#1	53.87	29.89	24.21	38.78	1.912	1.840	2.005	1.850	2.035
#2	54.16	30.04	24.37	39.00	1.917	1.844	2.012	1.849	2.043

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.965**	**1.878**	**1.879**	**12.52**	**.1050**	**.0011**	**2.065**
Stddev	.003	.005	.006	.02	.0008	.0028	.006
%RSD	.1658	.2812	.3056	.1627	.7584	259.0	.2760
#1	1.967	1.874	1.883	12.51	.1055	.0031	2.061
#2	1.963	1.881	1.875	12.54	.1044	-.0009	2.069

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159800.**	**20870.**	**6991.2**	**10784.**
Stddev	816.	84.	16.1	15.
%RSD	.51075	.40053	.23012	.14304
#1	159220.	20929.	6979.8	10773.
#2	160380.	20810.	7002.6	10795.

Zoom In Zoom Out

Sample Name: jc62879-9 Acquired: 3/31/2018 17:28:44 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0805**	**-.0001**	**-.0000**	**.0003**	**.0005**	**-.0001**	**1.327**	**-.0002**	**-.0010**
Stddev	.0039	.0001	.0002	.0002	.0004	.0004	.055	.0005	.0008
%RSD	4.830	104.1	641.1	62.61	73.74	306.8	4.173	202.4	80.16
#1	.0832	-.0000	-.0002	.0005	.0007	.0002	1.288	-.0006	-.0004
#2	.0777	-.0001	.0001	.0002	.0002	-.0004	1.366	.0001	-.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0011**	**.0008**	**.0009**	**.0003**	**-.0003**	**.0021**	**.0001**	**.0061**	**12.69**
Stddev	.0001	.0001	.0021	.0018	.0015	.0010	.0001	.0069	.56
%RSD	7.721	16.41	228.0	567.1	462.4	48.53	103.1	112.7	4.385
#1	.0011	.0007	.0025	-.0009	-.0014	.0028	.0000	.0110	13.09
#2	.0012	.0009	-.0006	.0015	.0008	.0014	.0002	.0012	12.30

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**33.00**	**5.360**	**.4936**	**15.80**	**.0020**	**.0003**	**2.330**	**-.0004**	**.0663**
Stddev	1.57	.270	.0485	.57	.0001	.0001	.085	.0000	.0026
%RSD	4.761	5.043	9.823	3.608	6.999	18.48	3.643	9.150	3.995
#1	34.12	5.551	.5278	16.20	.0022	.0004	2.270	-.0004	.0682
#2	31.89	5.169	.4593	15.40	.0019	.0003	2.390	-.0004	.0645

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0010**	**-.0008**	**14.38**	**.0004**	**.0007**	**.2951**
Stddev	.0003	.0007	.0001	.53	.0028	.0018	.0104
%RSD	305.3	65.96	9.368	3.653	791.3	257.3	3.519
#1	.0001	.0005	-.0008	14.01	.0023	-.0006	.2878
#2	-.0003	.0015	-.0007	14.75	-.0016	.0020	.3025

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163580.**	**21001.**	**6923.8**	**10862.**
Stddev	682.	691.	221.7	307.
%RSD	.41708	3.2884	3.2020	2.8277
#1	164060.	20513.	7080.6	11080.
#2	163090.	21490.	6767.0	10645.

Zoom In Zoom Out

Sample Name: mp6399-sd1 Acquired: 3/31/2018 17:31:40 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0879**	**-.0009**	**.0001**	**-.0005**	**.0009**	**.0023**	**1.349**	**-.0005**	**.0010**
Stddev	.0000	.0003	.0008	.0008	.0029	.0015	.000	.0013	.0015
%RSD	.0239	27.96	545.7	162.0	333.9	66.61	.0070	263.6	151.9
#1	.0879	-.0011	-.0004	.0001	-.0012	.0034	1.349	-.0014	-.0001
#2	.0879	-.0007	.0007	-.0010	.0029	.0012	1.349	.0004	.0020

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0006**	**.0022**	**.0069**	**.0007**	**-.0032**	**.0084**	**.0033**	**.0221**	**13.09**
Stddev	.0013	.0002	.0043	.0020	.0108	.0095	.0067	.0045	.01
%RSD	203.0	7.380	62.56	279.1	336.0	112.7	200.3	20.44	.0764
#1	.0015	.0021	.0038	.0021	-.0109	.0017	.0080	.0189	13.08
#2	-.0003	.0023	.0099	-.0007	.0044	.0152	-.0014	.0253	13.09

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**33.90**	**5.353**	**.5900**	**16.18**	**-.0014**	**.0006**	**2.241**	**.0012**	**.0675**
Stddev	.10	.000	.2944	.08	.0003	.0002	.002	.0005	.0001
%RSD	.3062	.0011	49.89	.5219	20.46	24.35	.1030	41.60	.1187
#1	33.83	5.353	.3819	16.24	-.0012	.0007	2.239	.0008	.0674
#2	33.98	5.353	.7982	16.12	-.0016	.0005	2.243	.0015	.0676

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0021**	**.0051**	**.0003**	**13.63**	**.0029**	**.0093**	**.3134**
Stddev	.0015	.0020	.0002	.00	.0131	.0114	.0011
%RSD	73.11	40.49	72.39	.0039	450.8	121.8	.3653
#1	-.0031	.0065	.0002	13.63	-.0064	.0174	.3142
#2	-.0010	.0036	.0005	13.63	.0122	.0013	.3126

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**167060.**	**21339.**	**7281.8**	**11482.**
Stddev	401.	44.	4.8	9.
%RSD	.23980	.20735	.06638	.07888
#1	166770.	21308.	7278.4	11476.
#2	167340.	21371.	7285.2	11488.

Zoom In Zoom Out

Sample Name: jc62789-1 Acquired: 3/31/2018 17:34:38 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0096**	**-.0001**	**-.0000**	**-.0001**	**.0008**	**.0007**	**.0119**	**.0007**	**-.0002**
Stddev	.0001	.0000	.0001	.0001	.0002	.0005	.0002	.0002	.0002
%RSD	1.201	57.04	4241.	112.4	26.38	71.48	1.332	28.35	92.51
#1	.0097	-.0001	.0000	-.0001	.0007	.0010	.0118	.0008	-.0001
#2	.0095	-.0001	-.0000	-.0000	.0010	.0003	.0120	.0005	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0017**	**.0012**	**-.0004**	**.0005**	**.0003**	**.0001**	**.0283**	**19.35**
Stddev	.0002	.0001	.0003	.0011	.0005	.0021	.0014	.0076	.05
%RSD	74.75	3.394	24.75	242.2	96.78	636.8	1839.	26.87	.2440
#1	.0001	.0016	.0014	-.0012	.0009	-.0011	-.0009	.0229	19.32
#2	.0005	.0017	.0010	.0003	.0002	.0018	.0011	.0337	19.39

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0456**	**8.083**	**1.070**	**15.82**	**.0235**	**.0007**	**3.131**	**.0005**	**.0813**
Stddev	.0007	.020	.039	.03	.0005	.0001	.019	.0002	.0001
%RSD	1.487	.2436	3.606	.1970	2.286	15.94	.6140	47.72	.1190
#1	.0461	8.070	1.043	15.79	.0238	.0008	3.145	.0007	.0813
#2	.0451	8.097	1.098	15.84	.0231	.0006	3.117	.0003	.0814

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0008**	**.0010**	**-.0014**	**3.646**	**-.0007**	**.0005**	**.0140**
Stddev	.0001	.0009	.0002	.026	.0000	.0014	.0003
%RSD	7.442	85.03	15.67	.7026	5.889	298.4	1.859
#1	.0008	.0004	-.0012	3.664	-.0007	-.0005	.0142
#2	.0008	.0016	-.0016	3.628	-.0008	.0015	.0138

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**166730.**	**21409.**	**7288.8**	**11324.**
Stddev	50.	106.	50.5	78.
%RSD	.02981	.49288	.69228	.68881
#1	166700.	21335.	7253.1	11269.
#2	166770.	21484.	7324.4	11379.

Zoom In Zoom Out

Sample Name: jc62789-2 Acquired: 3/31/2018 17:37:36 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0205**	**-.0001**	**.0002**	**-.0001**	**.0001**	**.0002**	**.0194**	**.0011**	**.0001**
Stddev	.0002	.0001	.0002	.0002	.0002	.0002	.0000	.0003	.0002
%RSD	1.193	71.28	82.26	377.6	173.6	126.4	.1702	31.10	163.6
#1	.0207	-.0000	.0001	-.0002	-.0000	.0000	.0194	.0014	-.0000
#2	.0203	-.0001	.0004	.0001	.0002	.0003	.0194	.0009	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0021**	**-.0001**	**.0001**	**.0012**	**-.0007**	**-.0003**	**.0101**	**22.01**
Stddev	.0003	.0001	.0011	.0013	.0012	.0004	.0000	.0136	.05
%RSD	112.2	4.806	1094.	1111.	96.70	63.87	3.863	135.2	.2369
#1	.0001	.0022	-.0009	.0010	.0021	-.0004	-.0003	.0004	22.04
#2	.0005	.0020	.0007	-.0008	.0004	-.0010	-.0003	.0197	21.97

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0568**	**3.664**	**3.032**	**34.91**	**.0244**	**.0004**	**4.191**	**.0148**	**.1167**
Stddev	.0014	.020	.033	.03	.0002	.0002	.019	.0002	.0001
%RSD	2.480	.5482	1.086	.0806	1.010	53.74	.4556	1.334	.0883
#1	.0559	3.678	3.009	34.93	.0242	.0006	4.178	.0146	.1167
#2	.0578	3.650	3.056	34.89	.0245	.0003	4.205	.0149	.1166

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**.0006**	**-.0021**	**7.031**	**-.0011**	**.0032**	**.0140**
Stddev	.0003	.0008	.0001	.037	.0016	.0003	.0001
%RSD	1134.	143.2	4.900	.5312	144.7	9.070	.3837
#1	-.0002	.0011	-.0022	7.005	-.0023	.0030	.0141
#2	.0002	-.0000	-.0020	7.058	.0000	.0034	.0140

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**167130.**	**21513.**	**7272.3**	**11227.**
Stddev	376.	4.	23.8	32.
%RSD	.22508	.02066	.32757	.28369
#1	167390.	21510.	7255.5	11204.
#2	166860.	21516.	7289.2	11249.

Zoom In Zoom Out

Sample Name: jc62789-3 Acquired: 3/31/2018 17:40:35 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0295**	**-.0001**	**.0000**	**-.0000**	**.0009**	**.0034**	**.0037**	**.0008**	**-.0003**
Stddev	.0000	.0000	.0000	.0001	.0001	.0002	.0000	.0000	.0001
%RSD	.0516	33.46	54.53	760.5	16.66	5.226	.5716	5.785	33.00
#1	.0295	-.0001	.0000	.0001	.0008	.0035	.0038	.0008	-.0003
#2	.0295	-.0002	.0000	-.0001	.0010	.0033	.0037	.0008	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0004**	**.0018**	**.0002**	**-.0006**	**.0010**	**-.0000**	**-.0007**	**.0159**	**81.13**
Stddev	.0003	.0001	.0007	.0004	.0012	.0018	.0019	.0206	.13
%RSD	72.29	3.209	360.4	62.40	119.7	7599.	263.1	129.5	.1570
#1	.0002	.0019	-.0003	-.0004	.0002	.0012	.0006	.0305	81.22
#2	.0006	.0018	.0007	-.0009	.0018	-.0013	-.0021	.0013	81.04

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0090**	**6.369**	**7.011**	**20.02**	**.0425**	**.0034**	**5.742**	**-.0009**	**.2958**
Stddev	.0013	.054	.017	.04	.0001	.0000	.006	.0004	.0007
%RSD	14.50	.8424	.2458	.2153	.2412	.5041	.1117	45.38	.2393
#1	.0081	6.407	6.998	20.05	.0425	.0035	5.737	-.0011	.2963
#2	.0100	6.331	7.023	19.99	.0426	.0034	5.746	-.0006	.2953

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0005**	**-.0007**	**-.0027**	**17.09**	**.0007**	**.0030**	**.0176**
Stddev	.0007	.0002	.0001	.00	.0008	.0016	.0008
%RSD	135.0	27.95	2.886	.0064	114.8	51.67	4.675
#1	-.0000	-.0009	-.0026	17.09	.0012	.0041	.0170
#2	-.0010	-.0006	-.0027	17.09	.0001	.0019	.0182

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164650.**	**21139.**	**7107.4**	**10968.**
Stddev	1064.	202.	8.0	1.
%RSD	.64593	.95647	.11294	.01240
#1	163900.	20996.	7101.8	10969.
#2	165410.	21282.	7113.1	10967.

Zoom In Zoom Out

Sample Name: jc62789-4 Acquired: 3/31/2018 17:43:33 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0205**	**-.0001**	**.0001**	**.0008**	**.0017**	**.0006**	**.3894**	**.0015**	**-.0003**
Stddev	.0003	.0000	.0001	.0001	.0002	.0002	.0006	.0001	.0003
%RSD	1.433	.4259	202.5	13.75	10.04	41.98	.1658	5.592	81.50
#1	.0203	-.0001	-.0000	.0009	.0018	.0007	.3889	.0015	-.0001
#2	.0207	-.0001	.0001	.0007	.0016	.0004	.3898	.0014	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0101**	**.0024**	**.0097**	**-.0006**	**.0006**	**-.0007**	**-.0007**	**.0968**	**24.48**
Stddev	.0005	.0000	.0009	.0009	.0004	.0020	.0001	.0046	.09
%RSD	5.328	1.042	9.376	157.5	59.66	284.1	9.555	4.734	.3601
#1	.0105	.0024	.0091	-.0013	.0004	-.0021	-.0007	.1000	24.41
#2	.0097	.0023	.0104	.0001	.0009	.0007	-.0008	.0935	24.54

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.612**	**2.409**	**16.62**	**66.72**	**.0776**	**.0082**	**5.656**	**-.0005**	**.1566**
Stddev	.006	.024	.15	.31	.0010	.0001	.026	.0000	.0004
%RSD	.3489	1.002	.9235	.4645	1.231	.7036	.4591	10.06	.2451
#1	1.608	2.427	16.51	66.50	.0769	.0083	5.638	-.0004	.1563
#2	1.616	2.392	16.73	66.94	.0783	.0082	5.674	-.0005	.1568

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0055**	**.0040**	**-.0021**	**19.68**	**.0006**	**.0016**	**.4072**
Stddev	.0003	.0004	.0001	.07	.0000	.0038	.0015
%RSD	4.833	10.75	4.392	.3681	2.738	240.5	.3670
#1	.0057	.0037	-.0022	19.62	.0006	.0043	.4061
#2	.0053	.0043	-.0020	19.73	.0007	-.0011	.4083

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164510.**	**21311.**	**7169.5**	**10970.**
Stddev	363.	114.	20.3	21.
%RSD	.22088	.53619	.28376	.19198
#1	164250.	21392.	7155.1	10955.
#2	164760.	21231.	7183.9	10985.

Zoom In Zoom Out

Sample Name: jc62881-1 Acquired: 3/31/2018 17:46:30 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2397**	**-.0001**	**.0027**	**.0052**	**.0013**	**.0274**	**.1567**	**.4497**	**-.0004**
Stddev	.0005	.0000	.0000	.0002	.0000	.0009	.0017	.0033	.0000
%RSD	.2162	34.96	.1366	4.007	2.694	3.459	1.064	.7250	11.97
#1	.2401	-.0001	.0027	.0050	.0014	.0281	.1578	.4520	-.0004
#2	.2393	-.0001	.0027	.0053	.0013	.0267	.1555	.4474	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0011**	**2.675**	**.0034**	**-.0019**	**.1119**	**-.0025**	**.0018**	**.0733**	**103.6**
Stddev	.0001	.018	.0008	.0017	.0008	.0013	.0003	.0312	.5
%RSD	8.676	.6867	22.41	87.60	.7160	53.56	19.74	42.60	.5118
#1	.0010	2.688	.0029	-.0031	.1125	-.0035	.0015	.0954	103.9
#2	.0011	2.662	.0039	-.0007	.1113	-.0016	.0020	.0512	103.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**3.126**	**11.31**	**1.446**	**4.583**	**.0163**	**.0017**	**8.427**	**-.0005**	**.4343**
Stddev	.012	.12	.042	.031	.0003	.0002	.054	.0004	.0022
%RSD	.3729	1.086	2.901	.6811	1.740	10.50	.6446	73.39	.5174
#1	3.135	11.40	1.476	4.605	.0165	.0015	8.465	-.0008	.4359
#2	3.118	11.22	1.416	4.560	.0161	.0018	8.388	-.0002	.4327

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0006**	**.0010**	**-.0045**	**9.115**	**-.0009**	**.0133**	**.1273**
Stddev	.0000	.0005	.0001	.046	.0024	.0010	.0003
%RSD	1.225	50.39	2.189	.5057	250.9	7.535	.2123
#1	.0006	.0006	-.0046	9.148	-.0026	.0140	.1275
#2	.0007	.0013	-.0045	9.082	.0007	.0126	.1271

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**166190.**	**21260.**	**7200.8**	**11080.**
Stddev	1376.	73.	69.7	95.
%RSD	.82774	.34530	.96845	.85669
#1	165220.	21312.	7151.5	11013.
#2	167170.	21208.	7250.1	11147.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 17:49:28 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 1

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.961**	**1.933**	**1.913**	**2.004**	**1.929**	**1.924**	**1.939**	**2.068**	**.2378**
Stddev	.009	.010	.030	.034	.005	.005	.008	.036	.0008
%RSD	.4516	.5292	1.558	1.677	.2740	.2620	.4102	1.759	.3536
#1	1.968	1.941	1.892	1.980	1.933	1.928	1.944	2.042	.2383
#2	1.955	1.926	1.934	2.028	1.925	1.921	1.933	2.094	.2372
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.868**	**1.963**	**1.938**	**2.072**	**2.049**	**1.962**	**1.930**	**39.14**	**40.45**
Stddev	.007	.029	.034	.032	.034	.034	.032	.25	.20
%RSD	.3816	1.493	1.774	1.540	1.652	1.755	1.679	.6417	.5024
#1	1.873	1.942	1.913	2.050	2.025	1.937	1.907	39.32	40.59
#2	1.863	1.983	1.962	2.095	2.073	1.986	1.953	38.96	40.31
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.37**	**40.98**	**39.12**	**40.25**	**1.975**	**1.871**	**4.914**	**1.883**	**1.994**
Stddev	.21	.25	.08	.22	.035	.028	.078	.030	.008
%RSD	.5252	.6088	.1922	.5519	1.768	1.499	1.587	1.589	.4112
#1	39.51	41.16	39.17	40.40	1.950	1.851	4.858	1.861	2.000
#2	39.22	40.80	39.06	40.09	2.000	1.891	4.969	1.904	1.988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 17:49:28 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 1

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.967**	**1.945**	**1.881**	**1.869**	**2.038**	**1.898**	**1.857**
Stddev	.002	.027	.008	.031	.028	.009	.029
%RSD	.0896	1.384	.4317	1.672	1.386	.4982	1.541
#1	1.968	1.926	1.886	1.847	2.018	1.904	1.836
#2	1.966	1.964	1.875	1.891	2.058	1.891	1.877
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**159190.**	**20630.**	**6862.2**	**10474.**
Stddev	810.	138.	40.3	76.
%RSD	.50881	.66821	.58695	.72640
#1	158620.	20533.	6890.7	10528.
#2	159770.	20728.	6833.7	10421.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 17:52:17 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**-.0000**	**.0001**	**-.0001**	**-.0003**	**-.0008**	**.0000**	**.0004**	**-.0005**
Stddev	.0001	.0000	.0001	.0003	.0001	.0004	.0000	.0002	.0012
%RSD	3.967	49.73	206.8	368.0	39.69	48.02	81.56	65.07	230.9
#1	.0015	-.0000	-.0000	-.0003	-.0004	-.0010	.0000	.0002	-.0014
#2	.0014	-.0000	.0002	.0001	-.0002	-.0005	.0000	.0005	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0020**	**.0004**	**.0004**	**.0003**	**.0008**	**.0001**	**.0047**	**.0157**
Stddev	.0001	.0001	.0004	.0008	.0015	.0018	.0010	.0102	.0026
%RSD	65.07	4.827	118.5	178.0	433.8	234.2	904.7	218.7	16.58
#1	-.0001	.0020	.0007	.0010	.0014	.0021	.0008	.0119	.0138
#2	-.0003	.0019	.0001	-.0001	-.0007	-.0005	-.0006	-.0026	.0175
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0025**	**-.0047**	**.1357**	**.0361**	**-.0006**	**.0002**	**-.0033**	**.0003**	**.0001**
Stddev	.0013	.0093	.0134	.0128	.0002	.0001	.0005	.0000	.0001
%RSD	49.70	196.9	9.867	35.45	33.22	47.05	14.82	7.317	66.03
#1	-.0016	.0019	.1452	.0271	-.0007	.0003	-.0037	.0003	.0002
#2	-.0034	-.0113	.1262	.0452	-.0004	.0001	-.0030	.0003	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 17:52:17 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0004**	**.0001**	**.0021**	**.0003**	**.0003**	**.0111**
Stddev	.0004	.0002	.0000	.0006	.0033	.0003	.0001
%RSD	128.4	41.73	12.37	27.39	1036.	81.11	.7510
#1	.0006	-.0003	.0001	.0017	.0027	.0005	.0111
#2	.0000	-.0006	.0001	.0025	-.0020	.0001	.0110
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**159720.**	**20256.**	**6918.8**	**10940.**
Stddev	704.	124.	1.2	3.
%RSD	.44091	.61225	.01706	.02540
#1	159220.	20168.	6919.6	10938.
#2	160220.	20344.	6917.9	10942.

Zoom In Zoom Out

Sample Name: jc62881-2 Acquired: 3/31/2018 17:55:16 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2378**	**-.0001**	**.0026**	**.0058**	**.0010**	**.0286**	**.1599**	**.4651**	**-.0002**
Stddev	.0005	.0000	.0002	.0001	.0009	.0006	.0001	.0025	.0000
%RSD	.1893	47.30	6.533	1.206	87.75	1.924	.0368	.5440	1.789
#1	.2375	-.0001	.0025	.0057	.0004	.0290	.1599	.4633	-.0002
#2	.2382	-.0001	.0027	.0058	.0016	.0282	.1598	.4669	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0011**	**2.700**	**.0037**	**-.0002**	**.1099**	**-.0007**	**.0005**	**.0630**	**104.0**
Stddev	.0007	.007	.0008	.0001	.0001	.0012	.0002	.0011	.1
%RSD	63.37	.2687	21.49	94.64	.0888	170.1	40.13	1.717	.1075
#1	.0015	2.695	.0043	-.0003	.1098	-.0015	.0003	.0638	103.9
#2	.0006	2.705	.0032	-.0001	.1099	.0001	.0006	.0622	104.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**3.087**	**11.22**	**1.309**	**4.340**	**.0172**	**.0014**	**8.493**	**-.0010**	**.4342**
Stddev	.005	.01	.032	.016	.0008	.0004	.039	.0003	.0004
%RSD	.1726	.0759	2.413	.3713	4.387	29.37	.4639	34.47	.0985
#1	3.083	11.23	1.287	4.328	.0178	.0016	8.465	-.0007	.4339
#2	3.090	11.22	1.331	4.351	.0167	.0011	8.521	-.0012	.4345

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0010**	**.0010**	**-.0045**	**9.960**	**.0007**	**.0107**	**.1249**
Stddev	.0003	.0008	.0001	.039	.0005	.0005	.0010
%RSD	32.28	80.97	2.068	.3862	66.19	4.262	.8392
#1	.0008	.0015	-.0045	9.933	.0011	.0110	.1242
#2	.0012	.0004	-.0046	9.987	.0004	.0104	.1257

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162370.**	**20924.**	**6986.1**	**10782.**
Stddev	969.	42.	49.8	64.
%RSD	.59656	.19917	.71219	.59083
#1	163050.	20894.	6950.9	10737.
#2	161680.	20953.	7021.3	10827.

Zoom In Zoom Out

Sample Name: jc62881-3 Acquired: 3/31/2018 17:58:12 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1453**	**-.0001**	**.0008**	**.0003**	**.0015**	**.0169**	**.0489**	**.0063**	**.0003**
Stddev	.0016	.0001	.0001	.0001	.0001	.0002	.0004	.0002	.0005
%RSD	1.098	48.91	6.625	42.46	3.871	.9773	.7987	3.383	182.3
#1	.1464	-.0001	.0008	.0004	.0014	.0168	.0487	.0061	-.0001
#2	.1441	-.0002	.0009	.0002	.0015	.0170	.0492	.0064	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0010**	**.1584**	**.0032**	**-.0006**	**.0423**	**-.0022**	**.0027**	**.1649**	**72.07**
Stddev	.0000	.0009	.0009	.0017	.0011	.0011	.0007	.0126	.22
%RSD	4.949	.5825	27.58	281.5	2.552	48.64	27.35	7.647	.3107
#1	.0010	.1577	.0038	-.0018	.0415	-.0014	.0032	.1738	72.22
#2	.0010	.1590	.0026	.0006	.0431	-.0029	.0022	.1559	71.91

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.030**	**8.072**	**1.388**	**2.218**	**.0263**	**.0031**	**9.377**	**-.0006**	**.2976**
Stddev	.001	.067	.001	.004	.0006	.0000	.052	.0000	.0008
%RSD	.1336	.8288	.0356	.1715	2.363	.6255	.5540	8.100	.2846
#1	1.029	8.120	1.387	2.216	.0258	.0031	9.341	-.0005	.2982
#2	1.031	8.025	1.388	2.221	.0267	.0031	9.414	-.0006	.2970

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0022**	**.0008**	**-.0052**	**2.699**	**.0013**	**.0077**	**.0584**
Stddev	.0002	.0014	.0001	.021	.0010	.0002	.0001
%RSD	7.459	180.4	1.325	.7794	81.16	2.701	.2321
#1	.0021	-.0002	-.0052	2.684	.0020	.0075	.0585
#2	.0023	.0018	-.0051	2.714	.0005	.0078	.0583

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**164510.**	**21166.**	**7118.7**	**10991.**
Stddev	625.	115.	13.5	7.
%RSD	.37963	.54422	.19031	.06474
#1	164070.	21085.	7128.3	10996.
#2	164950.	21248.	7109.1	10986.

Zoom In Zoom Out

Sample Name: jc62881-4 Acquired: 3/31/2018 18:01:08 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0706**	**-.0000**	**.0005**	**.0264**	**.0024**	**.0234**	**1.301**	**.0683**
Stddev	.0001	.0001	.0002	.0003	.0001	.0001	.004	.0003
%RSD	.1243	1337.	39.96	1.096	2.673	.2716	.3128	.4311
#1	.0707	-.0001	.0006	.0261	.0023	.0233	1.304	.0681
#2	.0706	.0001	.0003	.0266	.0024	.0234	1.298	.0685

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0015**	**.0031**	**.2326**	**.0063**	F **-.0032**	**.0013**	**.0043**	**.0001**
Stddev	.0000	.0003	.0014	.0000	.0001	.0002	.0017	.0009
%RSD	.4814	10.69	.5810	.7335	3.762	14.75	39.35	1379.
#1	-.0015	.0033	.2316	.0062	-.0033	.0012	.0056	.0007
#2	-.0015	.0029	.2335	.0063	-.0031	.0014	.0031	-.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.2263**	**203.0**	**40.50**	**96.25**	**13.76**	**19.00**	**.2533**	**.0022**
Stddev	.0183	3.4	.08	.18	.05	.06	.0012	.0000
%RSD	8.085	1.655	.2056	.1892	.3362	.3109	.4776	.8448
#1	.2133	200.6	40.44	96.12	13.72	18.96	.2524	.0022
#2	.2392	205.4	40.56	96.37	13.79	19.04	.2542	.0022

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**18.36**	**-.0027**	**1.028**	**.0011**	**-.0002**	**-.0072**	F **123.2**	**.0047**
Stddev	.10	.0001	.002	.0004	.0005	.0001	.6	.0012
%RSD	.5674	4.029	.1455	33.18	324.9	.9636	.4623	26.26
#1	18.28	-.0028	1.027	.0008	-.0005	-.0071	122.8	.0056
#2	18.43	-.0027	1.029	.0014	.0002	-.0072	123.6	.0038

Elem	Li6707	P_1774
Avg	**.0308**	**.1117**
Stddev	.0009	.0020
%RSD	2.902	1.756
#1	.0315	.1103
#2	.0302	.1131

Zoom In Zoom Out

Sample Name: jc62881-4 Acquired: 3/31/2018 18:01:08 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159050.**	**21066.**	**6825.6**	**10383.**
Stddev	701.	112.	6.1	5.
%RSD	.44092	.53069	.08927	.05116
#1	158550.	21145.	6821.3	10379.
#2	159540.	20987.	6830.0	10387.

Zoom In Zoom Out

Sample Name: jc62881-5 Acquired: 3/31/2018 18:04:09 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0461**	**-.0001**	**.0000**	**.0048**	**.0005**	**.0018**	**4.432**	**.0028**
Stddev	.0013	.0000	.0001	.0002	.0000	.0001	.045	.0010
%RSD	2.720	8.650	494.0	4.659	3.250	5.244	1.023	34.65
#1	.0452	-.0001	-.0001	.0049	.0006	.0017	4.400	.0035
#2	.0470	-.0001	.0001	.0046	.0005	.0019	4.464	.0021

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0012**	**.0034**	**.0041**	**.0049**	F **-.0037**	**-.0009**	**-.0015**	**.0002**
Stddev	.0006	.0001	.0001	.0002	.0003	.0005	.0004	.0012
%RSD	54.66	2.296	2.849	4.575	9.163	55.78	28.85	627.1
#1	-.0007	.0033	.0040	.0047	-.0035	-.0012	-.0012	-.0007
#2	-.0016	.0034	.0041	.0050	-.0040	-.0005	-.0018	.0010

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0550**	**217.4**	**2.956**	**77.62**	**94.97**	**49.12**	**2.367**	**.0074**
Stddev	.0067	5.4	.062	1.54	1.95	.89	.001	.0002
%RSD	12.13	2.486	2.109	1.984	2.051	1.820	.0331	2.807
#1	.0597	213.5	2.912	76.53	93.59	48.49	2.368	.0072
#2	.0503	221.2	3.000	78.71	96.34	49.75	2.367	.0075

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.766**	**-.0001**	**3.130**	**.0002**	**.0021**	**.0020**	F **105.5**	**.0039**
Stddev	.006	.0007	.059	.0000	.0019	.0000	.2	.0008
%RSD	.2297	921.5	1.885	4.762	89.40	2.244	.1777	20.61
#1	2.771	.0004	3.088	.0002	.0034	.0019	105.6	.0033
#2	2.762	-.0005	3.172	.0002	.0008	.0020	105.3	.0044

Elem	Li6707	P_1774
Avg	**.0060**	**.0954**
Stddev	.0002	.0000
%RSD	3.565	.0432
#1	.0062	.0955
#2	.0059	.0954

Zoom In Zoom Out

Sample Name: jc62881-5 Acquired: 3/31/2018 18:04:09 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157030.**	**20730.**	**6797.3**	**10229.**
Stddev	119.	102.	10.2	15.
%RSD	.07597	.49014	.14957	.14342
#1	156950.	20802.	6790.1	10218.
#2	157120.	20658.	6804.5	10239.

Zoom In Zoom Out

Sample Name: jc62881-6 Acquired: 3/31/2018 18:07:17 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0153**	**.0006**	**.0001**	**.0025**	**.0075**	**.0022**	**.1222**	**.0006**	**-.0005**
Stddev	.0004	.0000	.0001	.0000	.0002	.0000	.0003	.0002	.0001
%RSD	2.840	6.547	124.9	.3620	2.570	.7613	.2562	42.14	12.73
#1	.0156	.0006	.0002	.0025	.0073	.0022	.1220	.0004	-.0006
#2	.0150	.0006	.0000	.0025	.0076	.0022	.1225	.0008	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0015**	**.0120**	**.0016**	**-.0001**	**.0024**	**.0050**	**.0009**	**1.863**	**9.653**
Stddev	.0002	.0000	.0005	.0020	.0006	.0030	.0015	.001	.025
%RSD	14.61	.1078	32.12	3594.	26.56	59.19	163.6	.0754	.2607
#1	.0016	.0120	.0012	.0014	.0020	.0029	.0020	1.862	9.671
#2	.0013	.0120	.0019	-.0015	.0029	.0072	-.0001	1.864	9.635

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**48.92**	**2.047**	**1.382**	**11.69**	**.0137**	**.0003**	**3.020**	**-.0008**	**.0665**
Stddev	.25	.005	.039	.01	.0002	.0002	.025	.0003	.0005
%RSD	.5148	.2566	2.818	.0717	1.374	51.61	.8393	30.43	.7446
#1	49.10	2.051	1.409	11.68	.0135	.0002	3.002	-.0010	.0669
#2	48.74	2.043	1.354	11.69	.0138	.0005	3.038	-.0007	.0662

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0117**	**-.0006**	**-.0007**	**3.395**	**.0006**	**.0019**	**.0384**
Stddev	.0008	.0009	.0001	.021	.0018	.0004	.0003
%RSD	6.704	169.2	9.068	.6078	285.3	23.65	.7221
#1	.0122	.0001	-.0007	3.380	-.0006	.0022	.0386
#2	.0111	-.0012	-.0007	3.410	.0019	.0016	.0382

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**166990.**	**21167.**	**7225.9**	**11185.**
Stddev	397.	53.	7.5	15.
%RSD	.23757	.25258	.10425	.13125
#1	166710.	21205.	7220.6	11175.
#2	167270.	21129.	7231.2	11196.

Zoom In Zoom Out

Sample Name: mp6414-b1 Acquired: 3/31/2018 18:10:15 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.925**	**1.899**	**1.844**	**1.939**	**1.895**	**1.905**	**1.905**	**2.008**	**.2275**
Stddev	.006	.008	.007	.009	.008	.004	.005	.009	.0004
%RSD	.3138	.4017	.4057	.4364	.4269	.1969	.2587	.4561	.1953
#1	1.921	1.894	1.839	1.933	1.901	1.908	1.909	2.001	.2271
#2	1.930	1.904	1.850	1.945	1.890	1.902	1.902	2.014	.2278

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.831**	**1.897**	**1.872**	**2.034**	**1.994**	**1.894**	**1.871**	**23.58**	**24.42**
Stddev	.006	.010	.009	.006	.007	.021	.007	.12	.11
%RSD	.3472	.5261	.4942	.3204	.3583	1.099	.3783	.5100	.4525
#1	1.835	1.890	1.866	2.029	1.989	1.880	1.866	23.49	24.34
#2	1.826	1.904	1.879	2.038	1.999	1.909	1.876	23.66	24.50

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**23.78**	**24.95**	**23.34**	**24.24**	**1.900**	**1.817**	**.0804**	**1.829**	**1.956**
Stddev	.06	.09	.21	.13	.011	.007	.0013	.006	.007
%RSD	.2630	.3757	.8924	.5463	.5812	.3686	1.603	.3532	.3544
#1	23.73	24.89	23.20	24.14	1.893	1.812	.0795	1.824	1.951
#2	23.82	25.02	23.49	24.33	1.908	1.822	.0813	1.833	1.961

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.953**	**1.873**	**1.858**	**.0400**	**.1157**	**.0017**	**1.774**
Stddev	.009	.005	.006	.0003	.0013	.0015	.006
%RSD	.4327	.2767	.3336	.7986	1.142	91.78	.3475
#1	1.959	1.869	1.862	.0398	.1166	.0028	1.769
#2	1.947	1.877	1.853	.0402	.1148	.0006	1.778

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162410.**	**21004.**	**7081.5**	**10830.**
Stddev	1618.	29.	17.4	21.
%RSD	.99651	.13971	.24556	.19129
#1	161270.	21024.	7093.8	10845.
#2	163560.	20983.	7069.2	10816.

Zoom In Zoom Out

Sample Name: mp6414-b2 Acquired: 3/31/2018 18:13:03 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.010**	**1.979**	**1.872**	**1.975**	**1.951**	**1.959**	**1.964**	**2.045**	**.2339**
Stddev	.020	.021	.003	.005	.009	.004	.011	.004	.0001
%RSD	1.008	1.049	.1630	.2388	.4479	.1961	.5488	.1941	.0343
#1	2.024	1.994	1.874	1.978	1.957	1.961	1.972	2.047	.2338
#2	1.995	1.964	1.870	1.972	1.944	1.956	1.957	2.042	.2339

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.887**	**1.925**	**1.899**	**2.062**	**2.023**	**1.917**	**1.903**	**24.73**	**25.66**
Stddev	.009	.001	.001	.004	.002	.003	.000	.23	.25
%RSD	.4568	.0452	.0705	.2116	.0892	.1516	.0155	.9258	.9768
#1	1.893	1.926	1.900	2.065	2.025	1.919	1.903	24.89	25.83
#2	1.881	1.925	1.898	2.059	2.022	1.915	1.903	24.57	25.48

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.92**	**26.13**	**24.75**	**25.60**	**1.927**	**1.845**	**.0176**	**1.862**	**2.043**
Stddev	.22	.30	.23	.20	.002	.003	.0022	.005	.018
%RSD	.8845	1.146	.9466	.7673	.1145	.1464	12.45	.2545	.8882
#1	25.08	26.34	24.92	25.74	1.928	1.847	.0160	1.865	2.056
#2	24.77	25.92	24.58	25.46	1.925	1.843	.0191	1.858	2.030

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.009**	**1.898**	**1.917**	**.0343**	**.1206**	**.0016**	**1.800**
Stddev	.008	.003	.009	.0018	.0017	.0015	.002
%RSD	.3759	.1698	.4887	5.377	1.377	92.26	.1200
#1	2.014	1.900	1.924	.0356	.1217	.0027	1.802
#2	2.004	1.895	1.911	.0330	.1194	.0006	1.799

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162270.**	**20658.**	**7084.9**	**10814.**
Stddev	940.	94.	4.1	7.
%RSD	.57937	.45631	.05797	.06148
#1	161600.	20591.	7087.8	10810.
#2	162930.	20724.	7082.0	10819.

Zoom In Zoom Out

Sample Name: mp6414-mb1 2 Acquired: 3/31/2018 18:15:52 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0013**	**-.0000**	**-.0000**	**-.0002**	**.0001**	**-.0011**	**-.0000**	**-.0001**	**-.0004**
Stddev	.0002	.0001	.0001	.0000	.0001	.0010	.0000	.0005	.0001
%RSD	15.83	290.3	585.1	20.43	94.63	89.18	454.2	808.2	22.86
#1	.0014	.0000	.0001	-.0002	.0000	-.0004	.0000	.0003	-.0005
#2	.0011	-.0001	-.0001	-.0002	.0001	-.0018	-.0000	-.0004	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0004**	**.0007**	**-.0006**	**.0002**	**-.0008**	**-.0015**	**.0011**	**-.0075**	**.0023**
Stddev	.0005	.0000	.0002	.0013	.0001	.0015	.0005	.0180	.0045
%RSD	123.0	1.175	32.31	530.6	6.807	101.6	44.73	241.5	195.4
#1	-.0007	.0007	-.0005	.0012	-.0009	-.0025	.0015	-.0202	-.0009
#2	-.0001	.0007	-.0007	-.0007	-.0008	-.0004	.0008	.0053	.0055

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0011**	**-.0151**	**.0964**	**.0205**	**.0018**	**.0003**	**-.0026**	**.0005**	**.0001**
Stddev	.0019	.0091	.0607	.0005	.0004	.0000	.0016	.0002	.0001
%RSD	167.7	60.33	62.93	2.624	21.89	4.891	60.21	45.69	105.7
#1	-.0002	-.0087	.0535	.0208	.0020	.0003	-.0037	.0007	.0001
#2	.0025	-.0216	.1393	.0201	.0015	.0003	-.0015	.0004	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0004**	**.0025**	**.0005**	**.0089**	**.0010**	**.0016**	**.0126**
Stddev	.0002	.0014	.0001	.0012	.0024	.0014	.0007
%RSD	60.84	54.48	23.83	13.31	236.4	86.73	5.491
#1	.0006	.0015	.0006	.0081	.0027	.0006	.0131
#2	.0002	.0034	.0004	.0098	-.0007	.0026	.0121

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**166560.**	**20984.**	**7229.7**	**11307.**
Stddev	1362.	30.	12.3	14.
%RSD	.81756	.14263	.16999	.12712
#1	165600.	21005.	7238.4	11318.
#2	167530.	20963.	7221.0	11297.

Zoom In Zoom Out

Sample Name: mp6414-s1 Acquired: 3/31/2018 18:18:51 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.843**	**1.974**	**2.030**	**2.087**	**1.935**	**2.073**	**8.999**	**2.175**	**.2543**
Stddev	.002	.000	.009	.015	.004	.005	.031	.015	.0010
%RSD	.0651	.0159	.4219	.7070	.2219	.2543	.3407	.6960	.3810
#1	2.842	1.974	2.024	2.076	1.932	2.070	9.021	2.164	.2536
#2	2.845	1.974	2.036	2.097	1.938	2.077	8.977	2.186	.2550

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.921**	**2.067**	**2.099**	**2.029**	**2.117**	**2.009**	**2.020**	**24.61**	**171.3**
Stddev	.005	.011	.010	.006	.014	.009	.012	.02	1.4
%RSD	.2531	.5505	.4885	.3049	.6390	.4623	.5948	.0970	.7919
#1	1.918	2.059	2.091	2.025	2.107	2.002	2.012	24.63	170.3
#2	1.925	2.075	2.106	2.034	2.126	2.015	2.029	24.59	172.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**37.27**	**40.68**	**42.49**	F **1736.**	**2.061**	**1.878**	**7.334**	**1.839**	**2.837**
Stddev	.03	.09	.81	43.	.011	.009	.043	.010	.002
%RSD	.0771	.2139	1.895	2.492	.5349	.5027	.5814	.5616	.0799
#1	37.25	40.74	41.93	1766.	2.054	1.872	7.304	1.832	2.839
#2	37.29	40.62	43.06	1705.	2.069	1.885	7.364	1.847	2.836

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.034**	**1.976**	**1.945**	**5.395**	**.1300**	**.0559**	**3.603**
Stddev	.006	.011	.004	.032	.0030	.0041	.021
%RSD	.3049	.5650	.1942	.5947	2.295	7.389	.5694
#1	2.029	1.968	1.942	5.373	.1279	.0530	3.589
#2	2.038	1.984	1.948	5.418	.1321	.0588	3.618

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**142260.**	**20097.**	**6292.7**	**9000.2**
Stddev	283.	82.	5.0	16.2
%RSD	.19858	.40557	.08021	.18043
#1	142460.	20155.	6296.3	9011.7
#2	142060.	20040.	6289.1	8988.7

Zoom In Zoom Out

Sample Name: mp6414-s2 Acquired: 3/31/2018 18:21:57 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.811**	**1.964**	**2.011**	**2.069**	**1.927**	**2.067**	**8.844**	**2.158**	**.2525**
Stddev	.003	.005	.016	.016	.001	.007	.096	.017	.0020
%RSD	.1220	.2401	.7758	.7912	.0414	.3452	1.087	.7667	.7870
#1	2.813	1.968	2.000	2.057	1.926	2.062	8.912	2.147	.2511
#2	2.808	1.961	2.022	2.081	1.928	2.072	8.776	2.170	.2539

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.912**	**2.046**	**2.071**	**2.017**	**2.104**	**1.994**	**2.001**	**24.45**	**168.5**
Stddev	.001	.013	.012	.012	.016	.010	.016	.03	4.4
%RSD	.0282	.6421	.5801	.5714	.7659	.4980	.8076	.1277	2.608
#1	1.912	2.037	2.063	2.009	2.092	1.987	1.990	24.47	165.4
#2	1.912	2.056	2.080	2.025	2.115	2.001	2.013	24.43	171.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**36.89**	**40.34**	**43.15**	F **1642.**	**2.040**	**1.857**	**7.131**	**1.819**	**2.811**
Stddev	.05	.06	.31	1.	.017	.014	.059	.011	.001
%RSD	.1383	.1562	.7241	.0572	.8504	.7524	.8318	.6159	.0247
#1	36.93	40.29	42.92	1643.	2.027	1.847	7.089	1.811	2.811
#2	36.86	40.38	43.37	1641.	2.052	1.867	7.173	1.827	2.812

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.025**	**1.954**	**1.933**	**5.324**	**.1298**	**.0598**	**3.547**
Stddev	.000	.014	.004	.048	.0024	.0025	.028
%RSD	.0212	.7249	.1943	.9096	1.819	4.118	.7986
#1	2.025	1.944	1.930	5.289	.1314	.0580	3.527
#2	2.025	1.964	1.936	5.358	.1281	.0615	3.567

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**143680.**	**20376.**	**6406.9**	**9149.1**
Stddev	141.	133.	7.3	16.0
%RSD	.09807	.65515	.11440	.17487
#1	143580.	20470.	6412.1	9160.4
#2	143780.	20281.	6401.7	9137.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 18:25:03 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 2

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.958**	**1.925**	**1.882**	**1.975**	**1.938**	**1.944**	**1.946**	**2.045**	**.2401**
Stddev	.005	.003	.004	.004	.002	.002	.003	.007	.0005
%RSD	.2521	.1721	.1938	.2262	.1042	.0983	.1510	.3675	.1894
#1	1.954	1.923	1.880	1.972	1.937	1.942	1.948	2.040	.2398
#2	1.961	1.928	1.885	1.978	1.940	1.945	1.944	2.051	.2404
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.875**	**1.933**	**1.910**	**2.057**	**2.031**	**1.939**	**1.899**	**39.12**	**40.54**
Stddev	.004	.007	.009	.008	.006	.005	.002	.17	.07
%RSD	.2053	.3877	.4752	.3792	.2965	.2400	.1026	.4292	.1707
#1	1.878	1.928	1.903	2.052	2.027	1.936	1.898	39.00	40.49
#2	1.872	1.939	1.916	2.063	2.035	1.943	1.900	39.24	40.59
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.31**	**41.16**	**39.56**	**39.90**	**1.957**	**1.833**	**4.832**	**1.845**	**1.993**
Stddev	.08	.02	.19	.16	.006	.003	.009	.007	.006
%RSD	.2075	.0599	.4782	.4046	.3063	.1795	.1797	.3621	.2928
#1	39.25	41.15	39.43	39.79	1.953	1.830	4.826	1.841	1.989
#2	39.37	41.18	39.69	40.02	1.961	1.835	4.839	1.850	1.997
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 18:25:03 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 2

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.984**	**1.922**	**1.889**	**1.841**	**2.022**	**1.893**	**1.819**
Stddev	.004	.002	.005	.005	.002	.003	.001
%RSD	.1846	.0973	.2572	.2902	.1041	.1434	.0791
#1	1.982	1.921	1.892	1.837	2.020	1.891	1.818
#2	1.987	1.924	1.885	1.845	2.023	1.895	1.820
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**157760.**	**20412.**	**6918.4**	**10509.**
Stddev	620.	247.	3.5	8.
%RSD	.39271	1.2085	.05062	.07163
#1	158200.	20586.	6916.0	10504.
#2	157330.	20237.	6920.9	10514.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 18:27:52 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0000**	**-.0001**	**-.0002**	**-.0004**	**-.0012**	**.0000**	**-.0001**	**-.0008**
Stddev	.0002	.0001	.0001	.0004	.0005	.0005	.0000	.0001	.0000
%RSD	21.91	1393.	119.1	218.1	145.3	41.16	11.33	68.16	3.797
#1	.0009	.0001	-.0002	.0001	.0000	-.0008	.0000	-.0002	-.0008
#2	.0012	-.0001	-.0000	-.0005	-.0007	-.0015	.0000	-.0001	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0019**	**.0006**	**.0013**	**.0009**	**-.0012**	**-.0016**	**.0017**	**.0161**
Stddev	.0004	.0000	.0017	.0018	.0015	.0032	.0011	.0099	.0015
%RSD	546.9	1.806	299.2	139.4	162.8	269.6	66.61	588.7	9.112
#1	-.0004	.0019	.0018	.0000	-.0001	.0011	-.0008	-.0053	.0151
#2	.0002	.0020	-.0006	.0026	.0020	-.0035	-.0023	.0086	.0171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0091**	**.3533**	**.4879**	**.0031**	**.0002**	**-.0030**	**.0005**	**.0000**
Stddev	.0012	.0135	.0354	.0236	.0006	.0000	.0006	.0000	.0001
%RSD	150.7	148.4	10.01	4.829	18.54	21.40	21.70	9.938	771.3
#1	.0016	.0004	.3283	.5046	.0027	.0002	-.0025	.0004	-.0001
#2	-.0001	-.0186	.3783	.4713	.0035	.0002	-.0034	.0005	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 18:27:52 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0021**	**.0000**	**.0062**	**-.0008**	F **.0043**	**.0120**
Stddev	.0003	.0020	.0001	.0025	.0010	.0040	.0002
%RSD	88.38	96.42	255.8	40.58	125.8	93.19	1.277
#1	.0006	.0007	-.0000	.0044	-.0016	.0071	.0119
#2	.0001	.0035	.0001	.0080	-.0001	.0015	.0121
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**161820.**	**20464.**	**7050.0**	**11111.**
Stddev	297.	174.	48.4	66.
%RSD	.18373	.84916	.68694	.59480
#1	161610.	20587.	7015.7	11064.
#2	162030.	20341.	7084.2	11157.

Zoom In Zoom Out

Sample Name: jc63032-3 Acquired: 3/31/2018 18:30:51 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.8314**	**-.0001**	**.0192**	**.0003**	**.0016**	**.0824**	**6.996**	**.0167**	**-.0019**
Stddev	.0002	.0001	.0000	.0002	.0005	.0000	.017	.0001	.0001
%RSD	.0239	60.41	.1503	84.96	34.17	.0220	.2382	.4374	7.300
#1	.8315	-.0001	.0192	.0001	.0020	.0824	6.984	.0166	-.0020
#2	.8312	-.0002	.0191	.0004	.0012	.0824	7.008	.0167	-.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0070**	**.0712**	**.0007**	**-.0016**	**.0013**	**-.0013**	**-.0014**	**.0977**	**144.8**
Stddev	.0005	.0000	.0003	.0005	.0003	.0009	.0000	.0094	.1
%RSD	6.694	.0524	43.09	28.87	23.34	66.11	.4334	9.587	.0773
#1	.0073	.0712	.0005	-.0019	.0011	-.0007	-.0014	.0911	144.7
#2	.0067	.0712	.0009	-.0013	.0015	-.0019	-.0014	.1043	144.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.66**	**15.65**	**16.00**	F **1690.**	**.0868**	**.0011**	**6.914**	**-.0006**	**.8025**
Stddev	.01	.01	.51	7.	.0004	.0001	.021	.0002	.0012
%RSD	.0963	.0512	3.172	.4073	.5145	5.836	.3110	34.77	.1550
#1	12.67	15.64	15.64	1686.	.0865	.0011	6.899	-.0008	.8033
#2	12.65	15.66	16.36	1695.	.0872	.0010	6.929	-.0005	.8016

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0037**	**.0042**	**-.0032**	**5.325**	**.0053**	**.0547**	**1.602**
Stddev	.0001	.0016	.0000	.034	.0021	.0007	.003
%RSD	3.547	36.72	.0608	.6322	39.58	1.189	.1951
#1	.0036	.0031	-.0032	5.301	.0068	.0543	1.600
#2	.0038	.0053	-.0032	5.349	.0038	.0552	1.604

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**143170.**	**20104.**	**6403.4**	**9139.7**
Stddev	223.	87.	14.8	15.9
%RSD	.15605	.43053	.23183	.17376
#1	143330.	20165.	6413.9	9151.0
#2	143010.	20043.	6392.9	9128.5

Zoom In Zoom Out

Sample Name: mp6414-sd1 Acquired: 3/31/2018 18:33:57 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.8108**	**-.0004**	**.0194**	**-.0009**	**-.0004**	**.0879**	**7.246**	**.0186**	**-.0037**
Stddev	.0010	.0006	.0003	.0002	.0028	.0013	.011	.0008	.0020
%RSD	.1199	154.8	1.566	17.30	622.3	1.447	.1518	4.039	54.34
#1	.8101	-.0008	.0192	-.0008	.0015	.0888	7.254	.0191	-.0023
#2	.8115	.0000	.0196	-.0010	-.0024	.0870	7.238	.0180	-.0052

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0095**	**.0758**	**.0018**	**.0019**	**.0017**	**-.0129**	**.0073**	**.0871**	**143.9**
Stddev	.0015	.0000	.0045	.0065	.0094	.0072	.0053	.0283	.1
%RSD	15.56	.0254	249.0	337.6	571.2	55.93	73.25	32.55	.1015
#1	.0084	.0758	-.0014	-.0027	.0083	-.0078	.0110	.1071	143.8
#2	.0105	.0758	.0050	.0065	-.0050	-.0180	.0035	.0670	144.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.61**	**15.75**	**17.18**	F **1880.**	**.0943**	**.0020**	**6.854**	**.0023**	**.7900**
Stddev	.01	.05	.46	14.	.0045	.0006	.016	.0005	.0015
%RSD	.0714	.3355	2.671	.7500	4.752	27.03	.2352	20.75	.1849
#1	12.61	15.78	17.51	1870.	.0975	.0024	6.842	.0020	.7889
#2	12.60	15.71	16.86	1890.	.0911	.0017	6.865	.0026	.7910

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0006**	**.0124**	**-.0023**	**4.733**	**.0052**	**.0728**	**1.593**
Stddev	.0012	.0056	.0002	.003	.0058	.0143	.005
%RSD	193.0	44.85	8.332	.0615	111.2	19.68	.3020
#1	.0015	.0085	-.0021	4.735	.0011	.0829	1.596
#2	-.0002	.0164	-.0024	4.731	.0093	.0627	1.590

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155150.**	**20701.**	**6810.3**	**10089.**
Stddev	13.	100.	12.7	10.
%RSD	.00866	.48340	.18679	.09913
#1	155160.	20630.	6819.3	10096.
#2	155140.	20772.	6801.3	10082.

Zoom In Zoom Out

Sample Name: jc62930-6 Acquired: 3/31/2018 18:37:00 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0058**	**.0001**	**.0001**	**-.0002**	**.0003**	**-.0007**	**.0003**	**.0013**	**-.0003**
Stddev	.0001	.0000	.0001	.0001	.0001	.0004	.0001	.0001	.0002
%RSD	.9706	5.725	81.16	63.09	26.25	57.01	27.57	8.477	66.42
#1	.0058	.0001	.0002	-.0001	.0004	-.0004	.0002	.0012	-.0004
#2	.0059	.0001	.0001	-.0002	.0003	-.0009	.0003	.0014	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0014**	**-.0006**	**-.0002**	**.0010**	**.0002**	**.0010**	**.0777**	**.0362**
Stddev	.0005	.0001	.0002	.0002	.0010	.0012	.0001	.0052	.0005
%RSD	525.3	5.123	34.77	97.78	104.6	578.8	7.162	6.699	1.445
#1	-.0002	.0014	-.0004	-.0001	.0017	-.0006	.0010	.0814	.0366
#2	.0004	.0015	-.0007	-.0004	.0003	.0010	.0009	.0740	.0359

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0051**	**-.0147**	**.3412**	**.7795**	**.0009**	**.0004**	**.4484**	**-.0001**	**.0048**
Stddev	.0038	.0002	.0838	.0365	.0010	.0002	.0030	.0003	.0000
%RSD	74.03	1.268	24.56	4.677	111.9	46.67	.6672	302.3	.6659
#1	.0077	-.0145	.4004	.8053	.0002	.0003	.4462	-.0003	.0049
#2	.0024	-.0148	.2819	.7537	.0016	.0006	.4505	.0001	.0048

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**.0008**	**.0000**	**.0153**	**-.0004**	**.0045**	**.0126**
Stddev	.0007	.0004	.0001	.0010	.0017	.0000	.0001
%RSD	201.5	48.66	265.3	6.362	401.3	.2485	.9635
#1	.0008	.0011	.0001	.0146	.0008	.0045	.0127
#2	-.0001	.0005	-.0000	.0160	-.0016	.0045	.0125

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**169510.**	**21492.**	**7359.2**	**11506.**
Stddev	763.	22.	4.7	13.
%RSD	.45009	.10081	.06327	.11025
#1	168970.	21507.	7355.9	11497.
#2	170050.	21476.	7362.4	11515.

Zoom In Zoom Out

Sample Name: mp6400-mb1 2 Acquired: 3/31/2018 18:40:00 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0008**	**-.0001**	**-.0002**	**-.0001**	**-.0001**	**-.0012**	**-.0000**	**.0000**	**-.0002**
Stddev	.0000	.0000	.0002	.0002	.0002	.0004	.0000	.0002	.0005
%RSD	6.034	33.30	123.8	166.3	269.9	30.46	813.3	511.1	217.8
#1	.0008	-.0001	-.0000	.0000	-.0002	-.0015	.0000	.0002	-.0006
#2	.0008	-.0000	-.0003	.0003	.0001	-.0010	-.0000	-.0001	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0002**	**.0009**	**.0014**	**-.0000**	**.0009**	**-.0025**	**.0007**	**-.0027**	**.0015**
Stddev	.0000	.0001	.0007	.0003	.0001	.0025	.0013	.0016	.0023
%RSD	24.74	11.51	48.36	1032.	13.33	100.5	181.9	60.94	149.7
#1	-.0001	.0008	.0009	-.0002	.0009	-.0043	.0017	-.0038	-.0001
#2	-.0002	.0009	.0019	.0002	.0008	-.0007	-.0002	-.0015	.0031

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0018**	**-.0253**	**.2037**	**.4068**	**-.0006**	**.0002**	**.0009**	**.0006**	**-.0000**
Stddev	.0023	.0023	.0034	.0059	.0009	.0002	.0019	.0003	.0000
%RSD	127.7	9.256	1.661	1.452	144.8	88.10	207.4	43.65	182.5
#1	.0002	-.0237	.2061	.4109	.0000	.0001	-.0004	.0004	.0000
#2	.0035	-.0270	.2013	.4026	-.0012	.0003	.0022	.0008	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0014**	**.0004**	**.0075**	**.0009**	**.0041**	**.0121**
Stddev	.0002	.0012	.0000	.0005	.0006	.0004	.0003
%RSD	94.13	90.24	4.723	6.340	68.03	9.643	2.728
#1	.0003	.0022	.0004	.0071	.0005	.0039	.0123
#2	.0001	.0005	.0004	.0078	.0013	.0044	.0119

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**168790.**	**21513.**	**7325.5**	**11467.**
Stddev	457.	60.	13.5	12.
%RSD	.27091	.27707	.18403	.10791
#1	168470.	21471.	7316.0	11459.
#2	169120.	21555.	7335.0	11476.

Zoom In Zoom Out

Sample Name: mp6400-b1 Acquired: 3/31/2018 18:42:59 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.979**	**1.950**	**1.953**	**2.062**	**1.994**	**2.006**	**2.008**	**2.129**	**.2403**
Stddev	.012	.015	.019	.018	.012	.012	.015	.019	.0010
%RSD	.5823	.7692	.9573	.8805	.6198	.5712	.7539	.8745	.4009
#1	1.970	1.939	1.940	2.049	1.985	1.998	1.997	2.116	.2397
#2	1.987	1.961	1.966	2.075	2.003	2.014	2.018	2.142	.2410

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.932**	**2.011**	**1.981**	**2.153**	**2.114**	**2.009**	**1.983**	**24.56**	**25.60**
Stddev	.015	.015	.017	.016	.013	.006	.019	.15	.19
%RSD	.7495	.7295	.8514	.7465	.6060	.3091	.9753	.6202	.7428
#1	1.922	2.000	1.969	2.142	2.105	2.005	1.969	24.46	25.47
#2	1.943	2.021	1.993	2.165	2.124	2.013	1.996	24.67	25.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.87**	**26.04**	**24.95**	**25.69**	**2.006**	**1.921**	**.0067**	**1.933**	**2.014**
Stddev	.20	.30	.25	.36	.015	.016	.0014	.015	.016
%RSD	.7868	1.141	.9872	1.384	.7493	.8428	20.79	.7842	.8135
#1	24.73	25.83	24.77	25.44	1.996	1.910	.0058	1.922	2.003
#2	25.00	26.25	25.12	25.94	2.017	1.932	.0077	1.943	2.026

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.046**	**1.959**	**1.948**	**.0332**	**.1160**	**-.0001**	**1.893**
Stddev	.011	.019	.012	.0025	.0004	.0022	.013
%RSD	.5303	.9901	.6174	7.629	.3874	2977.	.7074
#1	2.038	1.945	1.940	.0350	.1157	.0015	1.884
#2	2.054	1.973	1.957	.0314	.1163	-.0017	1.903

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162420.**	**21054.**	**7112.0**	**10864.**
Stddev	78.	398.	3.4	7.
%RSD	.04828	1.8884	.04835	.06300
#1	162370.	21335.	7114.5	10869.
#2	162480.	20773.	7109.6	10860.

Zoom In Zoom Out

Sample Name: mp6400-s1 Acquired: 3/31/2018 18:45:48 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.333**	**2.032**	**1.980**	**2.094**	**2.007**	**2.038**	**8.454**	**2.154**	**.2425**
Stddev	.002	.003	.007	.008	.004	.000	.014	.007	.0001
%RSD	.0830	.1278	.3683	.3614	.1932	.0138	.1642	.3185	.0606
#1	2.331	2.030	1.975	2.088	2.010	2.039	8.444	2.149	.2426
#2	2.334	2.033	1.985	2.099	2.005	2.038	8.464	2.159	.2424

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.966**	**2.009**	**2.050**	**2.146**	**2.123**	**2.045**	**2.019**	**25.56**	**88.17**
Stddev	.000	.007	.006	.009	.008	.007	.006	.01	.16
%RSD	.0001	.3283	.2983	.4063	.3739	.3330	.3229	.0447	.1858
#1	1.966	2.004	2.046	2.140	2.117	2.040	2.014	25.55	88.06
#2	1.966	2.013	2.054	2.152	2.128	2.049	2.024	25.57	88.29

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**34.54**	**57.84**	**28.75**	**111.7**	**2.066**	**1.952**	**9.191**	**1.938**	**2.402**
Stddev	.04	.09	.18	.3	.010	.008	.044	.006	.005
%RSD	.1040	.1575	.6348	.2297	.4878	.3927	.4845	.3051	.2048
#1	34.52	57.77	28.62	111.5	2.059	1.946	9.160	1.934	2.399
#2	34.57	57.90	28.88	111.9	2.074	1.957	9.223	1.942	2.406

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.091**	**2.018**	**1.983**	**1.736**	**.1214**	**.0048**	**2.729**
Stddev	.003	.011	.001	.004	.0008	.0002	.012
%RSD	.1503	.5568	.0373	.1994	.6983	4.208	.4288
#1	2.093	2.010	1.982	1.734	.1220	.0046	2.721
#2	2.088	2.026	1.983	1.739	.1208	.0049	2.737

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158450.**	**20930.**	**6957.9**	**10473.**
Stddev	446.	93.	34.4	53.
%RSD	.28144	.44196	.49422	.50707
#1	158130.	20996.	6933.6	10435.
#2	158760.	20865.	6982.2	10510.

Zoom In Zoom Out

Sample Name: mp6400-s2 Acquired: 3/31/2018 18:48:42 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.243**	**1.972**	**1.933**	**2.041**	**1.946**	**1.975**	**8.125**	**2.097**	**.2371**
Stddev	.005	.003	.030	.030	.000	.000	.009	.029	.0016
%RSD	.2455	.1688	1.541	1.453	.0205	.0123	.1158	1.364	.6597
#1	2.247	1.974	1.911	2.020	1.946	1.975	8.131	2.077	.2360
#2	2.239	1.969	1.954	2.062	1.945	1.976	8.118	2.118	.2382

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.902**	**1.961**	**1.996**	**2.094**	**2.065**	**1.988**	**1.964**	**24.83**	**85.24**
Stddev	.003	.032	.031	.026	.025	.028	.032	.12	.18
%RSD	.1346	1.633	1.565	1.250	1.223	1.392	1.621	.4678	.2091
#1	1.901	1.938	1.974	2.075	2.047	1.968	1.941	24.91	85.37
#2	1.904	1.983	2.019	2.112	2.083	2.008	1.986	24.75	85.12

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**33.48**	**56.13**	**28.04**	**108.4**	**2.015**	**1.901**	**8.912**	**1.888**	**2.336**
Stddev	.06	.06	.07	.1	.032	.032	.130	.029	.000
%RSD	.1832	.1086	.2427	.0497	1.572	1.675	1.459	1.528	.0115
#1	33.53	56.17	28.00	108.4	1.992	1.879	8.820	1.867	2.336
#2	33.44	56.09	28.09	108.5	2.037	1.924	9.004	1.908	2.336

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.025**	**1.955**	**1.915**	**1.676**	**.1170**	**.0045**	**2.659**
Stddev	.001	.033	.001	.030	.0029	.0016	.038
%RSD	.0593	1.689	.0355	1.809	2.497	36.92	1.441
#1	2.024	1.932	1.915	1.655	.1191	.0056	2.632
#2	2.026	1.979	1.914	1.698	.1149	.0033	2.686

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161400.**	**21220.**	**7011.3**	**10566.**
Stddev	312.	33.	74.6	92.
%RSD	.19361	.15493	1.0644	.87506
#1	161180.	21197.	7064.1	10632.
#2	161620.	21244.	6958.5	10501.

Zoom In Zoom Out

Sample Name: jc62779-2 Acquired: 3/31/2018 18:51:37 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2515**	**-.0002**	**-.0002**	**.0136**	**.0009**	**.0083**	**6.518**	**.0122**	**-.0006**
Stddev	.0003	.0000	.0001	.0000	.0006	.0001	.068	.0004	.0001
%RSD	.1133	.2797	49.33	.0299	69.23	1.524	1.037	3.264	22.87
#1	.2513	-.0002	-.0002	.0136	.0014	.0084	6.566	.0125	-.0007
#2	.2517	-.0002	-.0003	.0136	.0005	.0083	6.471	.0119	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0031**	**.0073**	**.0202**	**.0001**	**-.0003**	**-.0016**	**.0022**	**.1837**	**61.01**
Stddev	.0001	.0001	.0010	.0011	.0001	.0028	.0005	.0028	.02
%RSD	3.606	1.900	5.032	1226.	31.98	171.2	22.89	1.497	.0292
#1	.0030	.0072	.0194	.0008	-.0003	.0003	.0025	.1817	61.02
#2	.0032	.0074	.0209	-.0007	-.0002	-.0036	.0018	.1856	60.99

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**9.021**	**31.21**	**3.561**	**84.93**	**.0337**	**.0034**	**8.937**	**-.0010**	**.3178**
Stddev	.011	.00	.006	.12	.0004	.0003	.061	.0003	.0002
%RSD	.1238	.0107	.1785	.1424	1.197	8.563	.6805	25.04	.0482
#1	9.029	31.21	3.557	84.85	.0339	.0036	8.894	-.0009	.3177
#2	9.013	31.21	3.566	85.02	.0334	.0032	8.980	-.0012	.3179

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0022**	**.0010**	**-.0049**	**1.682**	**.0003**	**.0064**	**.7993**
Stddev	.0008	.0001	.0001	.013	.0018	.0011	.0041
%RSD	34.01	7.345	2.572	.7897	569.5	16.71	.5154
#1	.0017	.0010	-.0049	1.673	-.0010	.0072	.7964
#2	.0028	.0011	-.0050	1.692	.0016	.0057	.8023

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162800.**	**21286.**	**7095.7**	**10779.**
Stddev	617.	83.	26.8	35.
%RSD	.37871	.38972	.37794	.32695
#1	162360.	21227.	7076.8	10754.
#2	163240.	21344.	7114.7	10803.

Zoom In Zoom Out

Sample Name: mp6400-sd1 Acquired: 3/31/2018 18:54:39 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2570**	**-.0007**	**-.0003**	**.0124**	**-.0006**	**.0143**	**6.822**	**.0135**	**-.0016**
Stddev	.0020	.0000	.0001	.0001	.0011	.0008	.006	.0002	.0007
%RSD	.7807	.8296	53.25	1.012	183.7	5.273	.0897	1.658	43.73
#1	.2584	-.0007	-.0002	.0123	.0002	.0137	6.817	.0133	-.0011
#2	.2556	-.0007	-.0004	.0125	-.0014	.0148	6.826	.0136	-.0021

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0060**	**.0092**	**.0202**	**-.0010**	**.0022**	**.0006**	**-.0042**	**.1316**	**61.49**
Stddev	.0023	.0003	.0012	.0015	.0015	.0012	.0010	.0006	.03
%RSD	38.87	3.702	6.034	146.4	70.61	218.6	23.99	.4296	.0432
#1	.0076	.0094	.0194	.0000	.0033	.0014	-.0035	.1320	61.51
#2	.0043	.0089	.0211	-.0020	.0011	-.0003	-.0049	.1312	61.47

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**9.145**	**31.88**	**4.021**	**87.86**	**.0415**	**.0039**	**8.948**	**.0021**	**.3223**
Stddev	.006	.06	.192	.38	.0013	.0020	.038	.0000	.0001
%RSD	.0653	.2032	4.772	.4280	3.224	50.64	.4243	.7123	.0216
#1	9.150	31.93	4.156	87.59	.0425	.0053	8.921	.0021	.3223
#2	9.141	31.84	3.885	88.12	.0406	.0025	8.975	.0021	.3222

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0011**	**.0032**	**-.0047**	**1.686**	**.0071**	**.0174**	**.8246**
Stddev	.0028	.0032	.0000	.017	.0015	.0003	.0055
%RSD	253.3	99.49	.4348	.9768	21.09	1.555	.6618
#1	-.0009	.0009	-.0047	1.675	.0060	.0176	.8207
#2	.0031	.0054	-.0047	1.698	.0081	.0172	.8284

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**165170.**	**21334.**	**7219.8**	**11245.**
Stddev	324.	73.	9.0	11.
%RSD	.19598	.34314	.12460	.09525
#1	164940.	21385.	7213.5	11237.
#2	165400.	21282.	7226.2	11252.

Zoom In Zoom Out

Sample Name: jc62779-1 Acquired: 3/31/2018 18:57:38 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0400**	**.0001**	**.0003**	**.0048**	**.0073**	**.0123**	**.2631**	**.0135**	**-.0003**
Stddev	.0006	.0001	.0000	.0000	.0002	.0002	.0015	.0003	.0003
%RSD	1.574	71.21	11.44	.9523	3.212	1.991	.5871	2.463	112.5
#1	.0404	.0001	.0003	.0048	.0075	.0121	.2620	.0137	-.0001
#2	.0395	.0000	.0003	.0048	.0072	.0125	.2642	.0133	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0095**	**.0281**	**.0024**	**-.0006**	**.0041**	**.0017**	**.0033**	**5.778**	**1.597**
Stddev	.0007	.0000	.0010	.0012	.0012	.0000	.0006	.007	.005
%RSD	7.305	.0475	42.14	197.7	28.36	1.854	17.19	.1163	.2862
#1	.0090	.0281	.0032	-.0014	.0049	.0017	.0037	5.774	1.594
#2	.0100	.0281	.0017	.0002	.0033	.0017	.0029	5.783	1.600

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.613**	**1.284**	**1.427**	**9.837**	**.0086**	**.0009**	**12.56**	**-.0005**	**.0127**
Stddev	.007	.020	.013	.019	.0006	.0004	.03	.0001	.0001
%RSD	.1067	1.581	.9176	.1920	7.059	44.07	.2440	14.60	1.008
#1	6.617	1.298	1.436	9.823	.0081	.0011	12.53	-.0005	.0127
#2	6.608	1.270	1.418	9.850	.0090	.0006	12.58	-.0004	.0128

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0758**	**-.0009**	**-.0048**	**.9083**	**.0038**	**.0068**	**.2254**
Stddev	.0005	.0014	.0008	.0037	.0007	.0039	.0008
%RSD	.6365	156.2	15.78	.4046	18.24	56.89	.3466
#1	.0761	-.0019	-.0043	.9057	.0034	.0095	.2249
#2	.0754	.0001	-.0054	.9109	.0043	.0041	.2260

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**168310.**	**21718.**	**7316.6**	**11351.**
Stddev	825.	108.	10.7	6.
%RSD	.49040	.49507	.14662	.05241
#1	168900.	21642.	7309.1	11346.
#2	167730.	21794.	7324.2	11355.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 19:00:36 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 3

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.991**	**1.963**	**1.880**	**1.968**	**1.935**	**1.916**	**1.941**	**2.023**	**.2367**
Stddev	.052	.050	.000	.002	.003	.000	.002	.003	.0002
%RSD	2.634	2.570	.0177	.1114	.1637	.0070	.1111	.1647	.0765
#1	2.029	1.999	1.880	1.966	1.933	1.916	1.940	2.021	.2368
#2	1.954	1.927	1.881	1.969	1.938	1.917	1.943	2.025	.2366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.873**	**1.934**	**1.908**	**2.033**	**2.007**	**1.931**	**1.896**	**39.63**	**40.87**
Stddev	.002	.001	.001	.004	.003	.008	.007	1.10	.98
%RSD	.1099	.0460	.0340	.2052	.1443	.3928	.3647	2.770	2.409
#1	1.871	1.934	1.907	2.030	2.005	1.926	1.891	40.41	41.56
#2	1.874	1.935	1.908	2.036	2.009	1.937	1.901	38.85	40.17
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.78**	**41.22**	**39.61**	**40.23**	**1.936**	**1.847**	**4.828**	**1.859**	**2.009**
Stddev	.98	.99	.91	.81	.004	.001	.013	.003	.046
%RSD	2.467	2.391	2.286	2.013	.2347	.0308	.2686	.1560	2.288
#1	40.48	41.92	40.25	40.80	1.933	1.848	4.819	1.857	2.041
#2	39.09	40.53	38.97	39.66	1.939	1.847	4.837	1.861	1.976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 19:00:36 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 3

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.972**	**1.905**	**1.880**	**1.855**	**1.994**	**1.920**	**1.847**
Stddev	.003	.001	.003	.000	.009	.045	.003
%RSD	.1668	.0621	.1671	.0123	.4625	2.359	.1686
#1	1.970	1.904	1.878	1.855	1.988	1.952	1.844
#2	1.974	1.906	1.882	1.855	2.001	1.888	1.849
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**159820.**	**20616.**	**7028.0**	**10771.**
Stddev	71.	532.	28.3	34.
%RSD	.04428	2.5817	.40289	.32006
#1	159770.	20239.	7008.0	10746.
#2	159870.	20992.	7048.0	10795.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 19:03:25 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**-.0000**	**-.0001**	**-.0002**	**.0001**	**-.0009**	**.0000**	**.0002**	**-.0004**
Stddev	.0001	.0000	.0000	.0001	.0006	.0001	.0000	.0003	.0001
%RSD	9.692	7.441	62.43	54.18	692.6	15.61	750.9	138.1	29.29
#1	.0009	-.0000	-.0001	-.0001	-.0004	-.0008	.0000	.0005	-.0003
#2	.0010	-.0000	-.0000	-.0003	.0005	-.0009	-.0000	.0000	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0020**	**.0010**	**.0009**	**-.0006**	**-.0004**	**-.0020**	**.0036**	**.0169**
Stddev	.0004	.0001	.0004	.0004	.0007	.0011	.0007	.0135	.0032
%RSD	209.1	3.029	38.46	45.55	119.2	258.2	35.74	372.1	18.79
#1	.0005	.0019	.0012	.0012	-.0001	-.0012	-.0015	-.0059	.0147
#2	-.0001	.0020	.0007	.0006	-.0011	.0004	-.0025	.0131	.0192
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**-.0035**	**.1304**	**.1656**	**.0016**	**.0002**	**-.0034**	**.0006**	**-.0002**
Stddev	.0038	.0146	.0074	.0058	.0004	.0002	.0000	.0004	.0000
%RSD	209.2	421.6	5.702	3.531	26.79	93.98	.2158	69.25	2.362
#1	-.0009	.0069	.1356	.1697	.0013	.0003	-.0034	.0008	-.0002
#2	.0045	-.0138	.1251	.1614	.0019	.0001	-.0034	.0003	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 19:03:25 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0004**	**.0002**	**.0025**	**.0025**	**.0007**	**.0101**
Stddev	.0005	.0010	.0001	.0004	.0005	.0036	.0004
%RSD	431.9	238.2	26.31	14.31	20.59	515.8	4.078
#1	-.0002	-.0011	.0002	.0027	.0029	-.0019	.0104
#2	.0004	.0003	.0003	.0022	.0021	.0033	.0098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**168670.**	**21374.**	**7061.5**	**11229.**
Stddev	1910.	67.	137.3	204.
%RSD	1.1323	.31273	1.9442	1.8139
#1	170020.	21327.	6964.4	11085.
#2	167320.	21421.	7158.6	11374.

Zoom In Zoom Out

Sample Name: jc62779-3 Acquired: 3/31/2018 19:06:25 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1030**	**-.0001**	**.0006**	**.0042**	**.0009**	**.0012**	**2.785**	**.0092**	**-.0005**
Stddev	.0009	.0000	.0002	.0004	.0001	.0002	.015	.0003	.0002
%RSD	.8274	.5699	27.17	8.676	8.910	13.71	.5444	3.279	33.30
#1	.1024	-.0001	.0007	.0040	.0010	.0011	2.774	.0090	-.0004
#2	.1036	-.0001	.0005	.0045	.0009	.0013	2.796	.0094	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0027**	**.0056**	**.0002**	**-.0009**	**-.0001**	**-.0011**	**-.0012**	**.1527**	**48.94**
Stddev	.0001	.0001	.0002	.0003	.0016	.0025	.0021	.0043	.22
%RSD	2.726	1.118	78.87	33.79	1188.	233.9	174.3	2.832	.4593
#1	.0028	.0056	.0004	-.0007	.0010	-.0029	.0003	.1497	48.78
#2	.0027	.0055	.0001	-.0011	-.0013	.0007	-.0027	.1558	49.09

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1583**	**23.01**	**2.052**	**88.39**	**.0174**	**.0003**	**8.623**	**-.0007**	**.1872**
Stddev	.0035	.11	.064	.45	.0005	.0001	.088	.0002	.0010
%RSD	2.197	.4587	3.124	.5068	3.112	38.09	1.016	26.15	.5487
#1	.1559	22.94	2.007	88.07	.0170	.0004	8.561	-.0009	.1865
#2	.1608	23.09	2.098	88.70	.0178	.0002	8.685	-.0006	.1880

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0021**	**.0002**	**-.0049**	**5.510**	**-.0005**	**.0053**	**.1764**
Stddev	.0003	.0007	.0000	.057	.0002	.0011	.0025
%RSD	13.84	359.5	.5796	1.041	38.37	20.09	1.407
#1	.0023	-.0003	-.0049	5.469	-.0007	.0060	.1746
#2	.0019	.0006	-.0049	5.550	-.0004	.0045	.1781

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159960.**	**20947.**	**6995.1**	**10771.**
Stddev	361.	.	9.7	20.
%RSD	.22562	.00060	.13877	.18529
#1	160220.	20946.	6988.2	10757.
#2	159710.	20947.	7001.9	10785.

Zoom In Zoom Out

Sample Name: jc62779-4 Acquired: 3/31/2018 19:09:28 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1960**	**-.0001**	**-.0000**	**.0051**	**.0043**	**.0059**	F **15.18**	**.0084**	**-.0010**
Stddev	.0083	.0001	.0000	.0002	.0001	.0002	.24	.0002	.0009
%RSD	4.237	66.08	51.78	4.278	2.628	2.636	1.609	2.040	87.68
#1	.1901	-.0002	-.0000	.0049	.0042	.0058	15.35	.0086	-.0017
#2	.2018	-.0001	-.0000	.0052	.0044	.0061	15.00	.0083	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0034**	**.0126**	**.0036**	**-.0018**	**.0017**	**-.0037**	**-.0008**	**2.171**	**88.20**
Stddev	.0000	.0001	.0016	.0005	.0015	.0008	.0005	.092	3.48
%RSD	.6407	.9946	46.18	25.29	90.41	21.95	62.73	4.257	3.946
#1	.0034	.0125	.0024	-.0021	.0006	-.0043	-.0005	2.105	85.74
#2	.0034	.0127	.0047	-.0015	.0028	-.0032	-.0012	2.236	90.66

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**2.471**	**25.00**	**2.161**	**89.70**	**.0175**	**.0016**	**12.10**	**-.0021**	**.2855**
Stddev	.101	1.03	.041	2.86	.0000	.0000	.01	.0006	.0111
%RSD	4.090	4.108	1.890	3.191	.0198	2.893	.0810	26.13	3.873
#1	2.399	24.27	2.132	87.68	.0175	.0016	12.11	-.0025	.2777
#2	2.542	25.73	2.190	91.72	.0175	.0016	12.09	-.0017	.2933

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0295**	**-.0011**	**-.0061**	**1.219**	**.0018**	**.0110**	**1.874**
Stddev	.0005	.0004	.0003	.005	.0001	.0027	.005
%RSD	1.544	40.58	4.665	.3824	8.277	24.89	.2498
#1	.0299	-.0008	-.0063	1.216	.0017	.0091	1.877
#2	.0292	-.0014	-.0059	1.223	.0019	.0129	1.871

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163040.**	**21412.**	**7078.8**	**10753.**
Stddev	42.	89.	16.9	24.
%RSD	.02596	.41630	.23901	.22404
#1	163070.	21349.	7066.9	10736.
#2	163010.	21475.	7090.8	10770.

Zoom In Zoom Out

Sample Name: jc62779-5 Acquired: 3/31/2018 19:12:31 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.678**	**-.0004**	**-.0010**	**.0825**	**.0037**	**.0164**	F **37.20**	**.0427**
Stddev	.012	.0001	.0001	.0005	.0007	.0001	.19	.0008
%RSD	.6925	21.29	14.81	.6254	18.70	.4932	.5101	1.810
#1	1.686	-.0004	-.0011	.0821	.0032	.0164	37.33	.0433
#2	1.670	-.0005	-.0009	.0828	.0042	.0165	37.06	.0422

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0029**	**-.0369**	**.0138**	**.0420**	F **-.0039**	**.0050**	**-.0021**	**.0024**
Stddev	.0000	.0003	.0001	.0005	.0012	.0017	.0004	.0024
%RSD	.7157	.7673	.3712	1.073	32.01	34.31	19.29	102.7
#1	-.0029	-.0371	.0138	.0416	-.0030	.0062	-.0023	.0007
#2	-.0029	-.0367	.0139	.0423	-.0048	.0038	-.0018	.0041

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.3362**	**144.1**	**99.29**	**75.05**	**4.155**	F **487.3**	**.0267**	**.0029**
Stddev	.0271	.1	.54	.29	.130	.0	.0003	.0001
%RSD	8.053	.0986	.5467	.3892	3.126	.0008	1.208	4.778
#1	.3553	144.0	99.67	75.26	4.063	487.3	.0269	.0028
#2	.3170	144.2	98.91	74.85	4.247	487.3	.0264	.0030

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**12.49**	**-.0029**	**.8951**	**.0044**	**-.0031**	**-.0073**	**1.499**	**.0058**
Stddev	.00	.0002	.0056	.0002	.0006	.0003	.001	.0010
%RSD	.0044	6.214	.6208	4.378	19.52	3.457	.0494	17.82
#1	12.49	-.0030	.8990	.0045	-.0027	-.0075	1.499	.0065
#2	12.49	-.0027	.8912	.0042	-.0035	-.0072	1.498	.0051

Elem	Li6707	P_1774
Avg	**.0159**	**1.813**
Stddev	.0001	.000
%RSD	.6426	.0102
#1	.0159	1.814
#2	.0158	1.813

Zoom In Zoom Out

Sample Name: jc62779-5 Acquired: 3/31/2018 19:12:31 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154150.**	**21207.**	**6762.8**	**10183.**
Stddev	63.	12.	12.3	17.
%RSD	.04067	.05547	.18217	.16923
#1	154200.	21198.	6754.1	10170.
#2	154110.	21215.	6771.5	10195.

Zoom In Zoom Out

Sample Name: jc62779-6 Acquired: 3/31/2018 19:15:43 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1191**	**-.0001**	**-.0000**	**.0021**	**.0039**	**.0024**	**.9581**	**.0066**	**.0000**
Stddev	.0002	.0000	.0000	.0001	.0007	.0002	.0067	.0000	.0004
%RSD	.1850	20.60	429.0	4.993	17.65	8.168	.6961	.2407	2090.
#1	.1190	-.0001	-.0000	.0020	.0044	.0023	.9628	.0065	.0003
#2	.1193	-.0001	.0000	.0022	.0034	.0025	.9534	.0066	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0029**	**.0091**	**.0001**	**-.0013**	**.0004**	**.0005**	**.0008**	**1.035**	**70.32**
Stddev	.0001	.0001	.0003	.0001	.0001	.0012	.0006	.004	.16
%RSD	2.625	.6978	213.7	8.074	31.52	215.0	71.68	.3843	.2265
#1	.0030	.0091	-.0001	-.0014	.0003	.0014	.0012	1.032	70.44
#2	.0029	.0091	.0003	-.0012	.0005	-.0003	.0004	1.037	70.21

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.733**	**31.43**	**4.628**	**57.17**	**.0448**	**.0007**	**9.834**	**-.0008**	**.2522**
Stddev	.007	.13	.047	.05	.0001	.0000	.028	.0004	.0002
%RSD	.4100	.4010	1.008	.0833	.1322	7.071	.2884	49.80	.0746
#1	1.738	31.51	4.661	57.21	.0448	.0007	9.814	-.0005	.2524
#2	1.728	31.34	4.595	57.14	.0449	.0006	9.854	-.0011	.2521

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0220**	**.0007**	**-.0049**	**1.370**	**.0035**	**.0073**	**.1981**
Stddev	.0001	.0009	.0001	.008	.0015	.0004	.0008
%RSD	.5148	139.8	2.477	.5545	41.14	5.197	.3940
#1	.0221	.0000	-.0048	1.365	.0025	.0076	.1986
#2	.0219	.0013	-.0050	1.376	.0046	.0070	.1975

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159710.**	**21172.**	**6965.2**	**10706.**
Stddev	970.	45.	64.5	68.
%RSD	.60730	.21440	.92584	.63967
#1	159020.	21140.	6919.6	10658.
#2	160390.	21204.	7010.8	10755.

Zoom In Zoom Out

Sample Name: jc62779-7 Acquired: 3/31/2018 19:18:42 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.1061**	**-.0001**	**.0001**	**.0026**	**.0040**	**.0023**	W **9.149**	**.0158**
Stddev	.0003	.0000	.0002	.0001	.0003	.0005	.049	.0002
%RSD	.3007	28.66	356.9	5.293	6.735	24.04	.5347	1.474
#1	.1058	-.0001	-.0001	.0025	.0038	.0027	9.114	.0160
#2	.1063	-.0002	.0002	.0027	.0042	.0019	9.183	.0157

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0007**	**.0043**	**.0107**	**-.0002**	**-.0014**	**.0015**	**-.0018**	**.0001**
Stddev	.0002	.0002	.0002	.0008	.0004	.0004	.0017	.0017
%RSD	23.74	5.007	1.409	517.3	27.74	27.73	92.60	1381.
#1	-.0009	.0041	.0108	-.0007	-.0011	.0012	-.0030	.0013
#2	-.0006	.0044	.0106	.0004	-.0017	.0018	-.0006	-.0011

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.6402**	**74.16**	**.6647**	**26.26**	**2.643**	**144.0**	**.0329**	**.0007**
Stddev	.0011	.19	.0021	.10	.003	.4	.0001	.0001
%RSD	.1721	.2561	.3183	.3970	.0950	.3046	.4396	8.072
#1	.6410	74.02	.6632	26.19	2.644	143.6	.0330	.0006
#2	.6394	74.29	.6662	26.33	2.641	144.3	.0328	.0007

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**12.56**	**-.0013**	**.2131**	**.0130**	**-.0007**	**-.0071**	**5.361**	**.0011**
Stddev	.02	.0001	.0007	.0000	.0011	.0000	.012	.0014
%RSD	.1791	4.717	.3380	.2549	153.4	.1421	.2306	128.7
#1	12.58	-.0012	.2126	.0131	-.0015	-.0071	5.370	.0021
#2	12.54	-.0013	.2136	.0130	.0001	-.0071	5.352	.0001

Elem	Li6707	P_1774
Avg	**.0098**	**1.095**
Stddev	.0010	.003
%RSD	9.900	.2845
#1	.0105	1.097
#2	.0091	1.092

Zoom In Zoom Out

Sample Name: jc62779-7 Acquired: 3/31/2018 19:18:42 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160150.**	**21298.**	**6983.7**	**10658.**
Stddev	680.	98.	89.2	118.
%RSD	.42482	.46132	1.2768	1.1106
#1	159670.	21367.	6920.6	10574.
#2	160640.	21228.	7046.7	10742.

Zoom In Zoom Out

Sample Name: jc62779-8 Acquired: 3/31/2018 19:21:44 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.3035**	**-.0001**	**.0001**	**.0012**	**.0030**	**.0024**	**4.607**	**.0060**	**-.0009**
Stddev	.0008	.0000	.0000	.0000	.0002	.0002	.015	.0001	.0000
%RSD	.2701	15.05	20.13	2.408	5.993	9.225	.3325	1.914	5.113
#1	.3040	-.0001	.0002	.0012	.0032	.0026	4.618	.0061	-.0009
#2	.3029	-.0001	.0001	.0011	.0029	.0023	4.596	.0059	-.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0039**	**.0085**	**.0013**	**-.0006**	**.0005**	**-.0025**	**.0000**	**.9249**	**58.12**
Stddev	.0002	.0000	.0012	.0017	.0017	.0016	.0022	.0063	.09
%RSD	5.710	.5744	85.61	292.8	305.5	63.21	12990.	.6759	.1473
#1	.0041	.0085	.0022	.0006	.0017	-.0014	.0016	.9293	58.18
#2	.0038	.0085	.0005	-.0018	-.0006	-.0036	-.0015	.9205	58.06

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.208**	**13.32**	**1.592**	**85.99**	**.0155**	**.0020**	**8.903**	**-.0004**	**.1744**
Stddev	.001	.04	.021	.01	.0003	.0003	.034	.0003	.0008
%RSD	.0990	.2828	1.347	.0087	1.618	13.60	.3866	77.68	.4369
#1	1.207	13.29	1.607	85.99	.0153	.0022	8.878	-.0002	.1749
#2	1.209	13.35	1.576	86.00	.0157	.0018	8.927	-.0007	.1739

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0167**	**-.0002**	**-.0042**	**8.967**	**.0006**	**.0104**	**.3114**
Stddev	.0002	.0005	.0002	.030	.0008	.0006	.0007
%RSD	1.271	227.7	4.832	.3356	136.6	5.298	.2394
#1	.0165	.0001	-.0043	8.946	.0000	.0100	.3109
#2	.0168	-.0006	-.0041	8.989	.0012	.0108	.3119

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161950.**	**21384.**	**7051.6**	**10859.**
Stddev	392.	45.	29.6	37.
%RSD	.24212	.20833	.41947	.33762
#1	161670.	21416.	7030.7	10833.
#2	162220.	21353.	7072.5	10885.

Zoom In Zoom Out

Sample Name: jc62779-9 Acquired: 3/31/2018 19:24:47 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2462**	**.0000**	**.0002**	**.0045**	**.0127**	**.0074**	F **12.37**	**.0120**	**-.0009**
Stddev	.0009	.0000	.0000	.0002	.0000	.0001	.09	.0003	.0006
%RSD	.3483	30.30	8.953	4.026	.3164	1.750	.7254	2.731	64.72
#1	.2456	.0000	.0002	.0044	.0127	.0075	12.30	.0117	-.0012
#2	.2468	.0000	.0002	.0047	.0128	.0073	12.43	.0122	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0098**	**.0208**	**.0020**	**-.0018**	**.0034**	**-.0020**	**.0007**	**4.202**	**76.51**
Stddev	.0001	.0000	.0004	.0002	.0003	.0005	.0019	.004	.32
%RSD	1.338	.0834	17.49	10.95	7.685	27.52	270.0	.0938	.4246
#1	.0099	.0208	.0023	-.0020	.0032	-.0024	-.0007	4.200	76.28
#2	.0097	.0208	.0018	-.0017	.0036	-.0016	.0021	4.205	76.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.586**	**18.36**	**2.679**	**58.55**	**.0126**	**.0075**	**13.90**	**-.0017**	**.2235**
Stddev	.023	.10	.054	.39	.0001	.0001	.05	.0004	.0008
%RSD	.3542	.5645	2.025	.6725	1.121	.7910	.3385	22.48	.3718
#1	6.570	18.29	2.640	58.27	.0125	.0075	13.87	-.0015	.2229
#2	6.603	18.44	2.717	58.83	.0127	.0076	13.94	-.0020	.2241

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0719**	**.0007**	**-.0059**	**1.998**	**.0036**	**.0153**	**.9794**
Stddev	.0004	.0015	.0002	.008	.0009	.0015	.0056
%RSD	.4929	237.6	3.989	.4145	24.34	9.947	.5714
#1	.0721	-.0004	-.0057	1.992	.0042	.0142	.9755
#2	.0716	.0017	-.0060	2.004	.0030	.0164	.9834

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**163990.**	**21552.**	**7137.5**	**10902.**
Stddev	275.	117.	38.4	57.
%RSD	.16774	.54242	.53791	.51873
#1	163800.	21635.	7110.3	10862.
#2	164190.	21469.	7164.6	10942.

Zoom In Zoom Out

Sample Name: jc62779-10 Acquired: 3/31/2018 19:27:48 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1212**	**-.0001**	**-.0001**	**.0020**	**.0038**	**.0029**	**.9853**	**.0066**	**-.0004**
Stddev	.0002	.0000	.0000	.0001	.0004	.0008	.0015	.0001	.0003
%RSD	.1894	48.64	9.856	7.443	10.65	27.92	.1551	1.856	81.78
#1	.1213	-.0001	-.0001	.0021	.0041	.0023	.9842	.0065	-.0002
#2	.1210	-.0001	-.0001	.0019	.0035	.0034	.9863	.0067	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0026**	**.0097**	**.0008**	**-.0016**	**.0006**	**-.0011**	**.0010**	**1.025**	**71.67**
Stddev	.0004	.0001	.0001	.0015	.0003	.0003	.0024	.028	.14
%RSD	14.31	1.336	15.02	91.61	51.28	28.80	238.0	2.728	.1902
#1	.0024	.0096	.0007	-.0027	.0004	-.0009	.0027	1.006	71.58
#2	.0029	.0098	.0009	-.0006	.0008	-.0013	-.0007	1.045	71.77

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.746**	**32.04**	**4.471**	**59.27**	**.0444**	**.0008**	**10.00**	**-.0011**	**.2578**
Stddev	.001	.00	.057	.34	.0002	.0001	.02	.0002	.0004
%RSD	.0642	.0072	1.271	.5700	.5599	8.140	.2434	21.74	.1717
#1	1.747	32.04	4.431	59.03	.0446	.0008	9.984	-.0009	.2575
#2	1.745	32.04	4.511	59.50	.0442	.0007	10.02	-.0013	.2581

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0200**	**.0016**	**-.0051**	**1.421**	**.0005**	**.0045**	**.2009**
Stddev	.0010	.0003	.0001	.001	.0028	.0016	.0001
%RSD	4.797	16.54	2.726	.1015	580.9	35.02	.0259
#1	.0194	.0014	-.0052	1.420	-.0015	.0056	.2008
#2	.0207	.0018	-.0050	1.422	.0025	.0034	.2009

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161910.**	**21471.**	**7022.9**	**10823.**
Stddev	386.	41.	15.2	21.
%RSD	.23820	.19190	.21669	.19557
#1	162180.	21500.	7012.1	10808.
#2	161640.	21442.	7033.6	10838.

Zoom In Zoom Out

Sample Name: jc62779-1f Acquired: 3/31/2018 19:30:46 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0409**	**.0001**	**.0002**	**.0056**	**.0067**	**.0110**	**.3001**	**.0134**	**-.0000**
Stddev	.0001	.0000	.0001	.0002	.0003	.0002	.0000	.0003	.0003
%RSD	.1836	23.34	27.14	3.980	4.219	1.831	.0005	2.177	693.1
#1	.0409	.0001	.0003	.0057	.0065	.0109	.3001	.0132	-.0003
#2	.0408	.0001	.0002	.0054	.0069	.0112	.3001	.0136	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0083**	**.0277**	**.0023**	**-.0003**	**.0042**	**.0006**	**-.0001**	**4.896**	**2.710**
Stddev	.0002	.0001	.0005	.0001	.0004	.0020	.0013	.025	.004
%RSD	2.130	.2895	21.92	29.80	8.543	338.7	1695.	.5072	.1484
#1	.0084	.0277	.0027	-.0002	.0045	-.0008	-.0010	4.878	2.713
#2	.0081	.0278	.0020	-.0003	.0040	.0020	.0008	4.913	2.707

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.152**	**1.781**	**1.540**	**19.48**	**.0116**	**.0006**	**15.91**	**-.0008**	**.0190**
Stddev	.018	.040	.012	.06	.0002	.0000	.06	.0004	.0001
%RSD	.2863	2.257	.7444	.3135	1.623	.8757	.3845	46.28	.3053
#1	6.165	1.810	1.532	19.44	.0114	.0006	15.86	-.0006	.0190
#2	6.140	1.753	1.548	19.53	.0117	.0005	15.95	-.0011	.0190

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0646**	**-.0015**	**-.0076**	**1.883**	**.0017**	**.0083**	**.2594**
Stddev	.0004	.0013	.0000	.004	.0027	.0015	.0021
%RSD	.6485	84.63	.3703	.2356	159.4	17.74	.8048
#1	.0649	-.0025	-.0076	1.880	.0036	.0072	.2579
#2	.0643	-.0006	-.0075	1.886	-.0002	.0093	.2609

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**167200.**	**21712.**	**7255.6**	**11316.**
Stddev	248.	173.	34.9	44.
%RSD	.14841	.79718	.48134	.39115
#1	167020.	21835.	7230.9	11284.
#2	167370.	21590.	7280.3	11347.

Zoom In Zoom Out

Sample Name: jc62779-2f Acquired: 3/31/2018 19:33:44 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2490**	**-.0001**	**.0002**	**.0127**	**.0009**	**.0022**	**6.565**	**.0111**	**-.0007**
Stddev	.0009	.0001	.0001	.0003	.0002	.0001	.011	.0003	.0002
%RSD	.3739	75.23	96.04	2.723	17.36	4.097	.1632	2.292	23.36
#1	.2497	-.0002	.0000	.0130	.0011	.0021	6.573	.0112	-.0006
#2	.2484	-.0000	.0003	.0125	.0008	.0022	6.558	.0109	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0039**	**.0055**	**.0184**	**-.0014**	**.0009**	**-.0013**	**.0008**	**.0074**	**61.01**
Stddev	.0002	.0001	.0007	.0003	.0007	.0011	.0018	.0047	.07
%RSD	5.307	1.528	3.606	20.44	81.52	82.66	228.2	63.29	.1182
#1	.0040	.0055	.0179	-.0016	.0004	-.0005	.0020	.0108	61.06
#2	.0037	.0056	.0188	-.0012	.0014	-.0020	-.0005	.0041	60.95

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**8.374**	**31.16**	**3.219**	**84.71**	**.0286**	**.0036**	**8.702**	**-.0012**	**.3178**
Stddev	.028	.01	.014	.13	.0006	.0001	.015	.0004	.0006
%RSD	.3348	.0265	.4199	.1489	2.017	2.293	.1692	29.39	.1830
#1	8.394	31.16	3.228	84.80	.0290	.0036	8.692	-.0014	.3182
#2	8.354	31.17	3.209	84.62	.0282	.0035	8.713	-.0009	.3174

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0002**	**-.0000**	**-.0050**	**1.625**	**.0008**	**.0080**	**.6298**
Stddev	.0001	.0008	.0001	.008	.0040	.0034	.0021
%RSD	44.75	1971.	2.689	.4762	509.1	42.44	.3395
#1	-.0003	.0005	-.0049	1.619	-.0020	.0103	.6283
#2	-.0002	-.0006	-.0051	1.630	.0036	.0056	.6313

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162630.**	**21643.**	**7076.3**	**10880.**
Stddev	143.	127.	33.1	50.
%RSD	.08811	.58795	.46740	.45755
#1	162530.	21553.	7052.9	10844.
#2	162730.	21733.	7099.7	10915.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 19:36:47 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 4

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.951**	**1.936**	**1.893**	**1.977**	**1.943**	**1.924**	**1.958**	**2.020**	**.2386**
Stddev	.003	.003	.005	.007	.008	.002	.003	.005	.0007
%RSD	.1419	.1618	.2617	.3479	.3912	.0969	.1750	.2401	.3060
#1	1.949	1.934	1.890	1.972	1.949	1.925	1.961	2.017	.2381
#2	1.953	1.938	1.897	1.981	1.938	1.922	1.956	2.024	.2391
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.893**	**1.947**	**1.916**	**2.031**	**2.008**	**1.937**	**1.908**	**38.84**	**39.91**
Stddev	.005	.006	.005	.007	.007	.006	.007	.05	.08
%RSD	.2618	.3277	.2705	.3708	.3333	.3112	.3459	.1190	.1967
#1	1.896	1.942	1.912	2.025	2.004	1.933	1.904	38.81	39.85
#2	1.889	1.952	1.920	2.036	2.013	1.942	1.913	38.87	39.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.15**	**40.33**	**38.82**	**39.53**	**1.945**	**1.868**	**4.856**	**1.882**	**1.973**
Stddev	.05	.00	.19	.11	.005	.007	.023	.005	.004
%RSD	.1231	.0016	.4983	.2721	.2510	.3672	.4752	.2614	.1945
#1	39.12	40.33	38.68	39.46	1.941	1.863	4.840	1.879	1.970
#2	39.18	40.33	38.96	39.61	1.948	1.873	4.872	1.886	1.976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 19:36:47 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 4

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.968**	**1.908**	**1.897**	**1.871**	**1.990**	**1.896**	**1.876**
Stddev	.008	.004	.005	.014	.000	.001	.006
%RSD	.4011	.2221	.2654	.7523	.0189	.0429	.3484
#1	1.974	1.905	1.901	1.861	1.990	1.897	1.871
#2	1.963	1.911	1.893	1.881	1.989	1.896	1.881
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**160070.**	**20962.**	**6978.7**	**10762.**
Stddev	858.	38.	13.6	19.
%RSD	.53592	.18115	.19541	.17538
#1	159460.	20935.	6969.1	10748.
#2	160680.	20989.	6988.4	10775.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 19:39:37 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0001**	**.0001**	**-.0002**	**.0003**	**-.0002**	**.0001**	**.0005**	**.0002**
Stddev	.0004	.0001	.0002	.0002	.0000	.0004	.0000	.0002	.0002
%RSD	35.66	225.5	250.8	70.95	1.451	170.0	14.80	32.16	100.6
#1	.0014	.0002	.0002	-.0001	.0003	-.0005	.0001	.0006	.0003
#2	.0008	-.0000	-.0001	-.0003	.0003	.0000	.0001	.0004	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0020**	**.0003**	**.0000**	**-.0003**	**-.0017**	**-.0000**	**.0012**	**.0142**
Stddev	.0000	.0001	.0002	.0011	.0003	.0000	.0005	.0068	.0061
%RSD	.1192	4.609	98.06	14960.	73.64	1.733	4077.	557.3	43.08
#1	-.0003	.0021	.0004	-.0008	-.0005	-.0017	-.0003	.0060	.0186
#2	-.0003	.0019	.0001	.0008	-.0002	-.0017	.0003	-.0036	.0099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**-.0074**	**.1091**	**.1514**	**-.0009**	**.0002**	**-.0027**	**.0004**	**-.0000**
Stddev	.0008	.0138	.0269	.0054	.0003	.0002	.0006	.0000	.0000
%RSD	91.61	186.3	24.64	3.560	32.15	121.3	21.71	.6828	172.4
#1	.0003	-.0171	.0901	.1476	-.0007	.0000	-.0023	.0004	.0000
#2	.0015	.0023	.1281	.1552	-.0012	.0003	-.0032	.0004	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 19:39:37 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0005**	**.0002**	**.0058**	**.0006**	**.0006**	**.0067**
Stddev	.0000	.0002	.0000	.0023	.0037	.0038	.0004
%RSD	1.190	37.66	7.616	38.56	656.7	648.7	6.591
#1	.0005	.0007	.0002	.0042	.0032	-.0021	.0064
#2	.0005	.0004	.0002	.0074	-.0020	.0033	.0070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**162270.**	**20917.**	**7019.7**	**11256.**
Stddev	1065.	20.	10.9	7.
%RSD	.65607	.09662	.15473	.06412
#1	161520.	20931.	7027.4	11261.
#2	163020.	20902.	7012.0	11250.

Zoom In Zoom Out

Sample Name: jc62779-3f Acquired: 3/31/2018 19:42:36 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1027**	**-.0001**	**.0008**	**.0039**	**.0005**	**.0007**	**2.670**	**.0090**	**-.0001**
Stddev	.0008	.0000	.0000	.0002	.0004	.0001	.007	.0002	.0001
%RSD	.7376	30.37	3.481	4.666	82.39	13.92	.2741	2.272	101.8
#1	.1032	-.0001	.0008	.0038	.0002	.0007	2.665	.0088	-.0001
#2	.1022	-.0001	.0009	.0041	.0008	.0008	2.675	.0091	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0023**	**.0050**	**.0002**	**-.0006**	**.0002**	**-.0027**	**.0001**	**.0058**	**49.43**
Stddev	.0000	.0002	.0000	.0011	.0006	.0013	.0004	.0134	.43
%RSD	2.159	4.696	12.74	179.6	280.8	49.09	351.5	229.5	.8728
#1	.0023	.0048	.0002	-.0013	-.0002	-.0037	.0004	-.0036	49.74
#2	.0024	.0052	.0002	.0002	.0006	-.0018	-.0002	.0153	49.13

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0293**	**23.30**	**2.034**	**89.71**	**.0160**	**.0002**	**8.406**	**-.0006**	**.1890**
Stddev	.0029	.15	.015	.71	.0003	.0004	.013	.0004	.0014
%RSD	9.919	.6479	.7186	.7888	1.793	200.0	.1489	75.59	.7588
#1	.0314	23.41	2.044	90.21	.0162	-.0001	8.397	-.0003	.1900
#2	.0272	23.19	2.023	89.21	.0158	.0004	8.414	-.0009	.1879

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0004**	**-.0011**	**-.0046**	**5.516**	**-.0004**	**.0046**	**.1697**
Stddev	.0005	.0012	.0003	.001	.0008	.0018	.0008
%RSD	106.8	104.0	7.152	.0232	199.9	38.67	.4463
#1	-.0008	-.0003	-.0048	5.515	-.0010	.0033	.1692
#2	-.0001	-.0019	-.0044	5.517	.0002	.0059	.1702

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162480.**	**21361.**	**7011.5**	**10871.**
Stddev	68.	233.	8.6	30.
%RSD	.04201	1.0920	.12321	.28000
#1	162530.	21197.	7005.4	10849.
#2	162430.	21526.	7017.7	10892.

Zoom In Zoom Out

Sample Name: jc62779-4f Acquired: 3/31/2018 19:45:41 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.1812**	**-.0002**	**-.0003**	**.0037**	**.0007**	**.0026**	F **14.45**	**.0054**
Stddev	.0003	.0001	.0000	.0001	.0002	.0001	.00	.0002
%RSD	.1542	49.79	15.33	3.780	33.04	2.171	.0048	2.918
#1	.1814	-.0001	-.0003	.0036	.0009	.0027	14.45	.0053
#2	.1810	-.0002	-.0003	.0038	.0006	.0026	14.45	.0056

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0008**	**.0027**	**.0073**	**.0022**	F **-.0020**	**.0018**	**-.0044**	**-.0015**
Stddev	.0002	.0001	.0000	.0000	.0008	.0012	.0011	.0031
%RSD	25.50	4.979	.0163	1.574	37.64	70.20	24.51	210.2
#1	-.0007	.0026	.0073	.0022	-.0015	.0009	-.0051	.0007
#2	-.0009	.0028	.0073	.0022	-.0026	.0027	-.0036	-.0037

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0083**	**86.76**	**.2636**	**24.51**	**1.724**	**88.50**	**.0154**	**.0015**
Stddev	.0009	.07	.0007	.01	.006	.15	.0005	.0002
%RSD	10.32	.0856	.2618	.0369	.3537	.1679	3.273	13.84
#1	.0089	86.81	.2641	24.52	1.729	88.61	.0158	.0016
#2	.0077	86.71	.2631	24.51	1.720	88.40	.0150	.0013

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**8.637**	**-.0010**	**.2820**	**-.0003**	**-.0010**	**-.0051**	**1.181**	**-.0002**
Stddev	.039	.0002	.0006	.0002	.0002	.0001	.008	.0032
%RSD	.4454	22.80	.2219	80.21	18.75	1.150	.6736	1849.
#1	8.609	-.0012	.2825	-.0001	-.0011	-.0051	1.176	.0021
#2	8.664	-.0008	.2816	-.0004	-.0009	-.0052	1.187	-.0024

Elem	Li6707	P_1774
Avg	**.0076**	**1.769**
Stddev	.0006	.005
%RSD	7.676	.2681
#1	.0080	1.766
#2	.0072	1.772

Zoom In Zoom Out

Sample Name: jc62779-4f Acquired: 3/31/2018 19:45:41 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161270.**	**21495.**	**6934.4**	**10684.**
Stddev	54.	135.	9.0	17.
%RSD	.03319	.62978	.12997	.16145
#1	161310.	21591.	6940.8	10696.
#2	161230.	21400.	6928.0	10671.

Zoom In Zoom Out

Sample Name: jc62779-5f Acquired: 3/31/2018 19:48:43 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.661**	**-.0003**	W **-.0011**	**.0826**	**.0034**	**.0048**	F **37.35**	**.0423**
Stddev	.000	.0000	.0002	.0004	.0004	.0001	.06	.0003
%RSD	.0136	.2596	14.52	.4412	12.37	2.628	.1526	.8171
#1	1.661	-.0003	-.0013	.0824	.0031	.0047	37.39	.0421
#2	1.660	-.0003	-.0010	.0829	.0036	.0049	37.31	.0426

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0023**	**-.0360**	**.0118**	**.0405**	F **-.0065**	**.0048**	**-.0024**	**.0009**
Stddev	.0005	.0005	.0002	.0004	.0018	.0011	.0007	.0003
%RSD	23.23	1.520	1.622	.8807	27.32	23.68	29.01	33.66
#1	-.0019	-.0356	.0117	.0407	-.0077	.0056	-.0029	.0007
#2	-.0027	-.0364	.0119	.0402	-.0052	.0040	-.0019	.0011

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**-.0040**	**143.8**	**97.93**	**74.19**	**4.067**	F **479.3**	**.0253**	**.0026**
Stddev	.0233	.7	.22	.06	.116	8.8	.0010	.0000
%RSD	579.3	.4813	.2240	.0816	2.843	1.829	4.042	1.676
#1	.0125	144.3	98.08	74.15	3.985	485.5	.0245	.0026
#2	-.0205	143.3	97.77	74.23	4.149	473.1	.0260	.0026

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**12.36**	**-.0030**	**.8828**	**-.0015**	**-.0025**	**-.0076**	**1.531**	**.0067**
Stddev	.05	.0005	.0000	.0008	.0005	.0002	.010	.0018
%RSD	.3934	15.82	.0003	49.49	18.95	2.699	.6685	26.31
#1	12.32	-.0033	.8828	-.0010	-.0022	-.0074	1.524	.0079
#2	12.39	-.0026	.8828	-.0021	-.0028	-.0077	1.539	.0054

Elem	Li6707	P_1774
Avg	**.0141**	**1.830**
Stddev	.0006	.008
%RSD	4.230	.4187
#1	.0145	1.824
#2	.0137	1.835

Zoom In Zoom Out

Sample Name: jc62779-5f Acquired: 3/31/2018 19:48:43 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**153580.**	**20978.**	**6691.2**	**10146.**
Stddev	205.	73.	15.1	21.
%RSD	.13335	.34753	.22587	.20555
#1	153440.	20927.	6680.5	10131.
#2	153730.	21030.	6701.9	10161.

Zoom In Zoom Out

Sample Name: jc62779-6f Acquired: 3/31/2018 19:51:56 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1140**	**-.0000**	**.0002**	**.0010**	**.0008**	**.0007**	**.9270**	**.0046**	**.0001**
Stddev	.0013	.0001	.0001	.0001	.0001	.0007	.0008	.0003	.0004
%RSD	1.179	122.2	81.39	14.04	7.085	105.6	.0911	6.021	309.3
#1	.1149	-.0000	.0001	.0011	.0008	.0011	.9276	.0048	.0004
#2	.1130	-.0001	.0003	.0009	.0008	.0002	.9264	.0044	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0012**	**.0064**	**.0013**	**-.0009**	**.0015**	**.0006**	**.0011**	**.0173**	**70.85**
Stddev	.0005	.0000	.0020	.0017	.0003	.0018	.0021	.0034	.77
%RSD	37.18	.2705	157.5	184.0	18.63	282.2	191.0	19.62	1.086
#1	.0015	.0064	.0027	.0003	.0017	-.0006	-.0004	.0149	71.40
#2	.0009	.0064	-.0001	-.0021	.0013	.0019	.0026	.0197	70.31

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0204**	**31.53**	**4.364**	**59.31**	**.0427**	**.0007**	**8.280**	**-.0009**	**.2538**
Stddev	.0003	.40	.018	.65	.0002	.0000	.017	.0003	.0030
%RSD	1.299	1.276	.4174	1.102	.4787	4.561	.1988	35.53	1.167
#1	.0206	31.81	4.377	59.77	.0429	.0007	8.268	-.0006	.2559
#2	.0202	31.24	4.351	58.84	.0426	.0007	8.292	-.0011	.2517

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**.0004**	**-.0049**	**1.420**	**.0004**	**.0073**	**.1550**
Stddev	.0002	.0014	.0000	.006	.0002	.0001	.0010
%RSD	55.17	378.3	.0264	.4341	44.68	1.313	.6681
#1	-.0004	.0014	-.0049	1.416	.0005	.0072	.1557
#2	-.0002	-.0006	-.0048	1.425	.0003	.0074	.1542

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161720.**	**21235.**	**6997.3**	**10823.**
Stddev	951.	240.	12.9	12.
%RSD	.58802	1.1313	.18410	.11264
#1	161040.	21065.	6988.1	10814.
#2	162390.	21404.	7006.4	10832.

Zoom In Zoom Out

Sample Name: jc62779-7f Acquired: 3/31/2018 19:54:54 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.1056**	**-.0002**	**.0000**	**.0019**	**.0014**	**.0025**	W **9.495**	**.0158**
Stddev	.0005	.0001	.0002	.0000	.0003	.0001	.023	.0001
%RSD	.4744	35.06	729.6	1.655	19.76	4.072	.2433	.7650
#1	.1060	-.0002	.0002	.0019	.0012	.0024	9.512	.0157
#2	.1053	-.0001	-.0001	.0020	.0016	.0025	9.479	.0159

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0009**	**.0032**	**.0104**	**-.0006**	**-.0009**	**.0007**	**-.0019**	**-.0001**
Stddev	.0001	.0000	.0001	.0007	.0005	.0004	.0025	.0019
%RSD	11.58	.5094	.5155	115.9	56.42	61.48	128.6	1767.
#1	-.0009	.0032	.0103	-.0001	-.0005	.0004	-.0002	-.0014
#2	-.0010	.0032	.0104	-.0012	-.0013	.0010	-.0037	.0012

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0002**	**76.26**	**-.0100**	**26.85**	**2.555**	**148.7**	**.0334**	**.0008**
Stddev	.0024	.33	.0009	.09	.019	.4	.0010	.0002
%RSD	1437.	.4309	9.341	.3526	.7310	.2766	2.994	28.70
#1	.0019	76.49	-.0093	26.92	2.542	149.0	.0327	.0010
#2	-.0016	76.03	-.0106	26.79	2.568	148.5	.0341	.0006

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**11.84**	**-.0011**	**.2195**	**-.0009**	**.0000**	**-.0070**	**5.559**	**.0002**
Stddev	.04	.0003	.0007	.0004	.0010	.0001	.024	.0009
%RSD	.3096	23.86	.3035	47.32	2876.	.7620	.4379	543.4
#1	11.81	-.0009	.2200	-.0012	-.0007	-.0070	5.542	-.0005
#2	11.87	-.0013	.2190	-.0006	.0008	-.0071	5.577	.0008

Elem	Li6707	P_1774
Avg	**.0068**	**1.143**
Stddev	.0002	.003
%RSD	2.354	.3008
#1	.0069	1.141
#2	.0067	1.146

Zoom In Zoom Out

Sample Name: jc62779-7f Acquired: 3/31/2018 19:54:54 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160540.**	**21364.**	**6970.7**	**10686.**
Stddev	226.	193.	43.1	64.
%RSD	.14081	.90199	.61786	.59552
#1	160380.	21228.	6940.2	10641.
#2	160700.	21500.	7001.1	10731.

Zoom In Zoom Out

Sample Name: jc62779-8f Acquired: 3/31/2018 19:57:57 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.3691**	**-.0000**	**.0001**	**.0011**	**.0010**	**.0014**	**5.041**	**.0051**	**-.0001**
Stddev	.0023	.0000	.0000	.0003	.0002	.0006	.030	.0002	.0000
%RSD	.6109	18.18	11.31	24.30	19.16	43.63	.5988	3.070	1.518
#1	.3706	-.0001	.0001	.0013	.0012	.0018	5.020	.0052	-.0001
#2	.3675	-.0000	.0001	.0009	.0009	.0010	5.063	.0050	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0028**	**.0059**	**.0015**	**-.0016**	**.0003**	**.0005**	**-.0016**	**.0650**	**63.90**
Stddev	.0004	.0001	.0019	.0002	.0008	.0020	.0005	.0082	.32
%RSD	12.78	.9728	125.6	12.34	247.8	437.0	29.90	12.66	.5062
#1	.0031	.0059	.0029	-.0018	-.0002	.0019	-.0019	.0592	64.13
#2	.0026	.0059	.0002	-.0015	.0008	-.0009	-.0013	.0708	63.67

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1471**	**13.96**	**1.494**	**91.43**	**.0152**	**.0025**	**7.602**	**-.0006**	**.1908**
Stddev	.0011	.03	.006	.07	.0005	.0000	.010	.0001	.0009
%RSD	.7340	.2479	.3730	.0816	3.387	1.142	.1330	20.94	.4753
#1	.1479	13.98	1.490	91.48	.0148	.0025	7.609	-.0007	.1914
#2	.1464	13.93	1.498	91.38	.0155	.0026	7.595	-.0005	.1901

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0007**	**.0010**	**-.0043**	**7.546**	**.0012**	**.0124**	**.3054**
Stddev	.0007	.0010	.0001	.005	.0011	.0031	.0009
%RSD	91.08	104.0	1.499	.0652	89.49	24.79	.2812
#1	.0003	.0017	-.0042	7.550	.0020	.0102	.3060
#2	.0012	.0003	-.0043	7.543	.0005	.0146	.3048

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161920.**	**21323.**	**7050.7**	**10887.**
Stddev	332.	143.	22.8	24.
%RSD	.20510	.67223	.32349	.22363
#1	162150.	21424.	7034.6	10870.
#2	161690.	21221.	7066.8	10904.

Zoom In Zoom Out

Sample Name: jc62779-9f Acquired: 3/31/2018 20:01:01 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.2213**	**-.0001**	**-.0003**	**.0024**	**.0011**	**.0013**	F **12.22**	**.0057**
Stddev	.0042	.0000	.0001	.0001	.0001	.0004	.11	.0001
%RSD	1.880	9.371	32.85	2.732	8.966	28.40	.9149	1.836
#1	.2183	-.0001	-.0002	.0024	.0011	.0011	12.15	.0057
#2	.2242	-.0001	-.0004	.0025	.0012	.0016	12.30	.0056

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0012**	**.0030**	**.0055**	**.0007**	F **-.0042**	**.0006**	**-.0035**	**-.0011**
Stddev	.0002	.0002	.0000	.0010	.0006	.0021	.0006	.0007
%RSD	15.19	7.075	.3489	133.9	14.23	353.8	16.00	62.37
#1	-.0010	.0029	.0055	.0000	-.0038	-.0009	-.0039	-.0016
#2	-.0013	.0032	.0055	.0014	-.0046	.0021	-.0031	-.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0146**	**80.66**	**.3923**	**18.68**	**1.844**	**62.16**	**.0112**	**.0074**
Stddev	.0106	1.32	.0058	.32	.078	1.02	.0009	.0001
%RSD	72.45	1.633	1.477	1.705	4.240	1.648	8.260	1.561
#1	.0221	79.73	.3882	18.46	1.789	61.43	.0105	.0075
#2	.0071	81.59	.3964	18.91	1.899	62.88	.0118	.0073

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**7.810**	**-.0008**	**.2325**	**.0004**	**-.0003**	**-.0042**	**1.963**	**.0018**
Stddev	.027	.0002	.0043	.0007	.0009	.0001	.010	.0042
%RSD	.3441	20.14	1.832	170.8	288.9	2.478	.5255	237.5
#1	7.829	-.0007	.2295	-.0001	.0003	-.0042	1.970	-.0012
#2	7.791	-.0009	.2355	.0008	-.0009	-.0043	1.956	.0047

Elem	Li6707	P_1774
Avg	**.0078**	**.8948**
Stddev	.0002	.0004
%RSD	2.200	.0426
#1	.0079	.8951
#2	.0077	.8946

Zoom In Zoom Out

Sample Name: jc62779-9f Acquired: 3/31/2018 20:01:01 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160230.**	**21328.**	**6945.4**	**10763.**
Stddev	1211.	7.	9.2	6.
%RSD	.75605	.03345	.13202	.05828
#1	161090.	21323.	6938.9	10758.
#2	159380.	21333.	6951.8	10767.

Zoom In Zoom Out

Sample Name: jc62779-10f Acquired: 3/31/2018 20:04:04 Type: Unk
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1115**	**-.0001**	**.0002**	**.0010**	**.0006**	**.0011**	**.9404**	**.0052**	**-.0000**
Stddev	.0013	.0000	.0000	.0000	.0002	.0002	.0044	.0004	.0003
%RSD	1.138	37.52	21.76	.8157	32.56	17.93	.4667	8.115	1171.
#1	.1124	-.0001	.0002	.0010	.0005	.0013	.9373	.0055	-.0002
#2	.1106	-.0001	.0001	.0011	.0008	.0010	.9435	.0049	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0009**	**.0061**	**.0009**	**-.0009**	**-.0008**	**.0008**	**.0008**	**.0087**	**69.87**
Stddev	.0003	.0000	.0012	.0003	.0009	.0004	.0016	.0022	.22
%RSD	32.82	.3285	132.0	32.52	106.5	55.21	201.5	25.03	.3143
#1	.0011	.0061	.0001	-.0007	-.0014	.0011	.0019	.0071	70.02
#2	.0007	.0061	.0017	-.0012	-.0002	.0005	-.0003	.0102	69.71

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0167**	**31.09**	**4.270**	**59.23**	**.0430**	**.0005**	**8.449**	**-.0007**	**.2505**
Stddev	.0034	.10	.011	.07	.0010	.0002	.012	.0005	.0006
%RSD	20.24	.3242	.2590	.1266	2.360	36.03	.1379	67.13	.2370
#1	.0143	31.16	4.278	59.29	.0423	.0004	8.457	-.0004	.2509
#2	.0191	31.02	4.262	59.18	.0438	.0006	8.441	-.0010	.2501

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0006**	**-.0017**	**-.0049**	**1.445**	**-.0002**	**.0018**	**.1598**
Stddev	.0000	.0003	.0003	.004	.0022	.0002	.0004
%RSD	.5529	15.34	6.369	.2845	1243.	9.063	.2381
#1	-.0006	-.0019	-.0046	1.448	-.0017	.0019	.1601
#2	-.0006	-.0015	-.0051	1.442	.0014	.0017	.1595

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161890.**	**21265.**	**6989.0**	**10819.**
Stddev	101.	175.	11.3	23.
%RSD	.06263	.82341	.16228	.21627
#1	161960.	21141.	6981.0	10802.
#2	161820.	21389.	6997.0	10836.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 20:07:03 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 5

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.939**	**1.929**	**1.880**	**1.962**	**1.927**	**1.902**	**1.943**	**2.003**	**.2366**
Stddev	.013	.013	.005	.004	.007	.004	.002	.005	.0007
%RSD	.6681	.6822	.2837	.2262	.3454	.1929	.0925	.2621	.2789
#1	1.948	1.938	1.876	1.959	1.932	1.904	1.945	2.000	.2361
#2	1.930	1.920	1.884	1.965	1.923	1.899	1.942	2.007	.2370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.881**	**1.927**	**1.896**	**2.015**	**1.986**	**1.917**	**1.891**	**38.65**	**39.60**
Stddev	.004	.004	.005	.007	.006	.011	.004	.23	.20
%RSD	.1902	.1923	.2764	.3335	.3296	.5700	.2169	.6046	.5073
#1	1.883	1.925	1.893	2.011	1.982	1.910	1.888	38.81	39.74
#2	1.878	1.930	1.900	2.020	1.991	1.925	1.894	38.48	39.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.92**	**39.98**	**38.43**	**39.12**	**1.924**	**1.858**	**4.816**	**1.870**	**1.960**
Stddev	.23	.17	.13	.05	.006	.003	.013	.001	.009
%RSD	.5955	.4129	.3343	.1231	.3119	.1331	.2701	.0471	.4535
#1	39.09	40.10	38.53	39.16	1.920	1.856	4.806	1.869	1.967
#2	38.76	39.87	38.34	39.09	1.928	1.860	4.825	1.871	1.954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 20:07:03 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 5

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.948**	**1.888**	**1.884**	**1.857**	**1.971**	**1.887**	**1.862**
Stddev	.008	.000	.005	.005	.005	.015	.005
%RSD	.4052	.0116	.2420	.2779	.2492	.7853	.2787
#1	1.954	1.887	1.887	1.854	1.968	1.898	1.858
#2	1.942	1.888	1.881	1.861	1.975	1.877	1.865
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**160780.**	**21180.**	**7021.8**	**10835.**
Stddev	135.	21.	16.1	18.
%RSD	.08407	.09890	.22959	.16933
#1	160680.	21194.	7010.4	10822.
#2	160870.	21165.	7033.2	10848.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 20:09:52 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0001**	**-.0001**	**.0000**	**-.0002**	**-.0010**	**.0001**	**.0002**	**.0003**
Stddev	.0002	.0000	.0000	.0003	.0000	.0003	.0000	.0001	.0005
%RSD	26.20	38.32	27.65	3475.	1.336	33.38	.1029	35.34	148.0
#1	.0007	-.0001	-.0001	.0002	-.0002	-.0007	.0001	.0003	.0006
#2	.0010	-.0001	-.0001	-.0002	-.0002	-.0012	.0001	.0002	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0020**	**-.0005**	**.0009**	**-.0007**	**-.0013**	**.0006**	**.0015**	**.0136**
Stddev	.0006	.0001	.0003	.0002	.0004	.0004	.0010	.0029	.0000
%RSD	312.9	3.913	60.37	17.76	53.94	28.23	148.9	192.1	.3326
#1	.0002	.0019	-.0007	.0010	-.0004	-.0016	-.0000	-.0005	.0136
#2	-.0006	.0021	-.0003	.0008	-.0009	-.0011	.0013	.0035	.0137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**-.0081**	**.0364**	**.1384**	**-.0011**	**.0004**	**-.0038**	**.0004**	**-.0002**
Stddev	.0004	.0101	.0340	.0128	.0002	.0001	.0002	.0000	.0001
%RSD	67.81	123.8	93.55	9.246	21.89	26.08	6.608	3.714	30.73
#1	-.0008	-.0010	.0604	.1475	-.0010	.0004	-.0039	.0005	-.0001
#2	-.0003	-.0153	.0123	.1294	-.0013	.0003	-.0036	.0004	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 20:09:52 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0010**	**.0002**	**.0062**	**.0025**	**.0004**	**.0069**
Stddev	.0001	.0013	.0000	.0002	.0010	.0026	.0000
%RSD	30.74	133.9	25.30	2.640	40.42	630.3	.3926
#1	.0003	.0019	.0002	.0063	.0033	.0022	.0069
#2	.0005	.0001	.0001	.0061	.0018	-.0014	.0069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**166520.**	**21651.**	**7196.9**	**11491.**
Stddev	121.	22.	3.7	12.
%RSD	.07272	.10071	.05103	.10839
#1	166610.	21636.	7194.3	11482.
#2	166430.	21667.	7199.5	11499.

Zoom In Zoom Out

Sample Name: cri Acquired: 3/31/2018 20:12:53 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1894**	**.0018**	**.0029**	**.0489**	**.0094**	**.0088**	**.0150**	**.0100**
Stddev	.0009	.0001	.0001	.0000	.0002	.0003	.0000	.0002
%RSD	.4927	3.764	2.956	.0395	2.486	3.664	.0862	1.774
#1	.1900	.0018	.0029	.0489	.0096	.0086	.0150	.0101
#2	.1887	.0019	.0030	.0489	.0093	.0091	.0150	.0099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.0040**	**.0470**	**.0198**	**.0082**	**.0094**	**.0030**	**.0083**	W **.0046**
Stddev	.0007	.0006	.0001	.0004	.0004	.0014	.0008	.0017
%RSD	18.36	1.318	.5702	4.376	4.368	47.28	9.737	36.24
#1	.0045	.0474	.0199	.0080	.0097	.0020	.0077	.0034
#2	.0034	.0466	.0198	.0085	.0091	.0039	.0088	.0058
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn
Value	.0050							.0060
Range	-20.00%							-20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1921**	**4.947**	**.0941**	**5.042**	**4.787**	**5.026**	**.0928**	**.0190**
Stddev	.0068	.026	.0001	.011	.016	.003	.0005	.0004
%RSD	3.561	.5302	.0647	.2082	.3415	.0673	.4904	2.006
#1	.1970	4.966	.0940	5.050	4.775	5.029	.0932	.0187
#2	.1873	4.928	.0941	5.035	4.798	5.024	.0925	.0192
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: cri Acquired: 3/31/2018 20:12:53 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1633**	**.0100**	**.0093**	**.0099**	**.0475**	**.0100**	**.0479**	**.0206**
Stddev	.0016	.0003	.0000	.0000	.0011	.0002	.0002	.0002
%RSD	.9780	3.211	.1358	.0098	2.387	1.986	.3140	.8970
#1	.1644	.0103	.0093	.0099	.0467	.0098	.0478	.0207
#2	.1621	.0098	.0093	.0099	.0483	.0101	.0480	.0205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0486**	**.0534**
Stddev	.0021	.0004
%RSD	4.261	.8360
#1	.0501	.0531
#2	.0472	.0537
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**165010.**	**21340.**	**7143.1**	**11316.**
Stddev	238.	121.	23.3	48.
%RSD	.14432	.56823	.32589	.42569
#1	165180.	21254.	7126.6	11282.
#2	164840.	21426.	7159.6	11351.

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 20:15:51 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**.0010**	**.0011**	**.0032**	**.0023**	F **-.0004**	**.0031**	**.0042**
Stddev	.0007	.0000	.0001	.0002	.0001	.0003	.0000	.0001
%RSD	13.50	4.132	9.769	4.999	3.160	81.25	1.508	3.495
#1	.0044	.0010	.0010	.0033	.0023	-.0002	.0031	.0041
#2	.0053	.0010	.0011	.0030	.0022	-.0007	.0032	.0043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0003**	**.0022**	**.0111**	**.0037**	**.0018**	F **-.0009**	**.0042**	F **.0011**
Stddev	.0003	.0000	.0000	.0006	.0008	.0007	.0021	.0009
%RSD	111.5	1.424	.1643	16.76	43.22	84.13	48.63	83.24
#1	.0001	.0022	.0111	.0033	.0012	-.0014	.0028	.0017
#2	.0005	.0022	.0111	.0041	.0023	-.0004	.0057	.0005
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-30.00%					-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1225**	**1.068**	**.0016**	**.0712**	**2.120**	**1.166**	**-.0029**	**.0002**
Stddev	.0100	.008	.0039	.0108	.062	.001	.0002	.0002
%RSD	8.200	.7693	246.4	15.11	2.941	.0703	7.717	135.8
#1	.1154	1.062	.0043	.0636	2.164	1.167	-.0027	.0000
#2	.1296	1.073	-.0012	.0788	2.076	1.165	-.0030	.0003
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: crid Acquired: 3/31/2018 20:15:51 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0008**	**-.0002**	**-.0001**	**.0006**	**-.0001**	**-.0000**	**.0035**
Stddev	.0003	.0004	.0000	.0002	.0004	.0001	.0021	.0011
%RSD	30.39	44.53	30.47	150.3	74.15	202.7	61170.	31.77
#1	.0009	.0006	-.0001	-.0003	.0009	-.0002	-.0015	.0043
#2	.0014	.0011	-.0002	.0000	.0003	.0000	.0014	.0027
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**-.0023**	**.0072**
Stddev	.0009	.0001
%RSD	38.87	1.865
#1	-.0017	.0073
#2	-.0029	.0071
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**164460.**	**21115.**	**7080.3**	**11310.**
Stddev	711.	78.	11.2	24.
%RSD	.43255	.36910	.15830	.21419
#1	163960.	21060.	7072.3	11293.
#2	164970.	21170.	7088.2	11327.

Zoom In Zoom Out

Sample Name: icsa Acquired: 3/31/2018 20:18:50 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**.0000**	**.0006**	**-.0005**	**.0009**	**.0019**	**-.0002**	**-.0014**	**-.0011**
Stddev	.0003	.0000	.0001	.0000	.0001	.0005	.0001	.0006	.0003
%RSD	13.76	396.2	17.26	8.632	6.227	26.21	47.60	43.36	26.40
#1	.0024	-.0000	.0006	-.0005	.0008	.0015	-.0002	-.0010	-.0009
#2	.0020	.0000	.0007	-.0006	.0009	.0022	-.0001	-.0018	-.0013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0029**	**.0034**	**-.0030**	**.0047**	**.0061**	**.0030**	**512.4**	**387.5**
Stddev	.0001	.0001	.0001	.0002	.0007	.0011	.0026	5.4	6.5
%RSD	19.29	3.716	2.916	7.781	15.70	17.58	85.31	1.055	1.688
#1	-.0005	.0029	.0035	-.0029	.0042	.0069	.0048	508.6	382.9
#2	-.0007	.0028	.0033	-.0032	.0052	.0054	.0012	516.2	392.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**189.2**	**509.0**	**.2300**	**.1858**	**-.0047**	**.0012**	**-.0108**	**-.0048**	**-.0025**
Stddev	.3	1.1	.0165	.0008	.0008	.0004	.0001	.0003	.0004
%RSD	.1661	.2204	7.164	.4374	17.92	35.46	.7008	6.336	16.68
#1	189.0	508.2	.2416	.1863	-.0053	.0009	-.0107	-.0050	-.0022
#2	189.5	509.8	.2183	.1852	-.0041	.0015	-.0108	-.0046	-.0028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icsa Acquired: 3/31/2018 20:18:50 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0023**	**-.0005**	**-.0007**	**-.0013**	**.0131**	**-.0049**	**.0141**
Stddev	.0003	.0021	.0000	.0038	.0003	.0010	.0001
%RSD	14.78	379.4	7.390	301.9	1.986	20.80	.6280
#1	-.0025	.0009	-.0006	.0014	.0129	-.0056	.0140
#2	-.0021	-.0020	-.0007	-.0039	.0132	-.0041	.0142
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148190.**	**20294.**	**6488.8**	**9849.8**
Stddev	1051.	28.	12.1	4.4
%RSD	.70903	.13935	.18690	.04443
#1	147440.	20314.	6480.2	9846.7
#2	148930.	20274.	6497.4	9852.9

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/31/2018 20:21:53 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4905**	**.4735**	**.9821**	**.4916**	**.4837**	**.5038**	**.4978**	**.9866**	**.9916**
Stddev	.0090	.0083	.0027	.0013	.0010	.0024	.0001	.0017	.0011
%RSD	1.830	1.749	.2737	.2659	.2059	.4767	.0280	.1690	.1145
#1	.4841	.4676	.9840	.4925	.4844	.5021	.4977	.9878	.9908
#2	.4968	.4793	.9802	.4907	.4830	.5055	.4979	.9854	.9925
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4847**	**.9417**	**1.000**	**1.094**	**.9787**	**.9761**	**1.021**	**488.6**	**378.4**
Stddev	.0009	.0043	.004	.001	.0012	.0033	.001	7.6	1.0
%RSD	.1922	.4608	.3505	.0648	.1210	.3340	.1169	1.551	.2700
#1	.4853	.9448	1.003	1.095	.9779	.9738	1.022	494.0	377.7
#2	.4840	.9386	.9979	1.094	.9796	.9784	1.020	483.3	379.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**182.8**	**494.8**	**.2222**	**.1759**	**.4930**	**.4677**	**.5059**	**.4481**	**.5213**
Stddev	3.6	9.1	.0481	.0158	.0006	.0017	.0003	.0017	.0094
%RSD	1.946	1.846	21.64	8.958	.1158	.3716	.0632	.3749	1.804
#1	180.3	488.3	.1882	.1871	.4934	.4690	.5061	.4493	.5146
#2	185.3	501.2	.2562	.1648	.4926	.4665	.5056	.4469	.5279
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/31/2018 20:21:53 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5007**	**.4755**	**.4929**	**.4710**	**.5524**	**.4922**	**.4983**
Stddev	.0008	.0023	.0000	.0018	.0023	.0093	.0007
%RSD	.1683	.4856	.0096	.3772	.4126	1.881	.1362
#1	.5013	.4772	.4929	.4697	.5508	.4856	.4988
#2	.5001	.4739	.4930	.4723	.5540	.4987	.4979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148510.**	**20552.**	**6542.8**	**9961.3**
Stddev	327.	6.	5.4	2.9
%RSD	.21996	.02972	.08237	.02879
#1	148280.	20557.	6539.0	9963.4
#2	148740.	20548.	6546.6	9959.3

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 20:24:54 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 1

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.920**	**1.910**	**1.878**	**1.958**	**1.922**	**1.903**	**1.937**	**1.999**	**.2366**
Stddev	.003	.001	.004	.003	.005	.007	.005	.003	.0004
%RSD	.1628	.0663	.2314	.1492	.2790	.3777	.2767	.1615	.1629
#1	1.918	1.909	1.875	1.956	1.918	1.898	1.933	1.996	.2364
#2	1.923	1.911	1.881	1.960	1.926	1.908	1.941	2.001	.2369
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.874**	**1.924**	**1.899**	**2.017**	**1.985**	**1.916**	**1.890**	**38.28**	**39.24**
Stddev	.004	.005	.005	.004	.003	.005	.006	.03	.01
%RSD	.2191	.2797	.2442	.1911	.1456	.2730	.3454	.0866	.0130
#1	1.871	1.921	1.896	2.014	1.983	1.912	1.885	38.25	39.23
#2	1.877	1.928	1.902	2.019	1.987	1.920	1.894	38.30	39.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.55**	**39.60**	**38.12**	**38.85**	**1.925**	**1.854**	**4.812**	**1.867**	**1.942**
Stddev	.00	.06	.14	.02	.007	.005	.011	.003	.002
%RSD	.0011	.1434	.3558	.0503	.3779	.2966	.2351	.1607	.0880
#1	38.55	39.64	38.03	38.83	1.920	1.850	4.804	1.865	1.940
#2	38.55	39.56	38.22	38.86	1.930	1.858	4.820	1.869	1.943
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/31/2018 20:24:54 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 1

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.946**	**1.887**	**1.881**	**1.858**	**1.965**	**1.865**	**1.862**
Stddev	.007	.004	.004	.007	.005	.002	.005
%RSD	.3593	.2269	.2397	.3823	.2356	.0908	.2800
#1	1.941	1.884	1.878	1.853	1.961	1.863	1.858
#2	1.951	1.890	1.884	1.864	1.968	1.866	1.866
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**160820.**	**21257.**	**7006.6**	**10815.**
Stddev	524.	8.	9.2	11.
%RSD	.32592	.03902	.13100	.09874
#1	161200.	21263.	7013.1	10822.
#2	160450.	21252.	7000.1	10807.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 20:27:43 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**-.0002**	**-.0000**	**-.0000**	**.0002**	**-.0001**	**-.0000**	**.0002**	**-.0000**
Stddev	.0001	.0001	.0000	.0002	.0000	.0006	.0000	.0000	.0002
%RSD	4.219	47.17	47.41	1487.	1.757	838.2	128.0	4.101	373.2
#1	.0013	-.0001	-.0000	-.0002	.0002	.0004	-.0000	.0002	-.0001
#2	.0014	-.0002	-.0000	.0002	.0002	-.0005	-.0000	.0002	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0004**	**-.0002**	**.0011**	**-.0000**	**-.0010**	**-.0003**	**.0119**	**-.0005**
Stddev	.0003	.0001	.0005	.0008	.0002	.0018	.0018	.0031	.0039
%RSD	122.3	14.18	247.4	71.94	411.8	175.0	721.6	25.97	849.4
#1	-.0000	.0003	-.0006	.0016	.0001	.0002	.0010	.0140	.0023
#2	-.0005	.0004	.0002	.0005	-.0002	-.0023	-.0016	.0097	-.0032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0014**	**.0023**	**.0821**	**.0945**	**.0003**	**.0002**	**-.0026**	**.0001**	**.0001**
Stddev	.0024	.0030	.0186	.0049	.0009	.0001	.0003	.0002	.0000
%RSD	169.1	133.5	22.63	5.158	304.9	43.81	10.64	147.0	43.86
#1	.0003	.0044	.0952	.0911	.0010	.0003	-.0024	.0003	.0001
#2	-.0031	.0001	.0689	.0980	-.0004	.0002	-.0028	-.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/31/2018 20:27:43 Type: QC
Method: Accutest XPress(v95) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0011**	**.0001**	**.0042**	**.0003**	**.0015**	**.0069**
Stddev	.0006	.0014	.0001	.0013	.0014	.0011	.0005
%RSD	402.7	133.2	144.1	30.22	472.2	73.90	7.656
#1	.0003	.0021	-.0000	.0051	-.0007	.0007	.0066
#2	-.0006	.0001	.0001	.0033	.0012	.0023	.0073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**166800.**	**21585.**	**7225.8**	**11536.**
Stddev	114.	157.	26.0	40.
%RSD	.06808	.72595	.35972	.34450
#1	166880.	21474.	7207.4	11508.
#2	166720.	21696.	7244.1	11564.

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	1	Zr	0.001380	0.000000	No
Be 313.042 {108}	☒	6	V	0.000593	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000415	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
Cd 228.802 {448}	☒	11	As	0.019630	0.000000	No
			Ni	-0.000511	0.000000	No
			Fe	0.000002	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.001890	0.000000	No
			Sr	-0.000020	0.000000	No
			Mn	0.000050	0.000000	No
			Cu	-0.000026	0.000000	No
			Zn	0.000000	0.000000	No
			W	-0.001000	0.000000	No
Co 228.616 {448}	☒	7	Fe	0.000024	0.000000	No
			Mo	-0.001050	0.000000	No
			Ni	0.000256	0.000000	No
			Ti	0.002036	0.000000	No
			Ba	0.000329	0.000000	No
			W	-0.001840	0.000000	No
			Cd	-0.000510	0.000000	No
Cr 267.716 {126}	☒	8	Mn	0.000495	0.000000	No
			V	-0.000027	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000013	0.000000	No
			Ti	0.000060	0.000000	No
			Ba	0.000045	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
Cu 324.754 {104}2	☒	13	Cr	0.000100	0.000000	No
			V	-0.000428	0.000000	No
			Mo	0.000672	0.000000	No
			Ti	-0.000185	0.000000	No
			Fe	-0.000231	0.000000	No
			Zn	-0.000004	0.000000	No
			Co	-0.001420	0.000000	No
			Si	0.000028	0.000000	No
			Mn	-0.000102	0.000000	No
			Se	0.000050	0.000000	No
			Sb	-0.000130	0.000000	No
			W	0.000000	0.000000	No
			Al	-0.000001	0.000000	No
Mn 257.610 {131}	☒	4	Fe	-0.000077	0.000000	No
			Si	0.000050	0.000000	No
			Ba	0.000100	0.000000	No
			Ni	0.000028	0.000000	No
Ni 231.604 {446}	☒	8	Fe	0.000035	0.000000	No
			Zn	0.000079	0.000000	No
			Be	0.000213	0.000000	No
			Co	-0.000125	0.000000	No
			Tl	0.000209	0.000000	No
			Mo	0.000026	0.000000	No
			Cu	0.000050	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Se	0.000100	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000249	0.000000	No
			Mo	-0.000015	-0.000003	No
			Ti	-0.000417	0.000000	No
			Fe	-0.000182	0.000000	No
			Zn	-0.000104	0.000000	No
			Ca	0.000002	0.000000	No
			Zr	0.007638	0.000000	No
			Sr	-0.000020	0.000000	No
			Mg	0.000001	0.000000	No
			Ba	-0.000000	0.000000	No
			Cr	0.000039	0.000000	No
			V	-0.005234	0.000000	No
			Al	-0.000003	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	☒	6	Ti	0.000689	0.000000	No
			Mo	-0.000100	0.000000	No
			Fe	0.000014	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.008057	0.000000	No
			Mn	-0.001937	0.000000	No
Zn 206.200 {464}	☒	9	Cr	-0.000850	0.000000	No
			Fe	0.000021	0.000000	No
			Si	-0.000035	0.000000	No
			Mn	-0.000045	0.000000	No
			Ba	-0.000060	0.000000	No
			Sn	0.000255	0.000000	No
			Cu	0.001248	0.000000	No
			As	0.000055	0.000000	No
			Be	0.000364	0.000000	No
As 189.042 {478}	☒	17	Al	-0.000003	0.000000	No
			Fe	-0.000018	0.000000	No
			Ca	0.000005	0.000000	No
			Mo	0.004257	0.000000	No
			Cr	0.003320	0.000000	No
			Ba	0.000083	0.000000	No
			Sn	-0.000037	0.000000	No
			Cd	-0.000328	0.000000	No
			Si	0.000031	0.000000	No
			Zn	0.000020	0.000000	No
			Sr	-0.000045	0.000000	No
			W	0.000000	0.000000	No
			Cu	0.000143	0.000000	No
			Co	-0.001066	0.000000	No
			Zr	0.000036	0.000000	No
			Mn	-0.000095	0.000000	No
			S	0.000004	0.000000	No
Tl 190.856 {477}	☒	24	Cr	0.000303	0.000000	No
			Mo	-0.005110	0.000000	No
			Al	-0.000002	0.000000	No
			Fe	-0.000024	0.000000	No
			V	-0.000180	0.000000	No
			Mn	0.000300	0.000000	No
			Si	0.000010	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.000520	0.000000	No
			Mg	-0.000002	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Co	0.001822	0.000000	No
				Sr	0.000610	0.000000	No
				B	0.000205	0.000000	No
				Ba	0.000100	0.000000	No
				Zn	-0.000023	0.000000	No
				As	0.000101	0.000000	No
				W	0.000000	0.000000	No
				Cu	-0.000010	0.000000	No
				Zr	0.000056	0.000000	No
				Pb	-0.000020	0.000000	No
				S	0.000010	0.000000	No
				Sn	-0.000086	0.000000	No
				Li	0.000000	0.000000	No
				K	0.000000	0.000000	No
	Pb 220.353 {453}	☒	20	Al	-0.000166	0.000000	No
				Fe	0.000022	0.000000	No
				Ca	0.000002	0.000000	No
				Mn	0.000008	0.000000	No
				Mo	-0.001550	0.000000	No
				Cu	0.000711	0.000000	No
				Co	0.000110	0.000000	No
				Ti	0.000039	0.000000	No
				Si	0.000207	0.000000	No
				Ba	0.000020	0.000000	No
				Sb	-0.000200	0.000000	No
				Sr	-0.000033	0.000000	No
				W	0.000000	0.000000	No
				Mg	-0.000000	0.000000	No
				Cd	0.000012	0.000000	No
				Cr	-0.000037	0.000000	No
				Zr	-0.000280	0.000000	No
				Ni	0.000270	0.000000	No
				S	0.000008	0.000000	No
				Zn	-0.000050	0.000000	No
	Se 196.090 {472}	☒	22	Al	-0.000004	0.000000	No
				Ca	0.000002	0.000000	No
				Mn	0.000824	0.000000	No
				Mo	0.000381	0.000000	No
				Fe	-0.000302	0.000000	No
				Co	0.000159	0.000000	No
				Sr	-0.000011	0.000000	No
				Cu	0.000059	0.000000	No
				W	0.000000	0.000000	No
				Si	-0.000053	0.000000	No
				Be	-0.000143	0.000000	No
				Zn	0.000050	0.000000	No
				B	-0.000097	0.000000	No
				Ti	0.000045	0.000000	No
				Cd	0.000090	0.000000	No
				Zr	-0.000300	0.000000	No
				Ba	-0.000045	0.000000	No
				Mg	-0.000001	0.000000	No
				Pb	-0.000011	0.000000	No
				Ni	-0.000100	0.000000	No
				Cr	-0.000024	0.000000	No
				S	-0.000009	0.000000	No
	Sb 206.833 {463}	☒	16	Fe	0.000023	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Al	-0.000006	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000600	0.000000	No
			Cr	0.022410	0.000000	No
			V	-0.001774	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	-0.012880	0.000000	No
			Ti	-0.000872	0.000000	No
			Sn	-0.007300	0.000000	No
			Mg	-0.000001	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	0.000050	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000652	0.000000	No
			Ca	0.000101	0.000000	No
			Mo	0.034800	0.000000	No
			Zr	-0.005018	0.000000	No
			Ti	0.000419	0.000000	No
Ca 317.933 {106}	☒	14	Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004950	0.000000	No
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	0.003280	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
			As	0.010000	0.000000	No
Fe 259.940 {130}	☒	10	Si	0.000819	0.000000	No
			Tl	-0.002602	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	0.000778	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.000953	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	3	Mo	-0.020250	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.005360	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.015570	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Ba	-0.002700	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.010000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	☒	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.037400	0.000000	No
Mo 202.030 {467}	☒	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	☒	12	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.031055	0.000000	No
			V	0.030619	0.000000	No
			Ti	0.003744	0.000000	No
			Al	0.000014	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	0.003000	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	☒	4	Ti	-0.002900	0.000000	No
			Fe	0.000018	0.000000	No
			Si	0.000131	0.000000	No
			Zr	-0.000500	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000043	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000189	0.000000	No
			Mo	0.001070	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	20	Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.009921	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	-0.002570	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	-0.001000	0.000000	No
			Ni	-0.003000	0.000000	No
			Be	-0.001000	0.000000	No
			Se	-0.002600	0.000000	No
			Cu	-0.001300	0.000000	No
			Tl	-0.002600	0.000000	No
Zr 339.198 { 99}	☒	6	Mo	0.001069	0.000000	No
			Ti	0.000400	0.000000	No
			Fe	-0.000055	0.000000	No
			Si	0.000615	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				S	-0.000030	0.000000	No
				Cr	-0.000700	0.000000	No
	S 182.034 {485}	☒	7	Mo	-0.005000	0.000000	No
				Al	-0.000087	0.000000	No
				Fe	0.000143	0.000000	No
				Mn	0.005000	0.000000	No
				W	-0.045000	0.000000	No
				Ca	0.000015	0.000000	No
				Mg	0.000009	0.000000	No
	Bi 223.061 {451}	☒	6	Ti	-0.140123	0.000000	No
				V	-0.000680	0.000000	No
				Co	-0.003770	0.000000	No
				Ca	-0.000015	0.000000	No
				Mg	-0.000014	0.000000	No
				Fe	0.000190	0.000000	No
	Li 670.784 { 50}	☒	2	Ca	0.000038	0.000000	No
				Fe	0.000040	0.000000	No
	P 177.495 {490}	☒	1	Mn	-0.005212	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000780	1.181528	0.000000	1.000000
Be 313.042 {108}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000198	2.222538	0.000000	1.000000
Cd 228.802 {448}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000226	0.947963	0.000000	1.000000
Co 228.616 {448}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000312	0.569852	0.000000	1.000000
Cr 267.716 {126}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000119	0.109890	0.000000	1.000000
Cu 324.754 {104}2	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.004052	0.189471	0.000000	1.000000
Mn 257.610 {131}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000036	0.677400	0.000000	1.000000
Ni 231.604 {446}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000046	0.422508	0.000000	1.000000
Ag 328.068 {103}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000278	0.122862	0.000000	1.000000
V 292.402 {115}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000193	0.177763	0.000000	1.000000
Zn 206.200 {464}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000145	1.316236	0.000000	1.000000
As 189.042 {478}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000110	0.104680	0.000000	1.000000
Tl 190.856 {477}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000266	0.071484	0.000000	1.000000
Pb 220.353 {453}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000179	0.183462	0.000000	1.000000
Se 196.090 {472}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000023	0.075128	0.000000	1.000000
Sb 206.833 {463}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000213	0.126776	0.000000	1.000000
Al 396.152 { 85}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000972	0.030975	0.000000	1.000000
Ca 317.933 {106}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.008247	0.064241	0.000000	1.000000
Fe 259.940 {130}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000080	0.046260	0.000000	1.000000
Mg 279.079 {121}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000134	0.007218	0.000000	1.000000
K 766.490 { 44}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.001861	0.014923	0.000000	1.000000
Na 589.592 { 57}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.005938	0.060248	0.000000	1.000000
B 208.959 {462}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000946	0.197986	0.000000	1.000000
Mo 202.030 {467}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000727	0.748372	0.000000	1.000000
Si 212.412 {459}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.003030	0.170659	0.000000	1.000000
Sn 189.989 {478}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000039	0.239049	0.000000	1.000000
Sr 407.771 { 83}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000509	2.360718	0.000000	1.000000
Ti 334.904 {101}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000094	0.105827	0.000000	1.000000
Y 360.073 { 94}*	4/1/2018 8:37:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	4/1/2018 8:37:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	4/1/2018 8:37:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	4/1/2018 8:37:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000134	0.291296	0.000000	1.000000
Zr 339.198 { 99}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.000710	0.408776	0.000000	1.000000
S 182.034 {485}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.003115	0.060765	0.000000	1.000000
Bi 223.061 {451}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	0.000250	0.140386	0.000000	1.000000
Li 670.784 { 50}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	None	-0.006672	0.381214	0.000000	1.000000
P 177.495 {490}	4/1/2018 8:37:08	3/31/2018 13:38:04	Linear	1/Conc	-0.009628	0.145225	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ba 455.403 { 74}	1.000000	0.000000	0.000530	0.001766	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000105	0.000349	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000273	0.000909	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000330	0.001100	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000463	0.001543	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000623	0.002078	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000069	0.000230	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000510	0.001699	OK.	1.000000	0.000000	1	0
	Ag 328.068 {103}	1.000000	0.000000	0.000635	0.002118	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000497	0.001658	OK.	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000164	0.000547	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.001577	0.005256	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.001519	0.005065	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.001639	0.005463	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.003021	0.010070	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.002216	0.007386	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.016356	0.054521	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.004547	0.015155	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.003265	0.010882	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.026717	0.089056	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.063557	0.211856	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.015762	0.052539	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.001010	0.003367	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000331	0.001104	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.001637	0.005455	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000702	0.002340	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000181	0.000602	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000615	0.002050	OK.	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	W 207.911 {462}	1.000000	0.000000	0.001660	0.005533	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000245	0.000818	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.002892	0.009642	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.002655	0.008852	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.002585	0.008615	OK.	1.000000	0.000000	1	0
	P 177.495 {490}	1.000000	0.000000	0.001263	0.004209	OK.	1.000000	0.000000	1	0

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 4/3/2018 13:15:57 Type: Cal
Method: Accutest 2(v140) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0010**	**-.0004**	**.0001**	**.0001**	**-.0000**	**.0025**	**.0000**	**-.0001**	**.0000**
Stddev	.0003	.0000	.0001	.0000	.0000	.0000	.0000	.0001	.0000
%RSD	31.35	4.999	69.10	33.69	103.0	1.723	53.53	112.0	143.9
#1	.0008	-.0004	.0002	.0001	-.0000	.0025	.0000	-.0001	.0001
#2	.0012	-.0004	.0001	.0002	-.0000	.0024	.0000	-.0000	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0002**	**-.0002**	**-.0001**	**-.0003**	**.0005**	**.0001**	**-.0019**	**.0044**
Stddev	.0000	.0000	.0002	.0000	.0002	.0001	.0003	.0000	.0000
%RSD	78.00	29.28	133.5	19.42	54.67	13.82	240.7	.1674	.2496
#1	.0000	.0001	-.0000	-.0000	-.0004	.0005	-.0001	-.0019	.0044
#2	.0000	.0002	-.0003	-.0001	-.0002	.0004	.0004	-.0020	.0044

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0001**	**.0006**	**-.0023**	**.0005**	**.0001**	**.0044**	**-.0001**	**-.0001**
Stddev	.0000	.0001	.0000	.0002	.0000	.0000	.0000	.0000	.0002
%RSD	32.62	63.66	6.098	7.097	2.536	10.16	.2291	57.75	461.5
#1	.0000	.0001	.0007	-.0024	.0005	.0001	.0044	-.0000	.0001
#2	.0001	.0000	.0006	-.0022	.0005	.0001	.0044	-.0001	-.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0013**	**-.0003**	**-.0006**	**-.0006**	**.0014**	**-.0122**
Stddev	.0000	.0004	.0000	.0002	.0001	.0004	.0000
%RSD	287.4	32.38	17.94	25.24	20.78	29.59	.1523
#1	.0000	.0016	-.0003	-.0005	-.0006	.0016	-.0123
#2	-.0000	.0010	-.0002	-.0007	-.0007	.0011	-.0122

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 4/3/2018 13:15:57 Type: Cal
Method: Accutest 2(v140) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**106060.**	**16200.**	**3881.6**	**9168.9**
Stddev	75.	83.	2.7	3.1
%RSD	.07058	.51014	.06918	.03366
#1	106110.	16258.	3883.5	9171.0
#2	106010.	16141.	3879.7	9166.7

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 4/3/2018 13:20:16 Type: Cal
Method: Accutest 2(v140) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.656**	**5.848**	**3.634**	**1.893**	**.2479**	**.6560**	**1.327**	**1.337**	**.0452**
Stddev	.008	.011	.010	.004	.0001	.0009	.001	.002	.0001
%RSD	.1017	.1899	.2659	.2047	.0476	.1445	.0742	.1480	.2115
#1	7.661	5.855	3.641	1.896	.2480	.6566	1.328	1.339	.0451
#2	7.650	5.840	3.628	1.890	.2478	.6553	1.326	1.336	.0453

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3766**	**4.870**	**.5299**	**.2038**	**.5966**	**.3811**	**.7419**	**2.676**	**3.843**
Stddev	.0004	.021	.0007	.0003	.0002	.0011	.0006	.004	.017
%RSD	.0964	.4308	.1347	.1661	.0409	.2822	.0806	.1528	.4361
#1	.3769	4.885	.5304	.2040	.5967	.3819	.7423	2.679	3.855
#2	.3764	4.855	.5294	.2035	.5964	.3803	.7414	2.673	3.831

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.661**	**.2997**	**2.604**	**7.029**	**.8809**	**3.513**	**2.426**	**.8391**	**14.00**
Stddev	.004	.0007	.005	.024	.0011	.009	.002	.0025	.16
%RSD	.2218	.2281	.2081	.3348	.1270	.2516	.0838	.2928	1.164
#1	1.664	.3001	2.608	7.046	.8816	3.519	2.427	.8408	13.88
#2	1.659	.2992	2.601	7.012	.8801	3.506	2.424	.8374	14.11

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4659**	**1.720**	**1.129**	**.2226**	**.8668**	**2.553**	**.4951**
Stddev	.0002	.005	.002	.0003	.0012	.005	.0015
%RSD	.0387	.3087	.1916	.1198	.1403	.1955	.3054
#1	.4660	1.724	1.130	.2228	.8676	2.557	.4962
#2	.4658	1.716	1.127	.2224	.8659	2.550	.4941

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 4/3/2018 13:20:16 Type: Cal
Method: Accutest 2(v140) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**99447.**	**15974.**	**3656.7**	**7970.9**
Stddev	50.	12.	10.8	15.6
%RSD	.05054	.07408	.29515	.19538
#1	99411.	15966.	3649.1	7959.8
#2	99482.	15982.	3664.3	7981.9

Zoom In Zoom Out

Sample Name: ccvconf Acquired: 4/3/2018 13:24:21 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986**	**1.999**	**1.994**	**1.976**	**2.019**	**1.946**	**2.027**	**1.999**	**.2464**
Stddev	.005	.002	.004	.001	.004	.000	.002	.001	.0009
%RSD	.2724	.0947	.1925	.0641	.1857	.0002	.0864	.0503	.3522
#1	1.982	2.000	1.997	1.977	2.017	1.946	2.028	2.000	.2458
#2	1.990	1.997	1.992	1.975	2.022	1.946	2.026	1.999	.2470
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.996**	**2.022**	**1.979**	**2.040**	**2.011**	**1.979**	**1.997**	**39.22**	**39.90**
Stddev	.001	.000	.002	.003	.005	.005	.002	.07	.09
%RSD	.0430	.0148	.1127	.1565	.2659	.2456	.0917	.1672	.2139
#1	1.995	2.023	1.977	2.042	2.015	1.983	1.998	39.26	39.96
#2	1.996	2.022	1.980	2.038	2.007	1.976	1.996	39.17	39.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.09**	**39.46**	**39.16**	**39.53**	**2.008**	**2.018**	**4.973**	**2.046**	**1.970**
Stddev	.02	.18	.04	.04	.004	.002	.007	.001	.001
%RSD	.0571	.4578	.1021	.1083	.1941	.0931	.1444	.0590	.0670
#1	40.11	39.58	39.19	39.50	2.005	2.019	4.978	2.045	1.970
#2	40.08	39.33	39.14	39.56	2.011	2.016	4.968	2.046	1.969
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccvconf Acquired: 4/3/2018 13:24:21 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.001**	**1.997**	**1.987**	**1.961**	**2.005**	**1.980**	**1.984**
Stddev	.000	.002	.001	.009	.003	.001	.002
%RSD	.0157	.0959	.0378	.4742	.1663	.0605	.0838
#1	2.001	1.996	1.988	1.954	2.008	1.980	1.985
#2	2.002	1.998	1.986	1.968	2.003	1.981	1.982
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**101660.**	**16230.**	**3755.8**	**8301.4**
Stddev	30.	85.	3.6	9.1
%RSD	.02991	.52132	.09585	.10948
#1	101640.	16170.	3753.3	8295.0
#2	101680.	16290.	3758.3	8307.8

Zoom In Zoom Out

Sample Name: ccbconf Acquired: 4/3/2018 13:28:25 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0002**	**.0002**	**.0001**	**-.0001**	**.0001**	**-.0001**	**.0001**
Stddev	.0002	.0000	.0001	.0000	.0001	.0003	.0001	.0001	.0007
%RSD	223.6	59.08	50.99	14.89	42.76	305.8	71.77	152.5	793.0
#1	.0003	.0000	.0003	.0002	.0002	-.0003	.0000	-.0001	-.0004
#2	-.0001	.0000	.0001	.0002	.0001	.0001	.0001	.0000	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**-.0005**	**.0008**	**.0001**	**-.0001**	**.0002**	**.0125**	**-.0022**
Stddev	.0001	.0001	.0003	.0002	.0000	.0016	.0002	.0009	.0005
%RSD	61.94	54.52	57.83	28.18	27.76	1712.	115.2	7.071	23.48
#1	.0002	.0003	-.0007	.0009	.0001	-.0012	.0000	.0131	-.0018
#2	.0001	.0001	-.0003	.0006	.0002	.0010	.0003	.0118	-.0026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**-.0190**	**.0201**	**.0163**	**.0010**	**.0008**	**.0008**	**.0007**	**.0001**
Stddev	.0007	.0181	.0103	.0030	.0001	.0000	.0012	.0006	.0001
%RSD	45.90	95.10	51.41	18.20	7.126	2.391	151.2	82.86	107.3
#1	.0021	-.0318	.0128	.0184	.0010	.0008	-.0001	.0003	.0001
#2	.0011	-.0062	.0274	.0142	.0009	.0008	.0017	.0011	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccbconf Acquired: 4/3/2018 13:28:25 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0006**	**.0003**	**.0005**	**.0009**	**.0022**	**.0002**
Stddev	.0003	.0002	.0000	.0014	.0001	.0008	.0024
%RSD	95.99	32.20	15.47	297.8	12.69	35.75	1499.
#1	-.0005	.0005	.0002	-.0005	.0010	.0016	-.0015
#2	-.0001	.0007	.0003	.0015	.0008	.0027	.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107250.**	**16354.**	**3900.1**	**9211.1**
Stddev	109.	15.	.9	.4
%RSD	.10170	.09468	.02294	.00413
#1	107330.	16365.	3900.7	9210.8
#2	107180.	16343.	3899.5	9211.4

Zoom In Zoom Out

Sample Name: icv Acquired: 4/3/2018 13:36:26 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.979**	**1.996**	**1.981**	**1.969**	**2.006**	**1.936**	**2.016**	**1.993**	**.2454**
Stddev	.004	.007	.002	.002	.001	.002	.001	.001	.0005
%RSD	.2027	.3377	.1018	.0918	.0544	.0760	.0628	.0584	.2169
#1	1.980	1.995	1.983	1.968	2.007	1.936	2.016	1.992	.2460
#2	1.982	2.003	1.980	1.971	2.007	1.938	2.015	1.994	.2453
#3	1.974	1.989	1.980	1.969	2.005	1.935	2.018	1.994	.2449
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986**	**2.014**	**1.963**	**2.027**	**2.008**	**1.967**	**1.977**	**39.26**	**39.79**
Stddev	.002	.003	.004	.001	.001	.003	.002	.03	.07
%RSD	.1220	.1563	.2206	.0651	.0451	.1722	.1098	.0872	.1681
#1	1.988	2.014	1.967	2.027	2.007	1.964	1.979	39.25	39.74
#2	1.986	2.011	1.959	2.026	2.008	1.971	1.975	39.30	39.86
#3	1.984	2.017	1.962	2.028	2.009	1.967	1.976	39.23	39.75
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.05**	**39.62**	**39.24**	**39.44**	**1.988**	**2.010**	**4.936**	**2.027**	**1.974**
Stddev	.13	.13	.03	.05	.001	.001	.007	.003	.004
%RSD	.3202	.3380	.0745	.1166	.0675	.0474	.1357	.1392	.1878
#1	40.07	39.55	39.20	39.44	1.987	2.009	4.942	2.029	1.974
#2	40.17	39.77	39.25	39.48	1.989	2.011	4.929	2.024	1.978
#3	39.92	39.53	39.25	39.39	1.987	2.009	4.937	2.029	1.971
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: icv Acquired: 4/3/2018 13:36:26 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.992**	**1.988**	**1.980**	**1.951**	**1.995**	**1.969**	**1.971**
Stddev	.001	.004	.001	.003	.003	.002	.004
%RSD	.0671	.1857	.0634	.1280	.1351	.1036	.1768
#1	1.994	1.991	1.980	1.952	1.997	1.970	1.968
#2	1.991	1.984	1.982	1.952	1.995	1.970	1.975
#3	1.992	1.988	1.979	1.948	1.992	1.967	1.970
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102160.**	**16132.**	**3770.0**	**8312.7**
Stddev	73.	23.	3.9	11.5
%RSD	.07189	.14236	.10394	.13776
#1	102130.	16149.	3766.2	8313.4
#2	102240.	16106.	3769.8	8300.9
#3	102100.	16141.	3774.1	8323.8

Zoom In Zoom Out

Sample Name: icb Acquired: 4/3/2018 13:46:22 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**.0003**	**-.0002**	**-.0002**	**.0004**	**.0001**	**.0006**	**-.0003**
Stddev	.0002	.0000	.0001	.0000	.0002	.0007	.0000	.0001	.0002
%RSD	304.1	209.9	24.99	19.75	88.99	171.8	40.08	24.68	73.98
#1	.0001	-.0000	.0003	-.0002	-.0001	-.0001	.0001	.0005	-.0004
#2	-.0002	.0001	.0004	-.0002	-.0003	.0009	.0001	.0007	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0003**	**-.0003**	**.0005**	**.0005**	**.0007**	**.0151**	**.0014**
Stddev	.0001	.0000	.0002	.0004	.0002	.0012	.0002	.0068	.0004
%RSD	44.32	38.84	94.33	125.2	41.21	220.1	23.40	45.19	31.14
#1	.0003	.0001	.0001	-.0000	.0004	-.0003	.0008	.0103	.0011
#2	.0001	.0001	.0004	-.0006	.0007	.0013	.0006	.0199	.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**-.0116**	**.0474**	**-.0060**	**.0008**	**.0004**	**.0012**	**.0003**	**.0001**
Stddev	.0013	.0176	.0061	.0015	.0011	.0000	.0001	.0000	.0000
%RSD	72.81	151.6	12.82	25.03	138.0	7.661	11.01	16.13	23.15
#1	.0008	.0008	.0431	-.0070	.0016	.0004	.0013	.0002	.0001
#2	.0026	-.0240	.0517	-.0049	.0000	.0003	.0011	.0003	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icb Acquired: 4/3/2018 13:46:22 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0002**	**.0003**	**-.0019**	**.0015**	**.0022**	**-.0017**
Stddev	.0001	.0001	.0001	.0001	.0010	.0012	.0002
%RSD	324.2	94.35	23.93	2.841	69.70	51.69	11.49
#1	-.0001	.0001	.0004	-.0019	.0008	.0014	-.0018
#2	.0001	.0003	.0003	-.0019	.0022	.0030	-.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107060.**	**16412.**	**3909.0**	**9245.3**
Stddev	193.	6.	5.0	18.8
%RSD	.18037	.03561	.12746	.20288
#1	106930.	16416.	3912.5	9258.6
#2	107200.	16408.	3905.4	9232.1

Zoom In Zoom Out

Sample Name: iccv Acquired: 4/3/2018 13:50:00 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.966**	**1.982**	**1.976**	**1.959**	**1.989**	**1.928**	**2.008**	**1.984**	**.2435**
Stddev	.004	.004	.003	.001	.003	.003	.001	.002	.0007
%RSD	.2206	.2153	.1344	.0641	.1692	.1356	.0646	.0887	.2804
#1	1.970	1.983	1.978	1.961	1.986	1.928	2.008	1.986	.2440
#2	1.962	1.981	1.973	1.959	1.992	1.925	2.009	1.982	.2440
#3	1.970	1.986	1.975	1.958	1.987	1.928	2.006	1.983	.2426
#4	1.963	1.976	1.978	1.959	1.992	1.931	2.008	1.984	.2432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.968**	**2.008**	**1.959**	**2.015**	**2.000**	**1.960**	**1.973**	**38.85**	**39.54**
Stddev	.003	.004	.005	.004	.004	.002	.003	.06	.07
%RSD	.1672	.1885	.2417	.2205	.1971	.0805	.1382	.1455	.1766
#1	1.965	2.011	1.965	2.019	2.000	1.961	1.973	38.78	39.57
#2	1.971	2.004	1.954	2.018	1.995	1.958	1.969	38.86	39.60
#3	1.965	2.004	1.958	2.013	2.005	1.961	1.976	38.91	39.53
#4	1.971	2.010	1.959	2.009	2.000	1.961	1.972	38.84	39.44
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: iccv Acquired: 4/3/2018 13:50:00 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.74**	**39.27**	**38.87**	**39.19**	**1.982**	**2.003**	**4.917**	**2.022**	**1.955**
Stddev	.14	.13	.10	.05	.003	.003	.003	.004	.007
%RSD	.3443	.3259	.2661	.1151	.1653	.1526	.0654	.2024	.3390
#1	39.75	39.18	38.78	39.22	1.985	2.005	4.921	2.027	1.951
#2	39.72	39.33	38.92	39.17	1.978	2.000	4.913	2.018	1.949
#3	39.90	39.43	39.00	39.23	1.985	2.000	4.916	2.019	1.964
#4	39.57	39.16	38.80	39.13	1.981	2.006	4.917	2.023	1.954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.982**	**1.978**	**1.970**	**1.944**	**1.986**	**1.956**	**1.961**
Stddev	.003	.004	.003	.008	.004	.001	.004
%RSD	.1666	.1930	.1318	.4132	.2248	.0683	.1820
#1	1.985	1.984	1.973	1.941	1.987	1.958	1.963
#2	1.984	1.975	1.970	1.936	1.980	1.955	1.956
#3	1.977	1.977	1.968	1.947	1.987	1.955	1.960
#4	1.982	1.978	1.967	1.954	1.990	1.956	1.964
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Zoom In Zoom Out

Sample Name: iccv Acquired: 4/3/2018 13:50:00 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102480.**	**16171.**	**3771.4**	**8322.7**
Stddev	64.	93.	6.6	12.3
%RSD	.06289	.57517	.17469	.14825
#1	102580.	16226.	3769.7	8318.5
#2	102460.	16132.	3780.9	8341.1
#3	102430.	16060.	3769.2	8317.0
#4	102470.	16266.	3765.8	8314.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 13:58:23 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	F **.0002**	**.0002**	**.0000**	**.0001**	**-.0003**	**.0001**	**-.0001**	**-.0000**
Stddev	.0002	.0000	.0002	.0002	.0004	.0003	.0000	.0002	.0006
%RSD	188.0	4.451	85.52	368.5	290.4	74.87	30.62	193.3	3845.
#1	-.0003	.0002	.0004	-.0001	-.0001	-.0005	.0001	.0000	.0004
#2	.0000	.0002	.0001	.0002	.0004	-.0002	.0001	-.0003	-.0005
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0001**	**.0001**	**-.0001**	**.0004**	**-.0017**	**.0014**	**.0126**	**.0008**
Stddev	.0001	.0002	.0005	.0009	.0005	.0016	.0007	.0038	.0012
%RSD	292.0	173.6	322.0	622.3	124.1	90.27	54.75	30.35	157.0
#1	-.0001	.0003	.0005	-.0008	.0007	-.0029	.0019	.0153	-.0001
#2	.0000	-.0000	-.0002	.0005	.0000	-.0006	.0008	.0099	.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024**	**-.0116**	**.0635**	**.0060**	**.0009**	**.0005**	**.0004**	**.0003**	**.0002**
Stddev	.0032	.0218	.0175	.0020	.0001	.0000	.0004	.0003	.0001
%RSD	131.6	186.9	27.52	32.97	16.00	9.092	104.3	107.5	56.85
#1	.0002	-.0270	.0511	.0046	.0008	.0006	.0007	.0005	.0003
#2	.0047	.0037	.0758	.0074	.0010	.0005	.0001	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 13:58:23 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0004**	**.0004**	**-.0033**	**.0011**	**.0031**	**-.0016**
Stddev	.0000	.0003	.0001	.0010	.0009	.0010	.0007
%RSD	12.04	81.37	17.12	29.87	81.93	31.49	43.71
#1	-.0003	.0002	.0005	-.0040	.0005	.0024	-.0011
#2	-.0003	.0006	.0004	-.0026	.0018	.0037	-.0021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**106920.**	**16286.**	**3913.6**	**9221.4**
Stddev	134.	3.	10.4	13.6
%RSD	.12553	.02134	.26449	.14745
#1	107020.	16288.	3920.9	9231.0
#2	106830.	16283.	3906.3	9211.8

Zoom In Zoom Out

Sample Name: cri Acquired: 4/3/2018 14:01:38 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1961**	**.0020**	**.0033**	**.0488**	**.0105**	**.0102**	**.0161**	**.0099**	**.0041**
Stddev	.0004	.0001	.0002	.0004	.0000	.0001	.0000	.0001	.0000
%RSD	.2166	3.113	7.582	.7631	.4613	.6154	.2514	1.467	.7225
#1	.1964	.0021	.0034	.0491	.0105	.0102	.0161	.0100	.0041
#2	.1958	.0020	.0031	.0485	.0105	.0103	.0161	.0098	.0041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0505**	**.0208**	**.0081**	**.0091**	**.0032**	**.0091**	**.0061**	**.2147**	**5.077**
Stddev	.0002	.0003	.0007	.0004	.0002	.0000	.0011	.0117	.014
%RSD	.4348	1.583	8.307	4.340	5.964	.0670	18.47	5.452	.2790
#1	.0507	.0210	.0086	.0088	.0034	.0091	.0053	.2064	5.087
#2	.0504	.0205	.0077	.0094	.0031	.0091	.0069	.2230	5.067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1063**	**5.058**	**4.972**	**4.916**	**.0991**	**.0212**	**.1764**	**.0108**	**.0098**
Stddev	.0015	.011	.003	.000	.0013	.0004	.0031	.0002	.0001
%RSD	1.439	.2088	.0548	.0059	1.277	1.774	1.780	1.818	.5773
#1	.1052	5.051	4.974	4.916	.1000	.0215	.1786	.0110	.0098
#2	.1073	5.065	4.970	4.916	.0982	.0210	.1742	.0107	.0098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: cri Acquired: 4/3/2018 14:01:38 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0100**	**.0517**	F **.0155**	**.0452**	**.0230**	**.0499**	**.0502**
Stddev	.0000	.0010	.0010	.0001	.0003	.0007	.0007
%RSD	.2366	1.902	6.234	.2509	1.454	1.466	1.365
#1	.0100	.0524	.0161	.0453	.0228	.0494	.0507
#2	.0100	.0510	.0148	.0452	.0233	.0504	.0497
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.0100				
Range			30.00%				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**105210.**	**16342.**	**3845.8**	**8970.6**
Stddev	35.	53.	37.0	72.8
%RSD	.03367	.32433	.96169	.81167
#1	105230.	16304.	3819.6	8919.1
#2	105180.	16379.	3872.0	9022.1

Zoom In Zoom Out

Sample Name: crid Acquired: 4/3/2018 14:05:58 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0010**	**.0012**	**.0027**	**.0019**	F **.0002**	**.0034**	**.0041**
Stddev	.0001	.0001	.0001	.0001	.0000	.0005	.0000	.0003
%RSD	2.351	10.37	8.531	4.231	1.181	320.9	.9920	8.600
#1	.0042	.0009	.0011	.0028	.0019	-.0002	.0034	.0038
#2	.0043	.0011	.0013	.0026	.0019	.0005	.0034	.0043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0001**	**.0022**	**.0117**	**.0026**	**.0019**	F **.0014**	**.0049**	F **-.0009**
Stddev	.0008	.0001	.0001	.0001	.0008	.0007	.0002	.0001
%RSD	655.7	3.398	.9008	3.097	41.23	51.90	5.012	16.00
#1	.0007	.0022	.0118	.0027	.0025	.0019	.0050	-.0010
#2	-.0004	.0021	.0116	.0026	.0014	.0009	.0047	-.0008
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-30.00%					-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1157**	**1.094**	**.0005**	**.0732**	**2.186**	**1.060**	F **-.0001**	**-.0000**
Stddev	.0080	.003	.0029	.0147	.015	.011	.0005	.0002
%RSD	6.889	.2799	548.6	20.14	.6701	1.070	442.9	434.5
#1	.1214	1.092	.0026	.0836	2.176	1.052	.0003	.0001
#2	.1101	1.096	-.0015	.0627	2.196	1.068	-.0005	-.0002
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None
Value							.0100	
Range							-30.00%	

Zoom In Zoom Out

Sample Name: crid Acquired: 4/3/2018 14:05:58 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0006**	**.0000**	**-.0003**	F **.0001**	F **-.0000**	F **-.0026**	F **-.0006**
Stddev	.0002	.0002	.0000	.0000	.0013	.0002	.0002	.0015
%RSD	16.17	35.17	88.21	.3456	1696.	1148.	9.312	260.5
#1	.0012	.0008	.0001	-.0003	-.0008	-.0002	-.0027	.0005
#2	.0015	.0005	.0000	-.0003	.0010	.0001	-.0024	-.0016
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F **.0019**	F **-.0013**
Stddev	.0004	.0009
%RSD	20.76	65.65
#1	.0016	-.0020
#2	.0022	-.0007
Check ?	Chk Fail	Chk Fail
Value	.0040	.0040
Range	-30.00%	-30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**105570.**	**16305.**	**3889.4**	**9153.9**
Stddev	1204.	10.	.4	11.0
%RSD	1.1408	.06016	.01026	.12036
#1	106420.	16298.	3889.1	9146.1
#2	104710.	16312.	3889.7	9161.7

Zoom In Zoom Out

Sample Name: icsa Acquired: 4/3/2018 14:10:19 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**.0004**	**.0011**	**-.0013**	**.0014**	**-.0014**	**-.0034**	**.0038**
Stddev	.0000	.0001	.0001	.0006	.0007	.0001	.0001	.0004	.0003
%RSD	8.254	25.14	29.69	50.72	50.58	4.052	5.441	12.96	6.725
#1	.0000	.0003	.0003	.0015	-.0018	.0014	-.0015	-.0037	.0036
#2	.0000	.0002	.0005	.0007	-.0009	.0013	-.0014	-.0031	.0040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0049**	**-.0008**	**.0018**	**-.0012**	**-.0009**	**.0002**	**502.8**	**386.1**
Stddev	.0002	.0000	.0025	.0027	.0015	.0033	.0005	8.6	5.4
%RSD	24.62	.5986	325.9	149.0	123.8	363.9	212.0	1.712	1.408
#1	-.0007	.0049	.0010	.0037	-.0002	-.0032	-.0001	496.7	382.2
#2	-.0010	.0050	-.0025	-.0001	-.0023	.0014	.0006	508.9	389.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**190.6**	**502.4**	**-.4088**	**.0274**	**-.0016**	**-.0015**	**-.0216**	**-.0029**	**.0046**
Stddev	.3	1.3	.0339	.0070	.0014	.0007	.0008	.0003	.0000
%RSD	.1373	.2490	8.298	25.55	87.37	46.91	3.488	11.86	1.044
#1	190.4	501.6	-.3848	.0225	-.0026	-.0010	-.0211	-.0031	.0046
#2	190.8	503.3	-.4328	.0324	-.0006	-.0020	-.0221	-.0026	.0046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icsa Acquired: 4/3/2018 14:10:19 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.0087**	**.0034**	**.0469**	**-.0009**	**-.0050**	**-.0099**
Stddev	.0006	.0016	.0001	.0008	.0007	.0001	.0006
%RSD	77.30	18.40	4.348	1.712	78.30	1.926	6.526
#1	-.0004	.0099	.0035	.0463	-.0004	-.0050	-.0104
#2	-.0013	.0076	.0033	.0475	-.0014	-.0051	-.0095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**93868.**	**15768.**	**3484.8**	**7318.3**
Stddev	51.	93.	9.5	22.3
%RSD	.05444	.58994	.27285	.30409
#1	93832.	15834.	3491.5	7334.1
#2	93904.	15702.	3478.1	7302.6

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 4/3/2018 14:14:44 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5125**	**.5000**	**1.037**	**.4951**	**.4913**	**.5130**	**.5053**	**.9883**	**1.053**
Stddev	.0021	.0011	.002	.0002	.0005	.0009	.0003	.0010	.001
%RSD	.4150	.2265	.1933	.0407	.1039	.1730	.0679	.0998	.0963
#1	.5110	.4992	1.036	.4949	.4916	.5136	.5056	.9876	1.052
#2	.5140	.5009	1.039	.4952	.4909	.5123	.5051	.9890	1.054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4944**	**.9754**	**1.044**	**1.086**	**.9901**	**1.001**	**1.060**	**518.6**	**391.0**
Stddev	.0006	.0012	.003	.000	.0014	.002	.002	5.7	.7
%RSD	.1201	.1232	.3027	.0003	.1414	.1497	.2026	1.100	.1738
#1	.4940	.9745	1.046	1.086	.9891	.9996	1.058	514.6	391.5
#2	.4949	.9762	1.041	1.086	.9911	1.002	1.061	522.6	390.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**187.3**	**507.4**	**-.3651**	**.0175**	**.4975**	**.4950**	**.4904**	**.4730**	**.5336**
Stddev	.3	.9	.0085	.0154	.0007	.0004	.0010	.0036	.0009
%RSD	.1824	.1725	2.339	88.18	.1449	.0743	.2105	.7681	.1606
#1	187.0	506.8	-.3712	.0066	.4981	.4953	.4911	.4704	.5329
#2	187.5	508.1	-.3591	.0284	.4970	.4948	.4897	.4756	.5342
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 4/3/2018 14:14:44 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5152**	**.4945**	**.5129**	**.5460**	**.5265**	**.5168**	**.5162**
Stddev	.0007	.0004	.0022	.0014	.0001	.0004	.0015
%RSD	.1395	.0739	.4381	.2543	.0259	.0678	.2816
#1	.5158	.4942	.5113	.5450	.5266	.5165	.5151
#2	.5147	.4947	.5145	.5470	.5264	.5170	.5172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**93843.**	**15682.**	**3491.3**	**7313.3**
Stddev	166.	36.	4.8	6.3
%RSD	.17642	.22982	.13735	.08638
#1	93726.	15707.	3488.0	7308.8
#2	93960.	15656.	3494.7	7317.7

Zoom In Zoom Out

Sample Name: hstd 2 Acquired: 4/3/2018 14:18:59 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.072**	**5.119**	**4.998**	**5.022**	**5.193**	**5.085**	**5.192**	**5.033**	**.6156**
Stddev	.005	.015	.001	.001	.001	.006	.000	.000	.0004
%RSD	.0960	.2886	.0271	.0256	.0246	.1120	.0044	.0066	.0613
#1	5.069	5.109	4.997	5.021	5.194	5.089	5.192	5.033	.6153
#2	5.076	5.130	4.999	5.023	5.192	5.081	5.192	5.034	.6159
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.124**	**5.248**	**4.957**	**5.202**	**5.088**	**5.009**	**5.046**	**.0366**	**-.0869**
Stddev	.008	.003	.004	.008	.003	.005	.001	.0093	.0062
%RSD	.1505	.0615	.0756	.1571	.0493	.1053	.0117	25.38	7.145
#1	5.118	5.246	4.954	5.208	5.090	5.006	5.045	.0300	-.0913
#2	5.129	5.250	4.959	5.196	5.087	5.013	5.046	.0431	-.0825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0175**	**-.0618**	**.1788**	**.0288**	**5.041**	**5.147**	**24.20**	**5.290**	**5.012**
Stddev	.0045	.0051	.0163	.0000	.000	.000	.01	.003	.002
%RSD	26.02	8.264	9.102	.0385	.0071	.0002	.0433	.0472	.0404
#1	.0207	-.0654	.1903	.0288	5.041	5.147	24.19	5.288	5.011
#2	.0143	-.0582	.1673	.0288	5.041	5.147	24.20	5.292	5.014
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd 2 Acquired: 4/3/2018 14:18:59 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.105**	**5.174**	**4.992**	**49.81**	**5.091**	**5.017**	**4.961**
Stddev	.002	.006	.005	.06	.003	.009	.012
%RSD	.0342	.1084	.0914	.1150	.0523	.1852	.2346
#1	5.106	5.178	4.995	49.77	5.093	5.011	4.953
#2	5.104	5.170	4.989	49.85	5.089	5.024	4.969
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**105660.**	**16315.**	**3844.8**	**8939.4**
Stddev	231.	117.	4.7	9.4
%RSD	.21894	.71454	.12332	.10518
#1	105500.	16398.	3841.4	8932.8
#2	105830.	16233.	3848.1	8946.1

Zoom In Zoom Out

Sample Name: hstd Acquired: 4/3/2018 14:23:08 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0003**	**.0003**	**.0006**	**.0002**	**.0014**	**-.0011**	**-.0024**	**.0032**
Stddev	.0000	.0000	.0000	.0005	.0005	.0003	.0001	.0003	.0008
%RSD	13.39	2.546	10.20	88.22	241.4	23.58	10.75	10.82	24.01
#1	.0002	.0003	.0003	.0002	.0005	.0016	-.0011	-.0026	.0027
#2	.0002	.0004	.0003	.0009	-.0001	.0011	-.0010	-.0023	.0038
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.0043**	**-.0002**	**-.0105**	**.0005**	**-.0009**	**-.0030**	**314.0**	**147.1**
Stddev	.0006	.0003	.0007	.0008	.0005	.0031	.0018	.5	.1
%RSD	80.04	7.021	295.2	7.581	87.62	330.4	60.46	.1601	.0872
#1	-.0003	.0041	-.0007	-.0099	.0009	.0013	-.0017	313.7	147.2
#2	-.0012	.0045	.0002	-.0110	.0002	-.0032	-.0043	314.4	147.0
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**153.5**	**317.2**	**159.0**	**151.5**	**-.0014**	**.0011**	**-.0070**	**-.0013**	**.0015**
Stddev	.3	.6	.2	.5	.0010	.0000	.0007	.0005	.0000
%RSD	.2124	.1762	.1122	.3274	69.73	3.710	10.44	36.72	2.767
#1	153.7	317.6	159.1	151.8	-.0021	.0010	-.0064	-.0010	.0016
#2	153.2	316.8	158.9	151.1	-.0007	.0011	-.0075	-.0016	.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd Acquired: 4/3/2018 14:23:08 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0049**	**.0032**	**.0332**	**-.0006**	**.0002**	**-.0006**
Stddev	.0001	.0006	.0000	.0048	.0002	.0005	.0010
%RSD	11.91	12.12	.3776	14.62	26.21	297.8	163.7
#1	-.0007	.0053	.0032	.0366	-.0005	-.0002	-.0013
#2	-.0006	.0045	.0032	.0297	-.0007	.0005	.0001
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**95391.**	**15702.**	**3545.8**	**7426.6**
Stddev	304.	75.	.1	6.1
%RSD	.31830	.47577	.00310	.08236
#1	95176.	15755.	3545.8	7430.9
#2	95606.	15650.	3545.9	7422.3

Zoom In Zoom Out

Sample Name: feconf Acquired: 4/3/2018 14:27:25 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0001**	**.0003**	**-.0003**	**-.0004**	**.0006**	**.0005**	**.0001**	W **-.0021**
Stddev	.0001	.0000	.0001	.0000	.0001	.0005	.0000	.0001
%RSD	111.7	5.703	21.96	3.771	16.66	102.2	12.85	3.521
#1	.0000	.0004	-.0002	-.0004	.0006	.0009	.0001	-.0021
#2	.0002	.0003	-.0003	-.0004	.0005	.0001	.0001	-.0022

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0036**	**-.0002**	**.0008**	**-.0017**	**-.0014**	**-.0000**	**.0000**	**.0001**
Stddev	.0008	.0003	.0000	.0017	.0021	.0008	.0027	.0008
%RSD	23.59	137.6	.4674	103.1	151.1	2743.	7498.	881.0
#1	.0042	-.0000	.0008	-.0029	.0001	-.0006	.0019	.0006
#2	.0030	-.0004	.0008	-.0005	-.0028	.0005	-.0019	-.0005

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0020**	**-.0251**	**204.2**	**-.0191**	**.1243**	**.0397**	**-.0028**	**.0010**
Stddev	.0017	.0028	.6	.0238	.0032	.0080	.0002	.0000
%RSD	84.33	11.27	.2911	124.9	2.535	20.04	6.612	.9112
#1	.0031	-.0231	204.6	-.0359	.1266	.0341	-.0026	.0010
#2	.0008	-.0271	203.8	-.0022	.1221	.0454	-.0029	.0010

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0011**	**.0016**	**-.0004**	**.0001**	**.0015**	**.0042**	**-.0079**	**.0003**
Stddev	.0009	.0008	.0000	.0001	.0003	.0001	.0027	.0011
%RSD	75.05	47.87	11.48	200.3	22.47	2.688	33.63	316.1
#1	-.0005	.0021	-.0005	.0002	.0017	.0042	-.0060	-.0004
#2	-.0017	.0011	-.0004	-.0000	.0013	.0041	-.0098	.0011

Elem	Li6707	P_1774
Avg	**.0019**	**-.0013**
Stddev	.0003	.0012
%RSD	13.91	92.47
#1	.0017	-.0022
#2	.0021	-.0005

Zoom In Zoom Out

Sample Name: feconf Acquired: 4/3/2018 14:27:25 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105020.**	**16174.**	**3828.8**	**9054.6**
Stddev	210.	5.	2.3	.9
%RSD	.20034	.02914	.06100	.00985
#1	105170.	16177.	3827.1	9054.0
#2	104870.	16171.	3830.4	9055.3

Zoom In Zoom Out

Sample Name: crconf Acquired: 4/3/2018 14:31:47 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**-.0001**	**-.0000**	**.0004**	**-.0006**	W **9.453**	**-.0001**	**.0001**	**-.0008**
Stddev	.0002	.0000	.0002	.0001	.017	.0002	.0001	.0001
%RSD	179.1	27.16	38.35	24.75	.1771	371.8	99.17	17.32
#1	.0000	-.0000	.0003	-.0005	9.464	.0001	.0000	-.0007
#2	-.0003	-.0001	.0005	-.0007	9.441	-.0002	.0001	-.0009

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0007**	**.0010**	**-.0012**	**.0001**	**.0005**	**.0030**	**.0008**	**-.0037**
Stddev	.0003	.0005	.0000	.0016	.0000	.0005	.0001	.0002
%RSD	49.39	47.95	1.558	1166.	10.36	15.66	11.24	4.532
#1	-.0009	.0007	-.0013	.0012	.0005	.0033	.0008	-.0038
#2	-.0004	.0014	-.0012	-.0010	.0004	.0026	.0007	-.0036

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0069**	**.0064**	**.0104**	**-.0100**	**.0410**	**.0068**	**-.0005**	**.0004**
Stddev	.0075	.0012	.0026	.0090	.0139	.0040	.0006	.0000
%RSD	109.1	18.16	25.11	90.04	33.93	58.54	121.3	10.28
#1	.0122	.0056	.0123	-.0164	.0311	.0040	-.0001	.0004
#2	.0016	.0073	.0086	-.0036	.0508	.0096	-.0010	.0004

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0051**	**-.0000**	**.0001**	**.0008**	**.0048**	**.0077**	**.0040**	**.0003**
Stddev	.0004	.0000	.0000	.0002	.0004	.0000	.0009	.0005
%RSD	7.232	83.75	32.65	30.06	9.109	.5567	23.29	181.4
#1	.0049	-.0000	.0002	.0010	.0051	.0077	.0047	.0007
#2	.0054	-.0001	.0001	.0006	.0045	.0076	.0034	-.0001

Elem	Li6707	P_1774
Avg	**.0018**	**-.0008**
Stddev	.0001	.0012
%RSD	3.991	163.3
#1	.0019	.0001
#2	.0018	-.0016

Zoom In Zoom Out

Sample Name: crconf Acquired: 4/3/2018 14:31:47 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107600.**	**16419.**	**3835.7**	**9191.1**
Stddev	170.	27.	8.8	5.3
%RSD	.15797	.16301	.22883	.05814
#1	107480.	16400.	3841.9	9187.4
#2	107720.	16437.	3829.5	9194.9

Zoom In Zoom Out

Sample Name: asconf Acquired: 4/3/2018 14:36:08 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0002**	**-.0001**	**.0002**	**.0001**	**.0002**	**-.0001**	**.0005**	**-.0002**	**.0002**
Stddev	.0000	.0000	.0003	.0000	.0001	.0000	.0000	.0002	.0010
%RSD	.8729	8.821	175.1	13.35	50.71	4.927	6.084	109.4	680.0
#1	-.0002	-.0001	-.0000	.0001	.0003	-.0001	.0004	-.0000	-.0006
#2	-.0002	-.0001	.0004	.0001	.0001	-.0001	.0005	-.0004	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0006**	**5.167**	**-.0007**	**.0001**	**.0009**	**-.0007**	**.0099**	**.0011**
Stddev	.0001	.0001	.005	.0000	.0009	.0002	.0011	.0128	.0005
%RSD	94.26	10.55	.0933	3.504	781.6	18.46	162.7	129.0	50.08
#1	-.0002	.0006	5.164	-.0008	-.0005	.0008	.0001	.0009	.0007
#2	-.0000	.0005	5.170	-.0007	.0007	.0010	-.0015	.0189	.0014

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0002**	**-.0148**	**.0428**	**-.0024**	**-.0002**	**-.0000**	**.0057**	**.0004**	**.0000**
Stddev	.0027	.0030	.0023	.0015	.0000	.0002	.0001	.0004	.0000
%RSD	1493.	20.23	5.331	63.97	12.42	1015.	2.610	113.2	544.1
#1	-.0018	-.0126	.0444	-.0035	-.0002	-.0002	.0058	.0001	.0000
#2	.0021	-.0169	.0412	-.0013	-.0002	.0001	.0056	.0007	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0004**	**.0005**	**.0001**	**.0019**	**.0001**	**.0013**	**.0003**
Stddev	.0001	.0002	.0002	.0007	.0001	.0000	.0006
%RSD	30.43	35.53	130.4	37.34	90.75	2.991	193.3
#1	-.0005	.0006	.0003	.0014	.0002	.0013	.0007
#2	-.0003	.0004	.0000	.0024	.0001	.0013	-.0001

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107420.**	**16453.**	**3917.0**	**9243.1**
Stddev	141.	47.	2.8	3.5
%RSD	.13081	.28425	.07173	.03759
#1	107320.	16420.	3919.0	9240.7
#2	107510.	16487.	3915.1	9245.6

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 14:40:29 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.968**	**1.973**	**1.984**	**1.963**	**1.983**	**1.930**	**2.002**	**1.994**	**.2435**
Stddev	.002	.005	.019	.017	.000	.000	.003	.015	.0012
%RSD	.0936	.2397	.9367	.8400	.0114	.0104	.1454	.7488	.5083
#1	1.969	1.977	1.971	1.952	1.983	1.930	2.004	1.984	.2426
#2	1.967	1.970	1.997	1.975	1.983	1.930	2.000	2.005	.2444
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.969**	**2.014**	**1.963**	**2.013**	**2.010**	**1.973**	**1.980**	**38.80**	**39.42**
Stddev	.002	.015	.014	.013	.016	.016	.016	.03	.14
%RSD	.1048	.7581	.7106	.6635	.7778	.8110	.7835	.0712	.3594
#1	1.967	2.003	1.953	2.004	1.999	1.962	1.969	38.78	39.32
#2	1.970	2.025	1.973	2.023	2.021	1.985	1.991	38.82	39.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.45**	**39.05**	**38.73**	**39.22**	**1.985**	**2.010**	**4.927**	**2.024**	**1.948**
Stddev	.07	.00	.03	.00	.021	.016	.049	.016	.003
%RSD	.1834	.0059	.0735	.0077	1.046	.7993	.9847	.7747	.1461
#1	39.50	39.05	38.71	39.21	1.971	1.999	4.893	2.013	1.950
#2	39.40	39.05	38.75	39.22	2.000	2.021	4.962	2.035	1.946
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 14:40:29 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.976**	**1.985**	**1.967**	**1.959**	**1.994**	**1.947**	**1.970**
Stddev	.001	.016	.002	.015	.019	.001	.014
%RSD	.0482	.8250	.1004	.7562	.9684	.0288	.7257
#1	1.977	1.974	1.969	1.948	1.980	1.948	1.960
#2	1.975	1.997	1.966	1.969	2.008	1.947	1.980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102650.**	**16230.**	**3768.9**	**8309.8**
Stddev	20.	54.	29.3	58.4
%RSD	.01948	.33045	.77679	.70257
#1	102670.	16268.	3789.6	8351.1
#2	102640.	16192.	3748.2	8268.6

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 14:44:32 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0000**	**-.0000**	**.0002**	**.0000**	**.0001**	**.0000**	**.0001**
Stddev	.0001	.0001	.0002	.0002	.0003	.0001	.0001	.0002	.0002
%RSD	64.79	102.2	1380.	2346.	122.2	836.8	46.71	684.0	295.2
#1	.0002	.0001	.0002	-.0001	.0004	.0001	.0002	.0001	.0002
#2	.0001	.0000	-.0001	.0001	.0000	-.0001	.0001	-.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0004**	**.0013**	**.0008**	**-.0014**	**-.0007**	**.0130**	**.0018**
Stddev	.0001	.0000	.0007	.0001	.0003	.0005	.0005	.0039	.0015
%RSD	55.78	63.82	186.0	8.519	43.45	33.68	80.87	29.97	83.22
#1	.0002	.0000	-.0001	.0014	.0006	-.0011	-.0003	.0157	.0007
#2	.0001	.0001	.0009	.0012	.0010	-.0017	-.0011	.0102	.0028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0039**	**-.0102**	**.0639**	**.0086**	**-.0005**	**.0007**	**.0005**	**.0003**	**.0001**
Stddev	.0041	.0312	.0239	.0019	.0003	.0001	.0011	.0004	.0000
%RSD	104.9	306.5	37.45	22.01	66.49	16.55	235.8	128.1	33.19	
#1	.0010	.0119	.0809	.0099	-.0007	.0006	.0012	.0000	.0002
#2	.0069	-.0322	.0470	.0072	-.0002	.0008	-.0003	.0005	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 14:44:32 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0003**	**.0002**	**.0020**	**.0025**	**.0010**
Stddev	.0001	.0012	.0001	.0030	.0007	.0001	.0003
%RSD	95.89	932.4	28.75	1345.	33.19	4.468	33.31
#1	-.0000	-.0010	.0004	-.0019	.0015	.0026	.0008
#2	-.0002	.0007	.0002	.0023	.0024	.0024	.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107410.**	**16265.**	**3907.4**	**9213.8**
Stddev	198.	19.	5.4	16.2
%RSD	.18392	.11942	.13718	.17580
#1	107270.	16279.	3911.2	9225.3
#2	107550.	16251.	3903.6	9202.3

Zoom In Zoom Out

Sample Name: crid Acquired: 4/3/2018 14:48:55 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044**	**.0011**	**.0011**	**.0028**	**.0022**	F **.0000**	**.0033**	**.0041**
Stddev	.0002	.0000	.0001	.0002	.0002	.0005	.0000	.0003
%RSD	5.242	.5605	9.486	6.436	9.446	7173.	.6482	6.466
#1	.0042	.0011	.0012	.0029	.0021	.0004	.0033	.0043
#2	.0045	.0011	.0011	.0027	.0024	-.0004	.0033	.0040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0000**	**.0022**	**.0117**	**.0038**	**.0014**	F **.0014**	F **.0069**	F **.0001**
Stddev	.0006	.0000	.0001	.0006	.0004	.0004	.0014	.0012
%RSD	1766.	.2220	1.186	14.78	25.99	31.66	20.96	1923.
#1	.0005	.0022	.0118	.0042	.0012	.0011	.0079	.0009
#2	-.0004	.0022	.0116	.0034	.0017	.0017	.0058	-.0008
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail
Value	.0020					.0025	.0050	.0030
Range	-30.00%					-30.00%	30.00%	-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1044**	**1.087**	**.0023**	F **.0694**	**2.192**	**1.081**	F **-.0006**	**.0001**
Stddev	.0004	.000	.0016	.0159	.018	.008	.0007	.0003
%RSD	.3451	.0338	71.21	22.95	.8134	.7539	127.2	277.5
#1	.1046	1.087	.0034	.0807	2.205	1.075	-.0001	-.0001
#2	.1041	1.087	.0011	.0581	2.179	1.086	-.0011	.0003
Check ?	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None
Value				.1000			.0100	
Range				-30.00%			-30.00%	

Zoom In Zoom Out

Sample Name: crid Acquired: 4/3/2018 14:48:55 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**.0007**	**.0000**	**-.0004**	F **-.0001**	F **.0003**	F **-.0011**	F **.0020**
Stddev	.0002	.0000	.0000	.0001	.0004	.0002	.0027	.0008
%RSD	12.12	4.653	17.27	21.67	315.7	73.08	245.4	38.42
#1	.0021	.0007	.0000	-.0005	.0001	.0005	.0008	.0025
#2	.0018	.0007	.0000	-.0003	-.0004	.0002	-.0031	.0014
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F **.0028**	F **.0012**
Stddev	.0010	.0006
%RSD	34.79	54.01
#1	.0021	.0016
#2	.0035	.0007
Check ?	Chk Fail	Chk Fail
Value	.0040	.0040
Range	-30.00%	-30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107220.**	**16320.**	**3887.1**	**9128.6**
Stddev	128.	107.	5.3	1.0
%RSD	.11925	.65667	.13602	.01112
#1	107130.	16396.	3883.3	9129.3
#2	107310.	16245.	3890.8	9127.9

Zoom In Zoom Out

Sample Name: mp6350-mb1conf Acquired: 4/3/2018 14:53:16 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0004**	**.0000**	**.0000**	**-.0002**	**.0007**	**.0011**	**.0004**	**.0008**	**-.0002**
Stddev	.0001	.0000	.0001	.0003	.0001	.0005	.0001	.0001	.0000
%RSD	28.17	80.67	257.8	168.9	8.825	42.58	15.10	9.745	14.28
#1	.0005	.0000	.0001	-.0004	.0008	.0015	.0004	.0008	-.0002
#2	.0003	.0000	-.0000	.0000	.0007	.0008	.0005	.0007	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0004**	**.0073**	**-.0010**	**-.0006**	**.0008**	**-.0009**	**-.0002**	**.0334**	**.1417**
Stddev	.0001	.0001	.0010	.0017	.0002	.0014	.0018	.0042	.0012
%RSD	34.55	1.249	102.3	277.0	28.23	153.0	795.8	12.69	.8252
#1	-.0005	.0073	-.0017	-.0019	.0009	.0001	-.0015	.0364	.1426
#2	-.0003	.0072	-.0003	.0006	.0006	-.0019	.0010	.0304	.1409

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0308**	**.0099**	**.0494**	**.1094**	**.0003**	**.0003**	**.0442**	**.0319**	**.0007**
Stddev	.0009	.0005	.0308	.0084	.0003	.0000	.0002	.0005	.0001
%RSD	3.059	5.265	62.47	7.693	88.28	19.86	.4084	1.557	8.030
#1	.0302	.0102	.0276	.1154	.0005	.0002	.0440	.0315	.0008
#2	.0315	.0095	.0712	.1034	.0001	.0003	.0443	.0322	.0007

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0004**	**.0007**	**.0007**	**.0126**	**-.0006**	**.0027**	**.0306**
Stddev	.0005	.0001	.0001	.0030	.0024	.0006	.0019
%RSD	121.4	11.17	14.66	23.68	407.3	21.51	6.169
#1	.0007	.0007	.0006	.0147	-.0023	.0031	.0293
#2	.0001	.0006	.0007	.0105	.0011	.0023	.0319

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107310.**	**16504.**	**3878.1**	**9154.2**
Stddev	121.	43.	2.7	9.9
%RSD	.11251	.26080	.06972	.10815
#1	107230.	16474.	3880.0	9161.2
#2	107400.	16534.	3876.2	9147.2

Zoom In Zoom Out

Sample Name: jc62766-21 2 Acquired: 4/3/2018 14:57:35 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 50.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.4992**	F **-.0615**	**-.0112**	**.0135**	**-.0108**	F **4329.**	**.8040**	**1.235**
Stddev	.0068	.0001	.0056	.0043	.0109	30.	.0059	.008
%RSD	1.367	.1475	50.04	32.17	100.4	.6816	.7388	.6262
#1	.5040	-.0614	-.0152	.0166	-.0185	4350.	.8082	1.229
#2	.4943	-.0615	-.0073	.0104	-.0031	4309.	.7998	1.240

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0284**	**-.0833**	F **-4.923**	F **-.3387**	**.1451**	**8.311**	**.6144**	**.1039**
Stddev	.0234	.0083	.038	.0398	.0176	.078	.0660	.0401
%RSD	82.32	9.938	.7658	11.75	12.16	.9425	10.74	38.61
#1	.0449	-.0775	-4.950	-.3105	.1327	8.256	.6610	.0756
#2	.0119	-.0892	-4.896	-.3668	.1576	8.367	.5677	.1323

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**4.307**	**9.374**	**14.24**	**.2796**	**44.49**	**1.294**	**.0552**	**.0234**
Stddev	.344	.219	.37	.5004	.20	.098	.0217	.0088
%RSD	7.993	2.339	2.618	178.9	.4545	7.584	39.27	37.42
#1	4.550	9.219	14.51	.6334	44.64	1.363	.0705	.0172
#2	4.063	9.529	13.98	-.0742	44.35	1.224	.0398	.0296

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**5.626**	**3.206**	**.0163**	W **-.2414**	**.2369**	**.0213**	**7.590**	F **-1.626**
Stddev	.012	.023	.0006	.0179	.0458	.0001	.096	.025
%RSD	.2110	.7154	3.440	7.408	19.34	.3478	1.264	1.531
#1	5.618	3.223	.0167	-.2288	.2045	.0212	7.522	-1.644
#2	5.635	3.190	.0159	-.2540	.2693	.0213	7.658	-1.608

Elem	Li6707	P_1774
Avg	**.1253**	**7.477**
Stddev	.0486	.059
%RSD	38.83	.7963
#1	.1597	7.519
#2	.0909	7.435

Zoom In Zoom Out

Sample Name: jc62766-21 2 Acquired: 4/3/2018 14:57:35 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 50.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**106810.**	**16395.**	**3830.5**	**9129.5**
Stddev	116.	9.	.3	1.7
%RSD	.10829	.05583	.00867	.01868
#1	106720.	16389.	3830.2	9130.7
#2	106890.	16402.	3830.7	9128.3

Zoom In Zoom Out

Sample Name: jc62766-22 Acquired: 4/3/2018 15:01:59 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 50.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.075**	**-.0417**	**2.521**	**.1795**	**3.996**	F **3033.**	**1.118**	**53.05**
Stddev	.026	.0011	.019	.0100	.050	77.	.021	.42
%RSD	2.457	2.651	.7380	5.549	1.243	2.543	1.867	.7885
#1	1.094	-.0424	2.535	.1866	4.032	3088.	1.133	53.34
#2	1.057	-.0409	2.508	.1725	3.961	2979.	1.104	52.75

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.1027**	**.1218**	F **-1.945**	**.0431**	**.0484**	**12.77**	**.5959**	**.3388**
Stddev	.0483	.0013	.099	.0361	.0284	.11	.0139	.0345
%RSD	47.05	1.065	5.069	83.94	58.62	.8340	2.325	10.18
#1	.1369	.1227	-2.014	.0175	.0284	12.84	.5861	.3632
#2	.0685	.1209	-1.875	.0686	.0685	12.69	.6057	.3144

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**21.00**	**14.43**	**452.9**	**3.291**	**34.49**	**3.081**	**.0886**	**.2373**
Stddev	.58	.37	11.2	.279	1.16	.422	.0116	.0120
%RSD	2.753	2.564	2.479	8.481	3.352	13.70	13.05	5.038
#1	21.41	14.69	460.8	3.093	35.31	2.783	.0804	.2457
#2	20.59	14.17	445.0	3.488	33.67	3.380	.0967	.2288

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**9.563**	**14.28**	**.1510**	**1.347**	**.2442**	**.0613**	**29.12**	W **-.6004**
Stddev	.057	.14	.0056	.031	.0462	.0158	.16	.0392
%RSD	.5929	.9975	3.741	2.281	18.91	25.79	.5460	6.522
#1	9.603	14.38	.1550	1.369	.2768	.0501	29.24	-.6280
#2	9.523	14.18	.1470	1.325	.2115	.0725	29.01	-.5727

Elem	Li6707	P_1774
Avg	**.1036**	**13.78**
Stddev	.0035	.11
%RSD	3.331	.7951
#1	.1061	13.71
#2	.1012	13.86

Zoom In Zoom Out

Sample Name: jc62766-22 Acquired: 4/3/2018 15:01:59 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 50.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107230.**	**16534.**	**3867.7**	**9165.3**
Stddev	150.	11.	3.0	9.8
%RSD	.13997	.06883	.07793	.10711
#1	107130.	16542.	3865.5	9158.4
#2	107340.	16526.	3869.8	9172.3

Zoom In Zoom Out

Sample Name: mp6400-mb1conf Acquired: 4/3/2018 15:06:18 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0000**	**-.0000**	**.0001**	**-.0003**	**-.0001**	**.0005**	**.0000**	**-.0001**	**.0000**
Stddev	.0001	.0000	.0002	.0001	.0003	.0002	.0001	.0002	.0002
%RSD	1442.	153.9	153.8	29.87	515.6	35.56	702.5	162.4	3430.
#1	.0001	.0000	.0003	-.0002	.0002	.0004	-.0001	.0000	-.0002
#2	-.0001	-.0000	-.0000	-.0003	-.0003	.0006	.0001	-.0002	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0006**	**.0008**	**-.0001**	**-.0012**	**.0005**	**-.0009**	**.0002**	**.0163**	**-.0024**
Stddev	.0003	.0000	.0010	.0010	.0008	.0000	.0005	.0079	.0038
%RSD	49.83	4.565	1010.	85.44	155.7	2.682	191.8	48.62	156.9
#1	-.0004	.0008	-.0008	-.0019	-.0001	-.0009	.0006	.0219	-.0051
#2	-.0008	.0009	.0006	-.0005	.0011	-.0010	-.0001	.0107	.0003

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0007**	**-.0029**	**.0080**	**.0030**	**-.0009**	**-.0001**	**.0005**	**.0004**	**.0000**
Stddev	.0023	.0184	.0098	.0086	.0009	.0001	.0004	.0007	.0000
%RSD	336.7	629.8	122.4	292.3	108.6	88.05	81.60	152.5	2.040
#1	-.0009	.0101	.0011	.0091	-.0015	-.0000	.0002	.0009	.0001
#2	.0023	-.0159	.0149	-.0032	-.0002	-.0002	.0008	-.0000	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**-.0003**	**.0003**	**.0008**	**-.0017**	**.0015**	**.0034**
Stddev	.0001	.0002	.0001	.0001	.0002	.0005	.0017
%RSD	45.68	70.28	45.91	15.77	9.110	33.11	50.96
#1	.0002	-.0005	.0004	.0007	-.0016	.0019	.0046
#2	.0001	-.0002	.0002	.0009	-.0018	.0012	.0021

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108160.**	**16566.**	**3887.3**	**9169.5**
Stddev	315.	17.	13.5	49.6
%RSD	.29096	.10019	.34774	.54074
#1	107940.	16577.	3896.9	9204.6
#2	108380.	16554.	3877.7	9134.5

Zoom In Zoom Out

Sample Name: crid Acquired: 4/3/2018 15:10:39 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0011**	**.0013**	**.0028**	**.0018**	F **.0002**	**.0033**	**.0042**
Stddev	.0001	.0001	.0000	.0002	.0001	.0001	.0000	.0003
%RSD	3.351	6.509	2.418	6.802	4.320	38.53	.7560	6.063
#1	.0043	.0010	.0013	.0030	.0019	.0001	.0033	.0040
#2	.0041	.0011	.0013	.0027	.0018	.0003	.0033	.0043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0004**	**.0022**	**.0118**	**.0024**	**.0016**	F **.0004**	**.0038**	F **.0004**
Stddev	.0004	.0001	.0001	.0016	.0015	.0006	.0031	.0020
%RSD	106.1	5.394	1.023	67.28	94.40	149.0	80.53	465.2
#1	.0001	.0021	.0119	.0036	.0005	.0009	.0016	.0019
#2	.0007	.0023	.0117	.0013	.0027	-.0000	.0060	-.0010
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-30.00%					-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1218**	**1.076**	**.0004**	**.0859**	**2.151**	**1.056**	F **-.0008**	**-.0001**
Stddev	.0072	.005	.0005	.0019	.006	.012	.0008	.0002
%RSD	5.916	.4947	144.0	2.190	.3027	1.152	95.61	135.5
#1	.1268	1.080	.0007	.0872	2.146	1.047	-.0014	-.0000
#2	.1167	1.073	-.0000	.0845	2.156	1.064	-.0003	-.0002
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None
Value							.0100	
Range							-30.00%	

Zoom In Zoom Out

Sample Name: crid Acquired: 4/3/2018 15:10:39 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0013**	**.0000**	**-.0003**	F **-.0007**	F **.0002**	F **-.0032**	F **-.0001**
Stddev	.0001	.0003	.0000	.0006	.0001	.0000	.0008	.0006
%RSD	17.53	27.39	63.65	178.5	7.317	19.38	25.34	702.2
#1	.0006	.0015	.0000	.0001	-.0007	.0001	-.0026	-.0005
#2	.0005	.0010	.0001	-.0008	-.0008	.0002	-.0037	.0003
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F **.0016**	**.0031**
Stddev	.0006	.0012
%RSD	34.55	39.06
#1	.0012	.0022
#2	.0020	.0039
Check ?	Chk Fail	Chk Pass
Value	.0040	
Range	-30.00%	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107140.**	**16365.**	**3901.4**	**9150.7**
Stddev	107.	60.	4.4	13.4
%RSD	.10002	.36574	.11311	.14639
#1	107220.	16323.	3898.2	9141.3
#2	107060.	16408.	3904.5	9160.2

Zoom In Zoom Out

Sample Name: mp6400-b1conf Acquired: 4/3/2018 15:14:59 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.041**	**2.059**	**2.033**	**2.008**	**2.049**	**2.020**	**2.085**	**2.044**
Stddev	.004	.002	.003	.002	.007	.001	.003	.003
%RSD	.1882	.0831	.1589	.0819	.3661	.0483	.1272	.1533
#1	2.044	2.061	2.036	2.007	2.054	2.019	2.087	2.042
#2	2.038	2.058	2.031	2.009	2.044	2.021	2.083	2.046

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2448**	**2.049**	**2.065**	**2.006**	**2.071**	**2.065**	**2.030**	**2.050**
Stddev	.0005	.009	.001	.001	.001	.001	.003	.004
%RSD	.2165	.4251	.0263	.0508	.0303	.0429	.1699	.2056
#1	.2452	2.056	2.064	2.006	2.071	2.066	2.033	2.053
#2	.2445	2.043	2.065	2.007	2.070	2.064	2.028	2.047

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.44**	**25.63**	**25.77**	**25.24**	**25.36**	**25.57**	**2.029**	**2.095**
Stddev	.02	.05	.03	.01	.06	.05	.002	.002
%RSD	.0727	.2106	.1133	.0433	.2306	.1889	.0835	.0961
#1	25.45	25.67	25.79	25.23	25.40	25.61	2.031	2.097
#2	25.43	25.59	25.75	25.24	25.31	25.54	2.028	2.094

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0085**	**2.093**	**2.044**	**2.063**	**2.000**	**2.048**	F **-.0737**	**.0001**
Stddev	.0009	.006	.003	.001	.001	.003	.0018	.0020
%RSD	10.45	.2885	.1681	.0218	.0313	.1277	2.405	3443.
#1	.0091	2.097	2.047	2.063	1.999	2.050	-.0724	-.0014
#2	.0079	2.089	2.042	2.063	2.000	2.046	-.0749	.0015

Elem	Li6707	P_1774
Avg	**.0020**	**2.002**
Stddev	.0011	.005
%RSD	57.60	.2298
#1	.0012	2.005
#2	.0028	1.998

Zoom In Zoom Out

Sample Name: mp6400-b1conf Acquired: 4/3/2018 15:14:59 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104150.**	**16493.**	**3804.5**	**8499.6**
Stddev	121.	47.	6.9	6.8
%RSD	.11649	.28436	.18146	.07974
#1	104070.	16460.	3799.6	8494.8
#2	104240.	16526.	3809.4	8504.4

Zoom In Zoom Out

Sample Name: mp6400-s1 Acquired: 4/3/2018 15:19:02 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.365**	**2.112**	**2.109**	**2.081**	**2.076**	**2.088**	**8.726**	**2.110**	**.2528**
Stddev	.005	.004	.001	.003	.001	.003	.044	.000	.0009
%RSD	.2318	.2097	.0223	.1266	.0240	.1399	.5012	.0210	.3704
#1	2.361	2.109	2.109	2.079	2.076	2.090	8.757	2.110	.2521
#2	2.369	2.115	2.108	2.083	2.077	2.086	8.695	2.110	.2535

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.103**	**2.091**	**2.124**	**2.086**	**2.110**	**2.106**	**2.135**	**26.15**	**87.60**
Stddev	.001	.004	.004	.003	.001	.002	.001	.01	.01
%RSD	.0363	.1765	.1648	.1179	.0244	.0791	.0572	.0468	.0063
#1	2.104	2.094	2.127	2.088	2.111	2.107	2.134	26.14	87.61
#2	2.103	2.089	2.122	2.084	2.110	2.104	2.136	26.16	87.60

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**35.16**	**56.42**	**29.17**	**113.8**	**2.115**	**2.150**	**9.364**	**2.119**	**2.418**
Stddev	.05	.04	.00	.0	.002	.001	.005	.001	.005
%RSD	.1340	.0740	.0080	.0025	.0951	.0495	.0501	.0643	.1925
#1	35.12	56.39	29.17	113.8	2.116	2.151	9.360	2.118	2.414
#2	35.19	56.45	29.17	113.8	2.114	2.150	9.367	2.120	2.421

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.126**	**2.112**	**2.107**	**1.886**	**.0005**	**.0052**	**2.952**
Stddev	.001	.001	.001	.000	.0003	.0003	.006
%RSD	.0428	.0353	.0301	.0222	67.54	5.367	.2164
#1	2.126	2.112	2.108	1.886	.0002	.0050	2.956
#2	2.125	2.111	2.107	1.885	.0007	.0054	2.947

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**100910.**	**16259.**	**3686.5**	**8042.5**
Stddev	150.	29.	1.6	5.0
%RSD	.14870	.17945	.04370	.06256
#1	100810.	16280.	3687.7	8046.1
#2	101020.	16238.	3685.4	8039.0

Zoom In Zoom Out

Sample Name: mp6400-s2 Acquired: 4/3/2018 15:23:09 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.303**	**2.066**	**2.065**	**2.038**	**2.028**	**2.049**	**8.562**	**2.066**	**.2487**
Stddev	.011	.004	.005	.003	.004	.002	.038	.002	.0002
%RSD	.4729	.2154	.2526	.1526	.2004	.1044	.4400	.0754	.0905
#1	2.295	2.063	2.069	2.040	2.031	2.051	8.536	2.067	.2488
#2	2.311	2.069	2.062	2.036	2.025	2.048	8.589	2.065	.2485

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.053**	**2.047**	**2.081**	**2.038**	**2.067**	**2.059**	**2.089**	**25.67**	**84.96**
Stddev	.003	.005	.003	.006	.004	.007	.005	.01	.05
%RSD	.1656	.2703	.1271	.3106	.1983	.3561	.2522	.0236	.0581
#1	2.055	2.051	2.083	2.033	2.064	2.064	2.093	25.67	85.00
#2	2.050	2.043	2.080	2.042	2.070	2.054	2.086	25.66	84.93

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**34.34**	**54.60**	**28.50**	**110.2**	**2.070**	**2.107**	**9.147**	**2.072**	**2.367**
Stddev	.14	.22	.06	.2	.007	.003	.029	.003	.007
%RSD	.4167	.3961	.2086	.1828	.3574	.1579	.3158	.1433	.2875
#1	34.24	54.45	28.46	110.1	2.076	2.109	9.168	2.074	2.362
#2	34.44	54.76	28.54	110.3	2.065	2.104	9.127	2.070	2.371

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.082**	**2.065**	**2.060**	**1.819**	**.0008**	**.0050**	**2.868**
Stddev	.002	.008	.001	.007	.0014	.0015	.000
%RSD	.0749	.4053	.0219	.3994	172.7	29.17	.0076
#1	2.081	2.071	2.061	1.814	.0017	.0040	2.868
#2	2.083	2.059	2.060	1.824	-.0002	.0060	2.868

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**100920.**	**16364.**	**3680.2**	**8031.7**
Stddev	109.	52.	9.4	7.9
%RSD	.10831	.31611	.25537	.09877
#1	100840.	16401.	3673.6	8026.1
#2	101000.	16328.	3686.9	8037.3

Zoom In Zoom Out

Sample Name: jc62779-2 Acquired: 4/3/2018 15:27:17 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2696**	**.0002**	**.0019**	**.0137**	**.0001**	**.0104**	**6.915**	**.0117**	**.0004**
Stddev	.0004	.0000	.0002	.0000	.0000	.0003	.018	.0002	.0003
%RSD	.1648	1.126	11.20	.3203	15.85	2.802	.2589	1.342	85.72
#1	.2699	.0002	.0021	.0137	.0001	.0106	6.903	.0118	.0006
#2	.2693	.0002	.0018	.0136	.0001	.0102	6.928	.0115	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0089**	**.0064**	**.0235**	**.0029**	**.0003**	**.0000**	**.0007**	**.1978**	**62.00**
Stddev	.0006	.0001	.0004	.0005	.0002	.0003	.0002	.0084	.09
%RSD	6.353	1.020	1.868	18.24	82.32	1781.	23.69	4.268	.1409
#1	.0085	.0065	.0232	.0032	.0001	.0002	.0008	.1918	62.06
#2	.0093	.0064	.0238	.0025	.0004	-.0002	.0006	.2038	61.94

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**9.519**	**30.99**	**3.368**	**88.23**	**.0321**	**.0039**	**9.239**	**-.0008**	**.3303**
Stddev	.019	.11	.016	.08	.0015	.0001	.010	.0004	.0007
%RSD	.1977	.3705	.4739	.0956	4.523	2.051	.1089	53.17	.2087
#1	9.532	31.07	3.379	88.29	.0331	.0040	9.246	-.0005	.3308
#2	9.506	30.91	3.357	88.17	.0310	.0039	9.232	-.0010	.3298

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0020**	**.0126**	**.0020**	**1.966**	**-.0007**	**.0063**	**.8738**
Stddev	.0004	.0008	.0002	.003	.0013	.0010	.0008
%RSD	21.62	6.524	10.53	.1481	169.4	16.15	.0931
#1	.0023	.0120	.0022	1.964	-.0016	.0056	.8733
#2	.0017	.0132	.0019	1.968	.0001	.0070	.8744

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**101720.**	**16314.**	**3714.1**	**8278.4**
Stddev	218.	64.	.8	10.0
%RSD	.21437	.39332	.02080	.12073
#1	101880.	16269.	3713.6	8271.4
#2	101570.	16360.	3714.7	8285.5

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 15:31:39 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.984**	**1.987**	**1.970**	**1.953**	**1.983**	**1.941**	**2.020**	**1.992**	**.2434**
Stddev	.002	.001	.005	.002	.005	.006	.000	.003	.0004
%RSD	.0942	.0475	.2753	.0928	.2726	.2891	.0056	.1665	.1723
#1	1.983	1.988	1.974	1.955	1.980	1.945	2.020	1.995	.2431
#2	1.985	1.987	1.967	1.952	1.987	1.937	2.020	1.990	.2437
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.980**	**2.013**	**1.946**	**1.983**	**2.019**	**1.968**	**1.967**	**39.34**	**39.62**
Stddev	.003	.003	.001	.003	.003	.004	.008	.01	.03
%RSD	.1425	.1575	.0293	.1452	.1368	.2148	.4133	.0244	.0788
#1	1.978	2.015	1.946	1.985	2.021	1.971	1.973	39.35	39.64
#2	1.982	2.011	1.945	1.981	2.017	1.965	1.962	39.33	39.60
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.58**	**39.34**	**39.16**	**39.56**	**1.961**	**2.011**	**4.862**	**2.002**	**1.980**
Stddev	.03	.03	.10	.02	.007	.005	.005	.003	.002
%RSD	.0825	.0781	.2434	.0397	.3636	.2358	.1110	.1712	.1070
#1	39.56	39.32	39.10	39.55	1.966	2.014	4.866	2.004	1.979
#2	39.61	39.36	39.23	39.57	1.956	2.007	4.859	1.999	1.982
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 15:31:39 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.988**	**1.988**	**1.984**	**1.952**	**1.979**	**1.955**	**1.967**
Stddev	.000	.004	.004	.001	.005	.002	.006
%RSD	.0012	.1966	.1746	.0440	.2585	.0913	.3210
#1	1.988	1.990	1.986	1.951	1.983	1.954	1.971
#2	1.988	1.985	1.981	1.953	1.976	1.956	1.962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102670.**	**16091.**	**3780.4**	**8300.9**
Stddev	325.	34.	14.1	27.4
%RSD	.31659	.21297	.37376	.32996
#1	102900.	16067.	3770.4	8281.5
#2	102440.	16116.	3790.4	8320.3

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 15:35:42 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0005**	**-.0000**	**.0007**	**.0000**	**.0002**	**.0003**	**-.0008**
Stddev	.0004	.0000	.0002	.0000	.0002	.0003	.0001	.0000	.0004
%RSD	241.7	33.18	38.42	136.2	24.46	18890.	49.06	9.289	51.66
#1	-.0001	.0001	.0003	-.0000	.0008	-.0002	.0002	.0003	-.0011
#2	.0004	.0001	.0006	-.0000	.0006	.0002	.0003	.0003	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0003**	**.0001**	**.0007**	**.0012**	**-.0004**	**-.0001**	**.0183**	**-.0014**
Stddev	.0003	.0000	.0009	.0000	.0005	.0010	.0002	.0064	.0035
%RSD	268.1	9.174	780.8	6.601	40.97	251.1	110.6	35.16	257.9
#1	-.0001	.0003	-.0005	.0007	.0008	.0003	-.0003	.0138	-.0039
#2	.0003	.0003	.0008	.0008	.0015	-.0011	-.0000	.0229	.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0033**	**-.0215**	**.0502**	**.0141**	**.0008**	**.0008**	**.0013**	**.0006**	**.0001**
Stddev	.0009	.0192	.0324	.0071	.0009	.0001	.0006	.0001	.0001
%RSD	26.56	89.56	64.61	50.08	111.7	11.49	42.41	15.89	68.13
#1	.0039	-.0079	.0731	.0191	.0014	.0007	.0009	.0007	.0002
#2	.0027	-.0351	.0272	.0091	.0002	.0008	.0017	.0005	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 15:35:42 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0000**	**.0005**	**-.0003**	**.0008**	**.0014**	**.0050**
Stddev	.0004	.0005	.0002	.0027	.0003	.0001	.0001
%RSD	2554.	1271.	35.08	982.1	40.53	6.670	1.742
#1	-.0003	-.0004	.0004	.0016	.0010	.0013	.0049
#2	.0003	.0003	.0006	-.0022	.0006	.0015	.0051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107620.**	**16476.**	**3918.1**	**9204.9**
Stddev	86.	92.	1.7	6.8
%RSD	.08009	.55904	.04315	.07398
#1	107560.	16541.	3916.9	9209.7
#2	107680.	16411.	3919.3	9200.1

Zoom In Zoom Out

Sample Name: mp6400-sd1 Acquired: 4/3/2018 15:40:04 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2825**	**.0000**	**.0024**	**.0143**	**.0013**	**.0133**	**7.584**	**.0134**	**.0017**
Stddev	.0012	.0001	.0008	.0015	.0013	.0011	.013	.0004	.0017
%RSD	.4407	764.5	33.56	10.50	99.04	8.550	.1688	2.856	95.93
#1	.2834	.0001	.0019	.0132	.0022	.0141	7.593	.0131	.0006
#2	.2817	-.0000	.0030	.0154	.0004	.0125	7.575	.0136	.0029

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0095**	**.0188**	**.0313**	**-.0044**	**.0040**	**-.0022**	**-.0052**	**.2976**	**65.23**
Stddev	.0010	.0004	.0005	.0003	.0014	.0044	.0046	.0233	.14
%RSD	10.89	2.104	1.637	6.947	33.72	200.2	87.06	7.813	.2118
#1	.0103	.0185	.0317	-.0046	.0050	.0009	-.0085	.3140	65.13
#2	.0088	.0191	.0310	-.0042	.0031	-.0054	-.0020	.2811	65.33

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**9.981**	**32.61**	**3.599**	**92.11**	**.0392**	**.0057**	**9.696**	**.0042**	**.3446**
Stddev	.014	.04	.109	.32	.0026	.0005	.008	.0040	.0003
%RSD	.1417	.1101	3.015	.3496	6.695	8.819	.0846	95.07	.0922
#1	9.971	32.64	3.522	92.34	.0373	.0054	9.690	.0014	.3444
#2	9.991	32.59	3.676	91.89	.0411	.0061	9.701	.0071	.3448

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0022**	**.0197**	**.0028**	**2.011**	**.0019**	**.0125**	**.9011**
Stddev	.0010	.0045	.0008	.004	.0021	.0027	.0003
%RSD	46.01	22.92	29.53	.2028	107.3	21.58	.0299
#1	.0029	.0165	.0034	2.014	.0005	.0144	.9013
#2	.0015	.0229	.0022	2.008	.0034	.0106	.9009

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105390.**	**16355.**	**3847.7**	**8861.9**
Stddev	58.	11.	1.1	3.9
%RSD	.05548	.06892	.02922	.04376
#1	105340.	16363.	3847.0	8859.2
#2	105430.	16347.	3848.5	8864.7

Zoom In Zoom Out

Sample Name: jc62779-4 Acquired: 4/3/2018 15:44:23 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2139**	**.0003**	**.0045**	**.0046**	**.0035**	**.0083**	**16.66**	**.0069**	**.0010**
Stddev	.0015	.0001	.0004	.0008	.0004	.0005	.15	.0003	.0004
%RSD	.7089	25.46	9.420	16.72	10.88	5.961	.9000	4.880	37.32
#1	.2150	.0002	.0042	.0051	.0032	.0080	16.76	.0071	.0013
#2	.2128	.0003	.0048	.0040	.0037	.0087	16.55	.0066	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0243**	**.0128**	**.0071**	**.0027**	**.0033**	**-.0035**	**.0006**	**2.287**	**92.85**
Stddev	.0002	.0003	.0005	.0035	.0020	.0017	.0002	.003	.58
%RSD	.8409	2.620	7.449	130.9	60.09	48.74	34.04	.1383	.6289
#1	.0241	.0131	.0067	.0002	.0048	-.0023	.0008	2.285	93.26
#2	.0244	.0126	.0074	.0052	.0019	-.0047	.0005	2.289	92.43

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**2.690**	**25.60**	**1.863**	**95.62**	**.0159**	**.0013**	**11.84**	**-.0019**	**.3072**
Stddev	.027	.24	.024	.76	.0019	.0004	.11	.0006	.0031
%RSD	1.012	.9477	1.280	.7999	12.02	30.82	.8876	32.98	1.005
#1	2.710	25.77	1.880	96.16	.0172	.0010	11.91	-.0014	.3094
#2	2.671	25.43	1.846	95.08	.0145	.0016	11.76	-.0023	.3051

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0254**	**.0140**	**.0019**	**1.366**	**-.0002**	**.0096**	**1.918**
Stddev	.0005	.0002	.0002	.019	.0011	.0004	.016
%RSD	1.848	1.399	10.04	1.361	716.0	4.484	.8451
#1	.0258	.0139	.0020	1.379	.0006	.0099	1.929
#2	.0251	.0142	.0017	1.353	-.0010	.0093	1.907

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103710.**	**16504.**	**3799.2**	**8549.5**
Stddev	101.	4.	4.4	13.3
%RSD	.09720	.02417	.11610	.15594
#1	103640.	16501.	3796.1	8540.0
#2	103780.	16507.	3802.3	8558.9

Zoom In Zoom Out

Sample Name: jc62779-5 Acquired: 4/3/2018 15:48:46 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.798**	**.0009**	**.0122**	**.0825**	**-.0010**	**.0222**	W **46.71**	**.0396**
Stddev	.022	.0007	.0010	.0004	.0025	.0020	.17	.0002
%RSD	1.206	79.07	7.837	.5442	258.4	9.045	.3634	.5719
#1	1.813	.0004	.0115	.0821	.0008	.0208	46.83	.0394
#2	1.782	.0014	.0128	.0828	-.0027	.0236	46.59	.0397

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0038**	**.0609**	**.0177**	**.0524**	**.0057**	**-.0012**	**-.0113**	**-.0063**
Stddev	.0031	.0009	.0010	.0037	.0022	.0035	.0021	.0015
%RSD	81.28	1.459	5.906	7.077	38.90	278.3	18.59	24.26
#1	.0016	.0603	.0184	.0550	.0073	.0012	-.0099	-.0074
#2	.0060	.0615	.0169	.0498	.0041	-.0037	-.0128	-.0053

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.3568**	**153.0**	**107.2**	**77.77**	**2.884**	**541.6**	**.0268**	**.0018**
Stddev	.0057	1.8	1.2	1.39	.047	6.1	.0027	.0014
%RSD	1.599	1.178	1.078	1.784	1.630	1.131	10.02	77.39
#1	.3608	154.3	108.0	78.75	2.918	545.9	.0249	.0008
#2	.3527	151.7	106.4	76.79	2.851	537.2	.0286	.0027

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**12.58**	**-.0065**	**.9396**	**.0024**	**.0198**	**.0030**	**1.695**	**-.0032**
Stddev	.03	.0003	.0107	.0006	.0031	.0009	.015	.0001
%RSD	.1994	5.090	1.135	24.74	15.69	29.55	.8553	4.316
#1	12.60	-.0067	.9471	.0020	.0176	.0036	1.684	-.0031
#2	12.57	-.0063	.9321	.0029	.0220	.0024	1.705	-.0033

Elem	Li6707	P_1774
Avg	**.0226**	**1.829**
Stddev	.0084	.003
%RSD	37.24	.1794
#1	.0286	1.831
#2	.0167	1.827

Zoom In Zoom Out

Sample Name: jc62779-5 Acquired: 4/3/2018 15:48:46 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**101760.**	**16203.**	**3751.4**	**8355.4**
Stddev	311.	27.	6.5	9.0
%RSD	.30541	.16463	.17340	.10780
#1	101980.	16184.	3746.8	8349.0
#2	101540.	16222.	3756.0	8361.7

Zoom In Zoom Out

Sample Name: jc62779-7 Acquired: 4/3/2018 15:53:09 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1218**	**.0001**	**.0030**	**.0024**	**.0039**	**.0044**	**10.60**	**.0158**	**.0008**
Stddev	.0027	.0000	.0003	.0002	.0006	.0002	.04	.0003	.0010
%RSD	2.245	19.39	8.720	10.38	14.55	3.931	.4108	1.890	124.5
#1	.1238	.0001	.0028	.0022	.0035	.0043	10.63	.0156	.0001
#2	.1199	.0001	.0032	.0025	.0043	.0046	10.57	.0160	.0016

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0147**	**.0121**	**.0027**	**.0014**	**.0013**	**.0008**	**-.0023**	**.6128**	**82.08**
Stddev	.0000	.0001	.0009	.0030	.0000	.0032	.0010	.0201	1.63
%RSD	.0461	.4878	32.73	211.3	2.607	384.1	41.96	3.284	1.983
#1	.0147	.0121	.0033	-.0007	.0013	-.0014	-.0030	.6270	83.23
#2	.0147	.0120	.0021	.0035	.0013	.0031	-.0016	.5985	80.93

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.7736**	**28.43**	**2.588**	**163.9**	**.0364**	**-.0000**	**12.92**	**-.0009**	**.2413**
Stddev	.0034	.53	.029	3.6	.0005	.0002	.26	.0006	.0052
%RSD	.4348	1.849	1.131	2.199	1.438	1991.	2.014	67.53	2.162
#1	.7759	28.80	2.609	166.5	.0360	.0001	13.10	-.0005	.2449
#2	.7712	28.06	2.567	161.4	.0368	-.0001	12.74	-.0013	.2376

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0080**	**.0163**	**.0001**	**6.248**	**.0011**	**.0115**	**1.180**
Stddev	.0007	.0032	.0002	.134	.0002	.0005	.020
%RSD	8.656	19.72	172.3	2.147	14.64	4.122	1.662
#1	.0075	.0186	-.0000	6.343	.0010	.0112	1.194
#2	.0085	.0141	.0002	6.153	.0013	.0119	1.167

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102610.**	**16008.**	**3755.9**	**8432.8**
Stddev	119.	205.	4.2	2.0
%RSD	.11584	1.2796	.11171	.02320
#1	102520.	15863.	3752.9	8431.4
#2	102690.	16153.	3758.8	8434.2

Zoom In Zoom Out

Sample Name: jc62779-9 Acquired: 4/3/2018 15:57:24 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2783**	**.0003**	**.0042**	**.0048**	**.0125**	**.0108**	**13.91**	**.0114**	**.0005**
Stddev	.0031	.0001	.0004	.0003	.0001	.0002	.10	.0008	.0013
%RSD	1.099	45.14	9.369	7.185	.4059	1.969	.6828	6.656	265.2
#1	.2804	.0004	.0045	.0050	.0124	.0109	13.98	.0119	.0014
#2	.2761	.0002	.0039	.0045	.0125	.0106	13.85	.0109	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0254**	**.0226**	**.0061**	**.0006**	**.0031**	**-.0040**	**.0011**	**4.550**	**82.02**
Stddev	.0013	.0004	.0008	.0014	.0027	.0008	.0020	.027	.95
%RSD	5.134	1.801	12.62	228.1	86.56	19.49	178.8	.5882	1.152
#1	.0263	.0228	.0056	.0016	.0050	-.0035	.0026	4.569	82.69
#2	.0245	.0223	.0067	-.0004	.0012	-.0046	-.0003	4.531	81.35

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**7.246**	**19.01**	**2.564**	**64.07**	**.0157**	**.0075**	**13.77**	**-.0021**	**.2450**
Stddev	.075	.04	.033	.71	.0000	.0002	.08	.0003	.0028
%RSD	1.040	.2248	1.294	1.101	.1774	2.977	.5496	11.82	1.123
#1	7.299	19.04	2.587	64.57	.0157	.0073	13.82	-.0023	.2470
#2	7.193	18.98	2.540	63.57	.0157	.0077	13.72	-.0019	.2431

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0701**	**.0188**	**.0023**	**2.237**	**-.0009**	**.0153**	**1.006**
Stddev	.0012	.0002	.0005	.008	.0024	.0041	.004
%RSD	1.660	.8543	23.71	.3568	270.1	27.10	.3968
#1	.0709	.0187	.0019	2.242	.0008	.0124	1.009
#2	.0693	.0189	.0027	2.231	-.0026	.0182	1.004

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105010.**	**16426.**	**3823.3**	**8628.3**
Stddev	18.	63.	3.2	3.0
%RSD	.01725	.38192	.08460	.03468
#1	105020.	16382.	3825.6	8630.4
#2	105000.	16471.	3821.0	8626.2

Zoom In Zoom Out

Sample Name: jc62779-4f Acquired: 4/3/2018 16:01:45 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1954**	**.0002**	**.0040**	**.0040**	**-.0005**	**.0033**	**15.81**	**.0049**	**.0010**
Stddev	.0003	.0001	.0002	.0004	.0010	.0007	.05	.0001	.0014
%RSD	.1379	30.94	6.153	9.498	208.3	20.64	.3090	2.125	149.1
#1	.1956	.0002	.0039	.0037	.0002	.0038	15.85	.0050	-.0001
#2	.1952	.0001	.0042	.0043	-.0011	.0028	15.78	.0048	.0020

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0195**	**.0052**	**.0022**	**.0032**	**.0002**	**-.0034**	**.0007**	**.0263**	**90.26**
Stddev	.0006	.0001	.0003	.0013	.0012	.0005	.0006	.0007	.29
%RSD	3.054	1.573	11.98	42.43	548.3	15.44	81.14	2.518	.3261
#1	.0199	.0051	.0024	.0022	.0011	-.0038	.0003	.0258	90.47
#2	.0191	.0052	.0021	.0041	-.0006	-.0030	.0011	.0268	90.05

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.3110**	**24.95**	**1.396**	**93.73**	**.0141**	**.0011**	**8.640**	**-.0017**	**.2978**
Stddev	.0003	.09	.008	.09	.0023	.0001	.006	.0010	.0009
%RSD	.0952	.3477	.5508	.0961	16.11	13.31	.0695	60.13	.3080
#1	.3108	24.89	1.391	93.79	.0125	.0012	8.644	-.0024	.2971
#2	.3112	25.01	1.402	93.67	.0158	.0010	8.636	-.0010	.2984

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0010**	**.0127**	**.0005**	**1.323**	**.0027**	**.0104**	**1.831**
Stddev	.0004	.0009	.0000	.004	.0028	.0001	.005
%RSD	42.65	6.942	2.296	.2719	104.5	.8534	.2556
#1	-.0013	.0133	.0005	1.326	.0046	.0104	1.828
#2	-.0007	.0120	.0004	1.321	.0007	.0103	1.834

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103700.**	**16333.**	**3772.1**	**8547.6**
Stddev	166.	17.	.0	8.0
%RSD	.15967	.10298	.00115	.09304
#1	103820.	16345.	3772.1	8541.9
#2	103590.	16322.	3772.2	8553.2

Zoom In Zoom Out

Sample Name: jc62779-5f Acquired: 4/3/2018 16:06:06 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.911**	**.0008**	**.0125**	**.0862**	**-.0035**	**.0061**	W **49.78**	**.0424**
Stddev	.015	.0002	.0015	.0019	.0013	.0002	.77	.0028
%RSD	.7954	21.00	11.94	2.183	38.27	2.574	1.546	6.643
#1	1.921	.0009	.0136	.0875	-.0026	.0062	50.33	.0444
#2	1.900	.0007	.0114	.0848	-.0045	.0060	49.24	.0404

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0041**	**.0609**	**.0143**	**.0601**	**-.0026**	**.0014**	**-.0021**	**-.0070**
Stddev	.0033	.0020	.0005	.0004	.0012	.0005	.0004	.0010
%RSD	81.14	3.249	3.803	.5856	47.84	34.86	18.16	14.02
#1	.0017	.0595	.0139	.0598	-.0017	.0018	-.0018	-.0076
#2	.0064	.0623	.0147	.0603	-.0035	.0011	-.0024	-.0063

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0047**	**162.7**	**113.1**	**82.77**	**2.962**	**572.8**	**.0251**	**.0006**
Stddev	.0215	1.0	.6	.71	.055	4.4	.0013	.0009
%RSD	459.1	.6244	.5074	.8554	1.843	.7702	5.123	143.7
#1	.0199	163.4	113.5	83.27	2.924	575.9	.0260	.0013
#2	-.0105	162.0	112.7	82.27	3.001	569.6	.0242	-.0000

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**12.77**	**-.0048**	**1.006**	**-.0030**	**.0175**	**.0021**	**1.753**	**.0026**
Stddev	.01	.0023	.005	.0003	.0039	.0017	.003	.0017
%RSD	.0922	47.85	.4535	10.49	22.61	82.54	.1691	67.50
#1	12.78	-.0032	1.009	-.0033	.0147	.0009	1.755	.0013
#2	12.76	-.0064	1.003	-.0028	.0202	.0033	1.751	.0038

Elem	Li6707	P_1774
Avg	**.0225**	**1.911**
Stddev	.0056	.002
%RSD	24.74	.0802
#1	.0186	1.912
#2	.0265	1.910

Zoom In Zoom Out

Sample Name: jc62779-5f Acquired: 4/3/2018 16:06:06 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102030.**	**16277.**	**3752.2**	**8345.0**
Stddev	7.	19.	.9	5.0
%RSD	.00682	.11951	.02279	.05942
#1	102030.	16264.	3752.8	8341.5
#2	102020.	16291.	3751.6	8348.5

Zoom In Zoom Out

Sample Name: jc62779-7f Acquired: 4/3/2018 16:10:28 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1151**	**.0000**	**.0029**	**.0028**	**.0001**	**.0052**	**10.62**	**.0150**	**-.0004**
Stddev	.0009	.0000	.0003	.0005	.0003	.0001	.05	.0002	.0001
%RSD	.7527	26.94	10.59	19.24	236.9	2.673	.4646	1.278	27.81
#1	.1157	.0000	.0026	.0031	-.0001	.0051	10.66	.0149	-.0003
#2	.1145	.0000	.0031	.0024	.0003	.0053	10.59	.0152	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0131**	**.0113**	**.0006**	**.0018**	**.0014**	**-.0064**	**-.0015**	**.0176**	**79.53**
Stddev	.0005	.0002	.0002	.0004	.0003	.0022	.0013	.0227	.53
%RSD	3.961	2.099	33.62	21.90	20.12	33.49	86.79	129.1	.6610
#1	.0135	.0115	.0007	.0015	.0012	-.0080	-.0024	.0015	79.90
#2	.0128	.0111	.0005	.0021	.0016	-.0049	-.0006	.0336	79.16

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0163**	**27.33**	**2.317**	**159.1**	**.0355**	**-.0004**	**11.95**	**-.0010**	**.2334**
Stddev	.0012	.10	.029	.8	.0014	.0004	.03	.0004	.0009
%RSD	7.094	.3622	1.255	.5035	4.054	92.61	.2352	38.33	.3982
#1	.0155	27.40	2.297	159.7	.0345	-.0007	11.97	-.0007	.2341
#2	.0172	27.26	2.338	158.6	.0365	-.0002	11.93	-.0013	.2327

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0011**	**.0140**	**-.0005**	**6.274**	**-.0004**	**.0094**	**1.195**
Stddev	.0007	.0005	.0001	.038	.0004	.0006	.007
%RSD	64.51	3.909	19.83	.6007	90.00	6.359	.6181
#1	-.0016	.0144	-.0005	6.300	-.0007	.0098	1.200
#2	-.0006	.0137	-.0006	6.247	-.0002	.0090	1.190

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102210.**	**16279.**	**3749.5**	**8429.1**
Stddev	229.	32.	.9	3.7
%RSD	.22411	.19395	.02491	.04378
#1	102050.	16301.	3748.9	8426.5
#2	102370.	16257.	3750.2	8431.7

Zoom In Zoom Out

Sample Name: jc62779-9f Acquired: 4/3/2018 16:14:43 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2329**	**-.0000**	**.0030**	**.0028**	**-.0004**	**.0023**	**13.17**	**.0054**	**.0001**
Stddev	.0001	.0001	.0002	.0004	.0007	.0001	.04	.0003	.0008
%RSD	.0624	449.7	6.565	14.57	158.9	2.160	.3376	6.509	1187.
#1	.2330	.0000	.0031	.0025	-.0009	.0024	13.20	.0051	.0007
#2	.2328	-.0001	.0028	.0031	.0001	.0023	13.13	.0056	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0165**	**.0051**	**.0038**	**.0010**	**.0020**	**.0036**	**-.0018**	**.0341**	**81.41**
Stddev	.0006	.0002	.0007	.0003	.0013	.0049	.0023	.0030	.05
%RSD	3.607	3.593	19.46	31.30	62.93	137.6	127.9	8.801	.0666
#1	.0170	.0052	.0033	.0013	.0011	.0070	-.0002	.0362	81.37
#2	.0161	.0049	.0043	.0008	.0029	.0001	-.0034	.0319	81.45

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.4321**	**18.41**	**1.615**	**63.40**	**.0115**	**.0077**	**7.727**	**-.0022**	**.2401**
Stddev	.0029	.12	.043	.16	.0015	.0003	.041	.0002	.0002
%RSD	.6710	.6555	2.694	.2465	13.33	3.730	.5266	7.751	.0628
#1	.4342	18.33	1.584	63.51	.0126	.0079	7.755	-.0023	.2400
#2	.4301	18.50	1.645	63.29	.0104	.0075	7.698	-.0021	.2402

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0019**	**.0088**	**.0002**	**2.199**	**.0009**	**.0102**	**.9032**
Stddev	.0002	.0011	.0005	.020	.0017	.0008	.0026
%RSD	11.80	12.27	200.3	.9015	189.9	8.174	.2867
#1	-.0017	.0080	-.0001	2.213	.0020	.0108	.9050
#2	-.0020	.0096	.0006	2.185	-.0003	.0096	.9013

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103520.**	**16438.**	**3794.1**	**8642.4**
Stddev	485.	63.	5.8	10.3
%RSD	.46829	.38248	.15325	.11914
#1	103870.	16483.	3790.0	8635.1
#2	103180.	16394.	3798.2	8649.7

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 16:19:07 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.975**	**1.973**	**1.958**	**1.946**	**1.976**	**1.939**	**2.012**	**1.988**	**.2446**
Stddev	.007	.004	.001	.001	.000	.001	.001	.002	.0005
%RSD	.3756	.1812	.0582	.0350	.0193	.0572	.0243	.1202	.1987
#1	1.981	1.975	1.957	1.947	1.975	1.940	2.013	1.986	.2450
#2	1.970	1.970	1.959	1.946	1.976	1.938	2.012	1.989	.2443
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.977**	**2.004**	**1.934**	**1.974**	**2.015**	**1.969**	**1.956**	**39.16**	**39.38**
Stddev	.001	.004	.001	.004	.003	.003	.003	.02	.03
%RSD	.0454	.2127	.0372	.1886	.1634	.1559	.1745	.0386	.0811
#1	1.977	2.001	1.935	1.977	2.012	1.971	1.954	39.17	39.40
#2	1.978	2.008	1.934	1.972	2.017	1.967	1.959	39.15	39.36
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.15**	**38.96**	**38.92**	**39.38**	**1.954**	**2.002**	**4.835**	**1.990**	**1.970**
Stddev	.05	.03	.01	.07	.001	.002	.003	.007	.003
%RSD	.1353	.0677	.0319	.1671	.0594	.0766	.0575	.3371	.1724
#1	39.19	38.94	38.93	39.42	1.953	2.001	4.833	1.985	1.973
#2	39.12	38.98	38.91	39.33	1.954	2.003	4.837	1.994	1.968
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 16:19:07 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.983**	**1.977**	**1.976**	**1.946**	**1.970**	**1.949**	**1.961**
Stddev	.000	.001	.001	.001	.000	.001	.002
%RSD	.0210	.0379	.0412	.0652	.0030	.0271	.1154
#1	1.983	1.976	1.976	1.947	1.970	1.950	1.959
#2	1.983	1.977	1.975	1.945	1.970	1.949	1.962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102550.**	**16229.**	**3797.4**	**8326.1**
Stddev	211.	25.	1.1	7.0
%RSD	.20607	.15103	.02935	.08458
#1	102700.	16211.	3798.2	8321.1
#2	102400.	16246.	3796.7	8331.1

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 16:23:10 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0005**	**-.0000**	**.0004**	**.0000**	**.0006**	**.0001**	**-.0002**
Stddev	.0001	.0000	.0000	.0000	.0002	.0002	.0001	.0004	.0003
%RSD	55.65	37.67	.0884	781.6	56.05	901.7	15.82	301.9	150.3
#1	.0003	.0001	.0005	.0000	.0006	-.0001	.0005	.0004	-.0004
#2	.0001	.0001	.0005	-.0000	.0002	.0002	.0006	-.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0004**	**.0001**	**-.0002**	**.0009**	**.0002**	**-.0000**	**.0160**	**-.0010**
Stddev	.0000	.0000	.0003	.0001	.0006	.0004	.0003	.0005	.0022
%RSD	3.294	10.37	304.1	55.26	58.07	261.2	17890.	3.255	216.7
#1	.0006	.0004	.0004	-.0003	.0013	-.0001	.0002	.0164	.0005
#2	.0006	.0004	-.0001	-.0001	.0006	.0005	-.0002	.0157	-.0026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**-.0424**	**.0621**	**.0096**	**.0001**	**.0008**	**.0026**	**.0009**	**.0003**
Stddev	.0018	.0338	.0069	.0146	.0004	.0001	.0005	.0001	.0001
%RSD	35.94	79.57	11.08	151.8	352.3	7.600	17.59	9.639	20.55
#1	.0061	-.0185	.0669	-.0007	.0004	.0008	.0022	.0009	.0002
#2	.0037	-.0663	.0572	.0200	-.0002	.0009	.0029	.0010	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 16:23:10 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0004**	**.0004**	**-.0016**	**-.0001**	**.0016**	**.0053**
Stddev	.0002	.0001	.0002	.0023	.0000	.0012	.0004
%RSD	68.39	16.44	40.07	137.9	32.89	75.20	7.333
#1	.0001	.0004	.0003	-.0032	-.0000	.0007	.0056
#2	.0003	.0005	.0006	-.0000	-.0001	.0024	.0050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107320.**	**16490.**	**3924.9**	**9204.7**
Stddev	132.	20.	7.4	10.5
%RSD	.12345	.12283	.18889	.11446
#1	107230.	16504.	3930.2	9212.2
#2	107410.	16475.	3919.7	9197.3

Zoom In Zoom Out

Sample Name: mp6359-mb1conf Acquired: 4/3/2018 16:27:32 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0001**	**-.0001**	**.0001**	**-.0001**	**-.0000**	**-.0003**	**-.0000**	**-.0001**	**-.0000**
Stddev	.0000	.0001	.0001	.0003	.0001	.0002	.0000	.0001	.0007
%RSD	44.26	65.96	46.11	613.9	468.8	77.29	312.5	101.1	1453.
#1	.0000	-.0002	.0001	.0002	-.0001	-.0001	.0000	-.0002	-.0006
#2	.0001	-.0001	.0002	-.0003	.0000	-.0004	-.0000	-.0000	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0002**	**-.0012**	**-.0009**	**.0005**	**-.0018**	**.0004**	**.0148**	**-.0044**
Stddev	.0002	.0000	.0006	.0004	.0002	.0006	.0008	.0010	.0022
%RSD	243.9	5.667	49.74	37.94	33.63	32.92	210.8	6.592	49.60
#1	.0003	.0002	-.0008	-.0012	.0007	-.0022	-.0002	.0155	-.0028
#2	-.0001	.0002	-.0016	-.0007	.0004	-.0014	.0009	.0141	-.0059

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0008**	**-.0169**	**.0416**	**.0080**	**-.0006**	**.0000**	**-.0006**	**.0000**	**.0001**
Stddev	.0017	.0031	.0104	.0026	.0000	.0001	.0001	.0000	.0000
%RSD	212.0	18.31	24.92	33.16	5.968	273.7	23.30	276.7	9.141
#1	-.0004	-.0147	.0490	.0061	-.0005	.0001	-.0005	.0001	.0001
#2	.0020	-.0191	.0343	.0099	-.0006	-.0000	-.0007	-.0000	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**-.0001**	**.0005**	**.0008**	**-.0002**	**.0010**	**.0061**
Stddev	.0000	.0005	.0000	.0031	.0008	.0003	.0001
%RSD	36.38	986.2	.3425	375.0	441.9	29.33	1.128
#1	-.0001	.0003	.0005	-.0014	-.0007	.0012	.0060
#2	-.0001	-.0004	.0005	.0030	.0004	.0008	.0061

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107830.**	**16577.**	**3897.0**	**9170.2**
Stddev	254.	18.	2.2	8.0
%RSD	.23590	.10845	.05664	.08757
#1	107650.	16565.	3898.6	9175.9
#2	108010.	16590.	3895.5	9164.5

Zoom In Zoom Out

Sample Name: jc62768-15 Acquired: 4/3/2018 16:31:52 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0418**	**.0001**	**.0028**	**.0011**	**.0023**	**.0074**	**.3074**	**.0052**
Stddev	.0001	.0000	.0002	.0003	.0005	.0004	.0004	.0001
%RSD	.1564	60.25	6.646	29.45	22.51	4.870	.1311	2.295
#1	.0419	.0001	.0029	.0009	.0019	.0076	.3076	.0051
#2	.0418	.0000	.0027	.0014	.0026	.0071	.3071	.0053

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0011**	**.0032**	**.0389**	**.0771**	F **-.0036**	**.0017**	**.0015**	**-.0003**
Stddev	.0000	.0004	.0002	.0014	.0008	.0007	.0016	.0023
%RSD	2.321	12.93	.4221	1.828	21.79	39.31	112.5	843.8
#1	-.0011	.0035	.0388	.0781	-.0041	.0012	.0026	-.0019
#2	-.0012	.0029	.0390	.0761	-.0030	.0021	.0003	.0013

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.6517**	**64.05**	**71.98**	**7.489**	**5.230**	**234.2**	**.0485**	**.0005**
Stddev	.0029	.01	.02	.007	.042	.8	.0003	.0001
%RSD	.4414	.0226	.0253	.0925	.8105	.3386	.5226	12.45
#1	.6538	64.03	71.96	7.494	5.200	234.7	.0483	.0005
#2	.6497	64.06	71.99	7.484	5.260	233.6	.0487	.0004

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.899**	**-.0000**	**.2906**	**.0083**	**.0040**	**.0020**	**1.259**	**-.0007**
Stddev	.002	.0000	.0001	.0001	.0006	.0000	.000	.0010
%RSD	.0606	71.70	.0228	1.089	15.31	.9736	.0049	147.0
#1	2.901	-.0001	.2906	.0083	.0044	.0020	1.259	-.0014
#2	2.898	-.0000	.2905	.0082	.0036	.0020	1.259	.0000

Elem	Li6707	P_1774
Avg	**.0019**	**.0723**
Stddev	.0001	.0025
%RSD	7.497	3.449
#1	.0018	.0705
#2	.0020	.0741

Zoom In Zoom Out

Sample Name: jc62768-15 Acquired: 4/3/2018 16:31:52 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**99302.**	**16355.**	**3648.0**	**8006.3**
Stddev	105.	39.	1.1	7.7
%RSD	.10578	.23627	.03144	.09588
#1	99228.	16383.	3648.8	8000.9
#2	99377.	16328.	3647.2	8011.7

Zoom In Zoom Out

Sample Name: mp6395-mb2 3 Acquired: 4/3/2018 16:36:14 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0004**	**-.0000**	**.0000**	**-.0000**	**-.0001**	**.0024**	**.0004**	**.0005**	**-.0003**
Stddev	.0001	.0000	.0001	.0002	.0002	.0004	.0000	.0002	.0003
%RSD	12.60	91.46	211.6	466.1	128.8	17.92	3.414	32.56	85.84
#1	.0004	-.0000	.0001	.0001	-.0003	.0027	.0004	.0006	-.0001
#2	.0004	-.0001	-.0000	-.0002	-.0000	.0021	.0004	.0004	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0002**	**.0006**	**.0005**	**-.0006**	**.0015**	**-.0014**	**-.0001**	**.0218**	**.5792**
Stddev	.0001	.0001	.0002	.0005	.0001	.0000	.0006	.0002	.0031
%RSD	52.51	13.57	48.18	84.91	8.950	1.374	1111.	.8242	.5422
#1	.0003	.0007	.0003	-.0009	.0014	-.0015	.0004	.0219	.5770
#2	.0001	.0006	.0007	-.0002	.0016	-.0014	-.0005	.0217	.5814

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0223**	**.1068**	**.2188**	**1.190**	**.0405**	**-.0000**	**.1298**	**.0004**	**.0007**
Stddev	.0002	.0158	.0038	.002	.0004	.0002	.0006	.0005	.0001
%RSD	1.017	14.83	1.751	.1358	1.030	361.9	.4548	142.2	12.17
#1	.0225	.0956	.2215	1.191	.0408	-.0002	.1302	.0007	.0008
#2	.0221	.1180	.2161	1.189	.0402	.0001	.1294	-.0000	.0007

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0014**	**.0002**	**.1905**	**.0007**	**.0013**	**.0067**
Stddev	.0003	.0007	.0000	.0000	.0005	.0010	.0005
%RSD	246.2	54.75	25.57	.0045	68.36	74.88	8.013
#1	-.0001	.0008	.0002	.1905	.0004	.0020	.0064
#2	.0003	.0019	.0001	.1905	.0011	.0006	.0071

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108730.**	**16692.**	**3949.0**	**9275.9**
Stddev	166.	21.	3.3	8.6
%RSD	.15227	.12478	.08456	.09244
#1	108620.	16677.	3946.6	9269.8
#2	108850.	16706.	3951.3	9281.9

Zoom In Zoom Out

Sample Name: mp6395-b2 Acquired: 4/3/2018 16:40:34 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.065**	**2.045**	**2.034**	**2.008**	**2.053**	**2.035**	**2.093**	**2.049**
Stddev	.001	.000	.000	.003	.001	.003	.004	.001
%RSD	.0601	.0010	.0100	.1580	.0441	.1210	.1805	.0543
#1	2.064	2.045	2.034	2.010	2.054	2.034	2.095	2.050
#2	2.066	2.045	2.034	2.006	2.052	2.037	2.090	2.048

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2407**	**2.069**	**2.069**	**1.958**	**2.062**	**2.075**	**2.033**	**2.002**
Stddev	.0002	.001	.000	.003	.003	.002	.005	.002
%RSD	.0968	.0381	.0112	.1729	.1438	.0829	.2373	.0879
#1	.2405	2.069	2.070	1.960	2.064	2.074	2.036	2.000
#2	.2409	2.070	2.069	1.955	2.060	2.076	2.030	2.003

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.20**	**25.38**	**25.17**	**24.70**	**24.93**	**25.61**	**2.018**	**2.053**
Stddev	.03	.06	.00	.08	.01	.02	.005	.000
%RSD	.1148	.2530	.0187	.3100	.0350	.0767	.2326	.0077
#1	25.23	25.42	25.17	24.75	24.93	25.63	2.014	2.053
#2	25.18	25.33	25.17	24.64	24.94	25.60	2.021	2.053

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0320**	**2.042**	**2.039**	**2.021**	**2.004**	**2.007**	F **-.0754**	**.0000**
Stddev	.0001	.003	.004	.002	.003	.000	.0001	.0008
%RSD	.3397	.1258	.1701	.1154	.1244	.0187	.1163	3060.
#1	.0321	2.044	2.037	2.023	2.006	2.007	-.0754	-.0005
#2	.0320	2.040	2.042	2.020	2.002	2.007	-.0753	.0006

Elem	Li6707	P_1774
Avg	**.0003**	**2.025**
Stddev	.0006	.002
%RSD	187.0	.1188
#1	-.0001	2.027
#2	.0008	2.024

Zoom In Zoom Out

Sample Name: mp6395-b2 Acquired: 4/3/2018 16:40:34 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103960.**	**16570.**	**3812.5**	**8507.1**
Stddev	9.	63.	.0	1.3
%RSD	.00889	.38157	.00007	.01553
#1	103970.	16525.	3812.5	8506.2
#2	103950.	16615.	3812.5	8508.0

Zoom In Zoom Out

Sample Name: jc62304-76 Acquired: 4/3/2018 16:44:38 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0072**	**.0000**	**.0002**	**.0007**	**.0032**	**.2283**	**.0212**	**.0024**	**-.0003**
Stddev	.0001	.0000	.0001	.0001	.0003	.0007	.0001	.0001	.0002
%RSD	1.152	98.43	29.16	8.594	9.096	.3113	.2414	5.273	62.18
#1	.0072	.0000	.0002	.0007	.0034	.2278	.0212	.0023	-.0005
#2	.0071	.0000	.0003	.0006	.0030	.2288	.0212	.0025	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0030**	**.0219**	**.0031**	**.0001**	**.0235**	**-.0001**	**.0027**	**.6625**	**2.736**
Stddev	.0002	.0001	.0005	.0001	.0003	.0016	.0011	.0014	.005
%RSD	6.473	.2369	16.60	168.9	1.249	1847.	42.06	.2054	.1949
#1	.0029	.0219	.0027	.0002	.0237	.0011	.0035	.6635	2.739
#2	.0031	.0220	.0035	-.0000	.0233	-.0012	.0019	.6616	2.732

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**2.510**	**.9013**	**3.047**	**10.56**	**.1485**	**.0022**	**2.299**	**.0029**	**.0081**
Stddev	.002	.0003	.005	.01	.0002	.0001	.002	.0009	.0000
%RSD	.0685	.0358	.1532	.0788	.1175	4.692	.0939	29.44	.0669
#1	2.508	.9015	3.044	10.57	.1483	.0023	2.297	.0023	.0081
#2	2.511	.9011	3.050	10.55	.1486	.0022	2.300	.0035	.0081

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0356**	**.0048**	**.0026**	**11.78**	**.0009**	**.0039**	**.0831**
Stddev	.0001	.0009	.0000	.02	.0019	.0010	.0014
%RSD	.3410	19.20	1.059	.1488	199.3	26.02	1.668
#1	.0355	.0055	.0026	11.77	-.0004	.0046	.0821
#2	.0357	.0042	.0026	11.80	.0023	.0032	.0841

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107420.**	**16653.**	**3903.6**	**9069.1**
Stddev	226.	18.	10.6	16.9
%RSD	.21047	.10559	.27048	.18581
#1	107580.	16641.	3911.1	9081.1
#2	107260.	16666.	3896.1	9057.2

Zoom In Zoom Out

Sample Name: jc62304-77 Acquired: 4/3/2018 16:48:55 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0068**	**.0000**	**.0002**	**.0000**	**.0016**	**.0066**	**.0111**	**.0002**	**-.0002**
Stddev	.0002	.0000	.0001	.0001	.0004	.0000	.0000	.0002	.0005
%RSD	2.648	182.7	44.59	493.4	26.19	.4614	.2353	113.4	290.4
#1	.0069	.0000	.0002	-.0001	.0020	.0066	.0111	.0003	.0002
#2	.0067	-.0000	.0003	.0001	.0013	.0066	.0111	.0000	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0049**	**.0109**	**.0131**	**-.0012**	**.0086**	**.0029**	**.0025**	**.6153**	**8.991**
Stddev	.0005	.0001	.0010	.0011	.0003	.0016	.0008	.0026	.009
%RSD	9.446	1.108	7.543	94.40	3.904	54.81	30.94	.4213	.0994
#1	.0052	.0110	.0124	-.0004	.0084	.0018	.0031	.6172	8.998
#2	.0046	.0109	.0138	-.0020	.0088	.0040	.0020	.6135	8.985

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.5708**	**1.949**	**1.224**	**6.776**	**.0935**	**.0015**	**4.316**	**.0008**	**.0217**
Stddev	.0123	.004	.009	.029	.0005	.0001	.002	.0006	.0001
%RSD	2.150	.2182	.7628	.4307	.5124	6.376	.0513	76.52	.6514
#1	.5795	1.946	1.217	6.796	.0931	.0014	4.318	.0004	.0218
#2	.5621	1.952	1.231	6.755	.0938	.0015	4.315	.0012	.0216

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0209**	**.0097**	**.0017**	**1.067**	**-.0029**	**.0036**	**.1803**
Stddev	.0005	.0000	.0001	.005	.0005	.0011	.0004
%RSD	2.422	.3378	8.503	.4330	16.38	30.35	.2084
#1	.0213	.0097	.0018	1.064	-.0033	.0044	.1800
#2	.0206	.0097	.0016	1.070	-.0026	.0028	.1805

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**106610.**	**16553.**	**3874.1**	**9008.8**
Stddev	391.	53.	1.7	7.7
%RSD	.36686	.32024	.04336	.08497
#1	106330.	16516.	3872.9	9003.4
#2	106890.	16591.	3875.3	9014.2

Zoom In Zoom Out

Sample Name: jc63206-1a Acquired: 4/3/2018 16:53:14 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0339**	**-.0001**	**.0000**	**.0006**	**.0012**	**.0074**	**.0075**	**.0015**	**-.0004**
Stddev	.0006	.0000	.0001	.0000	.0003	.0002	.0000	.0004	.0000
%RSD	1.663	35.90	195.7	4.992	24.15	2.583	.4256	27.48	9.170
#1	.0343	-.0002	.0001	.0006	.0010	.0075	.0076	.0018	-.0004
#2	.0335	-.0001	-.0000	.0006	.0014	.0072	.0075	.0012	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0071**	**.0022**	**.1162**	**.0002**	**.0030**	**.0015**	**.0310**	**.0900**	**149.8**
Stddev	.0003	.0001	.0007	.0011	.0002	.0006	.0007	.0103	.5
%RSD	4.659	4.366	.5767	677.8	7.934	41.28	2.383	11.39	.3490
#1	.0069	.0022	.1157	.0010	.0028	.0011	.0305	.0973	150.2
#2	.0073	.0023	.1166	-.0006	.0031	.0019	.0316	.0828	149.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1547**	**2.820**	**9.045**	**25.35**	**-.1032**	**.0099**	**4.129**	**-.0001**	**.6767**
Stddev	.0034	.027	.038	.15	.0007	.0000	.000	.0003	.0019
%RSD	2.226	.9474	.4220	.5813	.7034	.3852	.0099	278.3	.2793
#1	.1522	2.839	9.072	25.45	.1027	.0099	4.129	.0001	.6780
#2	.1571	2.801	9.018	25.24	.1037	.0098	4.129	-.0003	.6753

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0021**	**.0077**	**.0013**	F **124.7**	**-.0011**	**.0023**	**.0348**
Stddev	.0000	.0003	.0002	.1	.0019	.0002	.0001
%RSD	.6765	3.383	14.91	.0633	171.1	6.809	.2698
#1	.0021	.0076	.0015	124.7	.0002	.0022	.0349
#2	.0021	.0079	.0012	124.6	-.0025	.0024	.0347

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**101790.**	**16399.**	**3672.9**	**8325.3**
Stddev	129.	31.	1.5	6.2
%RSD	.12721	.19151	.04201	.07484
#1	101700.	16377.	3671.8	8329.7
#2	101880.	16421.	3674.0	8320.8

Zoom In Zoom Out

Sample Name: mp6402-mb1conf Acquired: 4/3/2018 16:57:31 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0002**	**-.0000**	**-.0002**	**-.0004**	**-.0001**	**.0002**	**-.0000**	**.0001**	**-.0001**
Stddev	.0000	.0000	.0001	.0001	.0004	.0000	.0000	.0002	.0003
%RSD	7.103	100.4	22.80	23.05	402.6	23.52	10.51	298.3	308.1
#1	.0002	-.0000	-.0003	-.0003	-.0003	.0002	-.0000	.0002	-.0004
#2	.0002	-.0000	-.0002	-.0004	.0002	.0002	-.0000	-.0001	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0020**	**-.0011**	**-.0003**	**.0009**	**-.0006**	**.0006**	**.0034**	**.0061**
Stddev	.0002	.0000	.0012	.0010	.0003	.0010	.0002	.0084	.0012
%RSD	51.86	.3471	110.3	372.6	35.79	184.3	28.89	245.6	20.45
#1	.0002	.0020	-.0002	-.0010	.0012	.0002	.0007	.0094	.0052
#2	.0004	.0020	-.0019	.0004	.0007	-.0013	.0005	-.0025	.0069

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0026**	**-.0220**	**.0385**	**.0079**	**-.0005**	**-.0000**	**.0010**	**.0001**	**.0000**
Stddev	.0002	.0075	.0011	.0064	.0002	.0001	.0005	.0002	.0000
%RSD	9.440	34.11	2.972	81.02	33.31	199.3	44.65	311.6	397.7
#1	.0025	-.0167	.0393	.0034	-.0004	-.0001	.0007	.0003	.0000
#2	.0028	-.0273	.0377	.0124	-.0007	.0000	.0014	-.0001	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**-.0008**	**.0003**	**.0197**	**-.0009**	**.0011**	**.0064**
Stddev	.0003	.0003	.0002	.0026	.0002	.0004	.0013
%RSD	266.4	44.43	55.74	13.15	24.89	33.30	20.62
#1	-.0003	-.0010	.0005	.0216	-.0011	.0014	.0055
#2	.0001	-.0005	.0002	.0179	-.0008	.0008	.0073

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107950.**	**16576.**	**3904.8**	**9187.7**
Stddev	136.	118.	.7	.1
%RSD	.12642	.71474	.01797	.00087
#1	108040.	16660.	3905.3	9187.8
#2	107850.	16492.	3904.3	9187.7

Zoom In Zoom Out

Sample Name: mp6402-b1conf Acquired: 4/3/2018 17:01:50 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.060**	**2.062**	**2.042**	**2.021**	**2.062**	**2.044**	**2.107**	**2.063**
Stddev	.014	.004	.000	.000	.001	.004	.002	.002
%RSD	.6942	.1960	.0049	.0049	.0531	.1935	.0949	.0868
#1	2.070	2.065	2.042	2.021	2.063	2.047	2.109	2.064
#2	2.050	2.059	2.042	2.021	2.062	2.041	2.106	2.062

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2447**	**2.068**	**2.086**	**2.011**	**2.075**	**2.093**	**2.046**	**2.050**
Stddev	.0010	.006	.005	.001	.002	.003	.002	.004
%RSD	.4041	.2983	.2357	.0596	.1047	.1201	.0827	.1754
#1	.2454	2.072	2.089	2.011	2.074	2.095	2.047	2.053
#2	.2440	2.064	2.083	2.010	2.077	2.091	2.045	2.048

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.36**	**25.46**	**25.35**	**24.91**	**25.17**	**25.50**	**2.030**	**2.113**
Stddev	.06	.05	.06	.09	.04	.11	.001	.002
%RSD	.2283	.1895	.2296	.3772	.1719	.4172	.0569	.0982
#1	25.32	25.43	25.39	24.97	25.20	25.58	2.029	2.114
#2	25.40	25.49	25.30	24.84	25.14	25.43	2.031	2.111

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0049**	**2.096**	**2.056**	**2.075**	**2.007**	**2.064**	F **-.0748**	**.0015**
Stddev	.0007	.007	.006	.004	.009	.002	.0020	.0006
%RSD	13.94	.3200	.2723	.2010	.4756	.0783	2.656	40.08
#1	.0044	2.101	2.060	2.078	2.014	2.065	-.0762	.0019
#2	.0054	2.091	2.052	2.072	2.000	2.063	-.0734	.0011

Elem	Li6707	P_1774
Avg	**.0005**	**2.037**
Stddev	.0014	.000
%RSD	261.8	.0112
#1	.0015	2.036
#2	-.0005	2.037

Zoom In Zoom Out

Sample Name: mp6402-b1conf Acquired: 4/3/2018 17:01:50 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104170.**	**16468.**	**3815.3**	**8502.1**
Stddev	399.	41.	4.2	12.2
%RSD	.38318	.24887	.10894	.14326
#1	103890.	16497.	3818.2	8510.7
#2	104450.	16439.	3812.3	8493.5

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 17:05:54 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.969**	**1.964**	**1.960**	**1.946**	**1.982**	**1.938**	**2.017**	**1.990**	**.2444**
Stddev	.002	.003	.001	.005	.005	.002	.005	.003	.0005
%RSD	.0941	.1362	.0542	.2813	.2694	.1207	.2438	.1487	.2064
#1	1.971	1.963	1.961	1.942	1.986	1.937	2.020	1.988	.2448
#2	1.968	1.966	1.959	1.950	1.979	1.940	2.013	1.992	.2441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.985**	**2.008**	**1.931**	**1.969**	**2.015**	**1.967**	**1.954**	**39.42**	**39.39**
Stddev	.005	.004	.001	.001	.003	.000	.000	.00	.03
%RSD	.2685	.1896	.0468	.0364	.1441	.0177	.0086	.0069	.0641
#1	1.989	2.005	1.931	1.969	2.013	1.967	1.954	39.41	39.37
#2	1.981	2.011	1.930	1.968	2.017	1.967	1.954	39.42	39.41
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.91**	**38.66**	**38.87**	**39.39**	**1.951**	**2.005**	**4.825**	**1.988**	**1.971**
Stddev	.01	.05	.02	.02	.000	.001	.000	.002	.000
%RSD	.0301	.1371	.0500	.0451	.0172	.0711	.0034	.1070	.0044
#1	38.90	38.62	38.88	39.41	1.951	2.006	4.825	1.986	1.971
#2	38.92	38.70	38.85	39.38	1.951	2.004	4.825	1.989	1.971
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 17:05:54 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.984**	**1.984**	**1.979**	**1.954**	**1.967**	**1.942**	**1.965**
Stddev	.002	.003	.003	.002	.001	.000	.004
%RSD	.1037	.1481	.1298	.1016	.0249	.0002	.1952
#1	1.985	1.986	1.981	1.955	1.967	1.942	1.967
#2	1.983	1.982	1.977	1.952	1.968	1.942	1.962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102160.**	**16195.**	**3789.3**	**8301.2**
Stddev	153.	5.	3.4	.1
%RSD	.14998	.02914	.09043	.00083
#1	102060.	16192.	3786.9	8301.2
#2	102270.	16198.	3791.8	8301.1

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 17:09:58 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	F **.0002**	**.0004**	**.0003**	**.0000**	**.0000**	**.0004**	**.0000**	**.0002**
Stddev	.0001	.0001	.0003	.0000	.0000	.0003	.0000	.0003	.0004
%RSD	28.34	32.99	71.69	15.78	47.10	786.5	3.360	869.2	188.2
#1	.0002	.0003	.0006	.0003	.0000	.0003	.0004	-.0002	.0006
#2	.0003	.0002	.0002	.0003	.0000	-.0002	.0004	.0002	-.0001
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0002**	**-.0006**	**-.0010**	**.0010**	**-.0005**	**.0000**	**.0162**	**.0008**
Stddev	.0003	.0001	.0004	.0014	.0001	.0019	.0011	.0068	.0016
%RSD	79.75	99.62	59.39	140.3	7.229	378.4	2323.	41.90	196.7
#1	.0002	.0000	-.0009	-.0000	.0009	.0008	-.0007	.0114	-.0003
#2	.0006	.0003	-.0004	-.0019	.0010	-.0018	.0008	.0210	.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0052**	**-.0074**	**.0133**	**.0205**	**.0010**	**.0006**	**.0014**	**.0005**	**.0003**
Stddev	.0017	.0035	.0007	.0003	.0001	.0001	.0002	.0007	.0000
%RSD	32.00	47.86	5.446	1.709	4.875	11.72	12.15	139.6	2.727
#1	.0040	-.0049	.0128	.0202	.0011	.0007	.0013	.0000	.0003
#2	.0064	-.0098	.0139	.0207	.0010	.0006	.0015	.0010	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 17:09:58 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0018**	**.0004**	**-.0001**	**.0005**	**.0025**	**.0061**
Stddev	.0001	.0019	.0003	.0030	.0008	.0009	.0004
%RSD	334.6	104.0	75.21	2719.	146.0	34.73	7.030
#1	-.0001	.0032	.0006	-.0022	.0011	.0019	.0064
#2	.0001	.0005	.0002	.0020	-.0000	.0031	.0058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107510.**	**16360.**	**3914.1**	**9179.9**
Stddev	272.	137.	3.5	1.5
%RSD	.25333	.83883	.09018	.01586
#1	107320.	16457.	3916.6	9178.9
#2	107700.	16263.	3911.6	9181.0

Zoom In Zoom Out

Sample Name: jc62879-1 2 Acquired: 4/3/2018 17:14:19 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1048**	**-.0001**	**.0005**	**.0009**	**.0009**	**.0017**	**.8633**	**.0018**	**-.0003**
Stddev	.0005	.0001	.0001	.0002	.0001	.0006	.0008	.0001	.0000
%RSD	.5142	162.0	14.16	17.42	16.01	37.00	.0976	3.238	10.17
#1	.1052	-.0001	.0004	.0008	.0010	.0013	.8639	.0017	-.0003
#2	.1044	.0000	.0005	.0010	.0008	.0022	.8627	.0018	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0012**	**.0346**	**-.0006**	**-.0006**	**.0015**	**-.0003**	**.0002**	**.0885**	**72.24**
Stddev	.0002	.0002	.0010	.0006	.0014	.0006	.0010	.0174	.12
%RSD	15.18	.7060	174.6	105.1	94.18	192.3	421.3	19.62	.1671
#1	.0011	.0348	-.0013	-.0010	.0025	.0001	-.0005	.1008	72.32
#2	.0014	.0345	.0001	-.0002	.0005	-.0007	.0009	.0762	72.15

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**7.790**	**19.29**	**3.617**	**14.06**	**.0659**	**-.0000**	**11.18**	**-.0015**	**.4524**
Stddev	.007	.03	.028	.03	.0002	.0002	.03	.0000	.0012
%RSD	.0966	.1427	.7653	.2306	.3033	1938.	.2300	1.883	.2739
#1	7.795	19.31	3.597	14.08	.0660	.0001	11.20	-.0014	.4533
#2	7.784	19.27	3.637	14.03	.0658	-.0001	11.16	-.0015	.4516

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0016**	**.0121**	**.0006**	**2.411**	**-.0015**	**.0066**	**.6189**
Stddev	.0001	.0002	.0001	.006	.0041	.0004	.0031
%RSD	6.640	1.589	13.37	.2309	274.3	5.453	.5053
#1	.0015	.0120	.0007	2.415	.0014	.0064	.6211
#2	.0017	.0123	.0006	2.407	-.0044	.0069	.6167

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	103970.	16402.	3780.7	8533.5
Stddev	126.	12.	6.2	.2
%RSD	.12098	.07026	.16459	.00181
#1	103880.	16394.	3776.3	8533.6
#2	104060.	16410.	3785.1	8533.4

Zoom In Zoom Out

Sample Name: jc62879-2 Acquired: 4/3/2018 17:18:33 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1330**	**-.0001**	**.0005**	**.0042**	**.0017**	**.0235**	**.6535**	**.0065**	**.0001**
Stddev	.0004	.0000	.0002	.0001	.0005	.0002	.0008	.0003	.0002
%RSD	.2733	3.310	48.56	2.293	28.19	.9870	.1187	4.772	299.2
#1	.1332	-.0001	.0003	.0041	.0014	.0233	.6541	.0063	.0002
#2	.1327	-.0001	.0006	.0043	.0020	.0236	.6530	.0067	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0013**	**.0580**	**.0063**	**.0005**	**.0178**	**.0011**	**.0035**	**.2087**	**118.6**
Stddev	.0001	.0001	.0001	.0002	.0004	.0025	.0005	.0006	.1
%RSD	4.955	.2195	1.983	31.09	2.469	217.8	15.05	.2798	.0904
#1	.0013	.0579	.0062	.0006	.0181	.0029	.0031	.2091	118.6
#2	.0012	.0581	.0064	.0004	.0175	-.0006	.0039	.2083	118.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**7.132**	**37.35**	**6.587**	**6.985**	**.1134**	**.0034**	**10.51**	**.0005**	**.6354**
Stddev	.027	.21	.011	.021	.0002	.0000	.00	.0005	.0001
%RSD	.3730	.5639	.1729	.3017	.1944	.7762	.0281	91.28	.0160
#1	7.113	37.20	6.579	7.000	.1135	.0033	10.51	.0002	.6355
#2	7.150	37.50	6.595	6.970	.1132	.0034	10.51	.0008	.6353

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0043**	**.0153**	**.0007**	**22.16**	**.0013**	**.0098**	**.1660**
Stddev	.0001	.0001	.0001	.03	.0017	.0013	.0015
%RSD	1.224	.4062	14.60	.1173	132.2	13.58	.9093
#1	.0044	.0153	.0006	22.18	.0001	.0108	.1671
#2	.0043	.0154	.0008	22.15	.0024	.0089	.1650

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	102320.	16343.	3716.6	8355.5
Stddev	23.	43.	4.6	3.3
%RSD	.02262	.26404	.12431	.03986
#1	102340.	16374.	3719.9	8357.9
#2	102310.	16313.	3713.3	8353.2

Zoom In Zoom Out

Sample Name: jc62879-3 Acquired: 4/3/2018 17:22:48 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0687**	**-.0000**	**.0005**	**.0095**	**.0026**	**.0245**	**.5154**	**.0200**	**.0004**
Stddev	.0000	.0000	.0002	.0002	.0003	.0002	.0008	.0003	.0002
%RSD	.0534	65.89	47.43	2.424	11.10	.8497	.1625	1.729	38.37
#1	.0687	-.0000	.0006	.0097	.0024	.0244	.5160	.0202	.0003
#2	.0687	-.0001	.0003	.0093	.0028	.0247	.5148	.0197	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0019**	**.0852**	**.0192**	**-.0003**	**.0207**	**.0113**	**.0055**	**.2748**	**185.7**
Stddev	.0000	.0001	.0007	.0014	.0015	.0021	.0005	.0040	.2
%RSD	2.165	.0980	3.634	517.2	7.164	18.90	8.192	1.473	.0938
#1	.0020	.0851	.0187	-.0012	.0218	.0098	.0052	.2776	185.8
#2	.0019	.0852	.0197	.0007	.0197	.0128	.0058	.2719	185.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.757**	**101.2**	**13.63**	**21.90**	**.2745**	**.0181**	**14.37**	**-.0010**	**1.027**
Stddev	.009	.1	.01	.02	.0001	.0005	.00	.0003	.002
%RSD	.1399	.0802	.1072	.0952	.0244	2.941	.0010	32.88	.2336
#1	6.750	101.2	13.62	21.91	.2744	.0184	14.37	-.0012	1.025
#2	6.763	101.1	13.64	21.88	.2745	.0177	14.37	-.0007	1.028

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0093**	**.0163**	**.0004**	**62.61**	**.0004**	**.0246**	**.2192**
Stddev	.0004	.0013	.0000	.02	.0018	.0005	.0002
%RSD	4.793	8.018	12.65	.0330	487.0	2.039	.1101
#1	.0096	.0154	.0004	62.59	.0017	.0249	.2191
#2	.0090	.0172	.0004	62.62	-.0009	.0242	.2194

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**98891.**	**15993.**	**3584.1**	**7963.6**
Stddev	2.	19.	3.2	4.2
%RSD	.00217	.11952	.09045	.05268
#1	98890.	15979.	3581.8	7960.6
#2	98893.	16006.	3586.4	7966.6

Zoom In Zoom Out

Sample Name: jc62879-4 Acquired: 4/3/2018 17:27:02 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0527**	**.0001**	**.0006**	**.0031**	**.0013**	**.0016**	**3.611**	**.0003**	**-.0008**
Stddev	.0000	.0000	.0001	.0002	.0003	.0002	.011	.0004	.0007
%RSD	.0711	37.76	11.94	6.751	22.00	12.63	.3052	155.9	82.38
#1	.0527	.0001	.0006	.0033	.0015	.0018	3.618	.0006	-.0013
#2	.0527	.0001	.0007	.0030	.0011	.0015	3.603	-.0000	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0051**	**.0060**	**.0935**	**-.0008**	**.0013**	**-.0018**	**-.0017**	**.3431**	**51.78**
Stddev	.0003	.0002	.0001	.0015	.0003	.0002	.0007	.0094	.07
%RSD	6.376	2.775	.0960	188.5	23.56	9.715	40.04	2.742	.1391
#1	.0049	.0059	.0935	-.0018	.0015	-.0017	-.0012	.3364	51.83
#2	.0053	.0061	.0934	.0003	.0011	-.0020	-.0021	.3497	51.72

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**61.57**	**28.92**	**2.718**	**61.32**	**.0650**	**.0016**	**6.376**	**-.0007**	**.2154**
Stddev	.02	.03	.009	.12	.0002	.0004	.002	.0004	.0001
%RSD	.0326	.1023	.3349	.2013	.3095	25.18	.0321	57.49	.0243
#1	61.58	28.90	2.724	61.41	.0652	.0013	6.374	-.0010	.2154
#2	61.55	28.94	2.711	61.23	.0649	.0019	6.377	-.0004	.2153

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0051**	**.0076**	**.0013**	**70.40**	**.0004**	**.0014**	**.2389**
Stddev	.0002	.0005	.0001	.02	.0004	.0006	.0001
%RSD	3.674	5.957	6.132	.0234	82.37	42.44	.0594
#1	.0052	.0079	.0013	70.42	.0007	.0018	.2390
#2	.0049	.0073	.0012	70.39	.0002	.0010	.2388

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**101650.**	**16230.**	**3717.8**	**8380.3**
Stddev	40.	94.	2.5	2.5
%RSD	.03963	.58205	.06770	.02938
#1	101630.	16163.	3719.5	8382.1
#2	101680.	16296.	3716.0	8378.6

Zoom In Zoom Out

Sample Name: jc62879-5 Acquired: 4/3/2018 17:31:17 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0492**	**-.0000**	**.0003**	**.0008**	**.0024**	**.0050**	**.3262**	**.0009**	**.0000**
Stddev	.0001	.0000	.0001	.0002	.0001	.0009	.0013	.0002	.0010
%RSD	.3046	299.5	38.04	25.18	5.667	17.05	.3954	25.43	3195.
#1	.0491	-.0000	.0002	.0009	.0023	.0044	.3272	.0011	-.0007
#2	.0493	.0000	.0004	.0006	.0025	.0056	.3253	.0008	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0021**	**.0088**	**.0037**	**-.0001**	**.0042**	**.0013**	**.0010**	**.0522**	**29.79**
Stddev	.0002	.0001	.0004	.0002	.0001	.0009	.0011	.0023	.06
%RSD	9.108	.7293	11.05	334.2	2.658	73.21	107.6	4.362	.1940
#1	.0020	.0088	.0040	.0001	.0041	.0019	.0002	.0538	29.83
#2	.0023	.0087	.0034	-.0002	.0043	.0006	.0017	.0506	29.75

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**14.07**	**15.52**	**1.765**	**4.254**	**.0396**	**.0004**	**14.11**	**-.0002**	**.1220**
Stddev	.03	.05	.011	.007	.0001	.0001	.01	.0001	.0001
%RSD	.1780	.3383	.6249	.1729	.2098	18.39	.0357	60.33	.0453
#1	14.05	15.56	1.758	4.259	.0395	.0005	14.11	-.0001	.1220
#2	14.08	15.49	1.773	4.248	.0396	.0004	14.10	-.0002	.1221

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0002**	**.0136**	**-.0002**	**27.17**	**-.0018**	**.0053**	**.2191**
Stddev	.0000	.0003	.0002	.06	.0006	.0009	.0004
%RSD	13.68	2.434	100.3	.2381	34.35	17.60	.1935
#1	-.0002	.0134	-.0003	27.21	-.0013	.0059	.2194
#2	-.0002	.0139	-.0001	27.12	-.0022	.0046	.2188

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105390.**	**16390.**	**3837.3**	**8812.4**
Stddev	405.	12.	7.7	12.4
%RSD	.38395	.07376	.20168	.14022
#1	105110.	16398.	3842.8	8821.1
#2	105680.	16381.	3831.8	8803.6

Zoom In Zoom Out

Sample Name: jc62879-6 Acquired: 4/3/2018 17:35:32 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1246**	**-.0000**	**.0018**	**.0071**	**.0055**	**.0081**	**5.290**	**.0083**	**.0004**
Stddev	.0001	.0000	.0001	.0001	.0001	.0004	.003	.0002	.0000
%RSD	.0877	61.45	2.968	1.011	1.992	4.940	.0498	2.370	.4594
#1	.1247	-.0000	.0018	.0070	.0055	.0078	5.292	.0082	.0004
#2	.1246	-.0000	.0019	.0071	.0056	.0084	5.288	.0084	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0083**	**.0259**	**.0073**	**.0034**	**.0090**	**-.0034**	**.0012**	**.2666**	**209.7**
Stddev	.0001	.0001	.0015	.0016	.0004	.0016	.0001	.0056	1.0
%RSD	.9336	.3639	20.90	47.88	4.172	48.12	5.474	2.103	.4850
#1	.0082	.0260	.0062	.0023	.0088	-.0046	.0013	.2706	210.4
#2	.0083	.0259	.0083	.0046	.0093	-.0023	.0012	.2626	209.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**10.26**	**134.9**	**5.395**	**90.29**	**.0757**	**.0026**	**11.91**	**-.0010**	**.9507**
Stddev	.01	.4	.011	.17	.0003	.0003	.01	.0001	.0002
%RSD	.1092	.2950	.1945	.1884	.3844	9.801	.0895	9.188	.0235
#1	10.25	135.2	5.402	90.41	.0759	.0024	11.91	-.0009	.9505
#2	10.27	134.7	5.387	90.17	.0755	.0028	11.90	-.0011	.9508

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0110**	**.0141**	**.0004**	F **276.4**	**.0003**	**.0110**	**.2876**
Stddev	.0000	.0003	.0000	.1	.0004	.0004	.0034
%RSD	.4041	2.200	1.926	.0394	153.8	3.378	1.172
#1	.0110	.0144	.0004	276.4	-.0000	.0113	.2900
#2	.0111	.0139	.0004	276.3	.0005	.0108	.2852

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**97349.**	**15834.**	**3534.1**	**7804.9**
Stddev	103.	67.	7.9	17.3
%RSD	.10620	.42036	.22448	.22115
#1	97422.	15787.	3539.7	7817.1
#2	97275.	15881.	3528.5	7792.7

Zoom In Zoom Out

Sample Name: jc62879-7 Acquired: 4/3/2018 17:39:48 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0554**	**.0000**	**.0014**	**.0246**	**.0002**	**.0014**	**5.069**	**.0012**	**.0003**
Stddev	.0001	.0000	.0003	.0002	.0000	.0001	.006	.0001	.0003
%RSD	.1233	333.2	22.46	.6175	6.686	4.058	.1162	9.777	97.55
#1	.0554	-.0000	.0016	.0247	.0002	.0013	5.073	.0011	.0006
#2	.0553	.0000	.0012	.0245	.0002	.0014	5.065	.0013	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0066**	**.0024**	**.0273**	**.0002**	**.0006**	**-.0019**	**.0003**	**.0296**	**123.9**
Stddev	.0005	.0000	.0006	.0000	.0009	.0020	.0013	.0104	.1
%RSD	7.579	.6056	2.301	9.197	153.8	104.7	410.9	35.19	.0808
#1	.0062	.0024	.0278	.0002	-.0001	-.0005	.0013	.0369	123.8
#2	.0069	.0024	.0269	.0002	.0013	-.0034	-.0006	.0222	124.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**26.82**	**49.61**	**13.27**	**54.78**	**.1846**	**.0002**	**6.175**	**-.0009**	**.7840**
Stddev	.08	.07	.06	.07	.0009	.0001	.002	.0001	.0026
%RSD	.3042	.1313	.4215	.1328	.5014	32.13	.0265	7.877	.3327
#1	26.88	49.57	13.31	54.83	.1853	.0001	6.177	-.0009	.7859
#2	26.76	49.66	13.23	54.73	.1839	.0002	6.174	-.0008	.7822

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0096**	**.0001**	**82.21**	**-.0008**	**.0013**	**.1369**
Stddev	.0001	.0004	.0002	.05	.0007	.0007	.0003
%RSD	25.25	3.752	131.5	.0558	92.50	52.64	.1927
#1	.0002	.0098	.0000	82.18	-.0013	.0008	.1367
#2	.0002	.0093	.0002	82.25	-.0003	.0018	.1371

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**99432.**	**15939.**	**3633.6**	**8123.1**
Stddev	273.	59.	7.7	11.6
%RSD	.27453	.36827	.21239	.14245
#1	99239.	15980.	3628.2	8114.9
#2	99625.	15897.	3639.1	8131.2

Zoom In Zoom Out

Sample Name: jc62879-8 Acquired: 4/3/2018 17:44:05 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0574**	**-.0002**	**.0004**	**.0002**	**.0016**	**.0090**	**.0417**	**.0031**	**-.0000**
Stddev	.0001	.0000	.0000	.0000	.0000	.0003	.0001	.0003	.0007
%RSD	.1313	17.32	8.543	3.461	2.298	3.156	.3375	9.051	1377.
#1	.0574	-.0002	.0004	.0002	.0016	.0092	.0416	.0029	-.0005
#2	.0575	-.0002	.0004	.0002	.0016	.0088	.0418	.0033	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0061**	**.0482**	**.0034**	**-.0011**	**.0053**	**.0119**	**.0099**	**-.0085**	**169.6**
Stddev	.0005	.0001	.0005	.0011	.0001	.0015	.0004	.0019	.0
%RSD	7.755	.2940	15.73	99.01	1.072	12.37	3.846	22.31	.0167
#1	.0065	.0483	.0037	-.0019	.0054	.0109	.0096	-.0098	169.6
#2	.0058	.0481	.0030	-.0003	.0053	.0130	.0102	-.0072	169.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1627**	**148.9**	**17.44**	**13.93**	**.3145**	**.0107**	**12.08**	**-.0016**	**1.572**
Stddev	.0025	.2	.04	.01	.0002	.0001	.01	.0011	.000
%RSD	1.536	.1248	.2028	.0866	.0544	.7360	.1056	64.92	.0274
#1	.1610	149.0	17.41	13.94	.3146	.0107	12.07	-.0024	1.572
#2	.1645	148.7	17.46	13.92	.3144	.0108	12.09	-.0009	1.572

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**.0141**	**.0003**	**59.75**	**.0005**	**.0226**	**.0505**
Stddev	.0001	.0008	.0001	.01	.0003	.0014	.0005
%RSD	21.81	5.944	27.73	.0190	64.13	6.377	1.054
#1	-.0003	.0147	.0003	59.76	.0007	.0236	.0502
#2	-.0004	.0135	.0002	59.74	.0003	.0216	.0509

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**98415.**	**15973.**	**3577.6**	**7924.8**
Stddev	78.	46.	4.3	1.7
%RSD	.07959	.29076	.11933	.02185
#1	98471.	16006.	3580.6	7926.0
#2	98360.	15940.	3574.6	7923.5

Zoom In Zoom Out

Sample Name: jc62879-10 Acquired: 4/3/2018 17:48:22 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0282**	**.0005**	**.0033**	**.0318**	**.0052**	**.0306**	**2.122**	**.0934**	**.0007**
Stddev	.0001	.0000	.0001	.0002	.0003	.0001	.000	.0000	.0006
%RSD	.2362	1.149	2.083	.5728	6.359	.4535	.0023	.0038	96.32
#1	.0282	.0005	.0032	.0320	.0050	.0305	2.122	.0934	.0011
#2	.0283	.0005	.0033	.0317	.0054	.0307	2.122	.0934	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0043**	**1.128**	**.0065**	**.0014**	**.0147**	**-.0005**	**.0015**	**1.021**	**188.3**
Stddev	.0003	.001	.0008	.0012	.0013	.0012	.0014	.008	.1
%RSD	7.002	.1170	12.45	80.93	8.945	232.5	90.50	.7572	.0522
#1	.0041	1.129	.0059	.0006	.0138	.0003	.0005	1.015	188.4
#2	.0045	1.127	.0071	.0022	.0157	-.0013	.0025	1.026	188.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**22.12**	**34.47**	**5.471**	**11.06**	**.0832**	**-.0001**	**17.46**	**-.0001**	**.7083**
Stddev	.00	.03	.039	.00	.0001	.0002	.01	.0004	.0004
%RSD	.0104	.0872	.7071	.0123	.1429	170.3	.0837	639.4	.0508
#1	22.13	34.49	5.498	11.06	.0831	-.0002	17.47	-.0004	.7080
#2	22.12	34.45	5.444	11.06	.0833	.0000	17.45	.0002	.7085

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0130**	**.0200**	**.0002**	F **203.4**	**.0002**	**.0065**	**.0931**
Stddev	.0003	.0003	.0002	.0	.0011	.0014	.0006
%RSD	1.945	1.605	80.30	.0219	472.0	21.76	.6806
#1	.0128	.0197	.0001	203.4	.0010	.0075	.0936
#2	.0131	.0202	.0004	203.4	-.0005	.0055	.0927

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**100230.**	**16003.**	**3655.7**	**8217.0**
Stddev	283.	77.	2.9	14.4
%RSD	.28264	.48112	.08049	.17496
#1	100030.	16057.	3657.7	8227.2
#2	100430.	15948.	3653.6	8206.9

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 17:52:38 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.978**	**1.959**	**1.956**	**1.946**	**1.977**	**1.939**	**2.012**	**1.988**	**.2430**
Stddev	.003	.007	.004	.001	.007	.004	.002	.001	.0006
%RSD	.1286	.3482	.1977	.0291	.3704	.1817	.1075	.0334	.2450
#1	1.980	1.964	1.954	1.947	1.982	1.942	2.013	1.988	.2434
#2	1.976	1.954	1.959	1.946	1.972	1.937	2.010	1.989	.2426
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.980**	**2.004**	**1.932**	**1.974**	**2.015**	**1.964**	**1.954**	**39.22**	**39.29**
Stddev	.003	.001	.001	.002	.003	.002	.003	.08	.08
%RSD	.1329	.0309	.0373	.0985	.1600	.0888	.1490	.1994	.2126
#1	1.982	2.004	1.932	1.972	2.017	1.965	1.951	39.27	39.35
#2	1.978	2.005	1.933	1.975	2.013	1.963	1.956	39.16	39.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.68**	**38.53**	**38.81**	**39.44**	**1.954**	**2.004**	**4.821**	**1.987**	**1.964**
Stddev	.12	.18	.08	.06	.006	.004	.010	.003	.003
%RSD	.3220	.4638	.2102	.1543	.2855	.2209	.2023	.1545	.1278
#1	38.77	38.66	38.87	39.48	1.950	2.001	4.814	1.985	1.966
#2	38.59	38.40	38.75	39.40	1.958	2.007	4.828	1.989	1.962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 17:52:38 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.982**	**1.977**	**1.976**	**1.959**	**1.968**	**1.947**	**1.961**
Stddev	.003	.000	.002	.002	.000	.006	.002
%RSD	.1418	.0140	.0766	.0943	.0126	.3043	.1193
#1	1.984	1.977	1.977	1.961	1.967	1.951	1.963
#2	1.980	1.977	1.975	1.958	1.968	1.943	1.959
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102360.**	**16208.**	**3787.4**	**8292.9**
Stddev	295.	26.	8.1	9.8
%RSD	.28792	.15898	.21328	.11779
#1	102570.	16226.	3793.1	8299.8
#2	102150.	16190.	3781.6	8286.0

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 17:56:41 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	F **.0002**	**.0003**	**.0002**	**.0001**	**.0004**	**.0004**	**.0005**	**.0003**
Stddev	.0000	.0001	.0001	.0002	.0005	.0001	.0000	.0000	.0001
%RSD	6.792	32.58	41.40	86.26	556.4	16.10	12.14	1.264	22.42
#1	.0004	.0002	.0002	.0001	.0004	.0004	.0004	.0005	.0002
#2	.0004	.0003	.0004	.0003	-.0003	.0005	.0003	.0005	.0003
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0003**	**.0005**	**.0002**	**.0004**	**-.0008**	**-.0004**	**.0166**	**.0017**
Stddev	.0001	.0001	.0001	.0000	.0016	.0008	.0001	.0031	.0020
%RSD	21.91	20.04	25.83	1.579	396.3	98.60	16.97	18.49	117.7
#1	.0002	.0004	.0004	.0002	.0015	-.0014	-.0004	.0145	.0003
#2	.0003	.0003	.0006	.0002	-.0007	-.0002	-.0003	.0188	.0032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0099**	**.0062**	**.0486**	**.0234**	**-.0009**	**.0006**	**.0016**	**.0006**	**.0004**
Stddev	.0040	.0053	.0287	.0062	.0004	.0001	.0004	.0001	.0001
%RSD	40.43	85.45	59.15	26.69	43.92	20.21	26.72	23.71	13.75
#1	.0071	.0025	.0689	.0278	-.0006	.0007	.0013	.0005	.0003
#2	.0128	.0100	.0283	.0190	-.0012	.0005	.0019	.0007	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 17:56:41 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0003**	**.0005**	**.0033**	**.0015**	**.0019**	**.0074**
Stddev	.0001	.0002	.0000	.0008	.0002	.0012	.0009
%RSD	46.98	59.07	6.714	22.48	11.19	64.61	11.81
#1	.0001	.0002	.0005	.0039	.0016	.0028	.0080
#2	.0002	.0005	.0005	.0028	.0014	.0010	.0068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107090.**	**16279.**	**3913.8**	**9185.7**
Stddev	135.	33.	9.9	15.3
%RSD	.12583	.20517	.25194	.16668
#1	107180.	16303.	3920.8	9196.5
#2	106990.	16255.	3906.9	9174.9

Zoom In Zoom Out

Sample Name: jc62879-12 Acquired: 4/3/2018 18:01:04 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1034**	**-.0001**	**.0003**	**.0024**	**.0021**	**.0020**	**.6134**	**.0022**	**-.0004**
Stddev	.0003	.0000	.0001	.0003	.0002	.0002	.0006	.0001	.0000
%RSD	.2992	31.12	54.23	13.42	9.253	8.886	.1008	2.732	11.99
#1	.1032	-.0001	.0002	.0022	.0019	.0018	.6139	.0023	-.0004
#2	.1036	-.0001	.0004	.0027	.0022	.0021	.6130	.0022	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0010**	**.0424**	**-.0001**	**.0007**	**.0040**	**.0027**	**-.0001**	**.1040**	**31.34**
Stddev	.0000	.0002	.0010	.0006	.0004	.0004	.0007	.0048	.02
%RSD	3.326	.4254	1194.	79.00	9.553	16.04	527.7	4.645	.0791
#1	.0010	.0422	.0006	.0003	.0038	.0030	-.0006	.1006	31.36
#2	.0010	.0425	-.0008	.0011	.0043	.0024	.0003	.1075	31.32

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**7.418**	**4.973**	**1.879**	**2.417**	**.0214**	**-.0000**	**11.99**	**-.0003**	**.2678**
Stddev	.009	.011	.017	.011	.0004	.0000	.01	.0004	.0007
%RSD	.1209	.2240	.9195	.4649	1.931	38.39	.1047	128.8	.2542
#1	7.424	4.965	1.867	2.409	.0211	-.0000	11.99	-.0000	.2673
#2	7.412	4.981	1.892	2.425	.0217	-.0000	11.98	-.0006	.2683

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0026**	**.0116**	**.0004**	**3.540**	**-.0003**	**.0085**	**.4814**
Stddev	.0008	.0002	.0001	.006	.0000	.0004	.0002
%RSD	31.67	1.935	14.33	.1608	6.089	4.655	.0452
#1	.0020	.0117	.0004	3.536	-.0003	.0082	.4812
#2	.0032	.0114	.0005	3.544	-.0003	.0088	.4815

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**106010.**	**16429.**	**3855.2**	**8865.4**
Stddev	311.	31.	6.7	6.6
%RSD	.29366	.18800	.17345	.07412
#1	105790.	16451.	3850.5	8860.7
#2	106230.	16407.	3860.0	8870.0

Zoom In Zoom Out

Sample Name: jc62879-13 Acquired: 4/3/2018 18:05:21 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0397**	**.0000**	**.0002**	**.0031**	**.0092**	**.0025**	**.6407**	**.0021**
Stddev	.0000	.0000	.0000	.0001	.0002	.0002	.0009	.0003
%RSD	.0967	27.05	4.524	3.525	2.054	9.194	.1350	13.70
#1	.0397	.0001	.0002	.0031	.0093	.0023	.6413	.0023
#2	.0397	.0000	.0002	.0030	.0091	.0026	.6401	.0019

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0005**	**.0134**	**.0072**	**.0174**	**-.0000**	**.0018**	**.0014**	**-.0006**
Stddev	.0001	.0006	.0000	.0003	.0010	.0006	.0001	.0007
%RSD	17.20	4.491	.5781	1.710	2406.	32.48	9.061	101.0
#1	-.0006	.0138	.0071	.0176	-.0007	.0013	.0015	-.0011
#2	-.0005	.0130	.0072	.0172	.0006	.0022	.0013	-.0002

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.9963**	**28.28**	**8.398**	**13.94**	**6.882**	**241.3**	**1.106**	**.0016**
Stddev	.0043	.02	.023	.01	.022	.9	.004	.0001
%RSD	.4331	.0766	.2738	.0859	.3152	.3818	.3735	7.408
#1	.9994	28.30	8.414	13.95	6.898	240.6	1.109	.0017
#2	.9933	28.27	8.382	13.93	6.867	241.9	1.104	.0015

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**6.432**	**.0006**	**.1749**	**.0231**	**.0079**	**.0059**	W **93.14**	**-.0009**
Stddev	.016	.0004	.0005	.0004	.0007	.0000	.29	.0009
%RSD	.2464	64.69	.2737	1.832	8.383	.6783	.3084	94.10
#1	6.444	.0003	.1753	.0228	.0083	.0059	93.34	-.0003
#2	6.421	.0009	.1746	.0234	.0074	.0059	92.93	-.0016

Elem	Li6707	P_1774
Avg	**.0036**	**.6847**
Stddev	.0011	.0055
%RSD	30.75	.8034
#1	.0028	.6886
#2	.0044	.6808

Zoom In Zoom Out

Sample Name: jc62879-13 Acquired: 4/3/2018 18:05:21 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**99218.**	**16119.**	**3664.8**	**8048.0**
Stddev	94.	70.	6.3	6.2
%RSD	.09497	.43589	.17226	.07763
#1	99285.	16169.	3660.4	8043.6
#2	99152.	16069.	3669.3	8052.5

Zoom In Zoom Out

Sample Name: jc62879-14 Acquired: 4/3/2018 18:09:38 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1762**	**.0000**	**.0004**	**.0006**	**.0023**	**.0068**	**1.299**	**.0034**	**-.0002**
Stddev	.0000	.0001	.0000	.0002	.0001	.0001	.001	.0001	.0003
%RSD	.0047	440.7	7.583	30.79	4.726	1.510	.0407	4.002	155.3
#1	.1762	.0001	.0004	.0005	.0023	.0068	1.298	.0033	.0000
#2	.1762	-.0000	.0004	.0008	.0022	.0067	1.299	.0035	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0024**	**.0232**	**.0332**	**-.0001**	**.0115**	**-.0015**	**.0005**	**.3929**	**87.75**
Stddev	.0001	.0000	.0004	.0010	.0014	.0023	.0008	.0070	.06
%RSD	4.335	.0747	1.270	813.7	12.16	149.1	160.7	1.771	.0683
#1	.0024	.0232	.0335	-.0008	.0125	.0001	-.0001	.3978	87.79
#2	.0023	.0232	.0329	.0006	.0105	-.0032	.0011	.3880	87.71

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.74**	**15.80**	**2.556**	**2.653**	**.0530**	**.0017**	**12.17**	**-.0013**	**.2844**
Stddev	.02	.09	.009	.003	.0007	.0001	.02	.0004	.0011
%RSD	.1569	.5735	.3674	.1067	1.367	3.547	.1824	28.98	.3932
#1	12.76	15.86	2.563	2.651	.0535	.0018	12.15	-.0016	.2852
#2	12.73	15.73	2.549	2.655	.0525	.0017	12.18	-.0011	.2836

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0100**	**.0128**	**.0003**	**3.896**	**-.0014**	**.0119**	**.2712**
Stddev	.0001	.0003	.0001	.002	.0015	.0012	.0004
%RSD	.6527	2.175	19.08	.0447	109.0	10.19	.1321
#1	.0101	.0130	.0004	3.895	-.0025	.0127	.2709
#2	.0100	.0126	.0003	3.898	-.0003	.0110	.2715

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103600.**	**16219.**	**3776.4**	**8540.1**
Stddev	154.	14.	9.6	7.0
%RSD	.14898	.08616	.25387	.08188
#1	103710.	16209.	3783.2	8545.1
#2	103500.	16229.	3769.7	8535.2

Zoom In Zoom Out

Sample Name: jc62879-15 Acquired: 4/3/2018 18:13:54 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0569**	**.0001**	**.0016**	**.0225**	**.0037**	**.0047**	**5.692**	**.0119**	**-.0001**
Stddev	.0001	.0000	.0001	.0004	.0003	.0001	.006	.0001	.0004
%RSD	.1303	45.47	8.670	1.661	7.868	1.618	.1122	1.129	308.2
#1	.0569	.0001	.0017	.0222	.0035	.0047	5.697	.0118	.0001
#2	.0568	.0001	.0015	.0228	.0039	.0046	5.688	.0120	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0095**	**.0162**	**.0134**	**.0007**	**.0035**	**-.0021**	**-.0010**	**1.435**	**83.92**
Stddev	.0004	.0001	.0016	.0009	.0003	.0003	.0002	.004	.26
%RSD	3.811	.5869	12.16	127.1	8.742	13.26	15.91	.3118	.3048
#1	.0093	.0161	.0145	.0001	.0033	-.0023	-.0012	1.439	84.10
#2	.0098	.0162	.0122	.0013	.0037	-.0019	-.0009	1.432	83.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**21.32**	**35.86**	**7.663**	**34.60**	**.1447**	**.0005**	**6.799**	**-.0005**	**.4906**
Stddev	.00	.15	.008	.04	.0001	.0000	.011	.0007	.0007
%RSD	.0123	.4258	.1025	.1218	.1029	8.219	.1575	152.1	.1445
#1	21.32	35.97	7.669	34.63	.1446	.0005	6.791	.0000	.4911
#2	21.32	35.76	7.658	34.57	.1448	.0005	6.806	-.0010	.4901

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0271**	**.0075**	**.0007**	**46.70**	**.0001**	**.0046**	**.0786**
Stddev	.0002	.0013	.0001	.10	.0007	.0004	.0002
%RSD	.5920	16.74	8.519	.2245	1017.	8.299	.2339
#1	.0270	.0084	.0008	46.63	.0006	.0043	.0787
#2	.0272	.0066	.0007	46.78	-.0004	.0049	.0785

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102040.**	**16257.**	**3711.2**	**8333.3**
Stddev	64.	75.	2.8	7.2
%RSD	.06242	.45850	.07648	.08698
#1	101990.	16204.	3709.2	8328.1
#2	102080.	16310.	3713.2	8338.4

Zoom In Zoom Out

Sample Name: jc62879-16 Acquired: 4/3/2018 18:18:08 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0516**	**.0001**	**.0015**	**.0217**	**.0030**	**.0034**	**5.525**	**.0117**	**.0003**
Stddev	.0000	.0000	.0002	.0002	.0002	.0006	.008	.0007	.0002
%RSD	.0489	16.27	14.81	.8966	8.136	16.73	.1414	6.105	76.97
#1	.0516	.0002	.0016	.0216	.0029	.0030	5.531	.0122	.0005
#2	.0515	.0001	.0013	.0219	.0032	.0038	5.520	.0112	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0086**	**.0125**	**.0128**	**.0012**	**.0022**	**-.0028**	**-.0008**	**1.133**	**81.76**
Stddev	.0003	.0003	.0013	.0003	.0007	.0007	.0007	.006	.14
%RSD	2.999	2.016	9.777	23.97	32.68	26.83	92.76	.5325	.1660
#1	.0087	.0127	.0137	.0010	.0017	-.0023	-.0003	1.129	81.67
#2	.0084	.0123	.0119	.0014	.0027	-.0033	-.0013	1.138	81.86

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**20.06**	**34.87**	**7.412**	**33.40**	**.1400**	**.0003**	**6.204**	**-.0010**	**.4777**
Stddev	.00	.11	.003	.05	.0009	.0001	.004	.0003	.0000
%RSD	.0133	.3143	.0338	.1595	.6463	24.21	.0724	30.17	.0066
#1	20.06	34.79	7.410	33.36	.1394	.0004	6.207	-.0008	.4777
#2	20.07	34.95	7.413	33.43	.1406	.0003	6.201	-.0013	.4777

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0198**	**.0075**	**.0007**	**45.62**	**-.0009**	**.0039**	**.0670**
Stddev	.0000	.0001	.0001	.06	.0008	.0003	.0007
%RSD	.1353	1.792	10.02	.1236	87.48	8.303	1.018
#1	.0198	.0075	.0008	45.66	-.0003	.0036	.0665
#2	.0198	.0074	.0007	45.58	-.0014	.0041	.0675

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102070.**	**16289.**	**3720.4**	**8366.7**
Stddev	7.	61.	2.2	3.9
%RSD	.00692	.37505	.05898	.04627
#1	102070.	16332.	3718.9	8364.0
#2	102080.	16246.	3722.0	8369.5

Zoom In Zoom Out

Sample Name: jc62879-17 Acquired: 4/3/2018 18:22:22 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0636**	**-.0001**	**.0001**	**.0014**	**.0012**	**.0152**	**.1248**	**.0045**
Stddev	.0001	.0001	.0002	.0001	.0001	.0005	.0004	.0000
%RSD	.1858	160.2	136.9	3.738	6.081	3.228	.2842	.6983
#1	.0636	-.0002	.0000	.0015	.0012	.0149	.1250	.0045
#2	.0635	.0000	.0003	.0014	.0013	.0155	.1245	.0046

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0003**	**.0033**	**.0886**	**.0038**	**-.0002**	**.0009**	**-.0015**	**.0053**
Stddev	.0006	.0007	.0001	.0013	.0014	.0004	.0000	.0017
%RSD	171.8	20.19	.0639	33.42	639.4	44.22	1.011	31.70
#1	.0007	.0028	.0886	.0029	-.0012	.0006	-.0015	.0041
#2	-.0001	.0038	.0886	.0047	.0008	.0011	-.0015	.0064

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.1560**	W **281.7**	**.4624**	**164.7**	**20.70**	**14.67**	**.3729**	**.0152**
Stddev	.0013	.1	.0036	.1	.02	.01	.0015	.0001
%RSD	.8339	.0242	.7800	.0423	.0763	.0841	.4002	.8058
#1	.1569	281.8	.4598	164.7	20.69	14.66	.3719	.0153
#2	.1550	281.7	.4649	164.8	20.71	14.68	.3740	.0151

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**9.378**	**-.0012**	**1.788**	**.0043**	**.0125**	**.0006**	F **233.8**	**.0001**
Stddev	.002	.0016	.004	.0003	.0012	.0002	.1	.0004
%RSD	.0181	138.8	.2529	6.434	9.864	37.52	.0351	300.7
#1	9.379	-.0000	1.791	.0045	.0117	.0004	233.7	-.0001
#2	9.377	-.0023	1.785	.0041	.0134	.0007	233.8	.0004

Elem	Li6707	P_1774
Avg	**.0046**	**.1838**
Stddev	.0000	.0014
%RSD	.3245	.7487
#1	.0046	.1848
#2	.0046	.1829

Zoom In Zoom Out

Sample Name: jc62879-17 Acquired: 4/3/2018 18:22:22 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**96784.**	**15811.**	**3495.3**	**7751.7**
Stddev	172.	19.	9.0	18.9
%RSD	.17784	.12010	.25850	.24399
#1	96662.	15825.	3501.6	7765.0
#2	96906.	15798.	3488.9	7738.3

Zoom In Zoom Out

Sample Name: jc62879-18 Acquired: 4/3/2018 18:26:36 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0712**	**-.0000**	**.0004**	**.0003**	**.0010**	**.0012**	**1.529**	**.0003**	**.0001**
Stddev	.0002	.0000	.0000	.0001	.0002	.0002	.005	.0000	.0001
%RSD	.3487	261.4	6.457	26.45	18.31	15.85	.3525	12.26	86.05
#1	.0710	-.0000	.0004	.0002	.0009	.0014	1.533	.0003	.0002
#2	.0714	.0000	.0004	.0003	.0011	.0011	1.526	.0003	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0028**	**.0048**	**-.0003**	**-.0002**	**.0012**	**-.0019**	**.0005**	**.3482**	**18.47**
Stddev	.0002	.0003	.0005	.0015	.0000	.0013	.0003	.0050	.01
%RSD	5.954	5.342	137.8	616.6	1.587	71.08	57.91	1.440	.0691
#1	.0027	.0050	-.0007	.0008	.0012	-.0009	.0003	.3446	18.48
#2	.0029	.0046	-.0000	-.0013	.0012	-.0028	.0007	.3517	18.46

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.92**	**7.594**	**1.329**	**20.51**	**.0036**	**-.0001**	**1.940**	**-.0000**	**.0826**
Stddev	.01	.019	.019	.02	.0006	.0000	.001	.0000	.0005
%RSD	.1009	.2475	1.424	.0770	16.33	57.17	.0265	14.93	.6028
#1	12.92	7.581	1.342	20.52	.0040	-.0001	1.941	-.0000	.0830
#2	12.91	7.608	1.315	20.50	.0032	-.0000	1.940	-.0000	.0823

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0046**	**.0031**	**.0006**	**24.66**	**-.0011**	**.0012**	**.2386**
Stddev	.0003	.0017	.0001	.01	.0016	.0000	.0005
%RSD	6.291	54.01	9.689	.0461	143.4	2.496	.2295
#1	.0044	.0019	.0006	24.65	-.0022	.0013	.2383
#2	.0048	.0043	.0007	24.67	.0000	.0012	.2390

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104860.**	**16364.**	**3813.1**	**8777.8**
Stddev	296.	36.	8.4	22.4
%RSD	.28187	.21855	.22104	.25532
#1	104660.	16339.	3819.0	8793.7
#2	105070.	16389.	3807.1	8762.0

Zoom In Zoom Out

Sample Name: jc62879-20 Acquired: 4/3/2018 18:30:53 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0695**	**-.0000**	**.0006**	**.0005**	**.0014**	**.0037**	**.9475**	**.0006**	**-.0001**
Stddev	.0006	.0001	.0000	.0003	.0003	.0002	.0017	.0000	.0006
%RSD	.8822	150.8	7.840	54.75	17.52	6.382	.1777	2.583	756.6
#1	.0690	.0000	.0006	.0006	.0016	.0039	.9487	.0006	.0004
#2	.0699	-.0001	.0005	.0003	.0013	.0036	.9463	.0007	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0017**	**.0103**	**.0011**	**.0005**	**.0030**	**.0010**	**-.0006**	**.1386**	**71.09**
Stddev	.0002	.0000	.0005	.0000	.0008	.0012	.0001	.0132	.09
%RSD	14.51	.1042	49.53	.8754	25.69	112.8	16.88	9.558	.1304
#1	.0018	.0103	.0014	.0005	.0035	.0019	-.0007	.1479	71.15
#2	.0015	.0103	.0007	.0005	.0024	.0002	-.0006	.1292	71.02

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.32**	**20.16**	**3.082**	**5.910**	**.0454**	**-.0001**	**14.16**	**-.0009**	**.3285**
Stddev	.02	.12	.004	.010	.0013	.0002	.02	.0000	.0001
%RSD	.1831	.6132	.1156	.1670	2.774	211.3	.1706	3.624	.0247
#1	12.34	20.24	3.080	5.917	.0445	.0000	14.14	-.0009	.3286
#2	12.30	20.07	3.085	5.903	.0463	-.0002	14.17	-.0009	.3284

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0030**	**.0141**	**-.0003**	**29.28**	**-.0010**	**.0091**	**.2677**
Stddev	.0002	.0003	.0001	.04	.0003	.0003	.0009
%RSD	8.293	2.226	52.35	.1429	34.55	3.064	.3282
#1	.0032	.0139	-.0002	29.25	-.0007	.0093	.2683
#2	.0028	.0143	-.0004	29.31	-.0012	.0089	.2671

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103480.**	**16193.**	**3767.2**	**8572.9**
Stddev	174.	52.	.8	10.9
%RSD	.16821	.31999	.02205	.12770
#1	103350.	16156.	3766.6	8565.1
#2	103600.	16229.	3767.8	8580.6

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 18:35:10 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.977**	**1.957**	**1.952**	**1.935**	**1.963**	**1.938**	**2.007**	**1.981**	**.2420**
Stddev	.005	.004	.002	.005	.001	.000	.001	.002	.0004
%RSD	.2643	.1856	.1064	.2418	.0610	.0106	.0637	.1078	.1606
#1	1.980	1.954	1.954	1.938	1.964	1.937	2.006	1.983	.2418
#2	1.973	1.959	1.951	1.932	1.963	1.938	2.008	1.980	.2423
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.972**	**1.995**	**1.928**	**1.961**	**2.011**	**1.965**	**1.947**	**39.22**	**39.19**
Stddev	.004	.006	.002	.003	.005	.001	.004	.03	.01
%RSD	.1982	.2897	.1162	.1584	.2512	.0519	.1862	.0716	.0327
#1	1.969	1.999	1.930	1.958	2.015	1.965	1.944	39.20	39.18
#2	1.975	1.991	1.927	1.963	2.007	1.964	1.949	39.24	39.20
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.56**	**38.55**	**38.77**	**39.44**	**1.944**	**1.999**	**4.807**	**1.977**	**1.965**
Stddev	.03	.08	.00	.10	.001	.002	.002	.003	.003
%RSD	.0708	.1966	.0042	.2583	.0577	.0919	.0457	.1603	.1354
#1	38.58	38.50	38.77	39.51	1.945	2.001	4.806	1.979	1.963
#2	38.54	38.60	38.77	39.37	1.943	1.998	4.809	1.975	1.967
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 18:35:10 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.976**	**1.971**	**1.972**	**1.960**	**1.967**	**1.935**	**1.961**
Stddev	.003	.002	.002	.004	.001	.002	.001
%RSD	.1312	.1086	.0754	.2250	.0264	.1126	.0644
#1	1.974	1.972	1.971	1.963	1.967	1.937	1.962
#2	1.978	1.969	1.973	1.957	1.967	1.934	1.960
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102760.**	**16105.**	**3781.7**	**8289.9**
Stddev	260.	26.	2.7	3.3
%RSD	.25284	.15996	.07236	.03979
#1	102570.	16086.	3783.7	8292.2
#2	102940.	16123.	3779.8	8287.5

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 18:39:13 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0001**	**.0001**	**-.0003**	**-.0002**	**-.0003**	**-.0001**	**.0000**	**.0000**
Stddev	.0001	.0000	.0003	.0001	.0001	.0000	.0000	.0001	.0000
%RSD	48.95	11.65	292.4	50.16	42.37	6.405	51.46	392.3	78.27
#1	.0002	-.0001	.0003	-.0004	-.0001	-.0003	-.0001	.0001	.0000
#2	.0004	-.0001	-.0001	-.0002	-.0002	-.0003	-.0000	-.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**-.0002**	**-.0001**	**.0011**	**.0007**	**.0004**	**-.0041**	**-.0078**
Stddev	.0001	.0001	.0009	.0001	.0005	.0004	.0005	.0060	.0031
%RSD	91.19	611.9	516.0	41.64	45.54	56.12	119.9	144.7	39.98
#1	.0000	-.0000	-.0008	-.0001	.0008	.0009	.0001	-.0084	-.0100
#2	.0002	.0001	.0005	-.0002	.0015	.0004	.0008	.0001	-.0056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0298**	**.0390**	**.0153**	**.0000**	**.0003**	**.0015**	**.0002**	**.0001**
Stddev	.0017	.0152	.0060	.0016	.0000	.0001	.0001	.0009	.0001
%RSD	5456.	51.13	15.32	10.12	90.91	25.97	4.449	467.8	70.46
#1	-.0013	-.0190	.0433	.0164	.0001	.0003	.0015	.0008	.0000
#2	.0012	-.0406	.0348	.0142	.0000	.0004	.0016	-.0005	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 18:39:13 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0008**	**.0003**	**.0003**	**-.0007**	**.0021**	**.0052**
Stddev	.0002	.0004	.0000	.0004	.0002	.0003	.0003
%RSD	44.00	56.61	3.487	135.8	28.57	14.94	5.679
#1	-.0005	.0011	.0003	.0000	-.0005	.0019	.0050
#2	-.0003	.0005	.0003	.0006	-.0008	.0024	.0054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107180.**	**16381.**	**3916.1**	**9183.6**
Stddev	8.	37.	4.2	6.9
%RSD	.00710	.22601	.10828	.07485
#1	107190.	16408.	3919.1	9188.5
#2	107170.	16355.	3913.1	9178.7

Zoom In Zoom Out

Sample Name: mp6434-mb1 2 Acquired: 4/3/2018 18:43:35 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0005**	**.0000**	**.0001**	**-.0001**	**.0002**	**.0029**	**.0005**	**.0006**	**-.0002**
Stddev	.0004	.0000	.0000	.0001	.0003	.0002	.0000	.0001	.0002
%RSD	77.52	67.48	12.08	106.4	156.9	7.930	.0322	15.25	95.83
#1	.0008	.0001	.0001	-.0000	.0004	.0031	.0005	.0005	-.0004
#2	.0002	.0000	.0001	-.0002	-.0000	.0027	.0005	.0006	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0004**	**.0008**	**-.0006**	**-.0000**	**.0008**	**.0003**	**-.0003**	**.0274**	**.5721**
Stddev	.0003	.0001	.0004	.0015	.0008	.0005	.0006	.0050	.0038
%RSD	86.62	14.23	72.94	4536.	94.88	156.2	250.8	18.16	.6661
#1	.0006	.0008	-.0009	-.0011	.0003	-.0000	.0002	.0239	.5748
#2	.0002	.0007	-.0003	.0010	.0014	.0007	-.0007	.0309	.5694

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0198**	**.1019**	**.2167**	**1.161**	**.0405**	**.0000**	**.1301**	**.0005**	**.0007**
Stddev	.0015	.0059	.0001	.012	.0001	.0001	.0010	.0003	.0000
%RSD	7.813	5.765	.0292	1.055	.3308	434.5	.7371	62.85	3.643
#1	.0187	.1061	.2168	1.153	.0404	-.0000	.1294	.0008	.0007
#2	.0209	.0978	.2167	1.170	.0406	.0000	.1308	.0003	.0008

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**.0007**	**.0004**	**.1920**	**.0019**	**.0024**	**.0093**
Stddev	.0001	.0002	.0000	.0008	.0001	.0007	.0006
%RSD	23.29	27.39	12.16	.4308	6.084	28.95	6.594
#1	.0003	.0005	.0004	.1926	.0019	.0029	.0088
#2	.0002	.0008	.0004	.1914	.0020	.0019	.0097

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108130.**	**16700.**	**3922.9**	**9221.6**
Stddev	115.	84.	.3	4.3
%RSD	.10592	.50358	.00717	.04702
#1	108210.	16640.	3923.1	9218.5
#2	108050.	16759.	3922.7	9224.6

Zoom In Zoom Out

Sample Name: mp6434-b1 Acquired: 4/3/2018 18:47:55 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.081**	**2.059**	**2.032**	**2.006**	**2.041**	**2.044**	**2.095**	**2.052**
Stddev	.000	.000	.003	.001	.004	.001	.003	.001
%RSD	.0058	.0003	.1668	.0599	.1865	.0446	.1178	.0541
#1	2.081	2.059	2.034	2.006	2.043	2.044	2.097	2.051
#2	2.081	2.059	2.030	2.005	2.038	2.043	2.093	2.052

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2392**	**2.058**	**2.073**	**1.955**	**2.041**	**2.083**	**2.038**	**1.997**
Stddev	.0014	.003	.003	.001	.002	.003	.006	.001
%RSD	.6018	.1231	.1546	.0417	.0794	.1633	.2769	.0242
#1	.2402	2.059	2.075	1.956	2.040	2.080	2.042	1.997
#2	.2381	2.056	2.071	1.955	2.042	2.085	2.034	1.998

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.25**	**25.41**	**25.12**	**24.73**	**25.01**	**25.69**	**2.012**	**2.060**
Stddev	.02	.03	.00	.03	.08	.01	.001	.002
%RSD	.0706	.1150	.0010	.1341	.3202	.0440	.0411	.1182
#1	25.24	25.39	25.12	24.75	25.07	25.70	2.012	2.062
#2	25.26	25.43	25.12	24.71	24.95	25.68	2.011	2.058

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0155**	**2.035**	**2.050**	**2.020**	**2.005**	**2.014**	F **-.0778**	**.0001**
Stddev	.0009	.007	.004	.002	.001	.002	.0030	.0001
%RSD	5.785	.3575	.2078	.0843	.0476	.1190	3.855	141.8
#1	.0149	2.040	2.053	2.019	2.004	2.016	-.0799	.0002
#2	.0162	2.030	2.047	2.021	2.006	2.012	-.0756	-.0000

Elem	Li6707	P_1774
Avg	**.0010**	**2.028**
Stddev	.0008	.004
%RSD	81.45	.1882
#1	.0016	2.030
#2	.0004	2.025

Zoom In Zoom Out

Sample Name: mp6434-b1 Acquired: 4/3/2018 18:47:55 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104180.**	**16427.**	**3794.7**	**8450.8**
Stddev	241.	8.	5.2	3.9
%RSD	.23105	.04592	.13806	.04566
#1	104010.	16422.	3791.0	8448.1
#2	104350.	16432.	3798.4	8453.5

Zoom In Zoom Out

Sample Name: jc63200-1 Acquired: 4/3/2018 18:51:59 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0016**	**-.0000**	**.0001**	**-.0001**	**.0001**	**.0005**	**.0005**	**.0006**	**-.0003**
Stddev	.0001	.0001	.0003	.0001	.0001	.0002	.0000	.0001	.0001
%RSD	9.019	186.5	279.3	51.72	165.1	48.87	1.154	20.68	51.47
#1	.0017	-.0001	-.0001	-.0001	-.0000	.0003	.0005	.0005	-.0002
#2	.0015	.0000	.0003	-.0002	.0001	.0006	.0005	.0007	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**.0294**	**.0084**	**.0003**	**.0017**	**-.0022**	**-.0010**	**.0284**	**1.727**
Stddev	.0002	.0001	.0007	.0008	.0003	.0015	.0002	.0110	.011
%RSD	1043.	.4263	8.383	278.9	17.71	66.96	22.85	38.74	.6352
#1	.0001	.0295	.0079	.0009	.0015	-.0012	-.0011	.0206	1.735
#2	-.0001	.0293	.0089	-.0003	.0020	-.0032	-.0008	.0361	1.719

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0214**	**.0032**	**.1283**	**.1655**	**.0155**	**.0004**	**.0135**	**.0005**	**.0017**
Stddev	.0005	.0175	.0052	.0074	.0006	.0000	.0005	.0001	.0000
%RSD	2.370	551.3	4.030	4.473	3.778	1.318	3.406	25.96	1.463
#1	.0211	.0156	.1319	.1603	.0159	.0004	.0138	.0004	.0017
#2	.0218	-.0092	.1246	.1707	.0151	.0004	.0132	.0006	.0017

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**-.0001**	**.0000**	**.0551**	**.0012**	**.0014**	**.0112**
Stddev	.0000	.0010	.0001	.0024	.0000	.0005	.0011
%RSD	.0072	1388.	893.9	4.355	1.569	39.13	10.16
#1	-.0001	.0006	-.0001	.0534	.0012	.0017	.0120
#2	-.0001	-.0008	.0001	.0568	.0012	.0010	.0104

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**109290.**	**16647.**	**3947.7**	**9303.2**
Stddev	10.	94.	.5	.3
%RSD	.00891	.56321	.01384	.00374
#1	109280.	16713.	3947.3	9303.4
#2	109300.	16581.	3948.1	9302.9

Zoom In Zoom Out

Sample Name: jc63200-2 Acquired: 4/3/2018 18:56:19 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0024**	**-.0001**	**.0002**	**-.0002**	**.0003**	**.0003**	**.0003**	**.0002**	**.0003**
Stddev	.0001	.0000	.0004	.0002	.0003	.0007	.0001	.0001	.0007
%RSD	4.099	11.96	156.5	132.3	87.28	232.0	21.29	46.26	226.3
#1	.0025	-.0001	-.0000	-.0000	.0001	.0008	.0003	.0003	-.0002
#2	.0023	-.0001	.0005	-.0003	.0005	-.0002	.0004	.0001	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**.0403**	**.0477**	**-.0007**	**.0034**	**-.0023**	**.0007**	**.0580**	**.3377**
Stddev	.0002	.0003	.0000	.0008	.0004	.0023	.0001	.0004	.0120
%RSD	717.0	.7109	.0927	119.7	13.33	102.4	20.48	.6108	3.551
#1	-.0002	.0401	.0477	-.0001	.0037	-.0039	.0008	.0578	.3293
#2	.0001	.0405	.0478	-.0013	.0030	-.0006	.0006	.0583	.3462

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0385**	**-.0060**	**.1296**	**.2229**	**.0379**	**.0001**	**.0895**	**.0007**	**.0009**
Stddev	.0008	.0183	.0122	.0048	.0006	.0000	.0011	.0009	.0000
%RSD	2.125	304.6	9.451	2.143	1.476	77.08	1.229	122.6	2.415
#1	.0391	.0069	.1382	.2195	.0383	.0001	.0903	.0001	.0009
#2	.0379	-.0189	.1209	.2263	.0375	.0000	.0887	.0014	.0008

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**.0003**	**.0003**	**.0283**	**-.0005**	**.0012**	**.0156**
Stddev	.0003	.0003	.0001	.0032	.0002	.0003	.0002
%RSD	1288.	110.2	31.34	11.45	38.30	26.02	1.564
#1	.0002	.0001	.0002	.0260	-.0003	.0010	.0157
#2	-.0002	.0005	.0004	.0306	-.0006	.0014	.0154

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108870.**	**16551.**	**3939.5**	**9292.1**
Stddev	48.	64.	.6	8.7
%RSD	.04434	.38583	.01532	.09324
#1	108830.	16506.	3939.1	9286.0
#2	108900.	16596.	3940.0	9298.2

Zoom In Zoom Out

Sample Name: jc62766-21 Acquired: 4/3/2018 19:00:41 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 250.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.5475**	**-.0630**	**-.0663**	**.0025**	**-.0268**	F **5078.**	**.8424**	**1.242**
Stddev	.0066	.0073	.0662	.0053	.0816	33.	.0153	.013
%RSD	1.204	11.55	99.87	210.1	304.1	.6513	1.819	1.074
#1	.5429	-.0681	-.1132	.0062	.0309	5055.	.8316	1.251
#2	.5522	-.0578	-.0195	-.0012	-.0845	5101.	.8532	1.232

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.1147**	**-.1294**	F **-5.774**	**-.3986**	**.1133**	**8.389**	**.7282**	**.1800**
Stddev	.0397	.0280	.031	.0250	.1880	.260	.5366	.1888
%RSD	34.58	21.65	.5421	6.282	166.0	3.093	73.69	104.9
#1	.0866	-.1096	-5.752	-.3809	.2462	8.206	.3487	.0465
#2	.1427	-.1492	-5.796	-.4163	-.0197	8.573	1.108	.3135

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**8.013**	**11.13**	**14.18**	**-5.280**	**58.38**	**2.143**	**-.2011**	**.0469**
Stddev	.794	.73	.01	3.964	6.72	4.013	.1260	.0317
%RSD	9.915	6.530	.0936	75.07	11.52	187.3	62.63	67.56
#1	8.575	10.61	14.17	-2.477	63.13	4.981	-.1120	.0245
#2	7.451	11.64	14.19	-8.082	53.62	-.6948	-.2902	.0693

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**7.410**	**3.166**	**.0360**	**-.2419**	**.2699**	**.1317**	**8.364**	**-.7085**
Stddev	.079	.067	.0135	.0677	.0557	.0033	.022	.4036
%RSD	1.061	2.100	37.51	28.00	20.63	2.488	.2658	56.96
#1	7.354	3.214	.0456	-.2898	.3093	.1294	8.348	-.4232
#2	7.466	3.119	.0265	-.1940	.2306	.1341	8.380	-.9939

Elem	Li6707	P_1774
Avg	**.3802**	**10.85**
Stddev	.0692	.43
%RSD	18.19	3.931
#1	.4291	10.55
#2	.3313	11.15

Zoom In Zoom Out

Sample Name: jc62766-21 Acquired: 4/3/2018 19:00:41 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 250.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**106830.**	**16475.**	**3881.5**	**9125.8**
Stddev	212.	8.	2.5	1.8
%RSD	.19823	.05018	.06339	.02022
#1	106980.	16470.	3883.2	9124.5
#2	106680.	16481.	3879.7	9127.1

Zoom In Zoom Out

Sample Name: jc62766-22 Acquired: 4/3/2018 19:05:07 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 250.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.041**	**-.0564**	**2.595**	**.2136**	**4.105**	F **3396.**	**1.150**	**56.41**
Stddev	.017	.0034	.021	.0180	.008	2.	.029	.10
%RSD	1.620	5.995	.8049	8.409	.1891	.0463	2.504	.1690
#1	1.053	-.0540	2.580	.2009	4.111	3395.	1.170	56.48
#2	1.029	-.0587	2.610	.2263	4.100	3397.	1.130	56.35

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0595**	**.0660**	W **-2.230**	**-.0215**	**.1131**	**13.59**	**.1587**	**.5332**
Stddev	.1744	.0443	.035	.0841	.0207	.03	.2946	.0129
%RSD	292.9	67.14	1.562	391.6	18.33	.2551	185.7	2.419
#1	-.1829	.0347	-2.206	-.0810	.1277	13.56	-.0497	.5241
#2	.0638	.0974	-2.255	.0380	.0984	13.61	.3670	.5424

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**21.95**	**13.68**	**423.3**	**-7.180**	**36.95**	**4.135**	**-.0117**	**.1687**
Stddev	.27	.19	.3	1.223	8.33	.516	.0572	.0453
%RSD	1.216	1.356	.0622	17.04	22.54	12.49	486.6	26.89
#1	21.76	13.55	423.4	-8.045	31.06	4.500	.0287	.1366
#2	22.14	13.81	423.1	-6.315	42.84	3.770	-.0522	.2007

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**11.05**	**14.71**	**.1552**	**1.428**	**.1203**	**.0873**	**31.11**	**-.0242**
Stddev	.05	.12	.0159	.081	.0841	.0081	.16	.0457
%RSD	.4873	.7964	10.21	5.668	69.91	9.325	.4992	189.2
#1	11.09	14.63	.1664	1.371	.0608	.0816	31.22	.0082
#2	11.02	14.80	.1440	1.486	.1797	.0931	31.00	-.0565

Elem	Li6707	P_1774
Avg	**.4036**	**17.10**
Stddev	.2722	.02
%RSD	67.45	.1390
#1	.2111	17.08
#2	.5961	17.11

Zoom In Zoom Out

Sample Name: jc62766-22 Acquired: 4/3/2018 19:05:07 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 250.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107360.**	**16432.**	**3898.2**	**9155.6**
Stddev	210.	70.	2.7	.3
%RSD	.19579	.42849	.06862	.00281
#1	107510.	16383.	3900.1	9155.8
#2	107210.	16482.	3896.3	9155.4

Zoom In Zoom Out

Sample Name: mp6401-b1 Acquired: 4/3/2018 19:09:25 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.053**	**2.038**	**2.018**	**1.991**	**2.029**	**2.020**	**2.079**	**2.035**
Stddev	.005	.005	.001	.001	.002	.005	.001	.000
%RSD	.2574	.2601	.0665	.0518	.0995	.2693	.0286	.0131
#1	2.057	2.042	2.017	1.990	2.031	2.023	2.080	2.035
#2	2.049	2.035	2.019	1.992	2.028	2.016	2.079	2.035

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2430**	**2.046**	**2.060**	**1.985**	**2.043**	**2.069**	**2.020**	**2.032**
Stddev	.0004	.000	.003	.004	.002	.003	.001	.003
%RSD	.1557	.0097	.1291	.1967	.0738	.1364	.0540	.1428
#1	.2432	2.046	2.058	1.982	2.045	2.071	2.020	2.030
#2	.2427	2.046	2.062	1.988	2.042	2.067	2.019	2.034

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.07**	**25.19**	**24.90**	**24.64**	**24.91**	**25.41**	**1.999**	**2.093**
Stddev	.00	.02	.02	.17	.02	.05	.004	.001
%RSD	.0009	.0831	.0896	.6816	.0846	.2028	.2132	.0456
#1	25.07	25.20	24.92	24.75	24.92	25.45	1.996	2.092
#2	25.07	25.17	24.89	24.52	24.89	25.38	2.002	2.094

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0848**	**2.073**	**2.036**	**2.058**	**1.954**	**2.048**	F **-.0748**	**.0006**
Stddev	.0008	.002	.003	.003	.003	.000	.0007	.0006
%RSD	.9595	.0839	.1650	.1659	.1565	.0066	.9916	98.29
#1	.0842	2.074	2.038	2.061	1.951	2.048	-.0753	.0011
#2	.0854	2.071	2.034	2.056	1.956	2.048	-.0743	.0002

Elem	Li6707	P_1774
Avg	**-.0002**	**2.007**
Stddev	.0004	.003
%RSD	244.4	.1394
#1	.0001	2.005
#2	-.0005	2.009

Zoom In Zoom Out

Sample Name: mp6401-b1 Acquired: 4/3/2018 19:09:25 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104290.**	**16462.**	**3808.3**	**8488.7**
Stddev	121.	71.	1.6	9.6
%RSD	.11607	.42967	.04107	.11357
#1	104380.	16412.	3807.2	8481.8
#2	104200.	16512.	3809.4	8495.5

Zoom In Zoom Out

Sample Name: mp6401-mb1 2 Acquired: 4/3/2018 19:13:26 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0001**	**-.0000**	**-.0000**	**-.0003**	**.0002**	**-.0001**	**.0000**	**-.0002**	**-.0002**
Stddev	.0001	.0000	.0001	.0001	.0001	.0001	.0001	.0002	.0006
%RSD	153.1	59.67	830.2	53.13	62.63	151.5	7395.	71.96	393.3
#1	-.0000	-.0001	-.0000	-.0002	.0003	.0000	-.0001	-.0001	-.0006
#2	.0002	-.0000	.0000	-.0004	.0001	-.0002	.0001	-.0003	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0015**	**-.0001**	**.0003**	**-.0004**	**-.0017**	**.0006**	**.0063**	**-.0022**
Stddev	.0003	.0000	.0013	.0002	.0008	.0003	.0000	.0051	.0011
%RSD	88.44	1.598	2263.	67.01	219.7	14.67	3.423	80.74	52.79
#1	-.0006	.0015	.0009	.0005	.0002	-.0015	.0006	.0099	-.0013
#2	-.0001	.0016	-.0010	.0002	-.0009	-.0019	.0006	.0027	-.0030

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0105**	**-.0070**	**.0185**	**.0064**	**.0000**	**.0005**	**-.0024**	**.0004**	**.0000**
Stddev	.0040	.0181	.0256	.0002	.0000	.0002	.0003	.0001	.0001
%RSD	38.47	257.1	138.5	2.942	367.9	32.53	11.18	32.18	218.0
#1	.0134	-.0198	.0004	.0065	.0000	.0006	-.0022	.0004	-.0000
#2	.0076	.0057	.0366	.0062	-.0000	.0004	-.0026	.0003	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0056**	**.0012**	**.0032**	**-.0004**	**.0020**	**.0085**
Stddev	.0002	.0002	.0002	.0000	.0009	.0004	.0008
%RSD	73.80	2.671	15.02	.6466	248.2	19.69	9.195
#1	.0001	.0055	.0013	.0032	-.0010	.0023	.0091
#2	.0003	.0057	.0011	.0032	.0003	.0018	.0079

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107770.**	**16517.**	**3891.1**	**9153.9**
Stddev	16.	23.	1.8	4.6
%RSD	.01461	.13887	.04608	.05037
#1	107780.	16501.	3892.4	9150.7
#2	107760.	16534.	3889.8	9157.2

Zoom In Zoom Out

Sample Name: mp6401-s1 Acquired: 4/3/2018 19:17:45 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.179**	**2.072**	**2.098**	**2.048**	**2.029**	**2.067**	**2.080**	**2.090**
Stddev	.004	.003	.002	.001	.008	.004	.004	.002
%RSD	.1661	.1402	.1100	.0641	.3938	.1781	.1724	.0727
#1	2.182	2.075	2.100	2.047	2.035	2.070	2.082	2.091
#2	2.176	2.070	2.097	2.049	2.024	2.064	2.077	2.089

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2543**	**2.069**	**2.072**	**2.098**	**1.982**	**2.100**	**2.114**	**2.114**
Stddev	.0009	.007	.001	.001	.001	.000	.004	.000
%RSD	.3386	.3534	.0604	.0300	.0426	.0167	.1634	.0194
#1	.2549	2.074	2.073	2.097	1.982	2.100	2.116	2.114
#2	.2537	2.064	2.071	2.098	1.983	2.101	2.111	2.115

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.71**	**169.8**	**25.18**	**49.11**	**27.84**	W **291.4**	**2.087**	**2.121**
Stddev	.01	.0	.00	.02	.01	.6	.000	.003
%RSD	.0550	.0104	.0117	.0327	.0315	.1979	.0047	.1597
#1	25.72	169.8	25.19	49.12	27.84	291.8	2.087	2.123
#2	25.70	169.8	25.18	49.10	27.85	291.0	2.087	2.118

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**3.923**	**2.044**	**2.702**	**2.089**	**2.099**	**2.093**	**4.860**	**.0011**
Stddev	.006	.003	.004	.002	.001	.001	.008	.0005
%RSD	.1625	.1215	.1466	.0715	.0274	.0448	.1700	49.98
#1	3.927	2.046	2.705	2.090	2.098	2.094	4.866	.0007
#2	3.918	2.043	2.699	2.088	2.099	2.092	4.854	.0014

Elem	Li6707	P_1774
Avg	**-.0003**	**2.143**
Stddev	.0005	.003
%RSD	148.9	.1482
#1	-.0007	2.145
#2	.0000	2.140

Zoom In Zoom Out

Sample Name: mp6401-s1 Acquired: 4/3/2018 19:17:45 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**97262.**	**15865.**	**3550.7**	**7587.7**
Stddev	271.	45.	1.0	2.0
%RSD	.27812	.28612	.02874	.02630
#1	97071.	15897.	3550.0	7589.1
#2	97453.	15833.	3551.4	7586.3

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 19:21:53 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.977**	**1.965**	**1.965**	**1.946**	**1.975**	**1.952**	**2.019**	**1.992**	**.2449**
Stddev	.002	.003	.004	.000	.002	.001	.002	.000	.0008
%RSD	.0804	.1300	.2091	.0185	.1224	.0624	.1028	.0001	.3242
#1	1.976	1.963	1.962	1.946	1.974	1.953	2.020	1.992	.2443
#2	1.978	1.967	1.967	1.945	1.977	1.951	2.017	1.992	.2455
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.988**	**2.006**	**1.936**	**1.963**	**2.018**	**1.973**	**1.963**	**39.42**	**39.34**
Stddev	.007	.002	.002	.003	.000	.001	.006	.00	.03
%RSD	.3466	.0783	.0948	.1713	.0084	.0570	.3119	.0106	.0734
#1	1.983	2.007	1.935	1.965	2.018	1.972	1.958	39.42	39.32
#2	1.993	2.005	1.938	1.960	2.017	1.974	1.967	39.42	39.36
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.65**	**38.50**	**38.91**	**39.36**	**1.959**	**2.013**	**4.839**	**1.987**	**1.977**
Stddev	.03	.04	.05	.00	.004	.000	.001	.000	.001
%RSD	.0700	.1107	.1363	.0064	.2016	.0086	.0275	.0150	.0668
#1	38.63	38.47	38.87	39.36	1.956	2.013	4.838	1.987	1.976
#2	38.67	38.53	38.95	39.37	1.962	2.013	4.840	1.986	1.978
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 19:21:53 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.988**	**1.985**	**1.988**	**1.964**	**1.979**	**1.945**	**1.970**
Stddev	.002	.001	.000	.002	.002	.003	.000
%RSD	.1097	.0447	.0035	.0749	.0875	.1487	.0226
#1	1.990	1.985	1.988	1.963	1.978	1.943	1.969
#2	1.987	1.986	1.988	1.965	1.981	1.947	1.970
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102380.**	**16205.**	**3772.7**	**8278.7**
Stddev	114.	8.	.7	.8
%RSD	.11112	.04679	.01726	.00944
#1	102460.	16210.	3773.2	8278.1
#2	102300.	16199.	3772.3	8279.2

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 19:25:57 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	F **.0002**	**.0003**	**.0001**	**.0001**	**.0003**	**.0005**	**.0001**	**.0004**
Stddev	.0004	.0001	.0002	.0002	.0003	.0001	.0000	.0004	.0004
%RSD	151.5	46.07	57.22	141.7	256.4	21.79	6.210	259.2	107.0
#1	-.0000	.0002	.0005	-.0000	-.0001	.0004	.0005	.0004	.0001
#2	.0005	.0003	.0002	.0003	.0004	.0003	.0005	-.0001	.0007
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0005**	**.0001**	**.0001**	**.0011**	**-.0010**	**-.0004**	F **.0230**	**.0041**
Stddev	.0000	.0001	.0004	.0002	.0009	.0019	.0002	.0076	.0030
%RSD	8.388	31.90	388.8	175.7	77.89	193.0	46.09	33.21	73.60
#1	.0003	.0006	.0004	.0003	.0018	.0004	-.0005	.0176	.0020
#2	.0004	.0004	-.0002	-.0000	.0005	-.0023	-.0003	.0284	.0063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit								.0200	
Low Limit								-.0200	

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0073**	**-.0166**	**.0652**	**.0303**	**.0005**	**.0008**	**.0011**	**.0003**	**.0003**
Stddev	.0062	.0012	.0143	.0082	.0006	.0001	.0008	.0003	.0001
%RSD	84.21	7.466	21.93	27.00	125.7	14.87	77.56	88.67	33.86
#1	.0030	-.0157	.0551	.0361	.0001	.0009	.0017	.0001	.0002
#2	.0117	-.0175	.0754	.0245	.0009	.0007	.0005	.0005	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 19:25:57 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0010**	**.0006**	**-.0019**	**.0002**	**.0025**	**.0064**
Stddev	.0003	.0003	.0001	.0001	.0021	.0003	.0012
%RSD	98.68	33.14	15.15	4.377	1362.	10.64	18.96
#1	.0005	.0012	.0005	-.0018	-.0013	.0023	.0073
#2	.0001	.0008	.0006	-.0019	.0016	.0027	.0056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107340.**	**16473.**	**3911.2**	**9178.5**
Stddev	428.	22.	9.3	14.4
%RSD	.39884	.13437	.23656	.15662
#1	107040.	16489.	3904.7	9168.3
#2	107640.	16457.	3917.8	9188.6

Zoom In Zoom Out

Sample Name: mp6401-s2 Acquired: 4/3/2018 19:30:19 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.160**	**2.044**	**2.079**	**2.029**	**2.019**	**2.046**	**2.063**	**2.072**
Stddev	.001	.004	.000	.000	.001	.001	.004	.003
%RSD	.0248	.1880	.0032	.0033	.0424	.0681	.1767	.1298
#1	2.161	2.047	2.079	2.029	2.019	2.047	2.066	2.074
#2	2.160	2.042	2.079	2.029	2.018	2.045	2.060	2.070

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2533**	**2.061**	**2.051**	**2.077**	**1.961**	**2.084**	**2.102**	**2.100**
Stddev	.0003	.002	.005	.003	.001	.006	.003	.005
%RSD	.1317	.1130	.2221	.1551	.0286	.2888	.1291	.2584
#1	.2535	2.060	2.054	2.075	1.961	2.088	2.100	2.096
#2	.2530	2.063	2.047	2.080	1.962	2.080	2.104	2.103

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.29**	**170.5**	**24.63**	**48.62**	**27.39**	W **295.7**	**2.066**	**2.102**
Stddev	.04	.5	.07	.28	.01	4.1	.002	.001
%RSD	.1412	.3058	.2945	.5685	.0547	1.374	.1139	.0215
#1	25.32	170.9	24.68	48.82	27.40	298.5	2.064	2.102
#2	25.27	170.2	24.58	48.43	27.38	292.8	2.067	2.102

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**3.939**	**2.024**	**2.686**	**2.076**	**2.083**	**2.077**	**4.929**	**.0017**
Stddev	.006	.001	.002	.004	.000	.002	.017	.0018
%RSD	.1656	.0714	.0760	.2118	.0003	.1014	.3399	105.4
#1	3.935	2.025	2.685	2.079	2.083	2.078	4.917	.0030
#2	3.944	2.023	2.688	2.073	2.083	2.075	4.941	.0004

Elem	Li6707	P_1774
Avg	**-.0011**	**2.119**
Stddev	.0005	.000
%RSD	50.05	.0147
#1	-.0015	2.119
#2	-.0007	2.120

Zoom In Zoom Out

Sample Name: mp6401-s2 Acquired: 4/3/2018 19:30:19 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**97060.**	**15985.**	**3553.8**	**7584.2**
Stddev	48.	57.	1.6	11.9
%RSD	.04926	.35384	.04498	.15652
#1	97094.	15945.	3552.7	7575.8
#2	97026.	16025.	3554.9	7592.6

Zoom In Zoom Out

Sample Name: jc62909-1f Acquired: 4/3/2018 19:34:25 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0992**	**-.0001**	**.0001**	**.0003**	**.0016**	**.0016**	**.0006**	**.0003**
Stddev	.0002	.0001	.0000	.0004	.0004	.0007	.0000	.0001
%RSD	.2444	70.29	61.49	106.9	25.89	40.38	4.475	45.35
#1	.0990	-.0002	.0001	.0006	.0019	.0021	.0005	.0004
#2	.0994	-.0001	.0000	.0001	.0013	.0012	.0006	.0002

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0001**	**-.0002**	**.0039**	**-.0010**	**-.0003**	**-.0009**	**.0055**	**.0004**
Stddev	.0000	.0000	.0001	.0004	.0002	.0010	.0017	.0002
%RSD	42.55	4.244	1.575	38.59	68.04	114.6	31.37	39.80
#1	-.0001	-.0002	.0039	-.0007	-.0002	-.0016	.0067	.0006
#2	-.0001	-.0002	.0039	-.0012	-.0005	-.0002	.0043	.0003

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**-.0018**	**147.5**	**.0113**	**24.93**	**2.214**	W **274.9**	**.0458**	**.0004**
Stddev	.0044	.2	.0010	.07	.024	.7	.0003	.0000
%RSD	237.4	.1132	8.858	.2961	1.092	.2453	.7161	1.303
#1	.0013	147.6	.0106	24.88	2.197	275.3	.0456	.0004
#2	-.0049	147.4	.0120	24.99	2.231	274.4	.0461	.0004

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**3.948**	**-.0016**	**.6576**	**-.0005**	**.0090**	**.0012**	**5.072**	**.0012**
Stddev	.004	.0008	.0018	.0004	.0003	.0001	.007	.0003
%RSD	.0895	50.16	.2680	91.22	2.940	7.663	.1360	24.58
#1	3.946	-.0022	.6564	-.0002	.0092	.0012	5.067	.0014
#2	3.951	-.0011	.6589	-.0008	.0088	.0011	5.077	.0010

Elem	Li6707	P_1774
Avg	**-.0007**	**.0125**
Stddev	.0002	.0003
%RSD	31.88	2.151
#1	-.0008	.0127
#2	-.0005	.0123

Zoom In Zoom Out

Sample Name: jc62909-1f Acquired: 4/3/2018 19:34:25 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**96737.**	**15883.**	**3548.7**	**7704.7**
Stddev	71.	43.	3.0	12.3
%RSD	.07298	.26838	.08429	.15931
#1	96687.	15853.	3550.8	7713.4
#2	96787.	15914.	3546.6	7696.0

Zoom In Zoom Out

Sample Name: mp6401-sd1 Acquired: 4/3/2018 19:38:48 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0999**	**-.0004**	**.0005**	**.0004**	**.0017**	**.0029**	**.0005**	**-.0001**	**-.0016**
Stddev	.0001	.0002	.0008	.0009	.0022	.0026	.0001	.0004	.0016
%RSD	.0920	57.32	155.1	207.7	128.6	88.97	21.77	294.7	102.8
#1	.1000	-.0006	.0011	-.0002	.0032	.0011	.0005	.0001	-.0027
#2	.0998	-.0003	-.0000	.0011	.0002	.0047	.0006	-.0004	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0059**	**-.0045**	**-.0031**	**.0043**	**.0022**	**-.0010**	**.0115**	**149.4**
Stddev	.0008	.0003	.0026	.0030	.0001	.0017	.0007	.0010	.1
%RSD	718.1	4.502	57.60	94.80	1.251	74.39	67.00	8.970	.0594
#1	.0006	.0061	-.0027	-.0052	.0044	.0011	-.0005	.0107	149.3
#2	-.0004	.0057	-.0064	-.0010	.0043	.0034	-.0014	.0122	149.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0108**	**25.30**	**2.197**	**280.4**	**.0463**	**.0013**	**3.913**	**-.0012**	**.6586**
Stddev	.0014	.06	.047	.2	.0037	.0023	.005	.0032	.0018
%RSD	13.02	.2555	2.150	.0572	8.049	173.6	.1225	255.0	.2741
#1	.0098	25.25	2.163	280.5	.0490	.0029	3.909	.0010	.6574
#2	.0118	25.34	2.230	280.2	.0437	-.0003	3.916	-.0035	.6599

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0032**	**.0149**	**.0009**	**4.877**	**-.0002**	**.0061**	**.0496**
Stddev	.0011	.0048	.0000	.021	.0088	.0030	.0002
%RSD	34.92	31.94	5.253	.4386	4297.	48.54	.3099
#1	-.0040	.0182	.0009	4.892	-.0064	.0040	.0498
#2	-.0024	.0115	.0009	4.862	.0060	.0082	.0495

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103160.**	**16305.**	**3777.9**	**8517.7**
Stddev	245.	63.	7.7	10.9
%RSD	.23742	.38757	.20289	.12753
#1	102980.	16349.	3783.3	8525.4
#2	103330.	16260.	3772.5	8510.1

Zoom In Zoom Out

Sample Name: jc62779-11 Acquired: 4/3/2018 19:43:06 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0015**	**.0000**	**.0000**	**-.0002**	**.0001**	**-.0002**	**.0000**	**.0001**	**-.0003**
Stddev	.0000	.0000	.0001	.0005	.0003	.0005	.0000	.0003	.0008
%RSD	1.635	763.1	4448.	250.0	586.0	230.5	151.2	456.2	248.2
#1	.0015	.0000	-.0000	.0001	.0003	.0001	.0001	-.0001	-.0008
#2	.0015	-.0000	.0000	-.0005	-.0002	-.0005	-.0000	.0003	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0021**	**-.0008**	**-.0009**	**.0001**	**-.0013**	**.0000**	**.0172**	**.0073**
Stddev	.0001	.0000	.0000	.0009	.0001	.0021	.0007	.0099	.0005
%RSD	140.6	.5392	3.635	101.5	42.36	165.8	3565.	57.31	7.437
#1	.0002	.0021	-.0008	-.0002	.0002	-.0028	-.0005	.0242	.0069
#2	.0000	.0021	-.0008	-.0015	.0001	.0002	.0005	.0103	.0077

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0017**	**-.0268**	**.0012**	**.0677**	**-.0007**	**.0000**	**.0614**	**.0005**	**.0009**
Stddev	.0038	.0089	.0090	.0084	.0003	.0001	.0006	.0004	.0000
%RSD	223.0	33.09	741.6	12.47	34.81	516.1	.9259	91.03	4.750
#1	.0044	-.0205	-.0051	.0736	-.0006	-.0000	.0610	.0008	.0009
#2	-.0010	-.0331	.0076	.0617	-.0009	.0001	.0618	.0002	.0008

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0004**	**.0002**	**.0006**	**.0022**	**.0007**	**.0020**	**.0097**
Stddev	.0002	.0001	.0001	.0001	.0019	.0012	.0010
%RSD	41.44	38.47	21.67	5.019	273.7	60.03	10.17
#1	-.0003	.0002	.0006	.0023	.0021	.0028	.0104
#2	-.0005	.0003	.0005	.0022	-.0007	.0011	.0090

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107890.**	**16620.**	**3898.2**	**9156.5**
Stddev	123.	80.	5.6	12.2
%RSD	.11383	.48333	.14458	.13289
#1	107800.	16677.	3902.2	9165.1
#2	107970.	16563.	3894.2	9147.9

Zoom In Zoom Out

Sample Name: jc62909-2f Acquired: 4/3/2018 19:47:27 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0633**	**-.0000**	**.0004**	**.0060**	**.0003**	**.0011**	**.4655**	**.0022**	**.0000**
Stddev	.0000	.0000	.0000	.0001	.0005	.0001	.0001	.0001	.0002
%RSD	.0552	78.39	3.385	1.238	164.0	12.25	.0155	5.658	431.9
#1	.0633	-.0001	.0004	.0059	.0006	.0010	.4655	.0021	.0001
#2	.0633	-.0000	.0005	.0060	-.0000	.0012	.4654	.0023	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0005**	**.0066**	**.0003**	**-.0003**	**-.0002**	**.0011**	**-.0010**	**.0137**	**38.19**
Stddev	.0001	.0001	.0004	.0000	.0008	.0002	.0017	.0037	.08
%RSD	20.95	2.225	149.6	5.370	325.6	14.88	178.0	26.80	.2053
#1	.0006	.0065	-.0000	-.0003	-.0008	.0010	.0002	.0111	38.25
#2	.0005	.0067	.0005	-.0003	.0003	.0012	-.0022	.0163	38.14

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.5815**	**15.06**	**15.48**	**74.61**	**.5140**	**.0009**	**4.453**	**-.0011**	**.1517**
Stddev	.0024	.06	.04	.10	.0003	.0002	.007	.0004	.0003
%RSD	.4113	.3900	.2423	.1316	.0527	22.04	.1519	34.39	.1802
#1	.5832	15.10	15.51	74.68	.5138	.0008	4.458	-.0014	.1519
#2	.5798	15.02	15.46	74.54	.5142	.0011	4.449	-.0009	.1515

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0006**	**.0044**	**.0002**	**17.66**	**-.0010**	**.0026**	**.0097**
Stddev	.0002	.0004	.0001	.03	.0011	.0009	.0007
%RSD	28.42	7.964	43.59	.1436	117.5	33.20	7.032
#1	-.0005	.0042	.0002	17.68	-.0002	.0020	.0102
#2	-.0007	.0047	.0001	17.64	-.0017	.0032	.0092

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102190.**	**16306.**	**3733.4**	**8383.7**
Stddev	238.	5.	2.4	1.3
%RSD	.23289	.03207	.06418	.01501
#1	102030.	16310.	3731.7	8384.6
#2	102360.	16303.	3735.1	8382.8

Zoom In Zoom Out

Sample Name: jc62909-3f Acquired: 4/3/2018 19:51:43 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0329**	**-.0000**	**.0002**	**.0000**	**.0101**	**.0009**	**.0010**	**.0008**	**-.0001**
Stddev	.0001	.0000	.0004	.0001	.0002	.0001	.0001	.0001	.0006
%RSD	.1974	190.7	155.4	337.7	2.295	15.82	9.024	14.67	504.9
#1	.0330	-.0001	-.0000	.0001	.0100	.0008	.0010	.0007	-.0005
#2	.0329	.0000	.0005	-.0001	.0103	.0010	.0009	.0009	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0010**	**.0107**	**.0005**	**-.0018**	**-.0011**	**.0002**	**.0009**	**.0057**	**58.25**
Stddev	.0005	.0003	.0006	.0005	.0013	.0018	.0006	.0042	.09
%RSD	48.48	3.036	109.3	24.91	113.1	877.4	67.15	73.76	.1525
#1	.0006	.0104	.0009	-.0021	-.0020	-.0011	.0005	.0086	58.32
#2	.0013	.0109	.0001	-.0015	-.0002	.0015	.0014	.0027	58.19

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1605**	**26.23**	**2.333**	**19.55**	**.0131**	**.0023**	**6.475**	**-.0007**	**.1115**
Stddev	.0033	.11	.002	.01	.0006	.0003	.001	.0007	.0000
%RSD	2.074	.4183	.0810	.0450	4.655	12.76	.0132	111.2	.0349
#1	.1581	26.31	2.334	19.56	.0135	.0021	6.476	-.0012	.1115
#2	.1628	26.16	2.331	19.55	.0126	.0025	6.475	-.0001	.1115

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0008**	**.0106**	**.0002**	**9.251**	**-.0013**	**.0035**	**.0244**
Stddev	.0003	.0003	.0001	.001	.0009	.0020	.0015
%RSD	39.86	2.491	21.22	.0062	75.31	55.66	6.336
#1	-.0006	.0108	.0003	9.251	-.0019	.0021	.0233
#2	-.0010	.0104	.0002	9.252	-.0006	.0049	.0255

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103320.**	**16325.**	**3756.2**	**8517.5**
Stddev	28.	21.	2.1	3.0
%RSD	.02683	.12836	.05554	.03579
#1	103300.	16311.	3757.7	8519.6
#2	103340.	16340.	3754.8	8515.3

Zoom In Zoom Out

Sample Name: jc62909-4f Acquired: 4/3/2018 19:56:00 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0027**	**-.0000**	**.0000**	**-.0000**	**.0002**	**.0004**	**.0004**	**.0010**	**.0000**
Stddev	.0004	.0000	.0002	.0001	.0003	.0005	.0000	.0001	.0000
%RSD	13.23	68.28	2206.	807.2	189.2	130.6	9.537	11.24	214.7
#1	.0030	-.0000	.0002	.0001	-.0001	.0007	.0004	.0011	-.0000
#2	.0025	-.0000	-.0001	-.0001	.0004	.0000	.0004	.0009	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0020**	**.0002**	**-.0010**	**.0008**	**-.0012**	**.0029**	**.0210**	**.0279**
Stddev	.0003	.0000	.0003	.0005	.0002	.0016	.0008	.0012	.0023
%RSD	197.0	1.355	108.8	52.09	26.97	130.4	27.28	5.609	8.430
#1	.0004	.0021	.0004	-.0006	.0006	-.0001	.0034	.0202	.0295
#2	-.0001	.0020	.0001	-.0014	.0009	-.0023	.0023	.0218	.0262

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0073**	**-.0260**	**.0065**	**.0923**	**.0005**	**.0003**	**.2441**	**.0015**	**.0032**
Stddev	.0016	.0088	.0208	.0121	.0004	.0000	.0003	.0001	.0000
%RSD	21.94	34.05	317.7	13.09	79.97	.6981	.1379	5.077	1.069
#1	.0062	-.0197	-.0082	.1009	.0008	.0003	.2444	.0015	.0032
#2	.0085	-.0322	.0212	.0838	.0002	.0003	.2439	.0014	.0031

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0019**	**.0026**	**.0015**	**.0071**	**-.0013**	**.0007**	**.0112**
Stddev	.0003	.0015	.0001	.0014	.0002	.0010	.0002
%RSD	16.88	58.12	8.705	20.03	15.66	144.8	1.927
#1	.0021	.0015	.0016	.0061	-.0012	-.0000	.0110
#2	.0017	.0036	.0014	.0081	-.0015	.0014	.0113

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107800.**	**16580.**	**3898.9**	**9164.7**
Stddev	105.	81.	3.8	8.2
%RSD	.09760	.49136	.09631	.08960
#1	107720.	16523.	3896.3	9158.9
#2	107870.	16638.	3901.6	9170.5

Zoom In Zoom Out

Sample Name: jc62909-5f Acquired: 4/3/2018 20:00:21 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0043**	**-.0001**	**.0001**	**-.0002**	**.0000**	**.0010**	**.0009**	**.0002**	**-.0001**
Stddev	.0002	.0001	.0000	.0001	.0002	.0000	.0000	.0003	.0002
%RSD	4.687	86.94	39.32	29.20	464.8	1.249	3.368	147.9	184.5
#1	.0042	-.0001	.0001	-.0001	-.0001	.0010	.0009	-.0000	-.0002
#2	.0045	-.0000	.0001	-.0002	.0002	.0010	.0009	.0005	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0054**	**-.0001**	**-.0012**	**.0005**	**.0026**	**-.0004**	**.0115**	**9.377**
Stddev	.0002	.0000	.0002	.0000	.0001	.0017	.0010	.0067	.011
%RSD	77.61	.2186	235.5	3.158	17.65	65.57	240.7	58.12	.1179
#1	.0001	.0054	-.0002	-.0012	.0004	.0014	.0003	.0068	9.384
#2	.0005	.0054	.0000	-.0013	.0005	.0039	-.0011	.0163	9.369

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0086**	**1.060**	**2.046**	**83.83**	**.0341**	**.0006**	**1.700**	**-.0002**	**.1130**
Stddev	.0047	.021	.013	.24	.0001	.0003	.001	.0005	.0002
%RSD	55.21	1.945	.6137	.2812	.3760	48.05	.0689	289.1	.1558
#1	.0052	1.075	2.055	83.99	.0340	.0004	1.701	.0002	.1132
#2	.0119	1.046	2.037	83.66	.0342	.0008	1.700	-.0005	.1129

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**.0166**	**.0005**	**3.299**	**.0006**	**.0016**	**.0135**
Stddev	.0001	.0003	.0001	.001	.0017	.0000	.0002
%RSD	38.69	1.671	18.84	.0409	260.3	1.880	1.818
#1	-.0002	.0168	.0006	3.298	-.0005	.0016	.0134
#2	-.0004	.0164	.0005	3.300	.0018	.0016	.0137

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103280.**	**16375.**	**3784.5**	**8528.9**
Stddev	18.	27.	1.3	4.2
%RSD	.01713	.16681	.03489	.04957
#1	103290.	16356.	3785.5	8525.9
#2	103270.	16394.	3783.6	8531.8

Zoom In Zoom Out

Sample Name: jc62909-6f Acquired: 4/3/2018 20:04:38 Type: Unk
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0295**	**-.0001**	**.0001**	**-.0002**	**.0003**	**.0013**	**.0000**	**.0002**	**-.0006**
Stddev	.0003	.0001	.0001	.0000	.0001	.0006	.0000	.0001	.0002
%RSD	.8992	125.2	48.90	16.43	38.47	42.49	113.0	24.68	37.99
#1	.0297	-.0000	.0002	-.0002	.0004	.0009	.0000	.0003	-.0008
#2	.0294	-.0001	.0001	-.0002	.0002	.0017	.0001	.0002	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0022**	**-.0014**	**-.0009**	**-.0002**	**.0006**	**.0007**	**.0052**	**31.82**
Stddev	.0005	.0000	.0007	.0000	.0013	.0004	.0002	.0085	.02
%RSD	353.1	1.128	48.63	1.371	596.9	57.43	27.70	163.3	.0523
#1	.0005	.0022	-.0009	-.0009	.0007	.0004	.0006	-.0008	31.84
#2	-.0002	.0022	-.0019	-.0009	-.0012	.0009	.0008	.0113	31.81

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0126**	**6.321**	**4.890**	**233.2**	**.0482**	**.0001**	**4.267**	**-.0011**	**.1432**
Stddev	.0000	.021	.013	1.1	.0003	.0001	.002	.0001	.0004
%RSD	.2254	.3401	.2548	.4509	.6650	37.43	.0435	7.503	.2696
#1	.0126	6.336	4.899	234.0	.0480	.0002	4.265	-.0011	.1435
#2	.0126	6.306	4.881	232.5	.0484	.0001	4.268	-.0010	.1430

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0006**	**.0156**	**-.0000**	**11.06**	**.0003**	**.0060**	**.0128**
Stddev	.0000	.0001	.0002	.02	.0001	.0001	.0003
%RSD	2.778	.6923	1137.	.1700	22.26	1.438	2.650
#1	-.0006	.0155	.0001	11.08	.0004	.0061	.0130
#2	-.0006	.0157	-.0002	11.05	.0003	.0059	.0126

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**99831.**	**16292.**	**3688.6**	**8073.9**
Stddev	39.	12.	1.0	.3
%RSD	.03871	.07610	.02791	.00353
#1	99804.	16283.	3689.3	8074.1
#2	99859.	16301.	3687.9	8073.7

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 20:09:03 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.980**	**1.952**	**1.957**	**1.943**	**1.971**	**1.938**	**2.010**	**1.986**	**.2427**
Stddev	.002	.003	.002	.002	.000	.001	.003	.001	.0007
%RSD	.0996	.1457	.0821	.0783	.0072	.0614	.1698	.0515	.2768
#1	1.979	1.950	1.956	1.941	1.971	1.939	2.012	1.987	.2431
#2	1.982	1.954	1.958	1.944	1.971	1.938	2.008	1.986	.2422
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.978**	**1.996**	**1.929**	**1.957**	**2.011**	**1.963**	**1.952**	**39.06**	**39.26**
Stddev	.002	.000	.004	.000	.000	.003	.003	.04	.04
%RSD	.1194	.0074	.1970	.0077	.0028	.1522	.1257	.0912	.0905
#1	1.980	1.996	1.926	1.957	2.011	1.961	1.951	39.09	39.24
#2	1.976	1.996	1.931	1.957	2.011	1.965	1.954	39.04	39.29
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.26**	**38.26**	**38.55**	**39.33**	**1.951**	**2.002**	**4.813**	**1.980**	**1.951**
Stddev	.02	.07	.01	.03	.003	.001	.004	.006	.002
%RSD	.0636	.1752	.0325	.0722	.1412	.0458	.0795	.3084	.1003
#1	38.24	38.21	38.56	39.31	1.949	2.003	4.810	1.976	1.949
#2	38.27	38.31	38.54	39.35	1.953	2.002	4.816	1.985	1.952
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 20:09:03 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.980**	**1.976**	**1.978**	**1.951**	**1.970**	**1.940**	**1.957**
Stddev	.003	.006	.003	.013	.001	.001	.001
%RSD	.1341	.3306	.1329	.6668	.0290	.0706	.0302
#1	1.982	1.972	1.980	1.942	1.970	1.939	1.958
#2	1.978	1.981	1.976	1.961	1.971	1.941	1.957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102700.**	**16296.**	**3779.2**	**8281.9**
Stddev	287.	22.	4.4	13.7
%RSD	.27972	.13770	.11697	.16517
#1	102490.	16280.	3776.1	8272.2
#2	102900.	16312.	3782.3	8291.6

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 20:13:06 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	F **.0003**	**.0007**	**.0001**	**.0003**	**.0006**	**.0005**	**.0003**	**.0000**
Stddev	.0001	.0002	.0000	.0001	.0001	.0000	.0000	.0001	.0003
%RSD	14.90	47.17	1.226	110.1	33.84	1.334	7.032	46.61	1186.
#1	.0004	.0002	.0007	.0000	.0002	.0006	.0006	.0002	.0002
#2	.0005	.0004	.0007	.0002	.0004	.0006	.0005	.0004	-.0002
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0006**	**.0003**	**.0017**	**.0014**	**-.0002**	**.0004**	**.0126**	**.0033**
Stddev	.0003	.0001	.0006	.0001	.0009	.0019	.0002	.0008	.0036
%RSD	39.00	12.31	243.5	5.082	66.10	769.8	37.64	6.227	108.2
#1	.0009	.0006	.0007	.0018	.0007	-.0016	.0006	.0131	.0008
#2	.0005	.0005	-.0002	.0017	.0021	.0011	.0003	.0120	.0059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0084**	**-.0201**	**.0055**	**.0509**	**.0004**	**.0010**	**.0016**	**.0008**	**.0005**
Stddev	.0068	.0211	.0032	.0075	.0003	.0001	.0003	.0000	.0003
%RSD	80.76	105.2	58.83	14.78	71.49	6.032	16.76	3.229	66.02
#1	.0036	-.0051	.0032	.0456	.0002	.0010	.0018	.0008	.0003
#2	.0132	-.0350	.0078	.0562	.0007	.0009	.0014	.0008	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 20:13:06 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0022**	**.0006**	**-.0007**	**-.0004**	**.0021**	**.0074**
Stddev	.0003	.0000	.0001	.0015	.0006	.0009	.0019
%RSD	115.2	.9621	9.837	217.1	127.3	43.41	24.97
#1	.0000	.0021	.0007	-.0018	-.0008	.0027	.0087
#2	.0005	.0022	.0006	.0004	-.0000	.0014	.0061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107760.**	**16425.**	**3926.6**	**9207.1**
Stddev	115.	48.	3.0	16.2
%RSD	.10632	.29075	.07709	.17580
#1	107680.	16458.	3928.7	9218.6
#2	107850.	16391.	3924.5	9195.7

Zoom In Zoom Out

Sample Name: cri Acquired: 4/3/2018 20:17:29 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2008**	**.0020**	**.0033**	**.0476**	**.0105**	**.0098**	**.0160**	**.0097**	**.0046**
Stddev	.0007	.0000	.0001	.0001	.0002	.0001	.0001	.0001	.0006
%RSD	.3262	.0121	3.027	.1254	1.526	1.393	.6058	1.420	12.83
#1	.2012	.0020	.0034	.0476	.0106	.0099	.0160	.0098	.0050
#2	.2003	.0020	.0032	.0475	.0104	.0098	.0159	.0096	.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0504**	**.0205**	**.0072**	**.0088**	**.0034**	**.0101**	**.0047**	**.2101**	**5.064**
Stddev	.0002	.0001	.0002	.0013	.0023	.0001	.0006	.0008	.010
%RSD	.4627	.4528	2.321	14.84	68.46	1.124	11.93	.3874	.1994
#1	.0505	.0204	.0071	.0097	.0051	.0102	.0051	.2107	5.057
#2	.0502	.0206	.0073	.0079	.0018	.0100	.0043	.2095	5.071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1011**	**4.928**	**4.937**	**5.038**	**.0949**	**.0209**	**.1624**	**.0110**	**.0099**
Stddev	.0013	.022	.013	.006	.0002	.0001	.0004	.0000	.0001
%RSD	1.288	.4375	.2663	.1148	.1624	.3446	.2716	.2897	.8207
#1	.1021	4.943	4.946	5.042	.0950	.0210	.1627	.0109	.0099
#2	.1002	4.913	4.928	5.034	.0948	.0209	.1621	.0110	.0100
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: cri Acquired: 4/3/2018 20:17:29 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0102**	**.0511**	F **.0165**	**.0472**	**.0230**	**.0505**	**.0572**
Stddev	.0002	.0004	.0007	.0004	.0002	.0010	.0007
%RSD	1.754	.7324	4.144	.9029	.8085	1.915	1.253
#1	.0101	.0514	.0170	.0469	.0229	.0498	.0567
#2	.0103	.0508	.0160	.0475	.0231	.0512	.0577
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.0100				
Range			30.00%				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**106140.**	**16347.**	**3880.0**	**8992.4**
Stddev	15.	61.	6.1	17.6
%RSD	.01381	.37151	.15818	.19548
#1	106130.	16390.	3884.3	9004.8
#2	106150.	16304.	3875.7	8980.0

Zoom In Zoom Out

Sample Name: crid Acquired: 4/3/2018 20:21:49 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046**	**.0010**	**.0012**	**.0026**	**.0021**	F **-.0001**	**.0034**	**.0043**
Stddev	.0001	.0001	.0000	.0005	.0001	.0001	.0001	.0005
%RSD	2.894	6.785	.6200	19.70	3.481	61.92	1.878	10.89
#1	.0047	.0009	.0012	.0030	.0020	-.0001	.0034	.0040
#2	.0045	.0010	.0012	.0023	.0021	-.0001	.0034	.0046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0000**	**.0019**	**.0116**	**.0022**	**.0023**	F **.0007**	F **.0031**	F **.0004**
Stddev	.0001	.0001	.0002	.0012	.0004	.0018	.0031	.0005
%RSD	425.3	4.237	1.923	54.16	17.48	274.5	98.51	140.5
#1	.0001	.0019	.0114	.0013	.0020	.0019	.0053	.0000
#2	-.0001	.0020	.0118	.0030	.0026	-.0006	.0009	.0007
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail
Value	.0020					.0025	.0050	.0030
Range	-30.00%					-30.00%	-30.00%	-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1191**	**1.075**	**.0006**	**.0771**	**2.118**	**1.093**	F **-.0014**	**-.0000**
Stddev	.0001	.008	.0013	.0023	.002	.009	.0004	.0003
%RSD	.1141	.7752	207.5	2.994	.1145	.8180	32.44	6192.
#1	.1190	1.081	-.0003	.0755	2.120	1.086	-.0011	.0002
#2	.1192	1.069	.0015	.0787	2.117	1.099	-.0017	-.0002
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None
Value							.0100	
Range							-30.00%	

Zoom In Zoom Out

Sample Name: crid Acquired: 4/3/2018 20:21:49 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0011**	**-.0000**	**-.0003**	F **-.0002**	F **.0001**	F **-.0025**	F **-.0003**
Stddev	.0003	.0005	.0001	.0004	.0007	.0001	.0034	.0015
%RSD	324.4	41.95	2189.	121.7	371.7	88.98	135.8	562.8
#1	.0001	.0015	-.0001	-.0000	-.0007	.0000	-.0001	.0008
#2	-.0003	.0008	.0000	-.0005	.0003	.0002	-.0048	-.0014
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F **.0018**	F **.0081**
Stddev	.0001	.0002
%RSD	5.851	2.987
#1	.0017	.0079
#2	.0019	.0083
Check ?	Chk Fail	Chk Fail
Value	.0040	.0040
Range	-30.00%	30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**106900.**	**16396.**	**3888.1**	**9097.8**
Stddev	310.	34.	2.2	8.6
%RSD	.29043	.20564	.05696	.09405
#1	107120.	16372.	3886.6	9091.7
#2	106680.	16420.	3889.7	9103.8

Zoom In Zoom Out

Sample Name: icsa Acquired: 4/3/2018 20:26:10 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**.0002**	**.0013**	**-.0012**	**.0012**	**-.0027**	**-.0033**	**-.0070**
Stddev	.0000	.0000	.0003	.0001	.0008	.0005	.0001	.0009	.0007
%RSD	11.88	17.40	185.2	9.992	66.28	39.09	3.915	27.10	10.63
#1	.0002	.0002	.0004	.0014	-.0018	.0009	-.0028	-.0027	-.0065
#2	.0002	.0002	-.0000	.0012	-.0007	.0016	-.0026	-.0039	-.0076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0048**	**-.0009**	**-.0023**	**.0032**	**-.0068**	**-.0066**	**517.0**	**383.4**
Stddev	.0000	.0001	.0012	.0029	.0022	.0003	.0004	1.6	2.6
%RSD	9.661	2.199	136.5	126.3	70.71	4.701	6.708	.3027	.6678
#1	-.0005	.0047	-.0017	-.0002	.0016	-.0066	-.0063	515.9	381.6
#2	-.0004	.0049	-.0000	-.0044	.0048	-.0070	-.0070	518.1	385.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**185.5**	**495.1**	**-.4278**	**.0295**	**-.0028**	**-.0014**	**-.0205**	**-.0034**	**.0048**
Stddev	.3	1.1	.0035	.0049	.0000	.0002	.0001	.0006	.0001
%RSD	.1850	.2224	.8203	16.56	.6462	10.95	.6260	18.43	1.523
#1	185.2	494.3	-.4254	.0330	-.0028	-.0013	-.0204	-.0029	.0049
#2	185.7	495.9	-.4303	.0261	-.0028	-.0016	-.0206	-.0038	.0048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icsa Acquired: 4/3/2018 20:26:10 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**.0091**	**.0021**	**.0471**	**-.0029**	**-.0059**	**.0008**
Stddev	.0004	.0002	.0002	.0015	.0023	.0003	.0029
%RSD	41.20	2.051	7.960	3.104	79.11	4.921	368.9
#1	-.0013	.0092	.0022	.0481	-.0044	-.0062	-.0013
#2	-.0007	.0089	.0020	.0461	-.0013	-.0057	.0028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**93858.**	**15650.**	**3479.7**	**7237.8**
Stddev	56.	75.	7.5	5.8
%RSD	.06004	.47752	.21430	.08025
#1	93898.	15703.	3474.4	7233.7
#2	93818.	15598.	3484.9	7241.9

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 4/3/2018 20:30:36 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5148**	**.4944**	**1.027**	**.4900**	**.4838**	**.5170**	**.5045**	**.9871**	**1.050**
Stddev	.0017	.0012	.001	.0000	.0004	.0002	.0000	.0002	.001
%RSD	.3236	.2491	.0598	.0069	.0929	.0440	.0098	.0195	.1233
#1	.5160	.4953	1.027	.4900	.4835	.5171	.5045	.9870	1.049
#2	.5136	.4935	1.026	.4900	.4841	.5168	.5044	.9872	1.050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4936**	**.9688**	**1.031**	**1.055**	**.9983**	**1.002**	**1.051**	**519.8**	**390.8**
Stddev	.0005	.0014	.001	.004	.0022	.004	.005	3.4	3.5
%RSD	.1075	.1479	.1309	.3428	.2212	.4063	.4634	.6558	.8994
#1	.4933	.9698	1.032	1.053	.9967	.9989	1.055	522.2	393.3
#2	.4940	.9678	1.030	1.058	.9999	1.005	1.048	517.4	388.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**181.3**	**495.9**	**-.4145**	**.0255**	**.4884**	**.4952**	**.4745**	**.4629**	**.5361**
Stddev	.7	2.8	.0020	.0095	.0009	.0000	.0004	.0020	.0003
%RSD	.3805	.5687	.4888	37.23	.1817	.0017	.0792	.4333	.0578
#1	181.8	497.9	-.4159	.0323	.4878	.4951	.4742	.4644	.5364
#2	180.8	493.9	-.4131	.0188	.4890	.4952	.4748	.4615	.5359
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 4/3/2018 20:30:36 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5139**	**.4860**	**.5133**	**.5458**	**.5218**	**.5116**	**.5229**
Stddev	.0003	.0007	.0011	.0014	.0005	.0007	.0026
%RSD	.0593	.1349	.2183	.2480	.0993	.1452	.4928
#1	.5137	.4855	.5125	.5449	.5215	.5121	.5247
#2	.5142	.4865	.5141	.5468	.5222	.5110	.5211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**94012.**	**15685.**	**3490.3**	**7259.2**
Stddev	72.	85.	.2	4.1
%RSD	.07660	.54232	.00664	.05639
#1	94063.	15625.	3490.4	7262.0
#2	93961.	15745.	3490.1	7256.3

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 20:40:36 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.972**	**1.950**	**1.957**	**1.942**	**1.978**	**1.942**	**2.013**	**1.988**	**.2449**
Stddev	.003	.003	.001	.000	.002	.004	.001	.003	.0007
%RSD	.1616	.1689	.0688	.0030	.1048	.1781	.0401	.1683	.3053
#1	1.974	1.952	1.956	1.942	1.977	1.944	2.013	1.990	.2444
#2	1.970	1.947	1.958	1.942	1.979	1.940	2.012	1.986	.2455
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.987**	**1.998**	**1.927**	**1.963**	**2.013**	**1.967**	**1.953**	**39.32**	**39.20**
Stddev	.000	.001	.001	.010	.002	.005	.004	.07	.07
%RSD	.0006	.0313	.0323	.5050	.0952	.2400	.1804	.1813	.1745
#1	1.987	1.998	1.926	1.970	2.015	1.963	1.950	39.37	39.24
#2	1.987	1.997	1.927	1.956	2.012	1.970	1.955	39.27	39.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.28**	**38.14**	**38.68**	**39.31**	**1.951**	**2.003**	**4.810**	**1.980**	**1.964**
Stddev	.04	.05	.13	.09	.001	.002	.000	.003	.006
%RSD	.1069	.1372	.3326	.2369	.0554	.1038	.0011	.1660	.3106
#1	38.31	38.17	38.78	39.38	1.951	2.001	4.810	1.982	1.969
#2	38.25	38.10	38.59	39.25	1.950	2.004	4.810	1.977	1.960
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/3/2018 20:40:36 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.983**	**1.978**	**1.983**	**1.953**	**1.972**	**1.937**	**1.954**
Stddev	.002	.004	.002	.002	.002	.007	.002
%RSD	.1109	.2025	.1210	.0753	.1170	.3762	.0999
#1	1.985	1.975	1.985	1.954	1.973	1.943	1.955
#2	1.982	1.981	1.982	1.952	1.970	1.932	1.952
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102490.**	**16277.**	**3787.4**	**8292.2**
Stddev	17.	36.	.7	.8
%RSD	.01623	.21932	.01864	.00945
#1	102480.	16252.	3786.9	8291.6
#2	102500.	16302.	3787.9	8292.7

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 20:44:39 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0001**	**.0004**	**.0002**	**.0003**	**.0002**	**.0003**	**.0005**	**-.0001**
Stddev	.0001	.0001	.0002	.0001	.0005	.0000	.0001	.0002	.0001
%RSD	30.28	63.17	47.31	39.87	170.8	9.751	28.41	38.36	134.1
#1	.0003	.0002	.0003	.0003	-.0001	.0002	.0002	.0006	-.0001
#2	.0005	.0001	.0005	.0002	.0006	.0002	.0003	.0004	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0005**	**.0001**	**.0008**	**.0002**	**-.0008**	**-.0001**	**.0157**	**.0032**
Stddev	.0000	.0001	.0007	.0001	.0007	.0014	.0007	.0012	.0010
%RSD	18.18	18.16	520.6	17.54	376.1	174.6	598.7	7.647	30.54
#1	.0001	.0004	.0006	.0007	-.0003	-.0017	-.0006	.0165	.0038
#2	.0001	.0006	-.0003	.0009	.0006	.0002	.0004	.0148	.0025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0032**	**-.0243**	**.0067**	**.0169**	**.0008**	**.0008**	**.0017**	**.0007**	**.0003**
Stddev	.0022	.0021	.0183	.0009	.0002	.0003	.0006	.0000	.0000
%RSD	67.87	8.439	271.5	5.334	20.76	42.78	32.93	3.127	13.09
#1	.0048	-.0229	-.0062	.0175	.0009	.0010	.0013	.0007	.0002
#2	.0017	-.0258	.0197	.0163	.0007	.0005	.0021	.0007	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/3/2018 20:44:39 Type: QC
Method: Accutest 2(v140) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0005**	**.0005**	**.0021**	**.0009**	**.0026**	**.0088**
Stddev	.0001	.0005	.0000	.0004	.0001	.0016	.0003
%RSD	27.32	110.4	2.177	18.85	14.78	63.04	3.394
#1	.0003	.0009	.0005	.0024	.0010	.0037	.0086
#2	.0005	.0001	.0005	.0019	.0008	.0014	.0090
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107580.**	**16508.**	**3909.1**	**9171.3**
Stddev	154.	32.	2.5	9.9
%RSD	.14350	.19094	.06371	.10790
#1	107690.	16530.	3910.8	9178.3
#2	107470.	16485.	3907.3	9164.3

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Ba 455.403 { 74}	☒	3	Mg	0.000001	0.000000	No
				Al	0.000002	0.000000	No
				Zr	0.000727	0.000000	No
	Be 313.042 {108}	☒	9	V	0.000903	0.000000	No
				Mo	-0.000030	0.000000	No
				Ti	-0.000300	0.000000	No
				Mn	-0.000018	0.000000	No
				Ni	0.000011	0.000000	No
				Ca	-0.000000	0.000000	No
				Cu	0.000014	0.000000	No
				Zn	-0.000010	0.000000	No
				Fe	-0.000002	0.000000	No
	Cd 228.802 {448}	☒	12	As	0.010093	0.000000	No
				Ni	-0.000320	0.000000	No
				Fe	0.000001	0.000000	No
				V	0.000110	0.000000	No
				Ba	0.000054	0.000000	No
				Co	-0.001354	0.000000	No
				Ca	0.000000	0.000000	No
				Mn	-0.000226	0.000000	No
				Cr	-0.000013	0.000000	No
				Cu	0.000024	0.000000	No
				Al	0.000000	0.000000	No
				Mo	0.000004	0.000000	No
	Co 228.616 {448}	☒	9	Fe	0.000001	0.000000	No
				Cr	-0.000049	0.000000	No
				Mo	-0.000530	0.000000	No
				Ni	0.000256	0.000000	No
				Ti	0.001776	0.000000	No
				W	0.000160	0.000000	No
				Cd	0.000012	0.000000	No
				Ca	-0.000003	0.000000	No
				As	-0.000047	0.000000	No
	Cr 267.716 {126}	☒	11	Mn	0.000200	0.000000	No
				Mo	-0.000027	0.000000	No
				Fe	-0.000002	0.000000	No
				Cd	-0.000050	0.000000	No
				Al	0.000002	0.000000	No
				Ca	0.000002	0.000000	No
				Mg	0.000001	0.000000	No
				Ti	0.000050	0.000000	No
				Ba	0.000013	0.000000	No
				Cu	0.000100	0.000000	No
				Sr	-0.000100	0.000000	No
	Cu 324.754 {104}2	☒	17	Cr	0.000000	0.000000	No
				V	-0.000466	0.000000	No
				Mo	0.000812	0.000000	No
				Ti	0.000030	0.000000	No
				Fe	-0.000184	0.000000	No
				Al	0.000002	0.000000	No
				Sn	0.000403	0.000000	No
				Co	-0.001458	0.000000	No
				Zr	0.000030	0.000000	No
				Si	-0.000002	0.000000	No
				Mn	-0.000080	0.000000	No
				Se	0.000050	0.000000	No
				Ag	0.000166	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Sb	0.000024	0.000000	No
			Pb	0.000040	0.000000	No
			Be	-0.000031	0.000000	No
			W	-0.010000	0.000000	No
Mn 257.610 {131}	☒	6	Fe	-0.000033	0.000000	No
			Si	0.000050	0.000000	No
			Ba	0.000012	0.000000	No
			Ni	0.000028	0.000000	No
			Mo	0.000000	0.000000	No
			Cr	-0.000114	0.000000	No
Ni 231.604 {446}	☒	11	Fe	0.000035	0.000000	No
			Zn	-0.000021	0.000000	No
			Be	-0.000112	0.000000	No
			Co	-0.000227	0.000000	No
			Tl	0.000209	0.000000	No
			V	-0.000032	0.000000	No
			Cu	0.000100	0.000000	No
			Cr	0.000040	0.000000	No
			Si	-0.000030	0.000000	No
			Sn	0.000079	0.000000	No
			W	0.000830	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000119	0.000000	No
			Mo	-0.000054	0.000000	No
			Ti	-0.000881	0.000000	No
			Fe	-0.000511	0.000000	No
			V	0.000100	0.000000	No
			Zn	0.000057	0.000000	No
			Ca	-0.000002	0.000000	No
			Al	-0.000002	0.000000	No
			Mg	-0.000004	0.000000	No
			Ba	0.000010	0.000000	No
			Cr	-0.000038	0.000000	No
			Zr	0.010900	0.000000	No
			Sn	-0.000100	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	☒	7	Ti	0.000776	0.000000	No
			Mo	-0.012800	0.000000	No
			Fe	0.000010	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.004218	0.000000	No
			Mn	-0.001560	0.000000	No
			W	0.000050	0.000000	No
Zn 206.200 {464}	☒	15	Cr	-0.000874	0.000000	No
			Mo	-0.000228	0.000000	No
			Fe	0.000010	0.000000	No
			Al	0.000000	0.000000	No
			Si	0.000065	0.000000	No
			Ba	-0.000060	0.000000	No
			Ca	0.000004	0.000000	No
			Sr	0.000017	0.000000	No
			Sn	0.000069	0.000000	No
			Cu	0.001256	0.000000	No
			As	-0.000050	0.000000	No
			Be	0.000071	0.000000	No
			Bi	-0.000400	0.000000	No
			W	0.020000	0.000000	No
			Ti	0.000580	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	As 189.042 {478}	☒	23	Al	0.000008	0.000000	No
				Fe	-0.000136	0.000000	No
				Ca	0.000000	0.000000	No
				Mn	-0.000156	0.000000	No
				Mo	0.000870	0.000000	No
				Cr	0.000639	0.000000	No
				V	0.000198	0.000000	No
				Co	-0.000191	0.000000	No
				W	0.000000	0.000000	No
				Sn	-0.000123	0.000000	No
				Cd	-0.000194	0.000000	No
				Tl	0.000085	0.000000	No
				Be	-0.000017	0.000000	No
				Mg	-0.000003	0.000000	No
				Si	-0.000048	0.000000	No
				Zn	0.000070	0.000000	No
				Sr	-0.000080	0.000000	No
				Zr	0.000074	0.000000	No
				Ti	0.000076	0.000000	No
				Cu	0.000100	0.000000	No
				K	0.000000	0.000000	No
				B	-0.000030	0.000000	No
				S	-0.000006	0.000000	No
	Tl 190.856 {477}	☒	24	Cr	0.000162	0.000000	No
				Mo	-0.006740	0.000000	No
				Al	-0.000005	0.000000	No
				Fe	-0.000057	0.000000	No
				V	-0.033590	0.000000	No
				Mn	0.002200	0.000000	No
				Si	-0.000075	0.000000	No
				Ca	-0.000002	0.000000	No
				Ti	-0.002550	0.000000	No
				Mg	-0.000003	0.000000	No
				Co	0.002821	0.000000	No
				Sr	0.000097	0.000000	No
				B	-0.000268	0.000000	No
				Ba	0.000110	0.000000	No
				Zn	0.000025	0.000000	No
				As	0.000015	0.000000	No
				Ni	0.000051	0.000000	No
				Cu	-0.000032	0.000000	No
				W	-0.010000	0.000000	No
				Sn	0.000020	0.000000	No
				Se	0.000040	0.000000	No
				S	-0.000010	0.000000	No
				K	0.000080	0.000000	No
				P	0.000000	0.000000	No
	Pb 220.353 {453}	☒	23	Al	-0.000106	0.000000	No
				Fe	0.000032	0.000000	No
				Ca	0.000000	0.000000	No
				Mn	0.000106	0.000000	No
				Zn	-0.000036	0.000000	No
				Mo	-0.001200	0.000000	No
				Cu	0.000380	0.000000	No
				V	-0.000147	0.000000	No
				Co	-0.000892	0.000000	No
				Ti	-0.000380	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Si	0.000054	0.000000	No
			Ba	-0.000012	0.000000	No
			Sb	0.000006	0.000000	No
			Sr	-0.000050	0.000000	No
			W	0.000000	0.000000	No
			Mg	0.000001	0.000000	No
			Cd	0.000476	0.000000	No
			Cr	-0.000214	0.000000	No
			Zr	-0.000300	0.000000	No
			Ni	0.000177	0.000000	No
			S	-0.000007	0.000000	No
			Se	0.000036	0.000000	No
			As	-0.000021	0.000000	No
Se 196.090 {472}	☒	22	Al	0.000008	0.000000	No
			Ca	-0.000002	0.000000	No
			Mn	0.000691	0.000000	No
			Mo	0.000277	0.000000	No
			Fe	-0.000164	0.000000	No
			Co	0.000065	0.000000	No
			V	0.000476	0.000000	No
			Sr	-0.000008	0.000000	No
			Cu	-0.000150	0.000000	No
			W	0.000000	0.000000	No
			Si	-0.000072	0.000000	No
			Tl	0.000180	0.000000	No
			Be	-0.000143	0.000000	No
			Zn	-0.000250	0.000000	No
			B	-0.000141	0.000000	No
			Ti	-0.000001	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000280	0.000000	No
			Ba	0.000180	0.000000	No
			Mg	0.000004	0.000000	No
			Cr	-0.000113	0.000000	No
			S	0.000010	0.000000	No
Sb 206.833 {463}	☒	14	Fe	0.000001	0.000000	No
			Al	0.000004	0.000000	No
			Ca	-0.000011	0.000000	No
			Ni	-0.000225	0.000000	No
			Cr	0.016679	0.000000	No
			V	-0.002950	0.000000	No
			Zn	-0.000200	0.000000	No
			Mo	0.000490	0.000000	No
			Ti	0.000365	0.000000	No
			Sn	-0.009200	0.000000	No
			Mg	0.000002	0.000000	No
			Zr	-0.000227	0.000000	No
			Sr	0.000209	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000913	0.000000	No
			Ca	0.000078	0.000000	No
			Mo	0.046534	0.000000	No
			Zr	-0.016318	0.000000	No
			Ti	-0.000017	0.000000	No
Ca 317.933 {106}	☒	13	Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004950	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.001513	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.002000	0.000000	No
			Co	0.000540	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
Fe 259.940 {130}	☒	13	Co	0.000004	0.000000	No
			Si	-0.000100	0.000000	No
			Tl	-0.002590	0.000000	No
			Se	-0.000050	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	-0.001433	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.000953	0.000000	No
			K	-0.000200	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	1	Mo	-0.020780	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000340	0.000000	No
			Al	0.000301	0.000000	No
			Ca	0.000448	0.000000	No
			Mn	0.001430	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Na	0.000300	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.010000	0.000000	No
			Mg	0.000400	0.000000	No
Na 589.592 { 57}	☒	5	K	0.000038	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000055	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.024500	0.000000	No
Mo 202.030 {467}	☒	5	Fe	-0.000010	0.000000	No
			Mg	-0.000001	0.000000	No
			Ca	0.000003	0.000000	No
			W	-0.000376	0.000000	No
			V	-0.000230	0.000000	No
Si 212.412 {459}	☒	13	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.024406	0.000000	No
			Ti	0.003216	0.000000	No
			Al	0.000012	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Fe	0.000040	0.000000	No
			Sn	-0.000784	0.000000	No
			Zn	0.000385	0.000000	No
			As	-0.000560	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Pb	0.000471	0.000000	No
			V	0.040490	0.000000	No
Sn 189.989 {478}	☒	6	Ti	-0.003408	0.000000	No
			Mo	0.000011	0.000000	No
			Fe	0.000005	0.000000	No
			Mn	0.000060	0.000000	No
			Si	0.000089	0.000000	No
			W	0.000000	0.000000	No
Sr 407.771 { 83}	☒	2	Fe	0.000002	0.000000	No
			Ca	0.000023	0.000000	No
Ti 334.904 {101}	☒	4	Cr	-0.000084	0.000000	No
			Mo	0.001269	0.000000	No
			Si	0.000035	0.000000	No
			Ca	-0.000003	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	25	Al	0.000002	0.000000	No
			Si	-0.000900	0.000000	No
			Fe	-0.000007	0.000000	No
			As	-0.000200	0.000000	No
			Mg	-0.000006	0.000000	No
			Mn	-0.000110	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.012200	0.000000	No
			Sn	0.000078	0.000000	No
			Zr	0.000230	0.000000	No
			B	-0.001000	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	0.000041	0.000000	No
			Ni	-0.000263	0.000000	No
			Be	-0.000130	0.000000	No
			Se	-0.000080	0.000000	No
			Cu	-0.000118	0.000000	No
			Ba	-0.000090	0.000000	No
			Tl	-0.000110	0.000000	No
			Ag	0.000224	0.000000	No
Zr 339.198 { 99}	☒	8	Mo	0.000483	0.000000	No
			Ti	-0.000010	0.000000	No
			Fe	-0.000060	0.000000	No
			Si	0.000070	0.000000	No
			Bi	0.000295	0.000000	No
			Cr	-0.000900	0.000000	No
			V	0.000700	0.000000	No
			W	0.000000	0.000000	No
S 182.034 {485}	☒	8	Ca	0.000051	0.000000	No
			Mo	-0.000884	0.000000	No
			Al	-0.000084	0.000000	No
			Fe	0.000007	0.000000	No
			Mn	0.003900	0.000000	No
			W	0.000000	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Zn	-0.001538	0.000000	No
				Cr	-0.000200	0.000000	No
	Bi 223.061 {451}	☒	9	V	-0.000680	0.000000	No
				Co	-0.002200	0.000000	No
				Ca	-0.000005	0.000000	No
				Mg	-0.000002	0.000000	No
				W	-0.002000	0.000000	No
				Cu	-0.001186	0.000000	No
				Fe	0.000090	0.000000	No
				Cr	0.001500	0.000000	No
				Ti	-0.001100	0.000000	No
	Li 670.784 { 50}	☒	1	Ca	0.000056	0.000000	No
	P 177.495 {490}	☒	2	Mn	-0.003328	0.000000	No
				Ca	0.000044	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.001022	1.912224	0.000000	1.000000
Be 313.042 {108}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.000403	1.461215	0.000000	1.000000
Cd 228.802 {448}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000145	0.901012	0.000000	1.000000
Co 228.616 {448}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000134	0.472478	0.000000	1.000000
Cr 267.716 {126}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.000020	0.061966	0.000000	1.000000
Cu 324.754 {104}2	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.002475	0.165735	0.000000	1.000000
Mn 257.610 {131}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000036	0.331901	0.000000	1.000000
Ni 231.604 {446}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.000066	0.333838	0.000000	1.000000
Ag 328.068 {103}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000027	0.090505	0.000000	1.000000
V 292.402 {115}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000022	0.095834	0.000000	1.000000
Zn 206.200 {464}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000161	1.192654	0.000000	1.000000
As 189.042 {478}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.000150	0.132693	0.000000	1.000000
Tl 190.856 {477}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.000051	0.053505	0.000000	1.000000
Pb 220.353 {453}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.000287	0.149724	0.000000	1.000000
Se 196.090 {472}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000487	0.095381	0.000000	1.000000
Sb 206.833 {463}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000145	0.184530	0.000000	1.000000
Al 396.152 { 85}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.001949	0.033422	0.000000	1.000000
Ca 317.933 {106}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.004393	0.047923	0.000000	1.000000
Fe 259.940 {130}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000053	0.020774	0.000000	1.000000
Mg 279.079 {121}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000083	0.003749	0.000000	1.000000
K 766.490 { 44}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000629	0.032550	0.000000	1.000000
Na 589.592 { 57}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.002272	0.087896	0.000000	1.000000
B 208.959 {462}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000467	0.214834	0.000000	1.000000
Mo 202.030 {467}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000135	0.878798	0.000000	1.000000
Si 212.412 {459}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.004397	0.235513	0.000000	1.000000
Sn 189.989 {478}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.000071	0.210429	0.000000	1.000000
Sr 407.771 { 83}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.000050	3.498075	0.000000	1.000000
Ti 334.904 {101}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.000010	0.116335	0.000000	1.000000
Y 360.073 { 94}*	4/4/2018 8:19:19	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	4/4/2018 8:19:19	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	4/4/2018 8:19:19	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	4/4/2018 8:19:19	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.001293	0.428462	0.000000	1.000000
Zr 339.198 { 99}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.000278	0.282424	0.000000	1.000000
S 182.034 {485}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.000608	0.055757	0.000000	1.000000
Bi 223.061 {451}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.000647	0.217724	0.000000	1.000000
Li 670.784 { 50}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	0.001364	0.637222	0.000000	1.000000
P 177.495 {490}	4/4/2018 8:19:19	4/3/2018 13:24:16	Linear	1/Conc	-0.012245	0.127155	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ba 455.403 { 74}	1.000000	0.000000	0.000243	0.000810	OK.	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000106	0.000353	OK.	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000265	0.000882	OK.	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000343	0.001145	OK.	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000538	0.001792	OK.	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000516	0.001719	OK.	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000087	0.000291	OK.	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000421	0.001402	OK.	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000778	0.002593	OK.	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000463	0.001543	OK.	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000188	0.000626	OK.	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001348	0.004492	OK.	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001602	0.005339	OK.	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.001273	0.004243	OK.	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.002514	0.008380	OK.	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001638	0.005459	OK.	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.012284	0.040947	OK.	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.003746	0.012488	OK.	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.004031	0.013438	OK.	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.028837	0.096125	OK.	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.029861	0.099538	OK.	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.010004	0.033347	OK.	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000908	0.003026	OK.	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000300	0.001002	OK.	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.001250	0.004167	OK.	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000823	0.002744	OK.	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000099	0.000330	OK.	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000462	0.001540	OK.	1.000000	0.000000	1	0
Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
W 207.911 {462}	1.000000	0.000000	0.001219	0.004063	OK.	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000251	0.000836	OK.	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.003365	0.011216	OK.	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001782	0.005941	OK.	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001508	0.005027	OK.	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.001779	0.005931	OK.	1.000000	0.000000	1	0

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 4/4/2018 9:32:26 Type: Cal
Method: Accutest 2(v145) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0019**	**.0001**	**.0003**	**-.0004**	**.0000**	**.0023**	**.0000**	**-.0002**	**-.0001**
Stddev	.0003	.0001	.0001	.0003	.0000	.0000	.0000	.0001	.0000
%RSD	17.10	72.63	22.32	80.28	493.7	.1534	88.31	59.85	6.349
#1	.0017	.0001	.0003	-.0006	-.0000	.0023	.0000	-.0001	-.0001
#2	.0021	.0000	.0002	-.0002	.0000	.0023	.0000	-.0002	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0005**	**.0002**	**-.0001**	**-.0002**	**.0003**	**.0001**	**-.0015**	**.0037**
Stddev	.0000	.0003	.0001	.0000	.0002	.0001	.0000	.0003	.0001
%RSD	173.9	60.96	32.21	10.17	69.84	41.55	15.84	20.38	1.514
#1	-.0000	.0003	.0001	-.0001	-.0001	.0002	.0001	-.0013	.0037
#2	.0001	.0007	.0002	-.0001	-.0004	.0004	.0001	-.0017	.0037

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0000**	**.0015**	**.0004**	**.0001**	**.0001**	**.0040**	**.0000**	**.0000**
Stddev	.0001	.0000	.0001	.0008	.0000	.0001	.0002	.0000	.0000
%RSD	240.7	776.2	3.387	191.4	22.36	52.30	4.393	66.63	96.59
#1	-.0000	-.0000	.0015	-.0002	.0001	.0002	.0039	.0000	.0000
#2	.0001	.0000	.0015	.0010	.0001	.0001	.0042	.0000	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0000**	**.0010**	**-.0002**	**-.0005**	**-.0002**	**-.0026**	**-.0092**
Stddev	.0001	.0004	.0000	.0000	.0000	.0004	.0001
%RSD	624.8	37.85	10.31	8.194	21.95	16.61	1.503
#1	-.0000	.0007	-.0002	-.0005	-.0001	-.0023	-.0091
#2	.0000	.0012	-.0002	-.0004	-.0002	-.0029	-.0093

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 4/4/2018 9:32:26 Type: Cal
Method: Accutest 2(v145) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108650.**	**14838.**	**3997.9**	**9224.0**
Stddev	19.	74.	5.2	20.4
%RSD	.01741	.49628	.13081	.22161
#1	108660.	14890.	3994.2	9209.6
#2	108630.	14786.	4001.6	9238.5

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 4/4/2018 9:36:45 Type: Cal
Method: Accutest 2(v145) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.795**	**4.940**	**3.327**	**1.659**	**.2235**	**.6318**	**1.258**	**1.275**	**.0445**
Stddev	.005	.017	.001	.001	.0000	.0002	.000	.002	.0000
%RSD	.0711	.3421	.0379	.0636	.0102	.0304	.0310	.1707	.0759
#1	7.791	4.952	3.328	1.660	.2235	.6319	1.258	1.276	.0446
#2	7.799	4.928	3.326	1.658	.2235	.6316	1.258	1.273	.0445

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3650**	**4.543**	**.4819**	**.2553**	**.5792**	**.3647**	**.6790**	**2.690**	**3.481**
Stddev	.0002	.002	.0006	.0002	.0003	.0002	.0011	.012	.024
%RSD	.0500	.0499	.1340	.0684	.0448	.0678	.1689	.4413	.6739
#1	.3651	4.545	.4823	.2552	.5790	.3649	.6782	2.698	3.497
#2	.3648	4.542	.4814	.2555	.5794	.3645	.6799	2.681	3.464

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.308**	**.2472**	**2.684**	**7.434**	**.7868**	**3.356**	**2.264**	**.7430**	**13.77**
Stddev	.005	.0019	.006	.018	.0004	.001	.000	.0005	.02
%RSD	.4038	.7828	.2084	.2474	.0464	.0355	.0051	.0607	.1719
#1	1.311	.2485	2.688	7.447	.7866	3.357	2.264	.7434	13.78
#2	1.304	.2458	2.680	7.421	.7871	3.355	2.264	.7427	13.75

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4392**	**1.630**	**1.087**	**.2137**	**.7899**	**2.567**	**.4638**
Stddev	.0004	.000	.001	.0000	.0008	.002	.0004
%RSD	.0858	.0035	.0441	.0126	.0992	.0639	.0946
#1	.4395	1.630	1.086	.2137	.7904	2.568	.4641
#2	.4389	1.630	1.087	.2137	.7893	2.566	.4635

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 4/4/2018 9:36:45 Type: Cal
Method: Accutest 2(v145) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**101720.**	**14664.**	**3756.9**	**7970.0**
Stddev	217.	102.	5.5	15.1
%RSD	.21330	.69308	.14573	.18988
#1	101570.	14592.	3753.0	7959.3
#2	101880.	14736.	3760.8	7980.7

Zoom In Zoom Out

Sample Name: ccvconf Acquired: 4/4/2018 9:40:47 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.027**	**2.034**	**2.009**	**1.995**	**2.041**	**1.970**	**2.049**	**2.017**	**.2506**
Stddev	.002	.004	.009	.004	.006	.004	.004	.005	.0006
%RSD	.1028	.1713	.4260	.1786	.3099	.1993	.1945	.2709	.2589
#1	2.028	2.031	2.015	1.998	2.045	1.973	2.052	2.021	.2510
#2	2.025	2.036	2.003	1.993	2.037	1.967	2.046	2.013	.2501
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.014**	**2.044**	**2.002**	**2.050**	**2.031**	**1.996**	**2.017**	**39.67**	**40.41**
Stddev	.003	.006	.003	.008	.004	.009	.006	.01	.03
%RSD	.1516	.3125	.1701	.3706	.1866	.4261	.2999	.0330	.0731
#1	2.016	2.049	2.005	2.055	2.034	2.002	2.021	39.66	40.43
#2	2.012	2.040	2.000	2.044	2.028	1.990	2.013	39.68	40.38
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.79**	**40.23**	**39.75**	**40.16**	**2.008**	**2.049**	**4.854**	**2.069**	**2.018**
Stddev	.04	.01	.01	.05	.007	.007	.020	.012	.001
%RSD	.1095	.0235	.0228	.1179	.3585	.3233	.4133	.5699	.0542
#1	40.75	40.23	39.74	40.19	2.013	2.053	4.868	2.077	2.017
#2	40.82	40.22	39.75	40.12	2.003	2.044	4.840	2.061	2.019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccvconf Acquired: 4/4/2018 9:40:47 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.034**	**2.028**	**2.019**	**1.973**	**2.032**	**2.024**	**2.002**
Stddev	.004	.006	.004	.003	.007	.002	.003
%RSD	.1734	.2936	.2118	.1288	.3480	.0859	.1672
#1	2.036	2.032	2.022	1.975	2.038	2.025	2.005
#2	2.031	2.024	2.016	1.972	2.027	2.023	2.000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**104120.**	**14733.**	**3842.4**	**8282.1**
Stddev	186.	2.	11.6	13.3
%RSD	.17832	.01667	.30085	.16032
#1	103990.	14735.	3834.2	8272.7
#2	104250.	14732.	3850.6	8291.5

Zoom In Zoom Out

Sample Name: ccbconf Acquired: 4/4/2018 9:44:50 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**-.0001**	**.0006**	**-.0002**	**.0003**	**-.0000**	**.0003**	**-.0001**
Stddev	.0002	.0000	.0002	.0001	.0003	.0003	.0000	.0002	.0002
%RSD	332.2	33.83	127.2	19.75	170.1	92.03	229.6	83.72	225.2
#1	-.0002	-.0001	-.0002	.0005	-.0004	.0005	-.0000	.0001	.0001
#2	.0001	-.0001	-.0000	.0007	.0000	.0001	.0000	.0004	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0000**	**.0007**	**-.0003**	**.0004**	**-.0002**	**.0017**	**-.0015**	**-.0034**
Stddev	.0005	.0000	.0005	.0001	.0012	.0019	.0000	.0043	.0032
%RSD	496.0	181.9	75.20	43.69	263.9	815.5	2.252	294.1	92.73
#1	.0005	.0000	.0003	-.0002	-.0004	.0011	.0017	-.0045	-.0057
#2	-.0003	-.0000	.0011	-.0004	.0013	-.0016	.0017	.0016	-.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031**	**.0096**	**.0070**	**.0172**	**.0020**	**.0011**	**.0012**	**.0005**	**.0000**
Stddev	.0061	.0083	.0025	.0025	.0005	.0003	.0004	.0004	.0000
%RSD	201.4	86.54	36.39	14.70	26.72	25.92	30.59	67.74	26.07
#1	-.0013	.0155	.0088	.0190	.0016	.0013	.0015	.0008	.0000
#2	.0074	.0037	.0052	.0154	.0023	.0009	.0009	.0003	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccbconf Acquired: 4/4/2018 9:44:50 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**.0002**	**-.0011**	**-.0016**	**.0020**	**-.0005**
Stddev	.0005	.0002	.0002	.0000	.0011	.0004	.0004
%RSD	1718.	58.84	136.2	2.574	71.87	18.81	81.21
#1	-.0004	.0002	.0004	-.0011	-.0008	.0022	-.0002
#2	.0004	.0005	.0000	-.0011	-.0024	.0017	-.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**109080.**	**14890.**	**3952.1**	**9137.2**
Stddev	118.	46.	37.6	67.4
%RSD	.10825	.31144	.95110	.73768
#1	109170.	14858.	3925.5	9089.6
#2	109000.	14923.	3978.6	9184.9

Zoom In Zoom Out

Sample Name: icv Acquired: 4/4/2018 9:52:43 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.008**	**2.021**	**2.021**	**1.989**	**2.030**	**1.961**	**2.039**	**2.020**	**.2499**
Stddev	.001	.001	.005	.000	.003	.004	.004	.002	.0004
%RSD	.0611	.0584	.2455	.0224	.1612	.2076	.1803	.0775	.1622
#1	2.008	2.021	2.023	1.989	2.032	1.965	2.043	2.021	.2498
#2	2.007	2.022	2.025	1.988	2.032	1.959	2.038	2.022	.2504
#3	2.010	2.020	2.015	1.989	2.026	1.957	2.035	2.019	.2496
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.007**	**2.050**	**1.993**	**2.034**	**2.028**	**1.992**	**2.008**	**39.27**	**39.86**
Stddev	.005	.002	.006	.005	.002	.008	.004	.05	.03
%RSD	.2622	.1033	.3184	.2336	.1045	.3984	.2236	.1309	.0627
#1	2.010	2.051	1.998	2.036	2.028	2.000	2.013	39.33	39.88
#2	2.009	2.052	1.995	2.039	2.030	1.992	2.009	39.24	39.86
#3	2.001	2.048	1.986	2.029	2.026	1.984	2.004	39.24	39.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.04**	**39.36**	**39.24**	**39.36**	**2.002**	**2.029**	**4.772**	**2.055**	**2.019**
Stddev	.01	.03	.04	.05	.002	.002	.006	.006	.002
%RSD	.0220	.0777	.1133	.1377	.0839	.0894	.1271	.2920	.0895
#1	40.05	39.35	39.29	39.42	2.003	2.030	4.778	2.055	2.021
#2	40.05	39.39	39.20	39.32	2.002	2.029	4.771	2.060	2.018
#3	40.03	39.33	39.24	39.33	2.000	2.027	4.766	2.048	2.018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: icv Acquired: 4/4/2018 9:52:43 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.011**	**2.010**	**1.995**	**1.983**	**2.028**	**1.961**	**1.998**
Stddev	.003	.002	.004	.008	.003	.002	.007
%RSD	.1536	.0984	.1988	.3997	.1384	.0791	.3669
#1	2.014	2.010	1.999	1.988	2.029	1.962	2.003
#2	2.011	2.011	1.996	1.986	2.030	1.959	2.002
#3	2.008	2.008	1.991	1.974	2.025	1.962	1.990
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**104760.**	**14930.**	**3858.3**	**8342.0**
Stddev	168.	45.	5.6	3.9
%RSD	.15994	.29851	.14417	.04654
#1	104850.	14966.	3853.5	8339.7
#2	104570.	14945.	3857.1	8339.7
#3	104870.	14880.	3864.4	8346.5

Zoom In Zoom Out

Sample Name: icb Acquired: 4/4/2018 10:02:58 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0000**	**-.0001**	**.0004**	**.0001**	**.0001**	**.0000**	**.0003**	**-.0000**
Stddev	.0002	.0000	.0001	.0001	.0002	.0004	.0000	.0003	.0001
%RSD	137.3	190.8	75.81	18.29	136.6	478.1	48.62	102.4	304.5
#1	-.0000	.0000	-.0002	.0004	.0000	.0004	.0000	.0005	.0000
#2	-.0003	-.0000	-.0001	.0005	.0003	-.0002	.0001	.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0000**	**.0000**	**.0008**	**-.0003**	**.0006**	**.0007**	**-.0046**	**-.0029**
Stddev	.0001	.0001	.0008	.0002	.0002	.0010	.0010	.0092	.0002
%RSD	22.69	808.7	2987.	26.56	49.16	160.4	138.0	202.0	6.837
#1	.0004	.0000	-.0005	.0009	-.0002	.0013	.0014	.0020	-.0027
#2	.0003	-.0000	.0006	.0006	-.0004	-.0001	.0000	-.0111	-.0030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**-.0082**	**.0142**	**-.0131**	**.0009**	**.0002**	**.0011**	**-.0003**	**.0001**
Stddev	.0010	.0033	.0115	.0007	.0005	.0000	.0010	.0007	.0000
%RSD	58.50	39.98	80.95	5.475	59.26	15.70	94.42	236.5	36.01
#1	.0024	-.0059	.0223	-.0136	.0005	.0003	.0004	-.0008	.0001
#2	.0010	-.0105	.0061	-.0126	.0013	.0002	.0018	.0002	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icb Acquired: 4/4/2018 10:02:58 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0000**	**.0002**	**-.0002**	**-.0015**	**.0006**	**-.0005**
Stddev	.0002	.0001	.0001	.0036	.0011	.0010	.0017
%RSD	70.96	294.3	34.30	1464.	75.05	176.8	311.3
#1	-.0005	-.0000	.0001	.0023	-.0007	-.0001	.0007
#2	-.0002	.0001	.0002	-.0028	-.0022	.0013	-.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108780.**	**14913.**	**3963.3**	**9166.4**
Stddev	103.	58.	.9	2.7
%RSD	.09498	.38714	.02273	.02933
#1	108850.	14873.	3964.0	9164.5
#2	108710.	14954.	3962.7	9168.3

Zoom In Zoom Out

Sample Name: icv Acquired: 4/4/2018 10:08:19 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.009**	**2.022**	**2.006**	**1.978**	**2.019**	**1.961**	**2.029**	**2.006**	**.2490**
Stddev	.002	.001	.002	.002	.003	.005	.002	.002	.0010
%RSD	.1056	.0496	.0878	.1165	.1574	.2796	.1119	.1020	.3827
#1	2.011	2.021	2.007	1.979	2.016	1.967	2.027	2.004	.2490
#2	2.009	2.023	2.004	1.975	2.021	1.959	2.030	2.005	.2499
#3	2.007	2.022	2.007	1.980	2.021	1.956	2.031	2.008	.2480
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.995**	**2.026**	**1.992**	**2.030**	**2.016**	**1.981**	**2.011**	**39.53**	**40.04**
Stddev	.004	.005	.003	.007	.002	.003	.005	.02	.05
%RSD	.1903	.2432	.1558	.3330	.1000	.1303	.2421	.0469	.1144
#1	1.993	2.026	1.995	2.032	2.016	1.978	2.005	39.56	40.07
#2	2.000	2.021	1.989	2.036	2.014	1.981	2.012	39.52	40.07
#3	1.993	2.031	1.992	2.023	2.018	1.983	2.015	39.53	39.99
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.48**	**39.77**	**39.60**	**39.80**	**2.001**	**2.037**	**4.822**	**2.054**	**2.017**
Stddev	.03	.05	.06	.03	.003	.003	.007	.001	.003
%RSD	.0633	.1356	.1534	.0718	.1250	.1326	.1516	.0266	.1369
#1	40.50	39.71	39.66	39.83	2.001	2.038	4.813	2.054	2.021
#2	40.48	39.79	39.55	39.80	1.999	2.035	4.826	2.053	2.016
#3	40.45	39.81	39.58	39.77	2.004	2.040	4.826	2.054	2.016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: icv Acquired: 4/4/2018 10:08:19 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.017**	**2.019**	**2.005**	**1.972**	**2.030**	**2.010**	**1.982**
Stddev	.002	.004	.001	.001	.002	.003	.005
%RSD	.0871	.1994	.0706	.0614	.0766	.1285	.2678
#1	2.015	2.016	2.007	1.971	2.028	2.011	1.985
#2	2.019	2.018	2.004	1.971	2.031	2.012	1.986
#3	2.018	2.024	2.004	1.973	2.030	2.007	1.976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**104420.**	**14837.**	**3835.5**	**8285.2**
Stddev	35.	21.	2.1	1.3
%RSD	.03363	.13999	.05375	.01533
#1	104460.	14843.	3837.7	8285.6
#2	104390.	14854.	3835.3	8283.7
#3	104420.	14814.	3833.6	8286.2

Zoom In Zoom Out

Sample Name: icb Acquired: 4/4/2018 10:21:18 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**.0000**	**.0005**	**-.0000**	**.0003**	**.0001**	**.0002**	**.0002**
Stddev	.0001	.0001	.0002	.0001	.0002	.0001	.0000	.0005	.0002
%RSD	296.0	84.50	469.2	13.09	609.9	25.16	21.02	271.4	82.78
#1	-.0002	.0001	.0001	.0005	-.0001	.0002	.0000	.0005	.0001
#2	.0001	.0002	-.0001	.0004	.0001	.0003	.0001	-.0002	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0000**	**.0008**	**.0000**	**-.0003**	**-.0003**	**.0007**	**.0006**	**-.0007**
Stddev	.0001	.0001	.0005	.0008	.0008	.0007	.0006	.0027	.0024
%RSD	26.76	306.3	59.81	3098.	291.6	225.1	85.54	428.4	341.6
#1	.0004	.0000	.0004	.0006	.0003	-.0009	.0003	-.0013	.0010
#2	.0002	-.0001	.0011	-.0005	-.0008	.0002	.0010	.0025	-.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0073**	**.0045**	**.0299**	**.0006**	**.0011**	**.0003**	**.0007**	**.0001**	**.0003**
Stddev	.0035	.0110	.0399	.0089	.0004	.0000	.0004	.0002	.0000
%RSD	47.82	246.7	133.3	1510.	32.86	3.045	53.01	354.7	8.755
#1	.0048	.0122	.0581	-.0057	.0014	.0003	.0010	.0002	.0003
#2	.0098	-.0033	.0017	.0069	.0009	.0003	.0004	-.0001	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icb Acquired: 4/4/2018 10:21:18 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0007**	**.0001**	**-.0018**	**-.0019**	**.0016**	**-.0009**
Stddev	.0001	.0006	.0000	.0005	.0006	.0002	.0005
%RSD	60.92	96.01	22.87	26.81	29.74	12.47	58.82
#1	-.0001	.0011	.0001	-.0022	-.0023	.0017	-.0013
#2	-.0002	.0002	.0001	-.0015	-.0015	.0015	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**109420.**	**14907.**	**3976.5**	**9206.3**
Stddev	78.	112.	.7	13.9
%RSD	.07160	.75306	.01692	.15050
#1	109480.	14828.	3976.0	9216.1
#2	109360.	14987.	3977.0	9196.5

Zoom In Zoom Out

Sample Name: iccv Acquired: 4/4/2018 10:24:59 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.005**	**2.011**	**1.993**	**1.968**	**2.005**	**1.941**	**2.012**	**1.992**	**.2476**
Stddev	.028	.029	.008	.006	.003	.002	.003	.006	.0001
%RSD	1.396	1.427	.4156	.3227	.1422	.0825	.1588	.2974	.0436
#1	2.047	2.054	1.998	1.971	2.002	1.943	2.010	1.996	.2476
#2	1.994	1.995	1.996	1.971	2.003	1.939	2.010	1.998	.2476
#3	1.990	1.998	1.999	1.971	2.009	1.940	2.014	1.992	.2475
#4	1.988	1.997	1.981	1.958	2.006	1.941	2.016	1.984	.2478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.983**	**2.013**	**1.980**	**2.025**	**2.003**	**1.977**	**2.001**	**39.53**	**40.05**
Stddev	.002	.007	.008	.008	.006	.008	.006	.60	.63
%RSD	.1189	.3726	.4188	.3792	.2951	.4010	.2898	1.530	1.576
#1	1.979	2.022	1.981	2.032	2.007	1.977	2.001	40.44	40.99
#2	1.983	2.014	1.986	2.020	2.008	1.986	2.005	39.19	39.67
#3	1.984	2.014	1.985	2.031	2.004	1.980	2.003	39.26	39.76
#4	1.985	2.004	1.968	2.017	1.995	1.967	1.992	39.24	39.77
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: iccv Acquired: 4/4/2018 10:24:59 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.29**	**39.67**	**39.54**	**39.75**	**1.988**	**2.026**	**4.798**	**2.041**	**2.010**
Stddev	.58	.65	.55	.58	.006	.009	.020	.006	.029
%RSD	1.449	1.651	1.403	1.461	.2903	.4198	.4091	.3114	1.447
#1	41.17	40.62	40.37	40.62	1.991	2.033	4.807	2.046	2.053
#2	39.97	39.14	39.26	39.52	1.993	2.028	4.808	2.044	1.995
#3	40.07	39.42	39.27	39.45	1.990	2.030	4.811	2.043	1.996
#4	39.97	39.48	39.25	39.41	1.980	2.014	4.769	2.032	1.994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.001**	**2.003**	**1.989**	**1.958**	**2.017**	**2.008**	**1.976**
Stddev	.003	.011	.003	.006	.009	.029	.005
%RSD	.1257	.5265	.1354	.3195	.4350	1.448	.2616
#1	1.999	2.010	1.989	1.959	2.021	2.052	1.979
#2	2.000	2.007	1.986	1.960	2.019	1.998	1.980
#3	2.001	2.007	1.987	1.963	2.024	1.993	1.978
#4	2.005	1.987	1.992	1.949	2.004	1.990	1.969
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Zoom In Zoom Out

Sample Name: iccv Acquired: 4/4/2018 10:24:59 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**105050.**	**14828.**	**3852.4**	**8317.2**
Stddev	160.	181.	15.3	26.4
%RSD	.15255	1.2179	.39636	.31722
#1	105290.	14576.	3843.2	8306.1
#2	104960.	15003.	3849.2	8311.9
#3	104950.	14853.	3842.2	8295.3
#4	105000.	14880.	3874.8	8355.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 10:32:30 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**-.0001**	**.0004**	**.0001**	**.0003**	**.0001**	**.0003**	**.0004**
Stddev	.0004	.0001	.0001	.0002	.0001	.0003	.0000	.0002	.0002
%RSD	712.3	79.58	79.20	52.95	178.6	96.94	24.75	50.90	63.00
#1	.0002	.0000	-.0000	.0006	-.0000	.0001	.0001	.0002	.0002
#2	-.0004	.0001	-.0001	.0003	.0002	.0004	.0001	.0004	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0002**	**-.0003**	**.0007**	**-.0006**	**-.0001**	**.0013**	**-.0013**
Stddev	.0001	.0001	.0013	.0005	.0007	.0010	.0023	.0021	.0025
%RSD	85.86	70.53	642.4	155.9	103.1	160.4	1505.	161.8	197.5
#1	.0001	-.0002	-.0007	-.0007	.0012	.0001	-.0017	-.0002	.0005
#2	.0002	-.0001	.0011	.0000	.0002	-.0013	.0014	.0028	-.0030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**-.0178**	**.0352**	**.0058**	**.0009**	**.0006**	**.0007**	**.0003**	**.0002**
Stddev	.0005	.0130	.0267	.0004	.0000	.0001	.0002	.0001	.0001
%RSD	10.08	72.85	75.85	6.802	4.366	11.93	27.86	20.26	32.03
#1	.0046	-.0086	.0163	.0056	.0008	.0007	.0008	.0004	.0003
#2	.0052	-.0270	.0541	.0061	.0009	.0006	.0006	.0003	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 10:32:30 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0011**	**.0004**	**.0008**	**-.0021**	**.0023**	**.0005**
Stddev	.0002	.0002	.0002	.0011	.0002	.0008	.0008
%RSD	201.4	19.71	52.18	138.2	7.349	34.18	151.0
#1	-.0000	.0009	.0005	.0000	-.0022	.0017	.0010
#2	.0002	.0012	.0002	.0016	-.0020	.0029	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108750.**	**15006.**	**3949.5**	**9147.5**
Stddev	48.	65.	8.3	17.8
%RSD	.04455	.43337	.21114	.19417
#1	108720.	15052.	3943.6	9134.9
#2	108780.	14960.	3955.4	9160.0

Zoom In Zoom Out

Sample Name: cri Acquired: 4/4/2018 10:36:58 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2051**	**.0021**	**.0028**	**.0499**	**.0104**	**.0103**	**.0163**	**.0103**	**.0040**
Stddev	.0001	.0001	.0001	.0001	.0001	.0007	.0001	.0001	.0001
%RSD	.0330	4.532	5.146	.2921	1.110	6.403	.4131	.6467	1.558
#1	.2050	.0020	.0027	.0498	.0104	.0099	.0163	.0103	.0040
#2	.2051	.0021	.0029	.0500	.0105	.0108	.0162	.0104	.0041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0513**	**.0207**	**.0080**	**.0110**	**.0031**	**.0110**	**.0062**	**.2063**	**5.220**
Stddev	.0003	.0000	.0001	.0002	.0010	.0002	.0000	.0047	.005
%RSD	.5648	.1454	.7008	1.786	31.53	1.897	.6049	2.267	.0902
#1	.0511	.0207	.0081	.0109	.0024	.0109	.0062	.2096	5.217
#2	.0516	.0207	.0080	.0112	.0038	.0112	.0061	.2030	5.223
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1087**	**5.141**	**5.089**	**5.068**	**.1027**	**.0215**	**.1660**	**.0113**	**.0102**
Stddev	.0037	.002	.039	.006	.0007	.0002	.0016	.0002	.0000
%RSD	3.435	.0346	.7633	.1124	.6768	.8856	.9683	1.620	.0001
#1	.1060	5.142	5.062	5.072	.1022	.0216	.1649	.0115	.0102
#2	.1113	5.140	5.117	5.064	.1032	.0214	.1672	.0112	.0102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: cri Acquired: 4/4/2018 10:36:58 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0100**	**.0519**	F **.0171**	**.0501**	**.0216**	**.0518**	**.0509**
Stddev	.0002	.0009	.0006	.0019	.0008	.0001	.0001
%RSD	1.774	1.716	3.331	3.886	3.523	.1827	.2611
#1	.0098	.0512	.0175	.0515	.0221	.0517	.0510
#2	.0101	.0525	.0167	.0487	.0210	.0518	.0508
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.0100				
Range			30.00%				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107940.**	**15019.**	**3924.0**	**8980.4**
Stddev	38.	8.	4.3	1.5
%RSD	.03565	.05445	.10903	.01633
#1	107920.	15025.	3921.0	8979.4
#2	107970.	15014.	3927.0	8981.4

Zoom In Zoom Out

Sample Name: crid Acquired: 4/4/2018 10:41:19 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0010**	**.0010**	**.0032**	**.0023**	F **-.0000**	**.0035**	**.0044**
Stddev	.0001	.0001	.0002	.0000	.0001	.0000	.0001	.0001
%RSD	1.610	7.879	19.40	.2669	4.434	90.35	2.341	1.445
#1	.0046	.0010	.0009	.0032	.0023	-.0001	.0035	.0044
#2	.0044	.0011	.0011	.0032	.0022	-.0000	.0034	.0043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0001**	**.0020**	**.0116**	**.0031**	**.0021**	F **.0006**	**.0041**	F **-.0000**
Stddev	.0000	.0002	.0002	.0011	.0008	.0010	.0024	.0009
%RSD	27.83	11.41	1.320	36.49	39.22	154.5	58.88	2386.
#1	-.0001	.0021	.0117	.0039	.0015	-.0001	.0058	-.0007
#2	-.0001	.0018	.0114	.0023	.0027	.0013	.0024	.0006
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-30.00%					-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1048**	**1.113**	**.0055**	**.1125**	**2.189**	**1.101**	F **.0008**	**.0002**
Stddev	.0057	.002	.0005	.0453	.000	.000	.0005	.0003
%RSD	5.470	.1484	9.888	40.32	.0014	.0328	59.36	122.4
#1	.1089	1.114	.0051	.0804	2.189	1.101	.0005	.0000
#2	.1008	1.112	.0059	.1445	2.189	1.100	.0011	.0004
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None
Value							.0100	
Range							-30.00%	

Zoom In Zoom Out

Sample Name: crid Acquired: 4/4/2018 10:41:19 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0023**	**.0004**	**.0000**	**-.0001**	F **-.0005**	F **.0002**	F **-.0021**	F **-.0023**
Stddev	.0006	.0002	.0000	.0003	.0016	.0002	.0007	.0008
%RSD	26.15	40.41	20.50	323.5	309.9	104.3	33.70	34.66
#1	.0019	.0005	.0000	.0001	-.0017	.0001	-.0016	-.0028
#2	.0027	.0003	.0001	-.0003	.0006	.0004	-.0026	-.0017
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F **.0016**	F **.0013**
Stddev	.0016	.0003
%RSD	96.84	20.69
#1	.0028	.0011
#2	.0005	.0014
Check ?	Chk Fail	Chk Fail
Value	.0040	.0040
Range	-30.00%	-30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108400.**	**14947.**	**3933.2**	**9079.6**
Stddev	16.	5.	1.2	.6
%RSD	.01445	.03418	.03054	.00620
#1	108410.	14951.	3932.4	9080.0
#2	108390.	14943.	3934.1	9079.2

Zoom In Zoom Out

Sample Name: icsa Acquired: 4/4/2018 10:45:40 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0002**	**.0001**	**-.0011**	**-.0030**	**.0053**	**-.0048**	**-.0032**	**-.0004**
Stddev	.0001	.0001	.0000	.0003	.0005	.0001	.0001	.0005	.0009
%RSD	41.25	45.25	11.12	25.86	16.11	2.194	1.949	14.27	222.7
#1	-.0001	.0002	.0001	-.0013	-.0027	.0052	-.0047	-.0035	-.0010
#2	-.0002	.0001	.0001	-.0009	-.0033	.0054	-.0049	-.0029	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0042**	**.0020**	**-.0009**	**.0010**	**.0036**	**-.0063**	**518.4**	**393.1**
Stddev	.0006	.0004	.0014	.0018	.0017	.0045	.0004	3.0	1.5
%RSD	301.7	9.798	68.09	204.6	169.7	123.8	5.846	.5820	.3912
#1	-.0006	.0039	.0030	.0004	.0022	.0067	-.0065	520.6	394.2
#2	.0002	.0045	.0010	-.0021	-.0002	.0004	-.0060	516.3	392.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**195.1**	**513.5**	**-.4240**	**.0325**	**-.0024**	**-.0011**	**-.0154**	**-.0020**	**.0049**
Stddev	.4	1.1	.0228	.0070	.0005	.0006	.0016	.0003	.0000
%RSD	.2130	.2220	5.388	21.45	19.98	52.69	10.43	14.86	.4586
#1	195.3	514.3	-.4078	.0275	-.0027	-.0015	-.0143	-.0022	.0049
#2	194.8	512.7	-.4401	.0374	-.0021	-.0007	-.0165	-.0018	.0049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icsa Acquired: 4/4/2018 10:45:40 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0090**	**.0012**	**.0537**	**-.0082**	**-.0088**	**-.0057**
Stddev	.0003	.0027	.0000	.0012	.0005	.0020	.0010
%RSD	41.67	29.98	2.419	2.158	6.637	22.50	17.54
#1	-.0005	.0109	.0013	.0529	-.0078	-.0102	-.0064
#2	-.0009	.0071	.0012	.0545	-.0086	-.0074	-.0050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**94539.**	**14332.**	**3510.3**	**7177.1**
Stddev	44.	95.	1.0	1.7
%RSD	.04670	.66422	.02730	.02371
#1	94508.	14264.	3511.0	7175.9
#2	94571.	14399.	3509.6	7178.3

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 4/4/2018 10:50:08 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5306**	**.5134**	**1.071**	**.5093**	**.5021**	**.5340**	**.5138**	**1.016**	**1.074**
Stddev	.0011	.0004	.001	.0018	.0010	.0002	.0001	.004	.001
%RSD	.2121	.0776	.1005	.3468	.1908	.0424	.0267	.3410	.0612
#1	.5298	.5137	1.072	.5081	.5014	.5342	.5139	1.014	1.073
#2	.5314	.5131	1.070	.5106	.5028	.5338	.5137	1.019	1.074
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5090**	**.9981**	**1.080**	**1.107**	**1.013**	**1.033**	**1.089**	**523.7**	**397.7**
Stddev	.0002	.0037	.003	.002	.004	.004	.004	5.5	2.1
%RSD	.0480	.3740	.2454	.2064	.3630	.3967	.4175	1.049	.5286
#1	.5091	.9955	1.078	1.109	1.011	1.031	1.086	527.6	399.2
#2	.5088	1.001	1.082	1.105	1.016	1.036	1.093	519.8	396.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**191.7**	**518.4**	**-.4459**	**.0343**	**.5147**	**.5097**	**.4916**	**.4864**	**.5505**
Stddev	.3	1.6	.0181	.0080	.0013	.0002	.0017	.0001	.0003
%RSD	.1711	.3022	4.054	23.27	.2464	.0411	.3446	.0164	.0456
#1	191.9	519.5	-.4331	.0287	.5156	.5096	.4904	.4865	.5504
#2	191.4	517.2	-.4586	.0400	.5138	.5099	.4928	.4863	.5507
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 4/4/2018 10:50:08 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5290**	**.5072**	**.5289**	**.5742**	**.5439**	**.5351**	**.5310**
Stddev	.0014	.0010	.0019	.0035	.0024	.0013	.0016
%RSD	.2575	.2052	.3585	.6072	.4363	.2464	.3038
#1	.5281	.5080	.5276	.5767	.5422	.5341	.5322
#2	.5300	.5065	.5302	.5717	.5455	.5360	.5299
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**94632.**	**14358.**	**3512.9**	**7184.3**
Stddev	281.	105.	2.3	1.7
%RSD	.29742	.72914	.06578	.02300
#1	94433.	14284.	3511.3	7183.1
#2	94831.	14432.	3514.5	7185.4

Zoom In Zoom Out

Sample Name: hstd 2 Acquired: 4/4/2018 10:54:23 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.152**	**5.181**	**5.042**	**5.032**	**5.249**	**5.171**	**5.238**	**5.033**	**.6319**
Stddev	.003	.008	.023	.022	.004	.006	.000	.024	.0014
%RSD	.0647	.1605	.4560	.4401	.0693	.1138	.0080	.4747	.2206
#1	5.154	5.176	5.026	5.017	5.246	5.176	5.238	5.016	.6329
#2	5.150	5.187	5.058	5.048	5.251	5.167	5.237	5.050	.6309
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.178**	**5.252**	**4.991**	**5.222**	**5.080**	**5.039**	**5.105**	**.0516**	**-.0962**
Stddev	.008	.016	.031	.023	.017	.024	.026	.0095	.0004
%RSD	.1526	.2983	.6150	.4336	.3287	.4732	.5162	18.44	.4012
#1	5.172	5.241	4.970	5.206	5.068	5.023	5.087	.0583	-.0959
#2	5.183	5.263	5.013	5.238	5.091	5.056	5.124	.0448	-.0964
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0270**	**-.0538**	**.1469**	**.0194**	**5.086**	**5.187**	**23.79**	**5.318**	**5.141**
Stddev	.0069	.0306	.0153	.0054	.026	.022	.13	.020	.007
%RSD	25.52	56.82	10.44	27.97	.5166	.4261	.5284	.3671	.1324
#1	.0318	-.0754	.1361	.0155	5.067	5.172	23.70	5.304	5.146
#2	.0221	-.0322	.1578	.0232	5.104	5.203	23.88	5.332	5.136
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd 2 Acquired: 4/4/2018 10:54:23 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.165**	**5.208**	**5.054**	**50.43**	**5.205**	**5.089**	**4.959**
Stddev	.004	.022	.005	.25	.035	.005	.022
%RSD	.0746	.4311	.0988	.4957	.6755	.1002	.4421
#1	5.168	5.192	5.058	50.25	5.180	5.085	4.944
#2	5.163	5.224	5.051	50.60	5.230	5.093	4.975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**106930.**	**15025.**	**3887.9**	**8869.1**
Stddev	84.	79.	12.1	32.0
%RSD	.07884	.52610	.31135	.36090
#1	106870.	15081.	3896.4	8891.8
#2	106990.	14969.	3879.3	8846.5

Zoom In Zoom Out

Sample Name: hstd Acquired: 4/4/2018 10:58:32 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0002**	**-.0001**	**-.0006**	**-.0015**	**.0055**	**-.0038**	**-.0019**	**.0004**
Stddev	.0001	.0000	.0001	.0000	.0004	.0000	.0001	.0005	.0003
%RSD	76.67	.0784	171.8	2.504	29.89	.0857	3.920	25.21	85.69
#1	-.0003	.0002	.0000	-.0006	-.0018	.0055	-.0036	-.0023	.0001
#2	-.0001	.0002	-.0001	-.0006	-.0012	.0055	-.0039	-.0016	.0006
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0030**	**.0008**	**-.0084**	**.0032**	**.0028**	**-.0041**	**319.0**	**148.1**
Stddev	.0000	.0000	.0006	.0000	.0016	.0000	.0017	.2	.2
%RSD	10.45	.6898	78.93	.3227	50.54	.4720	41.46	.0571	.1303
#1	-.0004	.0030	.0013	-.0084	.0044	.0028	-.0029	319.1	148.3
#2	-.0005	.0030	.0004	-.0085	.0021	.0028	-.0053	318.8	148.0
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**155.1**	**318.6**	**161.5**	**153.1**	**-.0002**	**.0016**	**-.0070**	**-.0014**	**.0015**
Stddev	.2	.1	.0	.1	.0012	.0001	.0003	.0002	.0000
%RSD	.1199	.0268	.0001	.0841	617.9	7.900	4.157	12.75	1.336
#1	155.2	318.7	161.5	153.1	.0007	.0017	-.0072	-.0015	.0015
#2	155.0	318.6	161.5	153.0	-.0011	.0016	-.0068	-.0013	.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: hstd Acquired: 4/4/2018 10:58:32 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0066**	**.0012**	**.0315**	**-.0071**	**-.0029**	**.0020**
Stddev	.0000	.0008	.0003	.0001	.0004	.0005	.0001
%RSD	5.032	12.16	24.80	.3623	6.073	16.63	5.268
#1	-.0007	.0060	.0010	.0315	-.0068	-.0033	.0019
#2	-.0006	.0071	.0014	.0314	-.0074	-.0026	.0020
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**96550.**	**14457.**	**3567.9**	**7304.9**
Stddev	345.	22.	1.7	1.1
%RSD	.35755	.15108	.04652	.01514
#1	96306.	14472.	3569.1	7305.7
#2	96794.	14441.	3566.7	7304.2

Zoom In Zoom Out

Sample Name: feconf Acquired: 4/4/2018 11:02:50 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**-.0002**	**.0004**	**-.0004**	**-.0013**	W **-.0024**	**.0052**	W **-.0030**	W **-.0020**
Stddev	.0000	.0000	.0001	.0002	.0005	.0002	.0000	.0003
%RSD	6.847	12.60	19.25	11.31	20.81	3.163	.1560	15.56
#1	-.0002	.0003	-.0003	-.0012	-.0027	.0051	-.0030	-.0018
#2	-.0001	.0004	-.0004	-.0014	-.0020	.0053	-.0030	-.0022

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0016**	**.0007**	**-.0004**	**-.0016**	**.0006**	**.0006**	**.0078**	**-.0059**
Stddev	.0000	.0001	.0001	.0011	.0001	.0004	.0010	.0013
%RSD	2.883	10.89	19.91	67.54	15.88	70.67	13.19	21.79
#1	-.0017	.0007	-.0005	-.0008	.0006	.0008	.0086	-.0050
#2	-.0016	.0006	-.0004	-.0023	.0005	.0003	.0071	-.0068

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**-.0046**	**-.0316**	**206.5**	**-.0250**	**.1427**	**.0209**	**-.0012**	**.0010**
Stddev	.0056	.0002	.4	.0344	.0091	.0138	.0002	.0003
%RSD	121.7	.6860	.1953	137.5	6.346	66.08	17.49	28.54
#1	-.0085	-.0317	206.8	-.0493	.1491	.0307	-.0010	.0012
#2	-.0006	-.0314	206.2	-.0007	.1363	.0111	-.0013	.0008

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0009**	**.0017**	**-.0003**	**.0002**	**.0015**	**.0018**	**-.0027**	W **-.0094**
Stddev	.0009	.0001	.0000	.0003	.0001	.0000	.0009	.0002
%RSD	105.1	6.834	9.929	135.1	7.887	.6228	33.11	2.029
#1	-.0015	.0016	-.0004	.0000	.0015	.0018	-.0034	-.0093
#2	-.0002	.0018	-.0003	.0004	.0016	.0018	-.0021	-.0096

Elem	Li6707	P_1774
Avg	**.0022**	**.0025**
Stddev	.0006	.0003
%RSD	25.27	13.28
#1	.0026	.0028
#2	.0018	.0023

Zoom In Zoom Out

Sample Name: feconf Acquired: 4/4/2018 11:02:50 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105560.**	**14885.**	**3829.7**	**8898.5**
Stddev	204.	28.	5.9	17.6
%RSD	.19352	.18937	.15432	.19763
#1	105700.	14865.	3825.5	8886.1
#2	105410.	14905.	3833.9	8911.0

Zoom In Zoom Out

Sample Name: crconf Acquired: 4/4/2018 11:07:12 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**-.0000**	**.0001**	**.0002**	**.0021**	W **9.711**	**.0002**	**-.0000**	**-.0007**
Stddev	.0002	.0001	.0000	.0002	.006	.0004	.0001	.0001
%RSD	800.7	44.68	14.02	8.323	.0670	236.7	1347.	21.48
#1	-.0001	.0001	.0001	.0020	9.706	.0004	.0001	-.0008
#2	.0001	.0002	.0002	.0023	9.715	-.0001	-.0001	-.0006

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0005**	**.0073**	**-.0011**	**-.0003**	**-.0008**	**.0004**	**.0024**	**.0054**
Stddev	.0002	.0003	.0002	.0012	.0003	.0007	.0010	.0035
%RSD	37.14	3.858	14.23	417.8	37.76	189.2	41.43	64.08
#1	.0004	.0071	-.0012	.0005	-.0006	-.0001	.0017	.0079
#2	.0006	.0075	-.0010	-.0011	-.0011	.0009	.0030	.0030

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**-.0017**	**-.0056**	**.0101**	**-.0072**	**.0187**	**-.0057**	**.0005**	**.0008**
Stddev	.0001	.0006	.0007	.0146	.0025	.0010	.0006	.0003
%RSD	6.662	10.53	6.623	201.6	13.42	16.97	116.1	32.64
#1	-.0016	-.0052	.0105	.0031	.0205	-.0051	.0009	.0006
#2	-.0018	-.0060	.0096	-.0175	.0170	-.0064	.0001	.0009

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0032**	**-.0001**	**.0001**	**.0003**	**.0055**	**.0076**	**.0033**	**.0010**
Stddev	.0019	.0001	.0001	.0001	.0001	.0002	.0019	.0013
%RSD	59.53	50.22	36.88	26.98	1.427	2.874	58.18	129.3
#1	.0018	-.0002	.0001	.0003	.0056	.0074	.0020	.0019
#2	.0045	-.0001	.0002	.0004	.0055	.0078	.0047	.0001

Elem	Li6707	P_1774
Avg	**.0017**	**.0004**
Stddev	.0005	.0002
%RSD	31.78	53.22
#1	.0013	.0006
#2	.0021	.0003

Zoom In Zoom Out

Sample Name: crconf Acquired: 4/4/2018 11:07:12 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107910.**	**15024.**	**3842.2**	**9041.3**
Stddev	413.	27.	3.4	7.5
%RSD	.38298	.17753	.08978	.08300
#1	108200.	15043.	3839.8	9036.0
#2	107610.	15005.	3844.6	9046.6

Zoom In Zoom Out

Sample Name: asconf Acquired: 4/4/2018 11:11:34 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0001**	**-.0001**	**.0003**	**.0005**	**.0001**	**.0002**	**-.0001**	**.0002**	**-.0001**
Stddev	.0001	.0000	.0003	.0003	.0002	.0006	.0000	.0002	.0005
%RSD	50.36	11.15	96.53	57.85	175.3	344.3	64.07	93.96	545.1
#1	-.0001	-.0001	.0001	.0003	.0003	-.0002	-.0000	.0004	-.0004
#2	-.0002	-.0001	.0005	.0007	-.0000	.0006	-.0001	.0001	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0000**	**.0001**	**5.357**	**.0007**	**.0001**	**-.0018**	**.0008**	**.0023**	**-.0000**
Stddev	.0001	.0001	.008	.0007	.0008	.0001	.0002	.0007	.0007
%RSD	17570.	127.2	.1497	94.22	755.9	7.984	23.76	28.91	2144.
#1	-.0001	.0001	5.363	.0012	.0007	-.0017	.0006	.0018	-.0005
#2	.0001	.0000	5.352	.0002	-.0005	-.0019	.0009	.0027	.0005

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0026**	**-.0058**	**-.0066**	**-.0008**	**.0007**	**-.0000**	**.0043**	**-.0001**	**.0000**
Stddev	.0003	.0086	.0138	.0015	.0010	.0001	.0006	.0002	.0000
%RSD	10.63	147.4	207.9	177.8	132.2	640.9	14.05	289.8	119.8
#1	.0024	.0002	.0031	.0002	.0014	.0000	.0038	.0001	.0000
#2	.0028	-.0119	-.0164	-.0019	.0000	-.0000	.0047	-.0002	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0000**	**.0005**	**.0000**	**.0014**	**-.0025**	**.0019**	**.0002**
Stddev	.0001	.0004	.0003	.0015	.0010	.0013	.0004
%RSD	232.8	76.04	719.6	109.1	40.28	70.40	201.8
#1	.0001	.0008	-.0002	.0024	-.0018	.0010	.0005
#2	-.0000	.0002	.0003	.0003	-.0032	.0028	-.0001

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107860.**	**14979.**	**3885.9**	**9026.6**
Stddev	18.	94.	2.2	5.6
%RSD	.01660	.62833	.05688	.06175
#1	107870.	14913.	3884.4	9030.6
#2	107850.	15046.	3887.5	9022.7

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 11:15:56 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.065**	**2.040**	**2.058**	**2.010**	**2.056**	**1.998**	**2.059**	**2.050**	**.2558**
Stddev	.003	.003	.001	.003	.001	.001	.001	.003	.0008
%RSD	.1533	.1338	.0529	.1571	.0232	.0713	.0289	.1589	.3252
#1	2.067	2.042	2.058	2.012	2.056	1.999	2.058	2.052	.2564
#2	2.062	2.038	2.059	2.008	2.056	1.997	2.059	2.048	.2552
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.042**	**2.061**	**2.045**	**2.068**	**2.049**	**2.044**	**2.069**	**40.19**	**40.72**
Stddev	.003	.003	.000	.009	.001	.000	.003	.01	.05
%RSD	.1319	.1667	.0181	.4260	.0418	.0014	.1250	.0331	.1276
#1	2.044	2.058	2.045	2.074	2.049	2.044	2.071	40.18	40.75
#2	2.040	2.063	2.045	2.062	2.048	2.044	2.067	40.19	40.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.82**	**39.94**	**40.26**	**40.68**	**2.056**	**2.080**	**4.962**	**2.095**	**2.048**
Stddev	.05	.03	.03	.03	.004	.001	.005	.005	.002
%RSD	.1156	.0801	.0832	.0630	.2210	.0502	.1104	.2575	.0915
#1	40.85	39.96	40.23	40.69	2.059	2.080	4.965	2.099	2.049
#2	40.79	39.91	40.28	40.66	2.053	2.079	4.958	2.091	2.047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 11:15:56 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.051**	**2.059**	**2.038**	**2.039**	**2.090**	**2.053**	**2.047**
Stddev	.000	.001	.000	.011	.003	.002	.001
%RSD	.0104	.0231	.0113	.5424	.1511	.0888	.0452
#1	2.051	2.059	2.038	2.047	2.092	2.054	2.047
#2	2.051	2.060	2.038	2.031	2.087	2.051	2.046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102900.**	**14777.**	**3740.8**	**8115.2**
Stddev	18.	3.	2.5	5.1
%RSD	.01746	.02082	.06635	.06256
#1	102890.	14775.	3742.6	8111.6
#2	102920.	14779.	3739.0	8118.7

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 11:19:59 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**.0003**	**.0006**	**.0002**	**-.0001**	**.0001**	**.0006**	**.0001**
Stddev	.0000	.0001	.0000	.0000	.0003	.0003	.0000	.0002	.0006
%RSD	43.93	85.30	8.169	6.866	109.0	345.0	34.57	25.85	408.7
#1	.0000	-.0001	.0003	.0006	.0001	.0001	.0002	.0005	-.0003
#2	.0000	-.0000	.0003	.0007	.0004	-.0003	.0001	.0008	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0001**	**.0007**	**.0005**	**.0004**	**.0012**	**.0016**	**.0047**	**-.0004**
Stddev	.0005	.0002	.0015	.0001	.0005	.0025	.0003	.0025	.0012
%RSD	194.0	307.8	212.6	24.85	131.5	203.8	16.89	52.56	274.5
#1	.0001	.0003	.0018	.0004	.0008	.0030	.0017	.0030	-.0013
#2	-.0006	-.0001	-.0004	.0006	.0000	-.0005	.0014	.0065	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0078**	**-.0077**	**.0159**	**-.0150**	**.0020**	**.0010**	**.0048**	**-.0000**	**.0001**
Stddev	.0010	.0113	.0062	.0013	.0008	.0004	.0002	.0001	.0001
%RSD	13.28	147.3	38.91	8.954	39.02	45.43	3.853	1665.	140.7
#1	.0071	.0003	.0203	-.0141	.0026	.0013	.0047	.0001	.0000
#2	.0085	-.0157	.0116	-.0160	.0015	.0007	.0049	-.0001	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 11:19:59 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0002**	**-.0015**	**-.0006**	**.0023**	**.0001**
Stddev	.0002	.0001	.0000	.0017	.0014	.0003	.0003
%RSD	309.4	505.5	11.01	112.1	233.7	12.62	362.0
#1	-.0001	-.0000	.0002	-.0026	-.0016	.0025	.0003
#2	.0002	.0000	.0002	-.0003	.0004	.0021	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107210.**	**14867.**	**3878.6**	**9010.9**
Stddev	291.	95.	1.3	7.8
%RSD	.27159	.63840	.03263	.08664
#1	107010.	14799.	3877.7	9005.4
#2	107420.	14934.	3879.5	9016.5

Zoom In Zoom Out

Sample Name: crid Acquired: 4/4/2018 11:24:23 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0011**	**.0010**	**.0031**	**.0023**	F **-.0004**	**.0033**	**.0044**
Stddev	.0000	.0000	.0002	.0001	.0004	.0002	.0000	.0002
%RSD	.2042	.2229	20.58	2.758	15.92	49.05	.7320	5.093
#1	.0042	.0011	.0011	.0032	.0020	-.0005	.0033	.0046
#2	.0042	.0011	.0008	.0031	.0026	-.0003	.0034	.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0001**	**.0023**	**.0113**	**.0036**	**.0022**	F **.0001**	**.0065**	F **.0000**
Stddev	.0004	.0001	.0001	.0007	.0004	.0005	.0015	.0021
%RSD	347.6	4.164	.8316	20.84	17.93	595.3	22.71	9438.
#1	.0002	.0022	.0114	.0031	.0025	-.0003	.0054	.0015
#2	-.0004	.0023	.0112	.0041	.0019	.0004	.0075	-.0015
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-30.00%					-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0988**	**1.079**	**.0066**	**.1030**	**2.147**	**1.050**	F **.0010**	**-.0000**
Stddev	.0006	.006	.0038	.0011	.007	.008	.0011	.0001
%RSD	.6458	.5642	57.56	1.023	.3312	.7589	107.2	8741.
#1	.0984	1.083	.0092	.1037	2.142	1.055	.0002	-.0000
#2	.0993	1.074	.0039	.1022	2.152	1.044	.0018	.0000
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None
Value							.0100	
Range							-30.00%	

Zoom In Zoom Out

Sample Name: crid Acquired: 4/4/2018 11:24:23 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**.0009**	**-.0000**	**-.0003**	F **-.0006**	F **.0002**	F **-.0008**	F **-.0017**
Stddev	.0002	.0002	.0000	.0001	.0004	.0000	.0011	.0021
%RSD	9.301	25.65	65.58	26.88	66.94	7.625	131.7	121.9
#1	.0018	.0007	-.0000	-.0002	-.0003	.0002	-.0001	-.0002
#2	.0020	.0010	-.0000	-.0003	-.0009	.0002	-.0016	-.0032
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F **.0012**	F **.0010**
Stddev	.0006	.0007
%RSD	48.26	64.88
#1	.0008	.0015
#2	.0016	.0005
Check ?	Chk Fail	Chk Fail
Value	.0040	.0040
Range	-30.00%	-30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**106480.**	**14868.**	**3881.9**	**8990.0**
Stddev	43.	57.	4.6	21.0
%RSD	.04028	.38379	.11877	.23357
#1	106510.	14828.	3878.7	8975.1
#2	106450.	14909.	3885.2	9004.8

Zoom In Zoom Out

Sample Name: mp6397-mb1conf Acquired: 4/4/2018 11:28:43 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0000**	**-.0001**	**.0000**	**.0005**	**-.0002**	**.0005**	**.0000**	**.0004**	**-.0003**
Stddev	.0001	.0001	.0002	.0002	.0001	.0000	.0000	.0001	.0000
%RSD	1178.	120.9	1397.	35.69	36.78	.7668	36.96	26.69	4.039
#1	-.0001	-.0000	-.0001	.0004	-.0002	.0005	.0000	.0003	-.0003
#2	.0001	-.0001	.0001	.0007	-.0001	.0005	.0000	.0005	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**-.0003**	**.0006**	**.0001**	**-.0002**	**.0008**	**-.0000**	**-.0104**	**-.0008**
Stddev	.0002	.0000	.0016	.0008	.0003	.0011	.0021	.0004	.0002
%RSD	64.09	.8168	264.3	796.2	179.0	142.2	4539.	3.755	24.11
#1	.0005	-.0003	-.0005	-.0005	.0001	-.0000	-.0016	-.0101	-.0009
#2	.0002	-.0003	.0018	.0007	-.0004	.0015	.0015	-.0107	-.0007

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0040**	**.0317**	**.0216**	**-.0242**	**.0010**	**.0001**	**.0041**	**-.0003**	**.0000**
Stddev	.0046	.0021	.0154	.0006	.0002	.0000	.0001	.0002	.0001
%RSD	114.1	6.713	71.63	2.362	19.71	50.27	3.510	62.32	187.4
#1	.0072	.0332	.0325	-.0238	.0009	.0001	.0040	-.0005	.0001
#2	.0008	.0302	.0106	-.0246	.0012	.0001	.0042	-.0002	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**-.0001**	**.0001**	**-.0008**	**-.0024**	**.0001**	**.0020**
Stddev	.0001	.0004	.0002	.0025	.0002	.0004	.0018
%RSD	609.9	435.0	195.2	324.4	7.945	341.2	93.28
#1	.0000	-.0004	.0003	.0010	-.0023	.0004	.0007
#2	-.0000	.0002	-.0000	-.0026	-.0025	-.0002	.0032

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107720.**	**14912.**	**3889.3**	**9023.5**
Stddev	2.	10.	.4	4.1
%RSD	.00211	.06544	.00967	.04518
#1	107720.	14905.	3889.0	9026.4
#2	107720.	14918.	3889.5	9020.6

Zoom In Zoom Out

Sample Name: jc62939-1 1 Acquired: 4/4/2018 11:33:03 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0764**	**-.0002**	**-.0001**	**.0011**	**.0020**	**.0048**	**.0063**	**.0064**	**-.0006**
Stddev	.0000	.0001	.0005	.0006	.0007	.0001	.0000	.0008	.0025
%RSD	.0487	46.98	355.2	53.88	32.44	2.912	.0824	12.26	404.6
#1	.0764	-.0001	-.0005	.0015	.0016	.0049	.0063	.0069	-.0024
#2	.0764	-.0002	.0002	.0007	.0025	.0047	.0063	.0058	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0124**	**.0025**	**.0534**	**-.0024**	**-.0007**	**-.0027**	**.0024**	**.5480**	**120.6**
Stddev	.0009	.0008	.0012	.0005	.0020	.0020	.0020	.0264	.3
%RSD	6.870	30.58	2.329	19.06	271.8	75.00	85.55	4.815	.2411
#1	.0118	.0019	.0525	-.0028	.0007	-.0042	.0009	.5666	120.8
#2	.0130	.0030	.0543	-.0021	-.0021	-.0013	.0038	.5293	120.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0587**	**1.943**	**61.19**	**561.7**	**.2575**	**.0135**	**11.57**	**-.0039**	**1.592**
Stddev	.0064	.039	.12	6.9	.0025	.0004	.01	.0016	.005
%RSD	10.82	2.000	.1880	1.236	.9653	2.919	.1190	42.31	.2928
#1	.0632	1.970	61.27	566.6	.2557	.0138	11.58	-.0027	1.595
#2	.0542	1.915	61.11	556.8	.2592	.0132	11.56	-.0050	1.589

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0015**	**.0154**	**-.0006**	**205.8**	**-.0033**	**.0107**	**.0410**
Stddev	.0004	.0028	.0000	.3	.0013	.0020	.0025
%RSD	26.74	17.96	4.131	.1477	40.27	18.91	6.029
#1	-.0012	.0135	-.0006	206.0	-.0024	.0121	.0428
#2	-.0018	.0174	-.0007	205.6	-.0042	.0092	.0393

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**101460.**	**14823.**	**3739.0**	**8100.4**
Stddev	51.	48.	1.3	2.8
%RSD	.04997	.32408	.03379	.03488
#1	101430.	14789.	3738.1	8102.4
#2	101500.	14857.	3739.9	8098.4

Zoom In Zoom Out

Sample Name: mp6387-mb1conf Acquired: 4/4/2018 11:37:26 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0001**	**-.0001**	**-.0000**	**.0001**	**.0002**	**.0003**	**.0000**	**.0000**	**-.0008**
Stddev	.0002	.0001	.0004	.0001	.0004	.0002	.0000	.0001	.0001
%RSD	297.4	99.86	33180.	148.6	192.3	53.68	72.82	176.1	15.06
#1	.0001	-.0001	.0003	-.0000	.0005	.0004	.0001	.0001	-.0007
#2	-.0002	-.0000	-.0003	.0002	-.0001	.0002	.0000	-.0000	-.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0002**	**-.0001**	**.0006**	**-.0001**	**-.0004**	**.0000**	**-.0002**	**-.0041**	**-.0051**
Stddev	.0002	.0000	.0009	.0004	.0003	.0009	.0015	.0028	.0027
%RSD	112.3	15.37	138.7	611.9	66.54	4537.	663.9	67.25	52.61
#1	-.0004	-.0001	.0000	-.0003	-.0002	.0007	.0008	-.0022	-.0032
#2	-.0000	-.0001	.0012	.0002	-.0006	-.0006	-.0012	-.0061	-.0070

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0039**	**.0338**	**.0091**	**.0054**	**.0014**	**-.0002**	**-.0001**	**.0004**	**-.0000**
Stddev	.0052	.0077	.0070	.0094	.0010	.0001	.0005	.0001	.0000
%RSD	135.1	22.75	77.00	175.4	71.42	51.13	458.5	32.45	417.4
#1	.0002	.0393	.0140	.0120	.0021	-.0002	-.0004	.0005	.0000
#2	.0076	.0284	.0041	-.0013	.0007	-.0001	.0002	.0003	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0008**	**.0002**	**.0041**	**-.0034**	**-.0007**	**.0047**
Stddev	.0000	.0006	.0000	.0000	.0010	.0003	.0013
%RSD	25.86	68.32	.8146	.2426	28.60	40.59	27.67
#1	.0001	.0004	.0002	.0041	-.0027	-.0010	.0038
#2	.0002	.0012	.0002	.0041	-.0041	-.0005	.0056

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108110.**	**15052.**	**3895.3**	**9048.5**
Stddev	347.	99.	1.4	13.9
%RSD	.32125	.65522	.03476	.15392
#1	107860.	15122.	3896.2	9058.4
#2	108350.	14983.	3894.3	9038.7

Zoom In Zoom Out

Sample Name: mp6387-b1conf Acquired: 4/4/2018 11:41:45 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.021**	**2.064**	**2.029**	**2.016**	**2.051**	**2.029**	**2.071**	**2.016**
Stddev	.002	.002	.003	.003	.002	.003	.001	.002
%RSD	.1198	.0945	.1487	.1391	.0841	.1671	.0587	.0847
#1	2.020	2.062	2.031	2.018	2.052	2.027	2.072	2.017
#2	2.023	2.065	2.027	2.014	2.049	2.032	2.070	2.015

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2429**	**2.021**	**2.045**	**1.974**	**2.136**	**2.044**	**2.007**	**2.027**
Stddev	.0013	.001	.004	.001	.009	.001	.004	.004
%RSD	.5491	.0712	.1858	.0507	.4139	.0683	.2247	.1704
#1	.2420	2.022	2.047	1.974	2.142	2.043	2.010	2.025
#2	.2439	2.020	2.042	1.973	2.129	2.045	2.003	2.030

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**24.89**	**24.93**	**25.57**	**24.57**	**24.88**	**25.11**	**2.042**	**2.079**
Stddev	.04	.01	.04	.07	.00	.00	.001	.002
%RSD	.1609	.0391	.1417	.2674	.0115	.0030	.0449	.0965
#1	24.87	24.93	25.54	24.53	24.88	25.11	2.043	2.081
#2	24.92	24.94	25.60	24.62	24.88	25.11	2.042	2.078

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	W **-.0254**	**2.095**	**2.031**	**2.043**	**2.019**	**2.034**	F **-.0796**	**-.0027**
Stddev	.0008	.005	.004	.001	.005	.001	.0000	.0002
%RSD	3.166	.2546	.1733	.0596	.2629	.0454	.0170	5.679
#1	-.0260	2.099	2.028	2.042	2.022	2.034	-.0796	-.0026
#2	-.0249	2.091	2.033	2.043	2.015	2.033	-.0796	-.0028

Elem	Li6707	P_1774
Avg	**-.0001**	**1.980**
Stddev	.0021	.002
%RSD	2007.	.1077
#1	.0014	1.981
#2	-.0016	1.978

Zoom In Zoom Out

Sample Name: mp6387-b1conf Acquired: 4/4/2018 11:41:45 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104790.**	**14983.**	**3813.2**	**8352.3**
Stddev	225.	70.	6.9	13.8
%RSD	.21459	.46426	.18096	.16506
#1	104630.	15032.	3808.3	8342.6
#2	104950.	14934.	3818.0	8362.1

Zoom In Zoom Out

Sample Name: mp6387-s1 2 Acquired: 4/4/2018 11:45:48 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.223**	**2.065**	**2.053**	**2.031**	**2.077**	**1.994**	**16.21**	**2.031**	**.2452**
Stddev	.000	.007	.024	.027	.007	.002	.09	.029	.0024
%RSD	.0198	.3512	1.170	1.328	.3446	.0790	.5533	1.421	.9597
#1	2.223	2.060	2.070	2.051	2.082	1.993	16.27	2.051	.2469
#2	2.224	2.070	2.036	2.012	2.072	1.996	16.14	2.010	.2436

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.047**	**2.069**	**2.008**	**2.183**	**2.071**	**2.020**	**2.048**	**25.03**	**82.99**
Stddev	.009	.028	.018	.032	.023	.027	.024	.09	.13
%RSD	.4532	1.353	.8710	1.473	1.091	1.340	1.185	.3567	.1552
#1	2.053	2.089	2.021	2.206	2.087	2.040	2.065	24.97	82.90
#2	2.040	2.049	1.996	2.160	2.055	2.001	2.031	25.09	83.08

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**30.48**	**45.14**	**31.86**	**35.48**	**2.164**	**2.120**	**7.439**	**2.133**	**2.215**
Stddev	.06	.01	.10	.00	.026	.026	.104	.032	.006
%RSD	.1944	.0302	.3278	.0134	1.196	1.215	1.403	1.508	.2655
#1	30.44	45.13	31.79	35.48	2.182	2.139	7.513	2.156	2.211
#2	30.52	45.15	31.94	35.47	2.146	2.102	7.366	2.110	2.219

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.063**	**2.093**	**2.036**	**.0769**	**-.0055**	**-.0004**	**3.363**
Stddev	.001	.030	.001	.0092	.0045	.0029	.047
%RSD	.0319	1.412	.0370	12.01	81.04	729.8	1.404
#1	2.064	2.114	2.036	.0834	-.0087	-.0025	3.396
#2	2.063	2.072	2.035	.0704	-.0023	.0017	3.329

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104480.**	**14850.**	**3802.9**	**8347.4**
Stddev	484.	16.	33.7	75.7
%RSD	.46286	.10783	.88578	.90639
#1	104140.	14862.	3779.0	8293.9
#2	104830.	14839.	3826.7	8400.9

Zoom In Zoom Out

Sample Name: mp6387-s2 Acquired: 4/4/2018 11:49:56 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.278**	**2.114**	**2.036**	**2.019**	**2.081**	**2.006**	**17.27**	**2.015**	**.2442**
Stddev	.008	.006	.002	.005	.001	.008	.06	.005	.0004
%RSD	.3584	.2914	.1046	.2338	.0441	.4149	.3525	.2724	.1547
#1	2.284	2.118	2.038	2.022	2.081	2.012	17.22	2.019	.2440
#2	2.272	2.109	2.035	2.015	2.082	2.000	17.31	2.011	.2445

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.042**	**2.053**	**1.997**	**2.176**	**2.057**	**2.009**	**2.031**	**25.33**	**87.57**
Stddev	.000	.008	.005	.011	.012	.007	.007	.02	.21
%RSD	.0198	.3851	.2411	.5155	.5680	.3637	.3385	.0869	.2441
#1	2.041	2.059	2.000	2.184	2.065	2.004	2.036	25.35	87.72
#2	2.042	2.048	1.993	2.168	2.048	2.014	2.027	25.31	87.41

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**31.22**	**46.93**	**32.75**	**36.71**	**2.158**	**2.114**	**7.840**	**2.118**	**2.272**
Stddev	.16	.30	.02	.07	.002	.006	.007	.004	.007
%RSD	.5255	.6391	.0722	.1893	.0902	.2834	.0855	.2011	.3009
#1	31.34	47.15	32.77	36.76	2.159	2.118	7.845	2.121	2.277
#2	31.10	46.72	32.74	36.66	2.156	2.110	7.835	2.115	2.267

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.076**	**2.082**	**2.050**	**.0935**	**-.0042**	**.0018**	**3.424**
Stddev	.004	.007	.004	.0060	.0027	.0005	.006
%RSD	.1691	.3411	.2059	6.466	64.20	24.88	.1903
#1	2.078	2.087	2.053	.0978	-.0023	.0015	3.428
#2	2.073	2.077	2.047	.0892	-.0061	.0022	3.419

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104540.**	**14894.**	**3818.0**	**8375.3**
Stddev	281.	80.	.8	1.9
%RSD	.26889	.53961	.02054	.02275
#1	104740.	14951.	3818.6	8376.7
#2	104340.	14837.	3817.5	8374.0

Zoom In Zoom Out

Sample Name: jc62857-4 Acquired: 4/4/2018 11:54:04 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2222**	**.0001**	**.0029**	**.0016**	**.0054**	**.0031**	**15.03**	**.0018**	**-.0006**
Stddev	.0002	.0001	.0000	.0003	.0009	.0001	.14	.0002	.0003
%RSD	.0707	105.2	.9897	16.52	17.37	1.884	.9363	12.90	51.29
#1	.2221	.0002	.0028	.0014	.0047	.0031	15.13	.0020	-.0004
#2	.2223	.0000	.0029	.0018	.0060	.0031	14.93	.0016	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0169**	**.0023**	**.0175**	**.0034**	**-.0015**	**.0013**	**.0014**	**.0664**	**60.65**
Stddev	.0000	.0002	.0027	.0013	.0033	.0016	.0012	.0054	.01
%RSD	.1767	7.081	15.66	39.51	223.3	124.4	85.05	8.154	.0175
#1	.0169	.0022	.0195	.0043	-.0038	.0025	.0005	.0702	60.66
#2	.0169	.0024	.0156	.0024	.0009	.0002	.0022	.0625	60.65

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**5.105**	**21.73**	**7.386**	**10.84**	**.1030**	**.0062**	**7.638**	**-.0038**	**.2167**
Stddev	.006	.13	.029	.01	.0028	.0003	.022	.0007	.0007
%RSD	.1160	.6023	.3988	.0651	2.709	4.377	.2824	17.95	.3264
#1	5.109	21.82	7.365	10.85	.1010	.0064	7.653	-.0043	.2172
#2	5.101	21.64	7.407	10.84	.1050	.0060	7.623	-.0033	.2162

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0008**	**.0099**	**.0020**	**.1716**	**-.0033**	**.0035**	**1.407**
Stddev	.0008	.0023	.0006	.0058	.0008	.0010	.003
%RSD	95.64	23.30	32.18	3.353	25.14	29.20	.2118
#1	.0014	.0083	.0025	.1756	-.0039	.0028	1.409
#2	.0003	.0116	.0015	.1675	-.0027	.0043	1.405

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105650.**	**14788.**	**3847.6**	**8658.4**
Stddev	253.	15.	2.1	3.2
%RSD	.23928	.10110	.05481	.03726
#1	105480.	14798.	3846.1	8656.1
#2	105830.	14777.	3849.0	8660.7

Zoom In Zoom Out

Sample Name: mp6387-sd1 Acquired: 4/4/2018 11:58:27 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2358**	**-.0002**	**.0035**	**.0050**	**.0048**	**.0026**	**16.18**	**.0033**	**-.0077**
Stddev	.0007	.0004	.0021	.0029	.0007	.0014	.34	.0028	.0011
%RSD	.2897	178.0	59.20	57.18	14.52	54.21	2.116	84.84	14.72
#1	.2353	.0001	.0050	.0030	.0053	.0036	16.42	.0013	-.0069
#2	.2363	-.0005	.0020	.0071	.0043	.0016	15.93	.0053	-.0085

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0185**	**.0082**	**.0240**	**.0078**	**.0069**	**-.0043**	**-.0031**	**.0085**	**65.72**
Stddev	.0013	.0000	.0086	.0035	.0126	.0088	.0132	.0161	.49
%RSD	6.984	.4866	35.84	45.35	181.5	201.8	422.2	189.0	.7430
#1	.0194	.0083	.0179	.0103	-.0020	-.0105	.0062	-.0029	66.07
#2	.0176	.0082	.0301	.0053	.0158	.0019	-.0124	.0199	65.38

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**5.532**	**23.16**	**8.020**	**11.37**	**.1136**	**.0055**	**7.389**	**-.0048**	**.2314**
Stddev	.092	.10	.343	.05	.0036	.0007	.109	.0078	.0017
%RSD	1.669	.4134	4.271	.4379	3.205	13.57	1.475	161.5	.7195
#1	5.597	23.23	8.262	11.41	.1110	.0060	7.466	-.0104	.2325
#2	5.467	23.09	7.778	11.34	.1162	.0049	7.311	.0007	.2302

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0038**	**.0157**	**.0036**	**.1645**	**-.0308**	**-.0066**	**1.427**
Stddev	.0015	.0007	.0003	.0314	.0143	.0260	.021
%RSD	38.65	4.225	9.659	19.08	46.34	390.9	1.437
#1	-.0048	.0152	.0038	.1866	-.0207	-.0250	1.442
#2	-.0027	.0162	.0033	.1423	-.0409	.0117	1.413

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**106710.**	**14957.**	**3908.5**	**8952.6**
Stddev	178.	47.	3.3	14.8
%RSD	.16660	.31480	.08569	.16527
#1	106840.	14924.	3910.9	8963.1
#2	106590.	14991.	3906.2	8942.2

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 12:02:48 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.976**	**2.035**	**1.991**	**2.033**	**2.053**	**1.996**	**2.065**	**2.011**	**.2487**
Stddev	.001	.003	.002	.001	.000	.002	.002	.000	.0009
%RSD	.0580	.1616	.0961	.0247	.0108	.0755	.1168	.0128	.3428
#1	1.977	2.038	1.990	2.034	2.053	1.997	2.067	2.011	.2493
#2	1.975	2.033	1.992	2.033	2.053	1.995	2.064	2.011	.2481
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.001**	**2.041**	**1.953**	**2.153**	**2.053**	**1.992**	**1.985**	**39.00**	**38.93**
Stddev	.001	.001	.000	.002	.002	.002	.006	.05	.13
%RSD	.0395	.0247	.0158	.1017	.0779	.0894	.2798	.1235	.3432
#1	2.000	2.041	1.953	2.152	2.054	1.994	1.981	39.04	39.03
#2	2.001	2.040	1.953	2.155	2.052	1.991	1.988	38.97	38.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.11**	**38.99**	**38.82**	**39.60**	**2.032**	**2.055**	**4.884**	**2.073**	**1.981**
Stddev	.03	.14	.01	.04	.001	.002	.003	.001	.000
%RSD	.0630	.3469	.0317	.1104	.0634	.0977	.0649	.0573	.0086
#1	40.13	39.08	38.83	39.63	2.031	2.053	4.882	2.074	1.981
#2	40.10	38.89	38.81	39.57	2.033	2.056	4.886	2.072	1.981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 12:02:48 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.031**	**2.020**	**2.040**	**1.976**	**1.996**	**2.000**	**1.963**
Stddev	.001	.002	.000	.003	.000	.000	.002
%RSD	.0281	.0948	.0088	.1692	.0133	.0196	.1021
#1	2.032	2.019	2.040	1.979	1.996	2.000	1.965
#2	2.031	2.022	2.040	1.974	1.996	2.000	1.962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**103400.**	**14823.**	**3819.1**	**8166.1**
Stddev	79.	62.	2.6	5.0
%RSD	.07665	.42084	.06777	.06171
#1	103350.	14779.	3820.9	8169.7
#2	103460.	14867.	3817.3	8162.5

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 12:06:52 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	F **.0004**	**.0003**	**.0004**	**.0001**	**.0001**	**.0004**	**.0006**	**-.0012**
Stddev	.0002	.0001	.0000	.0001	.0003	.0006	.0001	.0000	.0002
%RSD	32.81	31.34	10.75	29.56	250.9	593.3	28.84	5.721	21.07
#1	.0005	.0003	.0003	.0003	.0003	-.0003	.0005	.0006	-.0014
#2	.0008	.0005	.0003	.0004	-.0001	.0005	.0003	.0006	-.0010
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0000**	**-.0005**	**.0005**	**-.0001**	**.0002**	**.0013**	**.0033**	**-.0017**
Stddev	.0001	.0001	.0005	.0008	.0008	.0003	.0002	.0125	.0007
%RSD	30.63	264.8	105.8	171.8	1498.	159.5	12.04	374.1	40.27
#1	.0003	.0001	-.0001	.0010	.0005	-.0000	.0014	.0122	-.0012
#2	.0002	-.0000	-.0009	-.0001	-.0006	.0004	.0012	-.0055	-.0022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0119**	**.0126**	**.0406**	**-.0093**	**.0015**	**.0007**	**.0052**	**.0003**	**.0006**
Stddev	.0028	.0031	.0092	.0085	.0013	.0003	.0001	.0003	.0001
%RSD	23.72	24.89	22.65	91.26	83.71	35.25	2.413	105.7	9.218
#1	.0099	.0148	.0341	-.0153	.0025	.0009	.0053	.0005	.0006
#2	.0139	.0104	.0471	-.0033	.0006	.0006	.0051	.0001	.0006
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 12:06:52 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0001**	**.0005**	**.0009**	**-.0019**	**.0009**	**.0105**
Stddev	.0000	.0003	.0000	.0008	.0002	.0008	.0014
%RSD	5.780	512.8	8.971	89.93	8.951	99.47	13.73
#1	.0004	-.0002	.0005	.0015	-.0021	.0015	.0115
#2	.0003	.0001	.0005	.0003	-.0018	.0003	.0094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108120.**	**15043.**	**3954.5**	**9070.7**
Stddev	261.	85.	5.0	9.4
%RSD	.24097	.56587	.12695	.10310
#1	108300.	14983.	3958.0	9077.4
#2	107940.	15103.	3950.9	9064.1

Zoom In Zoom Out

Sample Name: jc62857-6 Acquired: 4/4/2018 12:11:14 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2730**	**.0001**	**.0037**	**.0011**	**.0059**	**.0046**	**15.11**	**.0025**	**-.0014**
Stddev	.0006	.0001	.0006	.0001	.0006	.0002	.02	.0005	.0011
%RSD	.2302	50.27	15.08	9.674	10.73	3.372	.1527	22.16	75.09
#1	.2726	.0002	.0041	.0010	.0064	.0047	15.10	.0029	-.0022
#2	.2735	.0001	.0033	.0011	.0055	.0045	15.13	.0021	-.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0187**	**.0033**	**.0171**	**.0028**	**.0027**	**.0030**	**.0026**	**.7478**	**85.06**
Stddev	.0001	.0001	.0003	.0031	.0020	.0063	.0022	.0126	.27
%RSD	.7915	3.201	1.620	107.8	73.22	207.6	86.34	1.685	.3137
#1	.0186	.0033	.0169	.0007	.0041	.0075	.0010	.7389	84.87
#2	.0188	.0032	.0173	.0050	.0013	-.0014	.0041	.7568	85.25

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**4.497**	**23.43**	**.7120**	**15.25**	**.0448**	**.0049**	**12.79**	**-.0028**	**.1992**
Stddev	.027	.10	.0060	.01	.0005	.0005	.00	.0016	.0009
%RSD	.5965	.4402	.8457	.0979	1.148	9.528	.0345	58.06	.4684
#1	4.478	23.36	.7077	15.24	.0444	.0052	12.79	-.0017	.1985
#2	4.516	23.50	.7162	15.26	.0451	.0046	12.80	-.0040	.1998

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0156**	**.0160**	**.0008**	**.2050**	**-.0037**	**.0056**	**2.086**
Stddev	.0005	.0021	.0002	.0055	.0010	.0008	.005
%RSD	3.054	13.13	23.52	2.706	28.06	14.39	.2325
#1	.0153	.0175	.0009	.2010	-.0044	.0051	2.090
#2	.0159	.0145	.0006	.2089	-.0029	.0062	2.083

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105370.**	**14934.**	**3860.0**	**8596.8**
Stddev	59.	108.	3.7	2.1
%RSD	.05644	.72194	.09581	.02460
#1	105410.	15010.	3857.4	8598.3
#2	105330.	14858.	3862.6	8595.3

Zoom In Zoom Out

Sample Name: mp6399-mb1conf Acquired: 4/4/2018 12:15:37 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0000**	**-.0002**	**-.0001**	**.0003**	**-.0001**	**.0024**	**.0001**	**.0003**	**-.0015**
Stddev	.0001	.0000	.0001	.0001	.0003	.0003	.0000	.0002	.0001
%RSD	353.6	4.853	67.87	38.05	327.7	12.70	63.52	59.62	6.982
#1	-.0001	-.0002	-.0001	.0004	.0001	.0026	.0001	.0002	-.0016
#2	.0001	-.0002	-.0002	.0003	-.0003	.0022	.0000	.0004	-.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**.0019**	**-.0009**	**.0001**	**.0000**	**.0008**	**.0006**	**.0037**	**-.0073**
Stddev	.0000	.0001	.0012	.0004	.0002	.0019	.0001	.0002	.0013
%RSD	28.78	4.407	132.7	340.9	1306.	225.1	13.70	4.946	18.06
#1	-.0001	.0020	-.0001	.0004	.0002	.0022	.0005	.0038	-.0063
#2	-.0000	.0019	-.0018	-.0002	-.0001	-.0005	.0007	.0036	-.0082

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0033**	**-.0079**	**.0143**	**-.0203**	**.0008**	**.0000**	**-.0016**	**.0002**	**.0001**
Stddev	.0000	.0109	.0344	.0061	.0008	.0000	.0007	.0005	.0001
%RSD	.0803	138.5	241.1	30.22	96.28	39.07	44.83	198.9	112.2
#1	.0033	-.0156	.0386	-.0246	.0013	.0000	-.0011	-.0001	.0000
#2	.0033	-.0002	-.0101	-.0159	.0003	.0001	-.0021	.0006	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0009**	**.0003**	**.0029**	**-.0003**	**.0001**	**.0097**
Stddev	.0001	.0001	.0001	.0027	.0006	.0005	.0003
%RSD	89.41	11.52	32.57	94.05	160.8	593.2	2.685
#1	.0000	.0008	.0002	.0010	.0000	.0004	.0099
#2	.0002	.0009	.0004	.0048	-.0007	-.0003	.0095

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108200.**	**15035.**	**3935.7**	**9041.7**
Stddev	129.	43.	5.7	22.8
%RSD	.11951	.28475	.14495	.25173
#1	108110.	15005.	3939.8	9057.7
#2	108290.	15065.	3931.7	9025.6

Zoom In Zoom Out

Sample Name: jc62881-4 Acquired: 4/4/2018 12:19:59 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0744**	**.0001**	**-.0001**	**.0275**	**.0028**	**.0286**	**1.446**	**.0685**	**-.0022**
Stddev	.0003	.0000	.0000	.0004	.0003	.0003	.004	.0004	.0002
%RSD	.4250	41.45	3.983	1.618	12.14	.9442	.2558	.6451	7.348
#1	.0742	.0001	-.0001	.0279	.0031	.0288	1.444	.0689	-.0021
#2	.0746	.0001	-.0001	.0272	.0026	.0284	1.449	.0682	-.0023

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0032**	**.2607**	**.0123**	**-.0002**	**.0023**	**.0021**	**.0009**	**.2462**	**205.3**
Stddev	.0002	.0008	.0003	.0011	.0002	.0017	.0003	.0071	.0
%RSD	5.068	.2878	2.785	458.3	9.929	81.80	30.42	2.884	.0064
#1	.0033	.2612	.0121	.0005	.0022	.0033	.0011	.2512	205.2
#2	.0031	.2602	.0126	-.0010	.0025	.0009	.0007	.2412	205.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**43.10**	**95.21**	**14.20**	**19.33**	**.2730**	**.0021**	**19.03**	**-.0029**	**1.061**
Stddev	.01	.03	.04	.02	.0018	.0001	.02	.0002	.000
%RSD	.0153	.0295	.2648	.0900	.6766	2.422	.1227	7.239	.0208
#1	43.10	95.23	14.22	19.32	.2717	.0021	19.05	-.0027	1.061
#2	43.10	95.19	14.17	19.34	.2743	.0020	19.02	-.0030	1.061

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**.0195**	**.0002**	**146.5**	**-.0056**	**.0286**	**.1234**
Stddev	.0004	.0002	.0001	.2	.0046	.0029	.0008
%RSD	138.7	1.176	33.02	.1251	81.80	10.23	.6375
#1	.0000	.0196	.0002	146.6	-.0088	.0307	.1240
#2	.0006	.0193	.0001	146.4	-.0024	.0266	.1229

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102320.**	**14904.**	**3736.2**	**8250.4**
Stddev	100.	7.	1.2	3.9
%RSD	.09757	.04831	.03202	.04692
#1	102390.	14909.	3735.3	8253.1
#2	102250.	14899.	3737.0	8247.7

Zoom In Zoom Out

Sample Name: jc62881-5 Acquired: 4/4/2018 12:24:16 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0488**	**-.0003**	**.0015**	**.0060**	**.0035**	**.0034**	**4.956**	**.0028**	**-.0019**
Stddev	.0001	.0001	.0002	.0001	.0009	.0005	.007	.0004	.0011
%RSD	.2822	25.64	11.25	1.980	26.31	13.49	.1324	14.01	58.18
#1	.0489	-.0003	.0013	.0061	.0028	.0037	4.961	.0031	-.0011
#2	.0487	-.0002	.0016	.0060	.0041	.0031	4.952	.0025	-.0027

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0062**	**.0046**	**.0063**	**-.0038**	**.0015**	**.0001**	**.0030**	**.0505**	**222.5**
Stddev	.0004	.0002	.0041	.0045	.0032	.0029	.0026	.0061	.1
%RSD	7.161	3.930	65.15	116.8	215.3	4188.	87.31	12.03	.0532
#1	.0059	.0045	.0092	-.0007	.0037	-.0019	.0048	.0462	222.6
#2	.0065	.0048	.0034	-.0070	-.0008	.0021	.0011	.0547	222.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**3.248**	**77.66**	**97.63**	**50.56**	**2.495**	**.0081**	**2.865**	**-.0019**	**3.253**
Stddev	.020	.04	.00	.03	.000	.0003	.004	.0011	.002
%RSD	.6148	.0511	.0031	.0607	.0147	4.098	.1444	58.03	.0452
#1	3.234	77.68	97.64	50.58	2.495	.0078	2.862	-.0011	3.252
#2	3.262	77.63	97.63	50.54	2.496	.0083	2.867	-.0027	3.254

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0012**	**.0107**	**.0006**	**124.2**	**-.0041**	**-.0024**	**.0978**
Stddev	.0006	.0001	.0004	.2	.0006	.0017	.0004
%RSD	49.06	1.233	68.61	.1801	14.39	70.37	.4143
#1	-.0017	.0108	.0009	124.4	-.0046	-.0012	.0975
#2	-.0008	.0106	.0003	124.0	-.0037	-.0036	.0981

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**101340.**	**14761.**	**3714.7**	**8102.9**
Stddev	268.	16.	.4	3.1
%RSD	.26407	.10795	.01162	.03832
#1	101150.	14749.	3714.4	8100.7
#2	101530.	14772.	3715.0	8105.1

Zoom In Zoom Out

Sample Name: jc63383-1q Acquired: 4/4/2018 12:28:31 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0001**	**-.0002**	**-.0003**	**.0003**	**.0000**	**-.0000**	**-.0000**	**.0003**	**-.0014**
Stddev	.0002	.0001	.0001	.0000	.0002	.0002	.0000	.0001	.0002
%RSD	205.4	50.27	20.01	11.81	495.6	794.7	80.05	19.93	17.01
#1	.0000	-.0001	-.0003	.0003	.0002	-.0002	-.0000	.0003	-.0016
#2	-.0002	-.0002	-.0003	.0002	-.0001	.0001	-.0000	.0003	-.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**-.0003**	**-.0003**	**.0007**	**.0001**	**-.0005**	**-.0013**	**-.0062**	**.0004**
Stddev	.0001	.0000	.0000	.0006	.0002	.0009	.0002	.0044	.0029
%RSD	68.24	1.494	1.811	78.47	430.2	170.7	15.32	70.75	799.7
#1	.0001	-.0003	-.0003	.0012	-.0001	-.0011	-.0014	-.0031	.0024
#2	.0002	-.0003	-.0003	.0003	.0002	.0001	-.0012	-.0093	-.0017

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0009**	**.0091**	**.0208**	**.3835**	**.0013**	**.0005**	**.0077**	**.0245**	**.0000**
Stddev	.0004	.0091	.0121	.0056	.0005	.0001	.0002	.0006	.0000
%RSD	40.56	99.71	58.11	1.450	38.47	15.48	1.966	2.512	118.2
#1	.0012	.0027	.0294	.3875	.0016	.0004	.0076	.0241	.0000
#2	.0007	.0155	.0123	.3796	.0009	.0006	.0078	.0250	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**-.0013**	**-.0001**	**.0194**	**-.0004**	**.0001**	**.0109**
Stddev	.0002	.0009	.0000	.0002	.0017	.0002	.0015
%RSD	62.07	72.50	62.15	1.271	480.2	406.0	13.92
#1	.0002	-.0006	-.0000	.0196	-.0016	.0002	.0098
#2	.0004	-.0019	-.0001	.0192	.0009	-.0001	.0120

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**110030.**	**15300.**	**4045.5**	**9264.1**
Stddev	147.	75.	5.9	6.5
%RSD	.13356	.48871	.14688	.07044
#1	110130.	15247.	4041.3	9259.5
#2	109920.	15353.	4049.7	9268.8

Zoom In Zoom Out

Sample Name: jc63390-1q Acquired: 4/4/2018 12:32:49 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0000**	**-.0001**	**-.0002**	**.0001**	**.0004**	**-.0003**	**.0000**	**.0005**	**-.0015**
Stddev	.0001	.0000	.0001	.0001	.0004	.0001	.0000	.0005	.0002
%RSD	473.3	32.68	29.95	84.56	116.3	24.86	32.01	93.49	15.06
#1	-.0000	-.0001	-.0001	.0002	.0001	-.0004	.0000	.0002	-.0014
#2	.0000	-.0002	-.0002	.0001	.0007	-.0003	.0001	.0009	-.0017

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0004**	**-.0002**	**-.0005**	**.0004**	**.0009**	**.0006**	**-.0001**	**-.0062**	**.0271**
Stddev	.0005	.0000	.0007	.0003	.0004	.0016	.0002	.0062	.0020
%RSD	134.1	25.32	130.0	88.50	47.29	278.1	286.2	98.90	7.452
#1	.0007	-.0002	-.0000	.0001	.0013	.0017	-.0002	-.0019	.0285
#2	.0000	-.0001	-.0010	.0006	.0006	-.0006	.0001	-.0106	.0257

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0009**	**-.0031**	**.0479**	**.2025**	**.0004**	**.0000**	**.0184**	**.0005**	**.0002**
Stddev	.0032	.0119	.0025	.0092	.0006	.0001	.0005	.0000	.0000
%RSD	335.5	377.7	5.227	4.534	138.6	364.8	2.620	7.293	18.19
#1	.0032	-.0116	.0497	.1960	.0000	.0001	.0188	.0005	.0002
#2	-.0013	.0053	.0461	.2090	.0008	-.0000	.0181	.0005	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0004**	**.0002**	**.0002**	**.0052**	**.0005**	**-.0007**	**.0112**
Stddev	.0003	.0020	.0001	.0009	.0007	.0018	.0018
%RSD	71.64	975.6	82.77	16.87	127.0	251.5	15.86
#1	.0002	-.0012	.0003	.0059	.0010	.0006	.0125
#2	.0007	.0016	.0001	.0046	.0001	-.0020	.0100

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**109470.**	**15298.**	**4051.1**	**9270.8**
Stddev	278.	31.	1.4	4.2
%RSD	.25371	.20108	.03444	.04564
#1	109670.	15320.	4050.1	9267.8
#2	109270.	15276.	4052.1	9273.8

Zoom In Zoom Out

Sample Name: jc63391-1q Acquired: 4/4/2018 12:37:08 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0001**	**-.0001**	**-.0003**	**.0003**	**.0005**	**.0001**	**.0001**	**.0000**	**-.0010**
Stddev	.0004	.0001	.0000	.0000	.0002	.0002	.0000	.0001	.0005
%RSD	293.8	116.3	8.766	.1193	41.95	147.0	60.05	1481.	51.63
#1	.0004	-.0000	-.0003	.0003	.0006	-.0000	.0000	.0001	-.0014
#2	-.0001	-.0001	-.0003	.0003	.0003	.0003	.0001	-.0001	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**-.0004**	**-.0008**	**.0004**	**.0003**	**.0093**	**-.0007**	**-.0077**	**.0161**
Stddev	.0003	.0001	.0008	.0009	.0004	.0004	.0013	.0072	.0014
%RSD	202.2	18.75	93.55	235.3	117.4	3.950	169.1	92.98	8.427
#1	.0003	-.0004	-.0014	.0010	.0006	.0096	.0001	-.0027	.0170
#2	-.0001	-.0005	-.0003	-.0002	.0001	.0090	-.0016	-.0128	.0151

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0068**	**-.0045**	**.0233**	**.1932**	**.0032**	**-.0002**	**.0047**	**.0030**	**.0002**
Stddev	.0055	.0245	.0037	.0084	.0004	.0004	.0008	.0004	.0000
%RSD	80.87	544.0	15.79	4.362	11.90	272.0	16.86	14.02	12.94
#1	.0029	-.0218	.0260	.1872	.0034	-.0005	.0042	.0033	.0002
#2	.0106	.0128	.0207	.1991	.0029	.0001	.0053	.0027	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**-.0011**	**.0002**	**.0071**	**-.0002**	**-.0006**	**.0117**
Stddev	.0001	.0001	.0000	.0027	.0001	.0003	.0002
%RSD	54.43	8.279	18.11	38.53	75.15	49.10	1.875
#1	.0002	-.0011	.0002	.0052	-.0001	-.0004	.0116
#2	.0001	-.0010	.0002	.0091	-.0003	-.0009	.0119

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107120.**	**15029.**	**3986.4**	**9093.5**
Stddev	499.	11.	10.3	28.1
%RSD	.46554	.07207	.25818	.30907
#1	107480.	15022.	3979.1	9073.6
#2	106770.	15037.	3993.7	9113.3

Zoom In Zoom Out

Sample Name: hclconf Acquired: 4/4/2018 12:41:28 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0001**	**-.0001**	**-.0003**	**.0006**	**.0002**	**-.0001**	**.0003**	**.0020**	**-.0014**
Stddev	.0001	.0000	.0000	.0003	.0002	.0004	.0001	.0003	.0000
%RSD	130.8	13.46	14.93	42.42	83.33	328.7	42.65	15.69	1.975
#1	.0001	-.0001	-.0004	.0004	.0003	.0002	.0003	.0023	-.0013
#2	.0000	-.0001	-.0003	.0008	.0001	-.0005	.0002	.0018	-.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0043**	**.0008**	**.0014**	**.0006**	**-.0002**	**-.0005**	**-.0031**	**.3248**
Stddev	.0000	.0005	.0016	.0009	.0006	.0001	.0008	.0049	.0202
%RSD	4.839	11.86	195.8	66.52	108.2	50.30	144.9	159.8	6.227
#1	.0003	.0046	.0020	.0020	.0001	-.0003	.0000	.0004	.3391
#2	.0003	.0039	-.0003	.0007	.0010	-.0001	-.0011	-.0065	.3105

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0733**	**.0039**	**.0134**	**.0724**	**-.0000**	**-.0002**	**.0012**	**.0523**	**.0003**
Stddev	.0024	.0198	.0186	.0112	.0002	.0000	.0006	.0056	.0000
%RSD	3.281	510.6	138.7	15.51	958.2	15.09	50.76	10.67	11.26
#1	.0750	-.0101	.0003	.0804	.0001	-.0002	.0016	.0563	.0002
#2	.0716	.0179	.0265	.0645	-.0002	-.0002	.0008	.0484	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0002**	**-.0012**	**.0001**	**.0047**	**-.0001**	**-.0009**	**.0164**
Stddev	.0002	.0001	.0001	.0030	.0006	.0009	.0003
%RSD	110.9	9.391	100.9	63.73	1105.	93.72	2.064
#1	-.0000	-.0013	.0000	.0068	.0004	-.0003	.0166
#2	-.0004	-.0011	.0002	.0026	-.0005	-.0015	.0162

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**109530.**	**15415.**	**4058.5**	**9296.4**
Stddev	105.	12.	21.4	55.3
%RSD	.09546	.08056	.52824	.59467
#1	109600.	15406.	4043.4	9257.3
#2	109450.	15424.	4073.7	9335.4

Zoom In Zoom Out

Sample Name: mp6414-mb1conf Acquired: 4/4/2018 12:45:48 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0005**	**.0004**	**.0005**	**.0006**	**.0003**	**.0002**	**.0006**	**.0004**	**-.0015**
Stddev	.0001	.0001	.0001	.0003	.0004	.0006	.0001	.0000	.0005
%RSD	25.39	28.97	18.41	49.02	125.6	344.7	8.665	.9822	31.94
#1	.0006	.0005	.0005	.0004	.0006	-.0002	.0007	.0004	-.0018
#2	.0004	.0004	.0006	.0008	.0000	.0006	.0006	.0004	-.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0006**	**.0008**	**.0005**	**.0002**	**.0009**	**.0013**	**.0002**	**.0000**	**-.0056**
Stddev	.0003	.0001	.0013	.0001	.0016	.0001	.0005	.0023	.0012
%RSD	56.73	17.73	238.0	51.35	186.5	10.67	207.1	39580.	21.56
#1	.0008	.0007	-.0004	.0001	.0020	.0012	-.0001	.0016	-.0047
#2	.0003	.0009	.0014	.0003	-.0003	.0014	.0006	-.0016	-.0064

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0117**	**.0287**	**.0007**	**-.0116**	**.0014**	**.0006**	**-.0016**	**.0007**	**.0006**
Stddev	.0039	.0110	.0360	.0080	.0007	.0001	.0006	.0001	.0001
%RSD	33.05	38.33	5067.	68.66	47.34	8.644	35.58	11.44	11.72
#1	.0089	.0209	.0262	-.0060	.0019	.0006	-.0021	.0008	.0007
#2	.0144	.0365	-.0247	-.0173	.0009	.0005	-.0012	.0007	.0006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0008**	**.0002**	**.0006**	**-.0015**	**-.0036**	**-.0020**	**.0128**
Stddev	.0003	.0007	.0002	.0022	.0005	.0004	.0004
%RSD	37.09	368.3	27.93	145.6	14.60	19.72	3.197
#1	.0006	-.0003	.0008	.0000	-.0032	-.0017	.0131
#2	.0010	.0007	.0005	-.0030	-.0039	-.0023	.0125

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108340.**	**15212.**	**3963.0**	**9077.8**
Stddev	29.	114.	.4	3.6
%RSD	.02646	.74804	.01117	.03991
#1	108360.	15293.	3962.7	9075.2
#2	108320.	15132.	3963.3	9080.4

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 12:50:09 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.963**	**2.029**	**1.975**	**2.049**	**2.076**	**1.996**	**2.076**	**2.017**	**.2498**
Stddev	.001	.001	.005	.001	.005	.000	.004	.002	.0007
%RSD	.0455	.0278	.2359	.0619	.2531	.0170	.1805	.1093	.2694
#1	1.963	2.030	1.972	2.050	2.072	1.996	2.073	2.018	.2503
#2	1.964	2.029	1.979	2.048	2.080	1.996	2.079	2.015	.2494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.020**	**2.051**	**1.944**	**2.178**	**2.069**	**1.995**	**1.969**	**38.81**	**38.68**
Stddev	.002	.004	.002	.000	.002	.003	.005	.00	.06
%RSD	.0800	.1788	.1018	.0049	.1085	.1333	.2590	.0058	.1594
#1	2.019	2.054	1.946	2.178	2.071	1.993	1.965	38.80	38.72
#2	2.021	2.049	1.943	2.178	2.067	1.997	1.973	38.81	38.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.92**	**38.62**	**38.55**	**39.50**	**2.035**	**2.047**	**4.874**	**2.077**	**1.965**
Stddev	.02	.11	.02	.00	.005	.002	.002	.001	.002
%RSD	.0530	.2839	.0560	.0018	.2407	.0996	.0493	.0674	.1057
#1	39.90	38.69	38.53	39.50	2.032	2.046	4.873	2.078	1.967
#2	39.93	38.54	38.56	39.50	2.039	2.049	4.876	2.076	1.964
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 12:50:09 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.034**	**2.020**	**2.044**	**1.972**	**1.980**	**2.000**	**1.957**
Stddev	.001	.003	.003	.002	.005	.001	.002
%RSD	.0600	.1315	.1271	.0944	.2681	.0423	.1071
#1	2.033	2.018	2.043	1.974	1.976	2.000	1.956
#2	2.035	2.022	2.046	1.971	1.983	1.999	1.958
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**103130.**	**14886.**	**3852.4**	**8203.8**
Stddev	40.	6.	5.0	6.2
%RSD	.03870	.03906	.12984	.07551
#1	103100.	14882.	3855.9	8208.1
#2	103160.	14890.	3848.9	8199.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 12:54:13 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	F **.0002**	**.0002**	**.0003**	**.0006**	**-.0001**	**.0005**	**.0001**	**-.0014**
Stddev	.0000	.0000	.0000	.0002	.0002	.0003	.0000	.0000	.0002
%RSD	7.802	10.62	8.664	64.48	37.02	477.6	6.349	18.58	14.23
#1	.0004	.0002	.0002	.0004	.0007	-.0003	.0005	.0001	-.0016
#2	.0003	.0002	.0003	.0002	.0004	.0001	.0004	.0001	-.0013
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0001**	**-.0009**	**-.0000**	**.0008**	**.0003**	**.0001**	**-.0034**	**-.0058**
Stddev	.0004	.0002	.0005	.0016	.0004	.0016	.0004	.0076	.0032
%RSD	72.45	222.2	54.52	4155.	55.51	543.3	278.0	223.7	54.50
#1	.0007	.0002	-.0006	-.0012	.0005	.0014	-.0001	-.0087	-.0081
#2	.0002	-.0000	-.0013	.0011	.0011	-.0009	.0004	.0020	-.0036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0102**	**.0190**	**.0306**	**-.0169**	**.0014**	**.0009**	**.0050**	**.0004**	**.0003**
Stddev	.0008	.0154	.0084	.0077	.0003	.0001	.0006	.0003	.0002
%RSD	8.061	81.31	27.42	45.48	19.78	16.17	12.07	72.45	54.13
#1	.0108	.0081	.0365	-.0223	.0016	.0010	.0046	.0002	.0002
#2	.0097	.0299	.0246	-.0115	.0012	.0008	.0054	.0006	.0005
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 12:54:13 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0012**	**.0006**	**-.0003**	**-.0011**	**-.0007**	**.0115**
Stddev	.0003	.0004	.0001	.0031	.0008	.0007	.0012
%RSD	63.33	33.23	12.58	1017.	73.47	108.9	10.60
#1	.0003	.0015	.0006	-.0025	-.0005	-.0012	.0123
#2	.0007	.0009	.0005	.0019	-.0017	-.0002	.0106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107530.**	**15033.**	**3972.0**	**9088.5**
Stddev	74.	7.	2.6	1.0
%RSD	.06920	.04445	.06666	.01150
#1	107480.	15028.	3970.1	9089.2
#2	107580.	15037.	3973.9	9087.7

Zoom In Zoom Out

Sample Name: mp6414-b1conf Acquired: 4/4/2018 12:58:35 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.986**	**2.054**	**1.994**	**2.057**	**2.101**	**2.027**	**2.100**	**2.023**
Stddev	.002	.005	.001	.003	.003	.002	.001	.001
%RSD	.0780	.2506	.0617	.1384	.1271	.0951	.0444	.0690
#1	1.985	2.051	1.993	2.059	2.099	2.026	2.100	2.024
#2	1.988	2.058	1.995	2.055	2.103	2.028	2.101	2.022

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2471**	**2.049**	**2.074**	**1.961**	**2.215**	**2.081**	**2.005**	**2.009**
Stddev	.0003	.002	.004	.003	.000	.004	.000	.001
%RSD	.1216	.1166	.2082	.1606	.0025	.2077	.0031	.0355
#1	.2474	2.050	2.077	1.959	2.215	2.084	2.005	2.008
#2	.2469	2.047	2.071	1.964	2.215	2.078	2.005	2.009

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**24.06**	**24.07**	**24.87**	**23.81**	**23.90**	**24.46**	**2.053**	**2.097**
Stddev	.01	.04	.08	.02	.08	.03	.004	.001
%RSD	.0367	.1785	.3147	.0685	.3512	.1024	.1930	.0511
#1	24.06	24.04	24.82	23.82	23.84	24.45	2.050	2.096
#2	24.05	24.10	24.93	23.80	23.96	24.48	2.055	2.097

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0113**	**2.131**	**1.985**	**2.069**	**2.015**	**2.069**	F **-.0751**	**-.0033**
Stddev	.0008	.003	.006	.001	.002	.003	.0015	.0036
%RSD	6.881	.1159	.2926	.0337	.0860	.1433	2.001	111.6
#1	-.0108	2.133	1.981	2.069	2.014	2.067	-.0740	-.0058
#2	-.0119	2.129	1.989	2.070	2.016	2.071	-.0762	-.0007

Elem	Li6707	P_1774
Avg	**-.0009**	**1.969**
Stddev	.0004	.002
%RSD	47.92	.1095
#1	-.0006	1.970
#2	-.0012	1.967

Zoom In Zoom Out

Sample Name: mp6414-b1conf Acquired: 4/4/2018 12:58:35 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104270.**	**15083.**	**3867.2**	**8387.9**
Stddev	62.	97.	5.0	10.9
%RSD	.05938	.64274	.12834	.12974
#1	104230.	15151.	3870.7	8395.6
#2	104320.	15014.	3863.7	8380.2

Zoom In Zoom Out

Sample Name: mp6414-s1conf Acquired: 4/4/2018 13:02:38 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.854**	**2.090**	**2.157**	**2.153**	**2.101**	**2.138**	**9.904**	**2.142**	**.2675**
Stddev	.008	.005	.000	.001	.008	.004	.031	.001	.0007
%RSD	.2940	.2352	.0084	.0273	.3605	.1710	.3152	.0575	.2754
#1	2.860	2.087	2.157	2.153	2.095	2.135	9.882	2.142	.2670
#2	2.848	2.094	2.157	2.152	2.106	2.141	9.926	2.143	.2680

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.073**	**2.202**	**2.122**	**2.153**	**2.153**	**2.076**	**2.104**	**24.70**	**165.7**
Stddev	.007	.001	.002	.006	.002	.003	.002	.03	.3
%RSD	.3593	.0592	.1047	.2821	.0745	.1364	.1093	.1183	.1925
#1	2.068	2.201	2.120	2.157	2.154	2.078	2.102	24.67	165.4
#2	2.079	2.203	2.123	2.148	2.152	2.074	2.105	24.72	165.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**38.21**	**38.46**	**36.13**	F **1838.**	**2.162**	**2.090**	**7.349**	**2.069**	**2.806**
Stddev	.10	.03	.01	1.	.005	.001	.005	.003	.002
%RSD	.2605	.0816	.0206	.0693	.2172	.0298	.0710	.1563	.0657
#1	38.14	38.44	36.12	1839.	2.159	2.090	7.345	2.067	2.807
#2	38.28	38.48	36.13	1837.	2.166	2.090	7.352	2.071	2.805

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.102**	**2.081**	**2.095**	**6.120**	**-.0072**	**.0304**	**3.897**
Stddev	.006	.009	.001	.019	.0023	.0020	.002
%RSD	.2838	.4103	.0638	.3082	31.88	6.604	.0598
#1	2.098	2.075	2.094	6.106	-.0088	.0318	3.899
#2	2.106	2.087	2.096	6.133	-.0056	.0290	3.896

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**93566.**	**14691.**	**3531.6**	**7067.1**
Stddev	68.	130.	2.6	4.6
%RSD	.07214	.88530	.07239	.06523
#1	93613.	14783.	3533.4	7063.8
#2	93518.	14599.	3529.8	7070.4

Zoom In Zoom Out

Sample Name: mp6414-s2conf Acquired: 4/4/2018 13:06:44 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.876**	**2.116**	**2.178**	**2.178**	**2.118**	**2.149**	**9.879**	**2.167**	**.2709**
Stddev	.007	.006	.002	.000	.014	.011	.069	.002	.0015
%RSD	.2293	.2984	.0980	.0131	.6388	.4885	.6946	.0690	.5474
#1	2.872	2.111	2.180	2.178	2.108	2.142	9.830	2.168	.2699
#2	2.881	2.120	2.177	2.178	2.127	2.157	9.928	2.166	.2720

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.094**	**2.224**	**2.146**	**2.172**	**2.180**	**2.106**	**2.126**	**25.03**	**166.3**
Stddev	.013	.001	.001	.001	.001	.004	.001	.03	.3
%RSD	.5948	.0280	.0547	.0556	.0309	.1681	.0453	.1075	.2089
#1	2.085	2.223	2.146	2.171	2.181	2.104	2.125	25.01	166.1
#2	2.102	2.224	2.145	2.172	2.180	2.109	2.127	25.05	166.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**38.50**	**38.65**	**36.50**	F **1803.**	**2.180**	**2.109**	**7.308**	**2.079**	**2.835**
Stddev	.07	.03	.08	7.	.005	.000	.017	.004	.006
%RSD	.1847	.0813	.2149	.3630	.2338	.0040	.2359	.1761	.1984
#1	38.45	38.67	36.44	1798.	2.183	2.109	7.320	2.076	2.831
#2	38.55	38.63	36.55	1807.	2.176	2.109	7.296	2.081	2.839

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.112**	**2.094**	**2.109**	**6.113**	**-.0021**	**.0314**	**3.909**
Stddev	.017	.000	.017	.005	.0005	.0036	.004
%RSD	.8115	.0130	.8148	.0750	24.56	11.39	.1046
#1	2.100	2.094	2.097	6.109	-.0025	.0339	3.912
#2	2.124	2.093	2.121	6.116	-.0017	.0288	3.906

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**94133.**	**14609.**	**3544.7**	**7096.9**
Stddev	684.	23.	5.1	12.0
%RSD	.72641	.15906	.14291	.16885
#1	94616.	14626.	3548.3	7105.3
#2	93649.	14593.	3541.1	7088.4

Zoom In Zoom Out

Sample Name: jc63032-3conf Acquired: 4/4/2018 13:10:52 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.8396**	**-.0000**	**.0227**	**.0014**	**.0044**	**.0898**	**7.788**	**.0155**	**-.0024**
Stddev	.0004	.0002	.0006	.0001	.0012	.0009	.026	.0004	.0005
%RSD	.0522	2362.	2.515	6.906	27.90	.9555	.3321	2.870	21.28
#1	.8393	.0001	.0231	.0015	.0035	.0904	7.806	.0152	-.0028
#2	.8399	-.0002	.0223	.0013	.0052	.0892	7.770	.0159	-.0021

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0137**	**.0774**	**.0026**	**-.0011**	**.0018**	**.0050**	**-.0016**	**.0782**	**139.4**
Stddev	.0003	.0010	.0009	.0002	.0004	.0022	.0023	.0223	.1
%RSD	2.161	1.258	33.47	15.22	20.52	43.47	144.8	28.53	.0938
#1	.0139	.0767	.0032	-.0012	.0015	.0035	-.0032	.0940	139.5
#2	.0134	.0781	.0020	-.0010	.0021	.0065	.0000	.0625	139.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.99**	**14.69**	**11.05**	F **1744.**	**.0937**	**.0019**	**7.115**	**-.0025**	**.7933**
Stddev	.02	.01	.06	6.	.0008	.0002	.025	.0002	.0029
%RSD	.1376	.0631	.5180	.3190	.8627	10.57	.3494	6.512	.3634
#1	13.00	14.68	11.09	1748.	.0942	.0020	7.097	-.0026	.7953
#2	12.98	14.69	11.01	1740.	.0931	.0018	7.132	-.0024	.7912

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0052**	**.0153**	**.0028**	**6.169**	**-.0023**	**.0332**	**1.774**
Stddev	.0002	.0002	.0006	.032	.0005	.0010	.005
%RSD	4.666	1.105	21.03	.5203	21.17	2.934	.3127
#1	.0054	.0155	.0024	6.147	-.0020	.0339	1.770
#2	.0050	.0152	.0032	6.192	-.0027	.0325	1.778

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**93458.**	**14667.**	**3526.7**	**7169.3**
Stddev	353.	45.	14.8	20.9
%RSD	.37750	.30368	.41880	.29116
#1	93208.	14635.	3537.1	7184.1
#2	93707.	14698.	3516.3	7154.6

Zoom In Zoom Out

Sample Name: mp6414-sd1conf Acquired: 4/4/2018 13:15:14 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.9129**	**-.0004**	**.0223**	**.0030**	**.0069**	**.1010**	**8.372**	**.0206**	**-.0104**
Stddev	.0031	.0007	.0001	.0008	.0025	.0012	.135	.0049	.0010
%RSD	.3402	175.2	.5406	25.25	35.88	1.193	1.615	23.82	9.888
#1	.9151	-.0009	.0222	.0025	.0051	.1019	8.467	.0171	-.0111
#2	.9107	.0001	.0224	.0036	.0086	.1002	8.276	.0240	-.0096

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0143**	**.0838**	**.0047**	**-.0057**	**-.0040**	**-.0022**	**-.0084**	**.0824**	**152.9**
Stddev	.0047	.0008	.0038	.0108	.0183	.0063	.0015	.0715	.2
%RSD	32.60	.9192	80.54	187.1	461.5	279.1	17.91	86.76	.1369
#1	.0110	.0843	.0020	.0019	-.0169	-.0067	-.0094	.0318	153.0
#2	.0176	.0832	.0073	-.0134	.0090	.0022	-.0073	.1329	152.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**14.29**	**16.25**	**11.90**	**2148.**	**.1061**	**.0024**	**6.966**	**-.0023**	**.8659**
Stddev	.04	.28	.17	20.	.0029	.0021	.061	.0047	.0005
%RSD	.2790	1.696	1.470	.9224	2.701	87.42	.8799	209.9	.0601
#1	14.26	16.05	11.78	2134.	.1041	.0039	7.010	.0011	.8663
#2	14.31	16.44	12.03	2162.	.1081	.0009	6.923	-.0056	.8656

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0264**	**.0062**	**5.754**	**-.0165**	**.0299**	**1.762**
Stddev	.0021	.0048	.0008	.068	.0001	.0042	.010
%RSD	1260.	18.35	13.11	1.173	.4781	14.17	.5442
#1	.0016	.0298	.0067	5.802	-.0165	.0269	1.769
#2	-.0013	.0230	.0056	5.707	-.0164	.0329	1.755

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**101050.**	**14965.**	**3791.8**	**8125.8**
Stddev	95.	40.	9.1	11.2
%RSD	.09393	.26990	.24076	.13839
#1	101120.	14993.	3798.2	8133.7
#2	100980.	14936.	3785.3	8117.8

Zoom In Zoom Out

Sample Name: jc62923-5 Acquired: 4/4/2018 13:19:39 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.2184**	**.0003**	**.0071**	**.0019**	**.0127**	**.0046**	**33.81**	**.0044**	**-.0037**
Stddev	.0013	.0007	.0005	.0011	.0002	.0009	.16	.0006	.0014
%RSD	.5793	187.3	6.559	57.67	1.283	19.57	.4649	14.23	36.66
#1	.2193	-.0001	.0068	.0011	.0128	.0039	33.69	.0048	-.0028
#2	.2175	.0008	.0074	.0026	.0126	.0052	33.92	.0039	-.0047

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0383**	**.0043**	**-.0001**	**.0060**	**.0012**	**-.0053**	**.0046**	**.0182**	**170.4**
Stddev	.0007	.0003	.0075	.0070	.0028	.0179	.0028	.0233	.2
%RSD	1.747	7.036	9025.	115.5	232.3	335.5	59.92	128.2	.0890
#1	.0378	.0041	-.0054	.0109	.0032	-.0180	.0065	.0017	170.5
#2	.0388	.0045	.0052	.0011	-.0008	.0073	.0026	.0347	170.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**12.28**	**93.83**	**2.820**	**179.2**	**.0627**	**-.0013**	**5.281**	**-.0070**	**.7207**
Stddev	.04	.46	.096	.0	.0016	.0006	.016	.0023	.0004
%RSD	.3653	.4866	3.386	.0174	2.547	42.51	.3022	33.68	.0555
#1	12.31	94.15	2.887	179.1	.0639	-.0009	5.270	-.0053	.7210
#2	12.25	93.51	2.752	179.2	.0616	-.0017	5.292	-.0086	.7204

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0010**	**.0143**	**.0004**	**23.36**	**-.0019**	**.0001**	**.2557**
Stddev	.0022	.0012	.0001	.02	.0035	.0070	.0025
%RSD	230.5	8.612	30.69	.0834	186.3	4972.	.9740
#1	-.0026	.0152	.0005	23.34	.0006	.0051	.2539
#2	.0006	.0134	.0003	23.37	-.0043	-.0048	.2574

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103910.**	**14916.**	**3851.1**	**8523.0**
Stddev	323.	3.	.5	14.0
%RSD	.31059	.02133	.01420	.16368
#1	104140.	14914.	3850.7	8513.1
#2	103680.	14919.	3851.5	8532.9

Zoom In Zoom Out

Sample Name: mp6377-mb1conf Acquired: 4/4/2018 13:24:03 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0004**	**-.0001**	**.0000**	**.0002**	**.0008**	**.0005**	**.0004**	**.0006**	**-.0007**
Stddev	.0000	.0000	.0002	.0000	.0003	.0003	.0001	.0006	.0001
%RSD	7.508	67.36	2872.	.2919	32.03	58.25	17.45	104.8	19.42
#1	.0004	-.0001	-.0001	.0002	.0006	.0003	.0005	.0010	-.0008
#2	.0004	-.0000	.0002	.0002	.0010	.0007	.0004	.0001	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0067**	**.0001**	**.0004**	**-.0004**	**.0007**	**.0010**	**.0065**	**.1199**
Stddev	.0004	.0000	.0006	.0003	.0001	.0013	.0009	.0020	.0017
%RSD	153.9	.2469	492.1	71.92	31.83	180.9	88.35	30.82	1.387
#1	.0006	.0068	-.0003	.0002	-.0003	-.0002	.0004	.0051	.1187
#2	-.0000	.0067	.0005	.0006	-.0005	.0017	.0017	.0079	.1211

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0229**	**.0211**	**.0484**	**.1364**	**.0014**	**.0004**	**.0270**	**.0299**	**.0006**
Stddev	.0007	.0016	.0248	.0027	.0007	.0000	.0013	.0003	.0001
%RSD	3.026	7.460	51.35	2.013	52.11	2.687	4.710	1.012	17.61
#1	.0234	.0200	.0308	.1345	.0019	.0004	.0279	.0301	.0007
#2	.0225	.0222	.0659	.1384	.0009	.0004	.0261	.0297	.0005

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0010**	**.0012**	**.0007**	**.0113**	**-.0034**	**.0012**	**.0349**
Stddev	.0004	.0000	.0003	.0030	.0005	.0002	.0016
%RSD	42.42	.5526	48.61	26.24	14.60	17.10	4.485
#1	.0013	.0012	.0005	.0134	-.0031	.0011	.0360
#2	.0007	.0012	.0009	.0092	-.0038	.0014	.0338

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108260.**	**14901.**	**3971.0**	**9109.0**
Stddev	51.	32.	.3	1.0
%RSD	.04746	.21338	.00659	.01051
#1	108290.	14923.	3970.8	9108.4
#2	108220.	14878.	3971.2	9109.7

Zoom In Zoom Out

Sample Name: jc62930-5 Acquired: 4/4/2018 13:28:23 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.282**	**.0043**	**.0013**	**.0394**	**.1166**	**1.699**	**.8746**	**.1191**
Stddev	.002	.0000	.0001	.0003	.0007	.000	.0008	.0002
%RSD	.1510	.8854	8.082	.7647	.5835	.0224	.0889	.1591
#1	1.283	.0043	.0013	.0396	.1171	1.699	.8751	.1190
#2	1.280	.0043	.0014	.0392	.1161	1.698	.8740	.1192

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	W **-.0050**	**.1489**	**.7902**	**.2116**	**.0026**	**3.872**	**.0290**	**.0182**
Stddev	.0001	.0010	.0006	.0013	.0004	.003	.0006	.0019
%RSD	1.859	.6933	.0738	.5980	13.79	.0832	2.057	10.34
#1	-.0049	.1497	.7898	.2107	.0024	3.874	.0285	.0169
#2	-.0051	.1482	.7906	.2125	.0029	3.869	.0294	.0196

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**22.76**	**16.56**	**242.7**	**2.957**	**2.505**	**1.592**	**.0357**	**.0232**
Stddev	.03	.05	.0	.004	.017	.006	.0015	.0004
%RSD	.1179	.3278	.0122	.1524	.6859	.4099	4.189	1.602
#1	22.74	16.52	242.7	2.960	2.493	1.596	.0367	.0229
#2	22.77	16.60	242.7	2.953	2.517	1.587	.0346	.0235

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**3.538**	**.1392**	**.3939**	**1.977**	**.0161**	**.0434**	**11.22**	W **-.0141**
Stddev	.003	.0006	.0002	.004	.0003	.0004	.01	.0006
%RSD	.0968	.4506	.0416	.2056	1.926	.8208	.0451	4.546
#1	3.540	.1396	.3940	1.980	.0163	.0436	11.22	-.0136
#2	3.535	.1387	.3938	1.974	.0159	.0431	11.22	-.0145

Elem	Li6707	P_1774
Avg	**.0314**	**2.139**
Stddev	.0000	.000
%RSD	.0193	.0072
#1	.0314	2.139
#2	.0314	2.140

Zoom In Zoom Out

Sample Name: jc62930-5 Acquired: 4/4/2018 13:28:23 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107720.**	**15145.**	**3962.3**	**8788.3**
Stddev	203.	66.	.7	7.8
%RSD	.18850	.43847	.01712	.08919
#1	107580.	15192.	3961.8	8782.7
#2	107870.	15098.	3962.8	8793.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 13:32:35 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.007**	**2.039**	**2.001**	**2.044**	**2.069**	**1.990**	**2.073**	**2.031**	**.2505**
Stddev	.004	.001	.000	.003	.003	.004	.001	.001	.0004
%RSD	.1768	.0252	.0160	.1456	.1555	.1919	.0221	.0260	.1564
#1	2.005	2.039	2.001	2.041	2.067	1.987	2.073	2.031	.2502
#2	2.010	2.038	2.002	2.046	2.072	1.992	2.073	2.032	.2508
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.018**	**2.061**	**1.979**	**2.144**	**2.070**	**2.012**	**1.998**	**39.27**	**39.43**
Stddev	.002	.002	.001	.005	.002	.008	.001	.01	.09
%RSD	.1053	.0956	.0719	.2159	.1077	.3866	.0357	.0372	.2254
#1	2.017	2.060	1.980	2.148	2.071	2.007	1.998	39.28	39.49
#2	2.020	2.063	1.978	2.141	2.068	2.018	1.999	39.26	39.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.32**	**39.32**	**39.34**	**39.88**	**2.037**	**2.060**	**4.899**	**2.083**	**2.002**
Stddev	.03	.13	.02	.02	.001	.002	.000	.001	.001
%RSD	.0784	.3356	.0474	.0455	.0694	.1021	.0059	.0260	.0617
#1	40.34	39.23	39.33	39.86	2.036	2.059	4.899	2.082	2.001
#2	40.30	39.42	39.35	39.89	2.038	2.062	4.899	2.083	2.003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 13:32:35 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.038**	**2.039**	**2.039**	**1.995**	**2.016**	**2.025**	**1.994**
Stddev	.001	.000	.001	.006	.003	.003	.000
%RSD	.0637	.0089	.0363	.2830	.1323	.1265	.0174
#1	2.039	2.039	2.040	1.991	2.014	2.023	1.995
#2	2.037	2.039	2.039	1.999	2.018	2.026	1.994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**103720.**	**14770.**	**3850.9**	**8233.3**
Stddev	5.	26.	2.3	3.3
%RSD	.00518	.17482	.05958	.03978
#1	103730.	14789.	3852.5	8235.6
#2	103720.	14752.	3849.2	8230.9

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 13:36:38 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	F **.0002**	**.0002**	**.0006**	**.0002**	**.0000**	**.0004**	**.0006**	**-.0004**
Stddev	.0002	.0001	.0001	.0003	.0003	.0002	.0001	.0002	.0001
%RSD	49.25	53.00	23.49	43.23	170.5	410.0	23.32	34.11	12.52
#1	.0005	.0001	.0002	.0004	-.0000	-.0001	.0004	.0004	-.0005
#2	.0002	.0002	.0003	.0008	.0004	.0002	.0003	.0007	-.0004
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0002**	**.0003**	**.0006**	**-.0000**	**-.0004**	**.0011**	**-.0002**	**.0002**
Stddev	.0002	.0000	.0003	.0005	.0005	.0012	.0010	.0001	.0001
%RSD	28.66	8.392	80.89	75.34	1492.	304.7	88.21	60.73	37.29
#1	.0008	.0002	.0005	.0009	.0003	.0004	.0004	-.0003	.0003
#2	.0005	.0002	.0001	.0003	-.0004	-.0012	.0018	-.0001	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0129**	**.0195**	**.0190**	**.0251**	**.0015**	**.0009**	**.0051**	**.0004**	**.0005**
Stddev	.0001	.0057	.0244	.0065	.0001	.0003	.0007	.0004	.0000
%RSD	.9297	29.21	128.9	25.91	7.069	31.93	14.38	106.4	5.766
#1	.0129	.0155	.0363	.0205	.0015	.0011	.0046	.0006	.0005
#2	.0128	.0236	.0017	.0296	.0014	.0007	.0056	.0001	.0004
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 13:36:38 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0000**	**.0005**	**.0001**	**-.0014**	**.0012**	**.0068**
Stddev	.0003	.0010	.0001	.0018	.0015	.0010	.0009
%RSD	76.79	25830.	10.17	2056.	108.1	88.81	12.93
#1	.0002	-.0007	.0005	.0014	-.0003	.0004	.0074
#2	.0007	.0007	.0005	-.0012	-.0025	.0019	.0061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107910.**	**14918.**	**3960.3**	**9094.3**
Stddev	292.	24.	1.4	1.5
%RSD	.27056	.15956	.03602	.01686
#1	108120.	14901.	3959.3	9093.2
#2	107700.	14935.	3961.3	9095.3

Zoom In Zoom Out

Sample Name: mp6466-mb1 3 Acquired: 4/4/2018 13:41:00 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0343**	**.0001**	**.0008**	**.0026**	**.0109**	**.0713**	**.0426**	**.0396**
Stddev	.0012	.0003	.0021	.0012	.0022	.0011	.0001	.0003
%RSD	3.498	305.3	251.9	46.88	19.91	1.514	.2953	.6768
#1	.0351	.0003	.0023	.0017	.0124	.0720	.0426	.0398
#2	.0334	-.0001	-.0007	.0034	.0093	.0705	.0425	.0394

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0054**	**.0023**	**.1585**	**-.0130**	F **-.0638**	**.0188**	**.0665**	**.0169**
Stddev	.0004	.0010	.0004	.0089	.0071	.0015	.0131	.0009
%RSD	7.859	42.61	.2683	68.54	11.05	8.130	19.64	5.604
#1	-.0057	.0016	.1588	-.0193	-.0688	.0177	.0757	.0163
#2	-.0051	.0030	.1582	-.0067	-.0588	.0199	.0573	.0176

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.3763**	**1.793**	**1.645**	**.1628**	**8.291**	F **7150.**	**.0396**	**.0017**
Stddev	.0175	.020	.012	.0163	.082	134.	.0047	.0005
%RSD	4.656	1.095	.7425	10.02	.9849	1.879	11.83	28.84
#1	.3639	1.807	1.636	.1513	8.233	7245.	.0363	.0021
#2	.3887	1.780	1.654	.1743	8.349	7055.	.0429	.0014

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**1.911**	**.0407**	**.0112**	**.0418**	**-.0029**	**.0091**	**.4179**	**-.0027**
Stddev	.012	.0038	.0002	.0015	.0018	.0006	.0086	.0048
%RSD	.6300	9.347	1.480	3.641	60.99	7.148	2.049	175.3
#1	1.903	.0434	.0114	.0407	-.0041	.0095	.4239	.0007
#2	1.920	.0380	.0111	.0428	-.0016	.0086	.4118	-.0061

Elem	Li6707	P_1774
Avg	**.0135**	**.9282**
Stddev	.0056	.0178
%RSD	41.38	1.922
#1	.0175	.9408
#2	.0096	.9156

Zoom In Zoom Out

Sample Name: mp6466-mb1 3 Acquired: 4/4/2018 13:41:00 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**87449.**	**14013.**	**3347.3**	**6959.4**
Stddev	228.	80.	12.1	26.8
%RSD	.26060	.56948	.36194	.38450
#1	87288.	13956.	3338.7	6940.5
#2	87610.	14069.	3355.9	6978.4

Zoom In Zoom Out

Sample Name: mp6466-b1 Acquired: 4/4/2018 13:45:24 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.025**	**2.016**	**2.077**	**2.004**	**2.118**	**1.943**	**2.075**	**2.048**	**.2578**
Stddev	.021	.018	.021	.019	.015	.015	.020	.022	.0032
%RSD	1.058	.8725	.9950	.9654	.7246	.7872	.9746	1.100	1.260
#1	2.040	2.029	2.092	2.017	2.107	1.932	2.061	2.064	.2555
#2	2.009	2.004	2.063	1.990	2.129	1.954	2.090	2.032	.2601

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.070**	**2.142**	**2.092**	**1.890**	**1.983**	**2.350**	**1.978**	**24.48**	**24.81**
Stddev	.020	.027	.018	.023	.018	.025	.016	.23	.22
%RSD	.9837	1.273	.8840	1.219	.8952	1.065	.8199	.9273	.9039
#1	2.055	2.161	2.105	1.906	1.995	2.367	1.990	24.64	24.97
#2	2.084	2.123	2.079	1.873	1.970	2.332	1.967	24.32	24.65

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.34**	**23.95**	**25.49**	F **6837.**	**1.945**	**1.985**	**.3216**	**1.940**	**1.980**
Stddev	.23	.17	.32	88.	.017	.025	.0054	.021	.018
%RSD	.8897	.6974	1.265	1.288	.8488	1.232	1.676	1.059	.9116
#1	25.50	24.07	25.72	6899.	1.956	2.002	.3178	1.954	1.993
#2	25.18	23.84	25.26	6774.	1.933	1.967	.3254	1.925	1.968

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.982**	**1.956**	**1.946**	**.0934**	**-.0063**	**.0180**	**2.209**
Stddev	.016	.021	.020	.0095	.0035	.0044	.013
%RSD	.8147	1.096	1.032	10.12	55.80	24.64	.5869
#1	1.970	1.971	1.932	.1001	-.0038	.0211	2.219
#2	1.993	1.941	1.960	.0868	-.0088	.0148	2.200

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**88551.**	**14049.**	**3362.5**	**6929.4**
Stddev	1092.	54.	.4	1.1
%RSD	1.2327	.38154	.01206	.01643
#1	89322.	14087.	3362.2	6928.6
#2	87779.	14011.	3362.8	6930.2

Zoom In Zoom Out

Sample Name: mp6466-s1 Acquired: 4/4/2018 13:49:39 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**3.292**	**2.075**	**1.996**	**2.032**	**2.448**	**1.951**	**4.782**	**2.512**	**.2470**
Stddev	.024	.005	.030	.031	.016	.012	.045	.034	.0007
%RSD	.7220	.2521	1.481	1.533	.6519	.6371	.9443	1.366	.2850
#1	3.309	2.079	2.017	2.055	2.459	1.960	4.814	2.536	.2475
#2	3.275	2.071	1.976	2.010	2.436	1.943	4.750	2.487	.2465

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.206**	**13.39**	**2.018**	**1.973**	**2.780**	**2.031**	**1.977**	**34.31**	**476.5**
Stddev	.024	.17	.028	.029	.038	.025	.010	.14	3.7
%RSD	1.078	1.273	1.396	1.460	1.373	1.254	.5088	.3972	.7680
#1	2.223	13.51	2.038	1.993	2.807	2.049	1.985	34.41	479.1
#2	2.189	13.27	1.998	1.952	2.753	2.013	1.970	34.21	473.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**347.1**	**41.90**	**28.86**	F **1729.**	**1.965**	**2.016**	**14.59**	**2.088**	**2.671**
Stddev	2.2	.12	.09	4.	.023	.022	.18	.029	.013
%RSD	.6361	.2982	.3063	.2378	1.168	1.083	1.232	1.367	.4900
#1	348.6	41.99	28.92	1732.	1.981	2.032	14.72	2.108	2.681
#2	345.5	41.82	28.80	1726.	1.949	2.001	14.46	2.068	2.662

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.377**	**1.989**	**1.848**	**30.04**	**-.0256**	**.0060**	**33.84**
Stddev	.020	.032	.011	.34	.0112	.0022	.43
%RSD	.8567	1.593	.5908	1.125	43.91	37.01	1.283
#1	2.392	2.011	1.855	30.27	-.0335	.0045	34.15
#2	2.363	1.967	1.840	29.80	-.0176	.0076	33.53

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**98149.**	**14649.**	**3674.5**	**7733.8**
Stddev	244.	80.	1.2	4.0
%RSD	.24897	.54490	.03201	.05201
#1	98321.	14592.	3673.7	7731.0
#2	97976.	14705.	3675.3	7736.7

Zoom In Zoom Out

Sample Name: mp6466-s2 Acquired: 4/4/2018 13:53:49 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**3.252**	**2.034**	**2.078**	**2.102**	**2.458**	**1.956**	**4.817**	**2.610**	**.2272**
Stddev	.001	.001	.003	.002	.014	.001	.010	.001	.0011
%RSD	.0419	.0453	.1451	.1058	.5498	.0689	.2063	.0426	.4818
#1	3.253	2.034	2.076	2.104	2.448	1.957	4.810	2.609	.2279
#2	3.251	2.033	2.080	2.101	2.467	1.955	4.824	2.611	.2264

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.209**	**13.99**	**2.152**	**2.012**	**2.867**	**2.101**	**2.062**	**33.61**	**474.6**
Stddev	.005	.01	.002	.000	.015	.021	.001	.01	.5
%RSD	.2116	.0858	.1075	.0207	.5048	1.009	.0484	.0223	.1102
#1	2.206	13.98	2.153	2.011	2.857	2.116	2.063	33.61	474.9
#2	2.213	13.99	2.150	2.012	2.877	2.086	2.061	33.62	474.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**344.4**	**41.22**	**28.10**	F **1752.**	**2.028**	**2.091**	**15.39**	**2.166**	**2.625**
Stddev	.1	.20	.01	16.	.004	.001	.01	.003	.000
%RSD	.0155	.4805	.0513	.8897	.2066	.0442	.0774	.1366	.0101
#1	344.4	41.08	28.09	1763.	2.025	2.090	15.39	2.164	2.624
#2	344.5	41.36	28.11	1741.	2.031	2.092	15.38	2.168	2.625

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.380**	**2.064**	**1.850**	**31.62**	**-.0275**	**.0007**	**35.64**
Stddev	.005	.001	.001	.15	.0113	.0029	.12
%RSD	.1990	.0532	.0307	.4687	41.02	395.5	.3372
#1	2.376	2.065	1.850	31.52	-.0195	-.0013	35.56
#2	2.383	2.063	1.851	31.73	-.0355	.0028	35.73

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**98394.**	**14662.**	**3655.6**	**7700.0**
Stddev	268.	70.	1.7	9.5
%RSD	.27281	.47932	.04674	.12322
#1	98584.	14613.	3654.4	7693.3
#2	98204.	14712.	3656.8	7706.7

Zoom In Zoom Out

Sample Name: fa52915-1 Acquired: 4/4/2018 13:58:00 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.305**	**.0017**	**-.0008**	**.0587**	**.3770**	**.0222**	**2.872**	**.5318**	**-.0045**
Stddev	.012	.0003	.0003	.0014	.0010	.0009	.017	.0056	.0020
%RSD	.9180	17.04	41.01	2.357	.2725	3.949	.5737	1.062	44.57
#1	1.313	.0015	-.0011	.0577	.3777	.0216	2.884	.5358	-.0060
#2	1.296	.0019	-.0006	.0596	.3762	.0229	2.860	.5278	-.0031

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1393**	**12.21**	**.0498**	**-.0063**	**.8080**	**.0365**	**.0264**	**9.403**	**473.1**
Stddev	.0023	.17	.0073	.0025	.0095	.0198	.0021	.016	4.8
%RSD	1.680	1.367	14.62	39.17	1.181	54.11	7.852	.1651	1.021
#1	.1409	12.33	.0549	-.0045	.8148	.0505	.0279	9.414	476.5
#2	.1376	12.10	.0446	-.0080	.8013	.0225	.0250	9.392	469.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**336.6**	**18.39**	**3.716**	F **1852.**	**.0409**	**.0339**	**15.54**	**.1708**	**.6894**
Stddev	4.0	.16	.027	25.	.0006	.0003	.17	.0000	.0079
%RSD	1.198	.8446	.7180	1.348	1.419	.9176	1.118	.0190	1.141
#1	339.4	18.50	3.735	1869.	.0405	.0337	15.67	.1708	.6950
#2	333.7	18.28	3.697	1834.	.0413	.0342	15.42	.1708	.6839

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.3786**	**.0189**	**.0411**	**31.97**	**-.0195**	**.0016**	**34.19**
Stddev	.0020	.0017	.0017	.44	.0047	.0020	.41
%RSD	.5172	8.895	4.216	1.363	24.18	120.3	1.188
#1	.3800	.0201	.0423	32.27	-.0162	.0030	34.48
#2	.3772	.0177	.0399	31.66	-.0229	.0002	33.90

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**96104.**	**14368.**	**3560.8**	**7671.0**
Stddev	164.	58.	5.5	4.2
%RSD	.17028	.40035	.15478	.05472
#1	95989.	14409.	3556.9	7668.0
#2	96220.	14328.	3564.7	7673.9

Zoom In Zoom Out

Sample Name: mp6466-sd1 Acquired: 4/4/2018 14:02:19 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.582**	**.0003**	**-.0047**	**.0621**	**.4282**	**.0322**	**3.138**	**.5085**	**.0122**
Stddev	.054	.0028	.0070	.0010	.0304	.0045	.193	.0062	.0021
%RSD	3.416	799.2	148.0	1.621	7.107	14.08	6.158	1.218	17.61
#1	1.620	.0023	.0002	.0614	.4497	.0290	3.274	.5129	.0107
#2	1.543	-.0016	-.0096	.0628	.4067	.0355	3.001	.5041	.0137

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1476**	**11.88**	**.0600**	**-.0130**	**.7844**	**-.0109**	**.0191**	**11.40**	**576.0**
Stddev	.0057	.31	.0248	.0137	.0171	.0501	.0317	.34	20.2
%RSD	3.878	2.612	41.31	105.2	2.180	459.7	165.8	2.969	3.512
#1	.1516	12.10	.0424	-.0033	.7965	-.0464	-.0033	11.64	590.3
#2	.1435	11.66	.0775	-.0227	.7723	.0246	.0415	11.16	561.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**419.5**	**22.71**	**4.562**	**2334.**	**.0378**	**.0272**	**14.70**	**.1564**	**.8460**
Stddev	15.1	1.09	.248	82.	.0055	.0013	.33	.0142	.0315
%RSD	3.601	4.799	5.433	3.533	14.62	4.793	2.274	9.101	3.728
#1	430.1	23.48	4.737	2392.	.0339	.0263	14.94	.1665	.8683
#2	408.8	21.94	4.387	2275.	.0417	.0281	14.47	.1463	.8237

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.3978**	**.0217**	**.0474**	**29.56**	**-.0578**	**.0341**	**32.19**
Stddev	.0267	.0198	.0056	.73	.0440	.0387	.69
%RSD	6.718	91.54	11.77	2.484	76.10	113.5	2.133
#1	.4167	.0357	.0513	30.08	-.0267	.0615	32.68
#2	.3789	.0076	.0434	29.04	-.0889	.0067	31.71

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102920.**	**14703.**	**3800.7**	**8450.2**
Stddev	411.	46.	4.2	7.2
%RSD	.39963	.31601	.11051	.08518
#1	102630.	14670.	3803.6	8445.1
#2	103210.	14735.	3797.7	8455.3

Zoom In Zoom Out

Sample Name: mp6400-mb1conf Acquired: 4/4/2018 14:06:34 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0001**	**-.0000**	**.0001**	**.0003**	**.0000**	**.0001**	**.0000**	**.0006**	**.0001**
Stddev	.0001	.0000	.0001	.0002	.0003	.0002	.0000	.0001	.0000
%RSD	163.6	94.64	79.70	60.57	730.0	137.7	57.85	13.47	41.36
#1	.0000	-.0001	.0000	.0002	.0003	.0000	.0000	.0007	.0001
#2	-.0002	-.0000	.0001	.0005	-.0002	.0002	.0000	.0005	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0002**	**.0002**	**-.0006**	**-.0000**	**.0011**	**.0002**	**.0057**	**-.0010**
Stddev	.0004	.0002	.0004	.0009	.0009	.0001	.0010	.0118	.0016
%RSD	498.6	28.92	186.4	154.3	3812.	8.993	499.4	209.0	157.0
#1	-.0002	.0007	.0006	-.0012	.0006	.0010	-.0005	.0140	-.0022
#2	.0004	.0004	-.0001	.0001	-.0007	.0012	.0009	-.0027	.0001

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0080**	**-.0010**	**-.0087**	**.1126**	**.0010**	**.0001**	**-.0016**	**.0010**	**.0001**
Stddev	.0017	.0028	.0087	.0017	.0004	.0002	.0009	.0005	.0000
%RSD	21.45	271.6	100.6	1.491	42.30	184.5	55.68	49.64	34.87
#1	.0092	-.0030	-.0149	.1138	.0007	-.0000	-.0023	.0007	.0000
#2	.0068	.0010	-.0025	.1114	.0013	.0002	-.0010	.0014	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**.0016**	**.0001**	**.0017**	**-.0016**	**.0005**	**.0005**
Stddev	.0001	.0003	.0002	.0020	.0010	.0009	.0001
%RSD	2106.	17.16	195.2	115.7	61.09	167.6	10.12
#1	.0001	.0014	.0003	.0031	-.0024	.0011	.0005
#2	-.0001	.0018	-.0000	.0003	-.0009	-.0001	.0006

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108280.**	**15020.**	**3909.1**	**9082.8**
Stddev	205.	37.	3.3	1.0
%RSD	.18901	.24428	.08412	.01075
#1	108140.	15046.	3906.8	9083.5
#2	108430.	14995.	3911.5	9082.1

Zoom In Zoom Out

Sample Name: jc62779-5 2 Acquired: 4/4/2018 14:10:55 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.835**	**.0008**	**.0112**	**.0842**	**.0136**	**.0251**	**48.66**	**.0440**	**.0005**
Stddev	.020	.0004	.0015	.0013	.0056	.0006	.43	.0030	.0012
%RSD	1.076	49.40	13.76	1.595	41.19	2.385	.8893	6.835	235.2
#1	1.849	.0010	.0123	.0833	.0096	.0255	48.96	.0419	-.0003
#2	1.821	.0005	.0101	.0852	.0175	.0247	48.35	.0462	.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0570**	**.0436**	**.0470**	**-.0013**	**-.0024**	**-.0015**	**-.0061**	**.2950**	**155.3**
Stddev	.0006	.0016	.0107	.0011	.0045	.0125	.0084	.0791	1.5
%RSD	1.070	3.710	22.79	87.52	185.7	850.1	136.3	26.83	.9662
#1	.0566	.0448	.0395	-.0005	-.0056	-.0103	-.0121	.2390	156.4
#2	.0574	.0425	.0546	-.0021	.0008	.0074	-.0002	.3509	154.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**109.6**	**78.33**	**2.710**	**544.1**	**.0216**	**-.0013**	**12.49**	**-.0026**	**.9601**
Stddev	1.3	.15	.281	5.4	.0020	.0008	.08	.0002	.0063
%RSD	1.176	.1889	10.37	.9915	9.231	58.99	.6798	8.019	.6578
#1	110.5	78.44	2.511	547.9	.0230	-.0019	12.55	-.0028	.9646
#2	108.7	78.23	2.908	540.3	.0202	-.0008	12.43	-.0025	.9556

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0195**	**.0029**	**1.704**	**-.0307**	**.0295**	**1.841**
Stddev	.0034	.0042	.0011	.005	.0051	.0015	.010
%RSD	3253.	21.53	37.69	.3176	16.58	5.083	.5589
#1	-.0023	.0165	.0021	1.708	-.0271	.0306	1.848
#2	.0025	.0225	.0036	1.700	-.0343	.0285	1.833

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104350.**	**14781.**	**3817.6**	**8521.9**
Stddev	57.	17.	1.9	10.4
%RSD	.05473	.11751	.05016	.12256
#1	104390.	14793.	3818.9	8529.3
#2	104310.	14769.	3816.2	8514.5

Zoom In Zoom Out

Sample Name: jc62779-5f Acquired: 4/4/2018 14:15:14 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.860**	**.0003**	**.0115**	**.0903**	**.0103**	**.0136**	**51.01**	**.0468**	**.0000**
Stddev	.003	.0003	.0008	.0021	.0023	.0028	.01	.0010	.0011
%RSD	.1840	79.35	6.637	2.324	21.80	20.27	.0214	2.091	8624.
#1	1.862	.0001	.0121	.0918	.0087	.0156	51.02	.0475	.0008
#2	1.857	.0005	.0110	.0888	.0119	.0117	51.00	.0461	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0578**	**.0380**	**.0619**	**.0047**	**-.0040**	**.0050**	**-.0154**	**.0018**	**158.1**
Stddev	.0006	.0009	.0059	.0103	.0088	.0093	.0003	.0016	.7
%RSD	1.093	2.289	9.564	220.1	218.7	186.1	2.054	88.93	.4217
#1	.0583	.0387	.0661	.0119	-.0103	.0116	-.0152	.0029	158.5
#2	.0574	.0374	.0577	-.0026	.0022	-.0016	-.0156	.0007	157.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**109.7**	**79.32**	**2.717**	**551.6**	**.0365**	**.0029**	**13.05**	**-.0139**	**.9704**
Stddev	.2	.00	.365	.8	.0038	.0001	.02	.0080	.0035
%RSD	.2186	.0022	13.43	.1471	10.37	3.961	.1411	57.25	.3580
#1	109.9	79.32	2.459	552.1	.0392	.0028	13.06	-.0083	.9679
#2	109.6	79.32	2.975	551.0	.0338	.0029	13.03	-.0196	.9729

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0047**	**.0179**	**.0003**	**1.840**	**-.0235**	**.0200**	**1.955**
Stddev	.0003	.0132	.0002	.013	.0010	.0012	.004
%RSD	6.277	73.84	88.22	.6813	4.471	5.849	.2029
#1	-.0045	.0086	.0004	1.849	-.0227	.0209	1.958
#2	-.0049	.0273	.0001	1.831	-.0242	.0192	1.953

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104310.**	**14789.**	**3800.3**	**8492.3**
Stddev	33.	43.	1.0	7.7
%RSD	.03198	.28808	.02708	.09019
#1	104290.	14758.	3799.6	8486.9
#2	104340.	14819.	3801.1	8497.7

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 14:19:33 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.049**	**2.002**	**2.050**	**2.004**	**2.073**	**1.987**	**2.058**	**2.048**	**.2575**
Stddev	.006	.000	.002	.001	.005	.001	.002	.000	.0007
%RSD	.2914	.0018	.0984	.0396	.2450	.0310	.1136	.0119	.2541
#1	2.054	2.002	2.052	2.005	2.069	1.988	2.057	2.048	.2571
#2	2.045	2.002	2.049	2.004	2.077	1.987	2.060	2.047	.2580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.063**	**2.059**	**2.037**	**2.051**	**2.040**	**2.027**	**2.053**	**40.15**	**40.73**
Stddev	.003	.001	.003	.001	.006	.002	.005	.06	.13
%RSD	.1478	.0299	.1427	.0670	.2976	.1022	.2425	.1464	.3209
#1	2.061	2.059	2.040	2.052	2.044	2.025	2.057	40.11	40.63
#2	2.065	2.059	2.035	2.050	2.036	2.028	2.050	40.19	40.82
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.06**	**39.41**	**39.87**	**40.29**	**2.044**	**2.065**	**4.915**	**2.084**	**2.012**
Stddev	.01	.01	.12	.08	.001	.005	.007	.001	.007
%RSD	.0220	.0203	.2912	.2093	.0611	.2253	.1426	.0348	.3489
#1	40.07	39.40	39.95	40.35	2.045	2.069	4.920	2.084	2.017
#2	40.05	39.41	39.79	40.23	2.043	2.062	4.910	2.083	2.007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 14:19:33 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.051**	**2.052**	**2.032**	**2.022**	**2.086**	**2.040**	**2.034**
Stddev	.002	.002	.001	.007	.007	.007	.001
%RSD	.1161	.1098	.0293	.3240	.3220	.3623	.0503
#1	2.049	2.053	2.033	2.027	2.091	2.045	2.033
#2	2.052	2.050	2.032	2.018	2.081	2.035	2.034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102590.**	**14722.**	**3777.7**	**8192.1**
Stddev	172.	29.	6.3	14.1
%RSD	.16767	.19577	.16716	.17233
#1	102470.	14743.	3773.3	8182.1
#2	102710.	14702.	3782.2	8202.1

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 14:23:37 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0001**	**.0005**	**.0006**	**.0005**	**.0003**	**.0007**	**.0001**
Stddev	.0001	.0000	.0001	.0007	.0006	.0001	.0001	.0002	.0007
%RSD	56.97	41.20	97.44	122.3	88.75	22.59	21.93	26.75	672.5
#1	.0001	.0000	.0000	.0010	.0002	.0004	.0002	.0008	-.0004
#2	.0002	.0001	.0001	.0001	.0010	.0005	.0003	.0006	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0001**	**.0008**	**.0004**	**.0011**	**.0001**	**-.0059**	**.0026**
Stddev	.0001	.0000	.0001	.0004	.0000	.0008	.0006	.0065	.0012
%RSD	47.43	53.89	209.8	43.72	11.12	75.82	546.7	111.3	43.72
#1	.0001	.0001	.0002	.0011	.0004	.0016	.0005	-.0013	.0035
#2	.0001	.0001	-.0000	.0006	.0003	.0005	-.0003	-.0105	.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0081**	**-.0078**	**-.0138**	**.0596**	**.0008**	**.0009**	**.0063**	**.0000**	**.0002**
Stddev	.0048	.0229	.0031	.0006	.0005	.0002	.0005	.0002	.0001
%RSD	59.46	292.1	22.38	.9240	59.15	16.79	8.247	852.7	28.30
#1	.0047	.0083	-.0160	.0600	.0005	.0010	.0067	-.0001	.0002
#2	.0115	-.0240	-.0116	.0592	.0012	.0008	.0060	.0001	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 14:23:37 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0006**	**.0003**	**.0016**	**-.0012**	**.0024**	**-.0009**
Stddev	.0006	.0001	.0001	.0004	.0011	.0005	.0004
%RSD	106.7	15.98	23.25	24.97	90.79	20.71	49.77
#1	.0001	.0005	.0004	.0019	-.0019	.0021	-.0012
#2	.0010	.0007	.0003	.0013	-.0004	.0028	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108110.**	**14945.**	**3906.1**	**9086.9**
Stddev	300.	39.	3.2	.6
%RSD	.27730	.25902	.08149	.00620
#1	108320.	14973.	3903.8	9087.3
#2	107900.	14918.	3908.3	9086.5

Zoom In Zoom Out

Sample Name: mp6402-mb1conf Acquired: 4/4/2018 14:28:00 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0001**	**-.0001**	**-.0002**	**.0003**	**.0002**	**.0001**	**.0001**	**.0002**	**.0000**
Stddev	.0000	.0001	.0002	.0002	.0005	.0001	.0000	.0001	.0001
%RSD	39.86	99.61	79.75	68.20	277.5	53.07	82.41	55.43	264.8
#1	.0000	-.0001	-.0004	.0001	.0005	.0002	.0000	.0001	.0001
#2	.0001	-.0000	-.0001	.0004	-.0002	.0001	.0001	.0003	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0002**	**.0014**	**.0001**	**-.0007**	**.0002**	**-.0002**	**-.0014**	**-.0037**	**.0073**
Stddev	.0000	.0000	.0014	.0012	.0008	.0005	.0006	.0007	.0012
%RSD	19.77	2.582	931.2	166.4	359.4	274.4	45.23	19.12	16.14
#1	-.0003	.0014	-.0008	.0001	-.0003	.0002	-.0009	-.0032	.0064
#2	-.0002	.0014	.0011	-.0016	.0008	-.0005	-.0018	-.0042	.0081

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0056**	**.0202**	**-.0323**	**.0411**	**.0009**	**.0002**	**-.0000**	**.0002**	**.0001**
Stddev	.0046	.0150	.0129	.0012	.0004	.0001	.0011	.0009	.0001
%RSD	81.93	74.28	39.93	3.023	47.11	46.73	3485.	432.8	102.4
#1	.0023	.0096	-.0414	.0420	.0006	.0003	.0008	-.0004	.0001
#2	.0088	.0308	-.0232	.0403	.0012	.0001	-.0008	.0009	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0002**	**.0004**	**.0033**	**-.0024**	**.0016**	**.0003**
Stddev	.0004	.0007	.0001	.0038	.0002	.0007	.0009
%RSD	280.1	365.3	22.51	114.3	9.317	45.94	268.1
#1	.0004	-.0003	.0005	.0061	-.0025	.0011	.0010
#2	-.0001	.0007	.0004	.0006	-.0022	.0021	-.0003

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108260.**	**14916.**	**3877.2**	**9046.5**
Stddev	55.	69.	6.2	1.9
%RSD	.05094	.46019	.15884	.02081
#1	108300.	14867.	3872.9	9045.2
#2	108230.	14964.	3881.6	9047.8

Zoom In Zoom Out

Sample Name: jc62879-3 Acquired: 4/4/2018 14:32:21 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0711**	**-.0001**	**.0005**	**.0098**	**.0034**	**.0253**	**.5247**	**.0210**	**.0004**
Stddev	.0001	.0001	.0000	.0003	.0001	.0001	.0000	.0002	.0005
%RSD	.1430	95.07	3.088	2.962	2.381	.4917	.0059	1.112	119.5
#1	.0711	-.0002	.0005	.0096	.0035	.0252	.5247	.0208	.0007
#2	.0710	-.0000	.0005	.0100	.0034	.0254	.5247	.0211	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0023**	**.0872**	**.0205**	**.0012**	**.0212**	**.0148**	**.0051**	**.2574**	**191.8**
Stddev	.0002	.0003	.0007	.0014	.0002	.0008	.0003	.0017	.2
%RSD	9.662	.3283	3.351	117.2	.8318	5.502	6.366	.6473	.0809
#1	.0024	.0870	.0200	.0002	.0213	.0143	.0049	.2585	191.7
#2	.0021	.0874	.0210	.0023	.0211	.0154	.0054	.2562	191.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**6.974**	**103.6**	**14.10**	**22.44**	**.2948**	**.0186**	**14.81**	**-.0011**	**1.063**
Stddev	.019	.3	.01	.00	.0006	.0000	.00	.0008	.001
%RSD	.2715	.3179	.0475	.0112	.2042	.1632	.0294	69.06	.0452
#1	6.960	103.4	14.11	22.44	.2944	.0186	14.81	-.0017	1.063
#2	6.987	103.9	14.10	22.43	.2953	.0187	14.81	-.0006	1.064

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0092**	**.0167**	**.0005**	**65.33**	**-.0008**	**.0241**	**.2170**
Stddev	.0000	.0003	.0002	.04	.0006	.0004	.0003
%RSD	.1910	1.758	46.82	.0633	74.63	1.743	.1170
#1	.0092	.0165	.0007	65.36	-.0012	.0238	.2168
#2	.0093	.0169	.0003	65.31	-.0004	.0244	.2172

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**99150.**	**14413.**	**3552.2**	**7844.7**
Stddev	1.	20.	2.4	6.5
%RSD	.00089	.13731	.06745	.08274
#1	99151.	14427.	3550.5	7840.1
#2	99150.	14399.	3553.9	7849.3

Zoom In Zoom Out

Sample Name: jc62879-6 Acquired: 4/4/2018 14:36:36 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1334**	**-.0002**	**.0015**	**.0079**	**.0127**	**.0108**	**5.610**	**.0111**	**.0037**
Stddev	.0001	.0002	.0000	.0001	.0013	.0008	.049	.0007	.0034
%RSD	.0592	101.0	1.780	1.803	9.923	7.432	.8671	6.273	90.12
#1	.1334	-.0000	.0015	.0080	.0136	.0102	5.644	.0106	.0061
#2	.1335	-.0003	.0015	.0078	.0118	.0114	5.575	.0116	.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0080**	**.0285**	**.0087**	**.0031**	**.0097**	**-.0042**	**-.0010**	**.2740**	**229.4**
Stddev	.0014	.0002	.0020	.0052	.0012	.0149	.0024	.0672	1.7
%RSD	17.40	.7702	22.54	165.0	12.21	355.5	227.8	24.52	.7619
#1	.0070	.0284	.0073	-.0005	.0105	.0064	-.0027	.2265	230.7
#2	.0089	.0287	.0100	.0068	.0088	-.0148	.0006	.3215	228.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**11.28**	**145.9**	**5.706**	**94.71**	**.0887**	**.0022**	**11.97**	**-.0030**	**1.022**
Stddev	.13	1.1	.153	.55	.0009	.0004	.09	.0036	.007
%RSD	1.193	.7744	2.689	.5843	1.050	18.15	.7361	121.5	.6628
#1	11.37	146.7	5.815	95.10	.0880	.0025	12.04	-.0004	1.027
#2	11.18	145.1	5.598	94.31	.0893	.0019	11.91	-.0055	1.017

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0117**	**.0108**	**.0005**	**285.7**	**-.0112**	**.0163**	**.2727**
Stddev	.0007	.0002	.0002	1.7	.0102	.0062	.0015
%RSD	5.664	2.185	37.17	.5827	91.60	38.13	.5498
#1	.0112	.0110	.0003	286.9	-.0039	.0119	.2717
#2	.0121	.0107	.0006	284.6	-.0184	.0207	.2738

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103920.**	**14568.**	**3759.3**	**8525.5**
Stddev	79.	68.	12.0	10.9
%RSD	.07572	.46336	.31933	.12802
#1	103870.	14520.	3750.8	8517.8
#2	103980.	14616.	3767.8	8533.3

Zoom In Zoom Out

Sample Name: jc62879-10 Acquired: 4/4/2018 14:40:51 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0293**	**.0004**	**.0036**	**.0333**	**.0088**	**.0332**	**2.226**	**.0966**	**-.0015**
Stddev	.0003	.0001	.0005	.0003	.0030	.0015	.003	.0022	.0021
%RSD	1.040	35.22	13.30	.8266	34.50	4.590	.1309	2.237	136.3
#1	.0291	.0003	.0039	.0331	.0066	.0343	2.228	.0981	-.0030
#2	.0295	.0005	.0033	.0335	.0109	.0321	2.224	.0951	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0038**	**1.203**	**.0041**	**-.0005**	**.0145**	**.0105**	**.0019**	**1.044**	**200.3**
Stddev	.0003	.002	.0027	.0071	.0022	.0044	.0061	.033	.1
%RSD	7.948	.1281	66.49	1357.	15.47	42.10	320.2	3.164	.0277
#1	.0040	1.202	.0022	-.0055	.0161	.0137	-.0024	1.067	200.3
#2	.0036	1.205	.0060	.0045	.0129	.0074	.0062	1.021	200.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**23.79**	**36.58**	**5.624**	**11.57**	**.0919**	**-.0008**	**17.94**	**-.0038**	**.7478**
Stddev	.03	.03	.084	.09	.0021	.0018	.00	.0001	.0016
%RSD	.1252	.0839	1.496	.7568	2.295	233.3	.0176	2.877	.2174
#1	23.77	36.60	5.564	11.64	.0934	-.0020	17.94	-.0038	.7489
#2	23.81	36.56	5.683	11.51	.0904	.0005	17.95	-.0039	.7466

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0104**	**.0188**	**.0002**	**213.8**	**-.0170**	**.0161**	**.0748**
Stddev	.0005	.0006	.0005	.1	.0013	.0058	.0008
%RSD	4.840	3.016	197.7	.0507	7.651	36.09	1.081
#1	.0100	.0192	.0005	213.9	-.0179	.0202	.0743
#2	.0107	.0184	-.0001	213.7	-.0161	.0120	.0754

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105880.**	**14766.**	**3823.7**	**8767.9**
Stddev	26.	107.	1.7	3.3
%RSD	.02482	.72281	.04542	.03734
#1	105860.	14691.	3824.9	8770.2
#2	105900.	14842.	3822.4	8765.5

Zoom In Zoom Out

Sample Name: jc62879-17 Acquired: 4/4/2018 14:45:05 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0663**	**-.0005**	**.0000**	**.0024**	**.0038**	**.0172**	**.1283**	**.0045**	**.0016**
Stddev	.0003	.0003	.0005	.0004	.0008	.0002	.0001	.0001	.0023
%RSD	.4256	59.44	2140.	17.96	20.16	1.193	.1027	2.273	139.9
#1	.0661	-.0003	.0004	.0021	.0044	.0173	.1284	.0045	.0000
#2	.0665	-.0007	-.0004	.0027	.0033	.0170	.1282	.0044	.0032

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0014**	**.0968**	**.0071**	**.0009**	**-.0000**	**-.0000**	**.0045**	**.7085**	**298.9**
Stddev	.0002	.0001	.0012	.0038	.0041	.0024	.0028	.0060	2.1
%RSD	16.69	.1385	17.19	418.6	14260.	5292.	62.09	.8402	.6966
#1	.0015	.0969	.0080	.0036	-.0029	.0017	.0065	.7127	300.3
#2	.0012	.0967	.0062	-.0018	.0028	-.0017	.0025	.7043	297.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.5150**	**173.0**	**21.24**	**15.01**	**.3897**	**.0157**	**9.336**	**-.0017**	**1.845**
Stddev	.0004	1.3	.08	.07	.0004	.0007	.046	.0017	.009
%RSD	.0719	.7297	.3579	.4712	.1112	4.308	.4944	100.2	.5067
#1	.5153	173.9	21.29	15.06	.3900	.0162	9.369	-.0005	1.852
#2	.5147	172.1	21.18	14.96	.3894	.0152	9.304	-.0029	1.838

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0052**	**.0135**	**.0008**	**238.9**	**-.0043**	**.0079**	**.1700**
Stddev	.0014	.0019	.0003	1.2	.0011	.0005	.0016
%RSD	25.88	13.95	35.69	.4936	25.62	6.242	.9405
#1	.0062	.0148	.0006	239.7	-.0051	.0076	.1688
#2	.0043	.0121	.0009	238.0	-.0035	.0083	.1711

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102330.**	**14509.**	**3682.4**	**8273.5**
Stddev	303.	44.	.6	9.8
%RSD	.29606	.30051	.01528	.11817
#1	102110.	14478.	3682.0	8280.4
#2	102540.	14540.	3682.8	8266.6

Zoom In Zoom Out

Sample Name: mp6401-mb1conf Acquired: 4/4/2018 14:49:21 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0000**	**-.0001**	**.0001**	**.0001**	**.0000**	**.0008**	**.0001**	**.0006**	**-.0000**
Stddev	.0000	.0002	.0001	.0003	.0003	.0000	.0000	.0004	.0000
%RSD	108.6	232.4	116.6	181.5	759.4	1.652	24.16	74.44	31.13
#1	-.0000	-.0002	.0002	-.0000	-.0002	.0008	.0001	.0003	-.0000
#2	-.0000	.0000	.0000	.0003	.0003	.0007	.0001	.0009	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0002**	**.0022**	**.0002**	**-.0004**	**-.0006**	**-.0011**	**.0005**	**-.0013**	**.0114**
Stddev	.0003	.0003	.0005	.0002	.0005	.0016	.0003	.0105	.0031
%RSD	184.4	11.50	226.1	55.13	92.65	145.1	51.11	789.9	27.25
#1	-.0001	.0020	-.0001	-.0003	-.0002	-.0022	.0007	-.0087	.0092
#2	.0004	.0024	.0006	-.0006	-.0010	.0000	.0003	.0061	.0136

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0039**	**.0162**	**-.0430**	**.0317**	**.0009**	**.0003**	**-.0017**	**-.0002**	**-.0000**
Stddev	.0021	.0257	.0015	.0037	.0002	.0004	.0007	.0000	.0001
%RSD	53.32	159.0	3.395	11.75	20.55	120.5	42.95	6.301	636.5
#1	.0024	.0344	-.0420	.0344	.0010	.0000	-.0012	-.0002	-.0001
#2	.0053	-.0020	-.0440	.0291	.0007	.0006	-.0022	-.0002	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**-.0007**	**.0000**	**.0061**	**-.0024**	**.0010**	**-.0024**
Stddev	.0001	.0011	.0000	.0005	.0011	.0001	.0003
%RSD	51.95	160.5	101.4	8.283	45.27	13.04	11.05
#1	-.0001	.0001	.0000	.0065	-.0031	.0011	-.0022
#2	-.0001	-.0015	.0001	.0057	-.0016	.0009	-.0026

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108030.**	**14904.**	**3867.5**	**9048.9**
Stddev	211.	32.	9.2	14.7
%RSD	.19496	.21740	.23796	.16192
#1	107880.	14881.	3861.0	9038.5
#2	108180.	14926.	3874.0	9059.3

Zoom In Zoom Out

Sample Name: mp6401-b1conf Acquired: 4/4/2018 14:53:41 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.138**	**2.097**	**2.124**	**2.043**	**2.107**	**2.063**	**2.115**	**2.093**
Stddev	.000	.006	.001	.003	.012	.000	.006	.000
%RSD	.0068	.2923	.0570	.1386	.5734	.0023	.2995	.0021
#1	2.138	2.101	2.125	2.041	2.115	2.063	2.119	2.093
#2	2.137	2.092	2.123	2.045	2.098	2.063	2.110	2.093

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2551**	**2.102**	**2.122**	**2.110**	**2.090**	**2.092**	**2.085**	**2.148**
Stddev	.0003	.005	.001	.000	.003	.004	.004	.004
%RSD	.1343	.2175	.0218	.0121	.1435	.1773	.1680	.1965
#1	.2553	2.105	2.122	2.109	2.092	2.094	2.087	2.151
#2	.2548	2.099	2.122	2.110	2.087	2.089	2.082	2.145

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.67**	**26.17**	**26.18**	**25.46**	**25.84**	**26.07**	**2.087**	**2.155**
Stddev	.01	.02	.05	.04	.07	.06	.004	.000
%RSD	.0491	.0592	.1883	.1589	.2765	.2181	.1933	.0022
#1	25.66	26.16	26.22	25.43	25.89	26.11	2.090	2.155
#2	25.68	26.18	26.15	25.49	25.79	26.03	2.084	2.155

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0077**	**2.177**	**2.111**	**2.116**	**2.004**	**2.085**	F **-.0743**	**-.0043**
Stddev	.0008	.001	.002	.003	.002	.004	.0014	.0005
%RSD	10.01	.0562	.1087	.1595	.0919	.1688	1.915	12.58
#1	.0072	2.176	2.113	2.118	2.005	2.088	-.0753	-.0047
#2	.0083	2.177	2.110	2.113	2.003	2.083	-.0732	-.0039

Elem	Li6707	P_1774
Avg	**.0013**	**2.084**
Stddev	.0007	.007
%RSD	54.17	.3544
#1	.0008	2.079
#2	.0018	2.089

Zoom In Zoom Out

Sample Name: mp6401-b1conf Acquired: 4/4/2018 14:53:41 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104730.**	**14775.**	**3777.7**	**8358.4**
Stddev	126.	15.	4.0	3.8
%RSD	.12009	.10132	.10650	.04574
#1	104640.	14765.	3774.8	8355.7
#2	104820.	14786.	3780.5	8361.1

Zoom In Zoom Out

Sample Name: mp6401-s1 Acquired: 4/4/2018 14:57:44 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.534**	**2.386**	**2.281**	**2.163**	**2.336**	**2.180**	**2.327**	**2.231**	**.2815**
Stddev	.072	.072	.021	.022	.029	.035	.025	.025	.0064
%RSD	2.825	3.034	.9054	1.038	1.237	1.586	1.083	1.115	2.257
#1	2.483	2.334	2.296	2.179	2.357	2.204	2.345	2.248	.2860
#2	2.585	2.437	2.267	2.147	2.316	2.156	2.310	2.213	.2770

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.310**	**2.313**	**2.255**	**2.196**	**2.222**	**2.233**	**2.285**	**29.45**	**200.4**
Stddev	.013	.024	.021	.033	.015	.008	.027	.90	6.9
%RSD	.5530	1.054	.9163	1.478	.6732	.3507	1.164	3.064	3.441
#1	2.319	2.330	2.270	2.219	2.233	2.238	2.304	28.81	195.5
#2	2.301	2.296	2.240	2.173	2.212	2.227	2.266	30.09	205.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**29.99**	**57.88**	**31.79**	**346.5**	**2.292**	**2.326**	**4.136**	**2.313**	**3.124**
Stddev	.94	2.17	.86	10.4	.021	.023	.033	.021	.087
%RSD	3.142	3.747	2.691	2.993	.9237	.9921	.7884	.9000	2.779
#1	29.32	56.35	31.19	339.2	2.307	2.342	4.159	2.328	3.063
#2	30.65	59.42	32.40	353.8	2.277	2.310	4.113	2.299	3.186

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.327**	**2.316**	**2.245**	**5.083**	**-.0180**	**.0039**	**2.229**
Stddev	.025	.017	.028	.056	.0084	.0002	.009
%RSD	1.077	.7531	1.242	1.104	46.37	3.847	.3932
#1	2.345	2.328	2.264	5.123	-.0121	.0040	2.235
#2	2.309	2.304	2.225	5.043	-.0239	.0038	2.222

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103190.**	**14363.**	**3740.5**	**8321.1**
Stddev	375.	465.	.5	8.5
%RSD	.36349	3.2354	.01376	.10162
#1	102930.	14692.	3740.8	8315.2
#2	103460.	14035.	3740.1	8327.1

Zoom In Zoom Out

Sample Name: mp6401-s2 Acquired: 4/4/2018 15:01:50 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.318**	**2.173**	**2.202**	**2.082**	**2.194**	**2.052**	**2.190**	**2.155**	**.2632**
Stddev	.007	.010	.009	.009	.006	.004	.002	.002	.0023
%RSD	.3154	.4482	.4269	.4396	.2725	.1927	.0927	.1136	.8680
#1	2.323	2.180	2.209	2.088	2.198	2.055	2.191	2.157	.2648
#2	2.313	2.166	2.195	2.075	2.190	2.049	2.188	2.153	.2616

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.175**	**2.232**	**2.171**	**2.123**	**2.150**	**2.147**	**2.205**	**26.61**	**185.6**
Stddev	.010	.006	.009	.016	.010	.000	.006	.11	.6
%RSD	.4715	.2663	.4137	.7343	.4516	.0034	.2568	.4162	.3392
#1	2.182	2.236	2.164	2.134	2.157	2.147	2.209	26.69	186.1
#2	2.168	2.228	2.177	2.112	2.143	2.147	2.201	26.53	185.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**27.27**	**53.27**	**28.93**	**321.8**	**2.219**	**2.235**	**4.075**	**2.241**	**2.875**
Stddev	.00	.20	.06	1.2	.002	.002	.003	.007	.008
%RSD	.0061	.3665	.2154	.3722	.1065	.0918	.0695	.3123	.2925
#1	27.27	53.41	28.98	322.6	2.221	2.236	4.073	2.246	2.880
#2	27.27	53.13	28.89	320.9	2.217	2.234	4.077	2.236	2.869

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.198**	**2.158**	**2.119**	**5.020**	**-.0207**	**.0071**	**2.149**
Stddev	.005	.008	.008	.020	.0017	.0041	.003
%RSD	.2120	.3746	.3729	.3892	7.985	57.15	.1168
#1	2.201	2.152	2.125	5.034	-.0195	.0042	2.147
#2	2.194	2.164	2.114	5.006	-.0218	.0100	2.151

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103740.**	**14608.**	**3745.5**	**8342.1**
Stddev	46.	17.	7.1	14.5
%RSD	.04467	.11639	.19085	.17346
#1	103770.	14596.	3750.5	8352.3
#2	103710.	14620.	3740.4	8331.9

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 15:05:59 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.075**	**2.026**	**2.061**	**1.978**	**2.038**	**1.987**	**2.044**	**2.032**	**.2555**
Stddev	.001	.001	.005	.001	.005	.003	.005	.000	.0006
%RSD	.0691	.0484	.2569	.0383	.2494	.1461	.2317	.0045	.2447
#1	2.076	2.025	2.065	1.979	2.041	1.985	2.048	2.032	.2560
#2	2.074	2.026	2.057	1.978	2.034	1.989	2.041	2.032	.2551
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.037**	**2.048**	**2.043**	**1.995**	**2.024**	**2.013**	**2.068**	**40.37**	**41.14**
Stddev	.005	.004	.005	.003	.002	.004	.007	.04	.08
%RSD	.2408	.2073	.2513	.1668	.0719	.1917	.3384	.1107	.1874
#1	2.040	2.045	2.046	1.997	2.025	2.016	2.073	40.40	41.19
#2	2.033	2.051	2.039	1.992	2.023	2.010	2.063	40.34	41.08
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.77**	**40.32**	**40.70**	**40.81**	**2.030**	**2.067**	**4.899**	**2.075**	**2.056**
Stddev	.03	.08	.00	.05	.001	.003	.012	.003	.002
%RSD	.0727	.1915	.0096	.1109	.0626	.1518	.2425	.1269	.1168
#1	40.75	40.27	40.70	40.84	2.031	2.069	4.908	2.073	2.054
#2	40.79	40.37	40.70	40.78	2.029	2.065	4.891	2.077	2.058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 15:05:59 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.045**	**2.055**	**2.027**	**2.002**	**2.098**	**2.052**	**2.018**
Stddev	.004	.001	.001	.009	.002	.004	.003
%RSD	.1719	.0464	.0568	.4273	.1084	.2178	.1488
#1	2.048	2.054	2.028	2.008	2.100	2.055	2.020
#2	2.043	2.055	2.026	1.996	2.096	2.048	2.016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**103140.**	**14490.**	**3752.3**	**8177.5**
Stddev	149.	60.	9.6	13.9
%RSD	.14481	.41333	.25612	.16971
#1	103040.	14447.	3745.5	8167.7
#2	103250.	14532.	3759.1	8187.3

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 15:10:03 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0001**	**.0004**	**.0003**	**.0006**	**.0001**	**.0007**	**.0007**
Stddev	.0001	.0001	.0001	.0001	.0007	.0001	.0001	.0001	.0001
%RSD	61.73	82.98	86.91	27.57	294.3	15.33	47.59	12.32	17.80
#1	.0001	.0002	.0000	.0004	.0008	.0007	.0001	.0008	.0006
#2	.0000	.0000	.0001	.0005	-.0003	.0005	.0002	.0007	.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0002**	**.0007**	**-.0005**	**-.0015**	**.0009**	**-.0033**	**.0036**
Stddev	.0003	.0000	.0008	.0001	.0008	.0021	.0002	.0129	.0007
%RSD	314.6	38.33	414.5	7.520	178.3	134.9	16.76	397.2	20.12
#1	-.0003	-.0001	.0007	.0007	.0001	-.0030	.0008	.0059	.0031
#2	.0001	-.0001	-.0004	.0007	-.0010	-.0001	.0011	-.0124	.0041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0020**	**-.0341**	**.0263**	**.0020**	**.0007**	**.0051**	**.0001**	**.0002**
Stddev	.0008	.0079	.0019	.0005	.0002	.0002	.0001	.0006	.0001
%RSD	16.80	386.3	5.621	2.018	9.764	26.86	1.925	513.8	30.60
#1	.0039	.0076	-.0355	.0267	.0021	.0009	.0052	.0005	.0002
#2	.0050	-.0035	-.0328	.0260	.0018	.0006	.0050	-.0003	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 15:10:03 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0014**	**.0001**	**-.0030**	**-.0018**	**.0026**	**-.0047**
Stddev	.0001	.0001	.0003	.0007	.0009	.0004	.0007
%RSD	21.99	7.755	250.7	22.87	48.64	15.39	14.40
#1	.0003	.0013	-.0001	-.0025	-.0012	.0029	-.0042
#2	.0002	.0015	.0003	-.0035	-.0024	.0024	-.0052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107830.**	**14784.**	**3896.2**	**9087.0**
Stddev	218.	78.	4.4	.6
%RSD	.20180	.52658	.11407	.00632
#1	107980.	14729.	3899.3	9086.6
#2	107670.	14839.	3893.1	9087.4

Zoom In Zoom Out

Sample Name: jc62909-1f Acquired: 4/4/2018 15:14:25 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1136**	**.0001**	**-.0003**	**.0015**	**.0021**	**.0057**	**.0006**	**.0013**	**-.0006**
Stddev	.0013	.0002	.0023	.0001	.0028	.0007	.0005	.0011	.0036
%RSD	1.116	144.6	660.7	6.022	130.0	13.07	76.39	85.40	591.3
#1	.1145	-.0000	-.0020	.0015	.0041	.0063	.0009	.0020	.0019
#2	.1127	.0003	.0013	.0016	.0002	.0052	.0003	.0005	-.0031

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0097**	**.0054**	**-.0009**	**.0015**	**.0035**	**.0081**	**-.0185**	**171.9**
Stddev	.0017	.0009	.0008	.0071	.0022	.0019	.0039	.0281	2.1
%RSD	1582.	9.071	15.39	794.8	151.5	52.67	48.55	151.4	1.245
#1	-.0013	.0091	.0060	-.0059	.0031	.0022	.0109	-.0384	173.4
#2	.0011	.0103	.0048	.0041	-.0001	.0048	.0053	.0013	170.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0262**	**29.25**	**2.357**	**320.5**	**.0573**	**.0008**	**4.142**	**-.0049**	**.7627**
Stddev	.0089	.58	.069	4.6	.0053	.0012	.073	.0017	.0120
%RSD	33.89	1.976	2.912	1.439	9.303	152.8	1.754	35.12	1.567
#1	.0325	29.65	2.406	323.8	.0535	.0016	4.193	-.0062	.7712
#2	.0199	28.84	2.309	317.3	.0611	-.0001	4.090	-.0037	.7543

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0021**	**.0185**	**.0015**	**5.129**	**-.0112**	**.0035**	**-.0114**
Stddev	.0003	.0001	.0004	.115	.0063	.0025	.0077
%RSD	16.76	.6002	26.29	2.237	56.29	69.25	67.72
#1	-.0023	.0184	.0012	5.211	-.0156	.0053	-.0168
#2	-.0018	.0186	.0018	5.048	-.0067	.0018	-.0059

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103260.**	**14559.**	**3743.9**	**8396.4**
Stddev	326.	13.	2.0	1.4
%RSD	.31604	.09237	.05462	.01648
#1	103030.	14550.	3745.4	8395.4
#2	103490.	14569.	3742.5	8397.4

Zoom In Zoom Out

Sample Name: mp6401-sd1 Acquired: 4/4/2018 15:18:45 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.1022**	**.0011**	**-.0029**	**.0155**	**-.0034**	**.0117**	**.0045**	**.0004**	**.0012**
Stddev	.0001	.0028	.0014	.0063	.0053	.0045	.0003	.0019	.0059
%RSD	.1161	248.5	48.69	40.52	156.8	38.96	6.355	493.5	509.6
#1	.1021	-.0009	-.0019	.0200	.0004	.0085	.0043	-.0010	-.0030
#2	.1022	.0032	-.0039	.0111	-.0071	.0149	.0047	.0017	.0053

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0075**	**.0571**	**-.0052**	**.0118**	**-.0079**	**.0261**	**.0230**	**-.0155**	**153.2**
Stddev	.0055	.0015	.0170	.0088	.0018	.0391	.0061	.0750	.3
%RSD	72.56	2.555	327.6	74.38	23.21	150.2	26.39	482.7	.1824
#1	.0114	.0581	-.0172	.0180	-.0091	-.0016	.0187	-.0686	153.4
#2	.0037	.0560	.0068	.0056	-.0066	.0537	.0273	.0375	153.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2007**	**26.36**	**.5533**	**280.9**	**.0598**	**.0059**	**4.041**	**.0095**	**.6734**
Stddev	.0023	1.05	.5347	1.0	.0023	.0051	.012	.0016	.0023
%RSD	1.149	3.966	96.64	.3610	3.869	85.46	.3052	17.24	.3426
#1	.2023	27.10	.1752	281.6	.0614	.0023	4.032	.0106	.6750
#2	.1990	25.63	.9314	280.2	.0582	.0095	4.049	.0083	.6718

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0147**	**.0504**	**.0090**	**4.819**	**-.0614**	**.0504**	**-.0946**
Stddev	.0029	.0083	.0006	.026	.0276	.0094	.0166
%RSD	19.73	16.43	6.532	.5374	44.87	18.60	17.49
#1	-.0126	.0445	.0086	4.837	-.0809	.0438	-.0829
#2	-.0167	.0563	.0094	4.801	-.0419	.0570	-.1063

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**106290.**	**14717.**	**3837.5**	**8844.4**
Stddev	408.	72.	6.0	13.5
%RSD	.38371	.48678	.15573	.15257
#1	106000.	14666.	3841.8	8853.9
#2	106580.	14767.	3833.3	8834.8

Zoom In Zoom Out

Sample Name: mp6334-ps1 Acquired: 4/4/2018 15:23:04 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**4.530**	**.1246**	**.1043**	**.6870**	**.4344**	**.4499**	F **22.54**	**.8356**
Stddev	.004	.0007	.0001	.0003	.0008	.0005	.09	.0015
%RSD	.0766	.5884	.0751	.0500	.1950	.1005	.4075	.1807
#1	4.533	.1251	.1043	.6873	.4350	.4502	22.48	.8346
#2	4.528	.1241	.1042	.6868	.4338	.4496	22.61	.8367

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0137**	**.7260**	**1.044**	**.1247**	**.0815**	**.1223**	**.4627**	**.4481**
Stddev	.0010	.0009	.001	.0004	.0005	.0039	.0023	.0001
%RSD	7.207	.1303	.0770	.3178	.5888	3.183	.5040	.0259
#1	.0144	.7266	1.044	.1250	.0818	.1251	.4643	.4480
#2	.0130	.7253	1.043	.1244	.0812	.1196	.4610	.4482

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**57.37**	**155.7**	F **925.3**	**162.7**	**95.33**	**210.7**	**4.937**	**.4364**
Stddev	.06	.1	4.9	.2	.24	.8	.000	.0011
%RSD	.1090	.0538	.5243	.1033	.2553	.3724	.0052	.2423
#1	57.41	155.7	928.7	162.8	95.51	210.1	4.937	.4356
#2	57.32	155.8	921.8	162.6	95.16	211.2	4.937	.4371

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**6.545**	**.4299**	**1.571**	**.4442**	**.0272**	**.0070**	F **785.8**	W **-.0163**
Stddev	.007	.0016	.003	.0006	.0014	.0007	.2	.0044
%RSD	.1051	.3698	.2088	.1376	5.192	10.45	.0241	26.88
#1	6.540	.4287	1.573	.4437	.0282	.0076	785.9	-.0194
#2	6.550	.4310	1.568	.4446	.0262	.0065	785.7	-.0132

Elem	Li6707	P_1774
Avg	**.0495**	**.0139**
Stddev	.0005	.0024
%RSD	1.077	17.21
#1	.0499	.0122
#2	.0492	.0156

Zoom In Zoom Out

Sample Name: mp6334-ps1 Acquired: 4/4/2018 15:23:04 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**113700.**	**17209.**	**4022.1**	**7760.5**
Stddev	41.	63.	4.9	9.6
%RSD	.03620	.36425	.12169	.12382
#1	113670.	17164.	4025.5	7767.2
#2	113730.	17253.	4018.6	7753.7

13.5 13

Zoom In Zoom Out

Sample Name: mp6334-b3 Acquired: 4/4/2018 15:27:25 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.125**	**2.078**	**2.081**	**2.002**	**2.079**	**2.031**	**2.096**	**2.057**
Stddev	.005	.009	.001	.001	.003	.004	.001	.000
%RSD	.2596	.4581	.0381	.0566	.1361	.1711	.0460	.0125
#1	2.129	2.085	2.081	2.003	2.077	2.033	2.097	2.058
#2	2.121	2.071	2.080	2.001	2.081	2.028	2.096	2.057

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2473**	**2.074**	**2.090**	**2.022**	**2.015**	**2.042**	**2.024**	**2.057**
Stddev	.0006	.006	.002	.003	.004	.003	.001	.000
%RSD	.2315	.3075	.0980	.1244	.1828	.1229	.0480	.0109
#1	.2469	2.070	2.089	2.024	2.017	2.040	2.025	2.057
#2	.2477	2.079	2.092	2.021	2.012	2.044	2.024	2.057

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.59**	**26.19**	**26.12**	**25.61**	**25.77**	**25.86**	**2.009**	**2.090**
Stddev	.08	.09	.13	.09	.07	.07	.004	.002
%RSD	.2959	.3490	.5045	.3391	.2660	.2711	.1930	.0998
#1	25.65	26.25	26.21	25.67	25.81	25.91	2.012	2.092
#2	25.54	26.12	26.03	25.54	25.72	25.81	2.006	2.089

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	W **-.0367**	**2.125**	**2.103**	**2.053**	**2.061**	**2.017**	**1.995**	**-.0037**
Stddev	.0009	.004	.010	.000	.003	.002	.010	.0031
%RSD	2.412	.2020	.4655	.0055	.1527	.1127	.4987	83.20
#1	-.0374	2.122	2.110	2.053	2.063	2.019	2.002	-.0015
#2	-.0361	2.128	2.096	2.053	2.059	2.016	1.988	-.0059

Elem	Li6707	P_1774
Avg	**.0023**	**2.056**
Stddev	.0003	.000
%RSD	12.06	.0075
#1	.0024	2.056
#2	.0021	2.055

Zoom In Zoom Out

Sample Name: mp6334-b3 Acquired: 4/4/2018 15:27:25 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103730.**	**14446.**	**3746.6**	**8314.8**
Stddev	257.	12.	3.5	1.8
%RSD	.24797	.08450	.09350	.02206
#1	103910.	14437.	3749.1	8316.1
#2	103550.	14455.	3744.1	8313.5

Zoom In Zoom Out

Sample Name: mp6334-b4 Acquired: 4/4/2018 15:31:27 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.104**	**2.058**	**2.065**	**1.989**	**2.065**	**2.012**	**2.078**	**2.042**	**.2446**
Stddev	.004	.005	.003	.001	.003	.000	.001	.002	.0007
%RSD	.2065	.2390	.1432	.0392	.1239	.0111	.0620	.0906	.2718
#1	2.107	2.061	2.067	1.989	2.067	2.012	2.077	2.041	.2451
#2	2.101	2.054	2.063	1.988	2.063	2.012	2.078	2.044	.2441

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.058**	**2.072**	**2.057**	**2.011**	**2.026**	**2.013**	**2.097**	**25.57**	**26.10**
Stddev	.004	.000	.005	.007	.002	.003	.002	.09	.10
%RSD	.2024	.0214	.2414	.3666	.1110	.1417	.1006	.3616	.3656
#1	2.061	2.072	2.054	2.006	2.024	2.011	2.099	25.63	26.17
#2	2.055	2.072	2.061	2.016	2.027	2.015	2.096	25.50	26.04

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**26.07**	**25.49**	**25.70**	**25.89**	**1.997**	**2.131**	**.0210**	**2.172**	**2.080**
Stddev	.11	.17	.12	.09	.005	.001	.0004	.001	.008
%RSD	.4231	.6556	.4771	.3537	.2743	.0558	1.678	.0538	.3812
#1	26.15	25.60	25.78	25.95	2.001	2.132	.0213	2.171	2.085
#2	25.99	25.37	25.61	25.82	1.993	2.130	.0208	2.173	2.074

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.091**	**2.099**	**2.062**	**2.028**	**-.0043**	**.0006**	**2.044**
Stddev	.002	.002	.001	.001	.0005	.0002	.002
%RSD	.0957	.0850	.0222	.0491	11.77	30.13	.0732
#1	2.092	2.100	2.062	2.029	-.0047	.0007	2.045
#2	2.089	2.097	2.061	2.028	-.0039	.0004	2.043

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103890.**	**14520.**	**3743.1**	**8298.1**
Stddev	107.	85.	8.1	3.5
%RSD	.10253	.58201	.21763	.04193
#1	103820.	14460.	3737.4	8295.6
#2	103970.	14580.	3748.9	8300.5

Zoom In Zoom Out

Sample Name: mp6334-mb1conf Acquired: 4/4/2018 15:35:28 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0000**	**.0000**	**-.0001**	**.0003**	**.0003**	**.0009**	**.0001**	**.0004**	**.0002**
Stddev	.0001	.0001	.0001	.0002	.0003	.0000	.0001	.0001	.0003
%RSD	345.2	4429.	177.7	80.92	79.97	.3679	49.35	15.83	149.4
#1	-.0001	.0000	.0000	.0001	.0001	.0009	.0002	.0004	.0005
#2	.0001	-.0000	-.0002	.0004	.0005	.0009	.0001	.0004	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**.0004**	**-.0009**	**-.0001**	**.0005**	**.0014**	**.0013**	**-.0117**	**.0129**
Stddev	.0003	.0001	.0004	.0003	.0004	.0026	.0014	.0022	.0052
%RSD	928.5	19.94	45.18	260.7	78.22	196.1	108.0	19.00	40.52
#1	.0002	.0005	-.0006	-.0003	.0007	-.0005	.0024	-.0133	.0092
#2	-.0002	.0004	-.0012	.0001	.0002	.0032	.0003	-.0101	.0165

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0074**	**.0046**	**.0123**	**.0294**	**.0034**	**.0008**	**.0084**	**.0407**	**.0001**
Stddev	.0030	.0149	.0204	.0121	.0007	.0000	.0000	.0006	.0000
%RSD	41.40	323.5	165.7	41.12	19.70	2.334	.5476	1.534	14.05
#1	.0052	-.0059	-.0021	.0380	.0039	.0008	.0084	.0402	.0001
#2	.0095	.0151	.0267	.0209	.0030	.0008	.0083	.0411	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0005**	**.0014**	**.0010**	**.0105**	**-.0036**	**.0023**	**.0346**
Stddev	.0000	.0006	.0001	.0023	.0001	.0020	.0006
%RSD	6.138	44.49	6.382	22.08	1.751	87.35	1.591
#1	.0005	.0010	.0010	.0121	-.0037	.0009	.0350
#2	.0006	.0019	.0009	.0088	-.0036	.0037	.0342

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108040.**	**14826.**	**3844.0**	**9014.8**
Stddev	72.	67.	7.5	3.8
%RSD	.06694	.45318	.19472	.04203
#1	107990.	14874.	3838.7	9012.1
#2	108090.	14779.	3849.3	9017.4

Zoom In Zoom Out

Sample Name: mp6334-mb3 2 Acquired: 4/4/2018 15:39:48 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0003**	**-.0000**	**.0001**	**.0002**	**.0004**	**.0019**	**.0001**	**.0008**	**-.0004**
Stddev	.0002	.0001	.0000	.0000	.0006	.0004	.0001	.0000	.0003
%RSD	66.03	120.9	29.30	21.75	147.9	19.00	45.66	2.653	89.85
#1	.0005	-.0000	.0000	.0002	.0008	.0016	.0001	.0008	-.0001
#2	.0002	-.0001	.0001	.0002	-.0000	.0021	.0002	.0008	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0005**	**-.0012**	**-.0014**	**-.0011**	**.0020**	**.0014**	**-.0086**	**.0142**
Stddev	.0001	.0001	.0015	.0015	.0001	.0011	.0003	.0093	.0021
%RSD	24.82	20.30	119.9	101.9	9.641	56.16	22.20	107.3	14.93
#1	-.0003	.0006	-.0002	-.0004	-.0011	.0012	.0012	-.0152	.0157
#2	-.0002	.0004	-.0023	-.0025	-.0012	.0028	.0017	-.0021	.0127

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0063**	**.0127**	**-.0224**	**.0221**	**.0025**	**.0003**	**.0034**	**.0411**	**-.0000**
Stddev	.0045	.0048	.0070	.0073	.0008	.0001	.0000	.0002	.0000
%RSD	70.18	37.69	31.32	33.04	29.88	17.10	.7146	.5892	690.1
#1	.0032	.0093	-.0174	.0273	.0020	.0003	.0034	.0409	.0000
#2	.0095	.0161	-.0274	.0169	.0031	.0003	.0034	.0413	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0017**	**.0007**	**.0089**	**-.0027**	**.0026**	**.0322**
Stddev	.0002	.0006	.0000	.0001	.0009	.0009	.0010
%RSD	225.1	36.14	2.440	1.420	33.59	33.28	3.003
#1	-.0002	.0022	.0007	.0089	-.0033	.0032	.0329
#2	.0000	.0013	.0007	.0090	-.0021	.0020	.0316

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107840.**	**14881.**	**3835.4**	**9001.5**
Stddev	105.	54.	6.8	13.1
%RSD	.09699	.36422	.17805	.14542
#1	107910.	14919.	3840.2	9010.7
#2	107760.	14842.	3830.6	8992.2

Zoom In Zoom Out

Sample Name: mp6334-mb4 Acquired: 4/4/2018 15:44:09 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0002**	**.0001**	**.0000**	**.0002**	**.0004**	**.0005**	**.0000**	**.0002**	**.0004**
Stddev	.0001	.0001	.0001	.0000	.0001	.0004	.0000	.0004	.0001
%RSD	65.71	149.4	809.8	12.36	17.50	67.53	127.9	213.2	22.75
#1	-.0002	.0001	-.0000	.0002	.0004	.0003	.0001	.0004	.0003
#2	-.0001	-.0000	.0000	.0002	.0005	.0008	.0000	-.0001	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0003**	**.0007**	**-.0008**	**-.0001**	**-.0007**	**.0010**	**.0029**	**.0158**
Stddev	.0002	.0001	.0020	.0008	.0003	.0004	.0014	.0063	.0017
%RSD	138.1	19.60	298.6	98.91	307.4	52.99	143.7	220.6	10.86
#1	-.0003	.0004	-.0007	-.0002	-.0004	-.0004	.0019	.0073	.0170
#2	-.0000	.0003	.0021	-.0014	.0001	-.0009	-.0000	-.0016	.0146

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0046**	**.0106**	**-.0130**	**.0203**	**.0020**	**.0003**	**.0022**	**.0419**	**.0000**
Stddev	.0053	.0114	.0087	.0010	.0000	.0000	.0005	.0002	.0000
%RSD	115.5	107.7	67.06	5.050	1.361	16.75	22.69	.4873	480.4
#1	.0008	.0186	-.0068	.0210	.0020	.0002	.0026	.0421	.0000
#2	.0084	.0025	-.0192	.0196	.0020	.0003	.0019	.0418	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0005**	**.0025**	**.0008**	**.0067**	**-.0037**	**.0013**	**.0312**
Stddev	.0001	.0003	.0001	.0019	.0007	.0002	.0012
%RSD	18.91	13.66	7.839	27.65	19.36	14.61	3.777
#1	.0005	.0028	.0008	.0054	-.0032	.0015	.0320
#2	.0004	.0023	.0008	.0080	-.0042	.0012	.0304

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108270.**	**14896.**	**3847.7**	**9036.1**
Stddev	252.	17.	.6	1.6
%RSD	.23262	.11084	.01554	.01729
#1	108090.	14908.	3848.1	9035.0
#2	108450.	14885.	3847.2	9037.2

Zoom In Zoom Out

Sample Name: jc62872-8 Acquired: 4/4/2018 15:48:29 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0000**	**.0001**	**-.0001**	**.0002**	**.0008**	**.0007**	**.0003**	**.0005**	**.0000**
Stddev	.0003	.0001	.0002	.0001	.0007	.0003	.0000	.0001	.0002
%RSD	2457.	131.9	220.4	71.12	86.25	39.69	12.81	24.53	685.2
#1	-.0002	.0000	.0000	.0003	.0012	.0005	.0003	.0004	-.0001
#2	.0002	.0001	-.0002	.0001	.0003	.0009	.0003	.0006	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0003**	**-.0008**	**-.0001**	**-.0006**	**.0005**	**.0015**	**-.0071**	**.0140**
Stddev	.0001	.0000	.0020	.0003	.0011	.0010	.0003	.0026	.0012
%RSD	96.83	12.26	234.8	473.5	194.5	211.0	19.67	36.28	8.883
#1	-.0000	.0003	-.0022	-.0003	.0002	.0011	.0013	-.0090	.0131
#2	-.0002	.0003	.0006	.0002	-.0014	-.0002	.0017	-.0053	.0149

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0087**	**-.0045**	**-.0451**	**.0238**	**.0019**	**.0001**	**.0012**	**.0384**	**.0001**
Stddev	.0057	.0045	.0164	.0080	.0007	.0002	.0007	.0004	.0001
%RSD	65.88	100.3	36.29	33.70	39.26	193.4	57.22	.9505	99.97
#1	.0046	-.0076	-.0566	.0181	.0024	.0002	.0007	.0381	.0000
#2	.0127	-.0013	-.0335	.0295	.0014	-.0000	.0017	.0386	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0020**	**.0005**	**.0103**	**-.0034**	**.0006**	**.0328**
Stddev	.0004	.0004	.0001	.0002	.0015	.0000	.0001
%RSD	668.9	20.09	25.99	2.105	43.17	7.046	.2273
#1	.0004	.0017	.0004	.0105	-.0044	.0006	.0329
#2	-.0002	.0023	.0006	.0102	-.0024	.0007	.0328

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108050.**	**14938.**	**3842.7**	**9025.5**
Stddev	322.	31.	.8	.7
%RSD	.29832	.21046	.02144	.00798
#1	107820.	14960.	3842.1	9025.0
#2	108270.	14915.	3843.3	9026.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 15:52:51 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.069**	**2.010**	**2.072**	**1.981**	**2.044**	**1.984**	**2.054**	**2.048**	**.2556**
Stddev	.001	.001	.002	.001	.001	.001	.003	.001	.0001
%RSD	.0312	.0669	.0885	.0334	.0674	.0353	.1279	.0229	.0433
#1	2.070	2.011	2.074	1.981	2.045	1.984	2.056	2.048	.2556
#2	2.069	2.010	2.071	1.980	2.043	1.983	2.052	2.048	.2557
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.040**	**2.063**	**2.063**	**1.981**	**2.031**	**2.021**	**2.082**	**40.57**	**41.26**
Stddev	.004	.002	.001	.001	.001	.001	.001	.02	.15
%RSD	.2138	.0735	.0599	.0310	.0461	.0349	.0345	.0417	.3569
#1	2.037	2.064	2.064	1.981	2.030	2.020	2.082	40.58	41.37
#2	2.043	2.062	2.062	1.982	2.032	2.021	2.083	40.56	41.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.65**	**40.35**	**40.54**	**40.83**	**2.030**	**2.072**	**4.906**	**2.083**	**2.047**
Stddev	.05	.17	.12	.02	.002	.001	.004	.001	.003
%RSD	.1321	.4153	.2965	.0605	.0982	.0545	.0720	.0607	.1337
#1	40.69	40.47	40.62	40.85	2.028	2.073	4.903	2.084	2.045
#2	40.62	40.23	40.45	40.82	2.031	2.071	4.908	2.082	2.049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

13.5 13

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 15:52:51 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**2.061**	**2.029**	**2.017**	**2.109**	**2.031**	**2.033**
Stddev	.001	.008	.000	.003	.003	.001	.006
%RSD	.0404	.3738	.0003	.1527	.1258	.0607	.3091
#1	2.053	2.066	2.029	2.015	2.107	2.032	2.028
#2	2.054	2.056	2.029	2.020	2.111	2.030	2.037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**103240.**	**14584.**	**3749.7**	**8171.0**
Stddev	92.	60.	1.1	1.4
%RSD	.08874	.41132	.02897	.01682
#1	103170.	14542.	3748.9	8170.0
#2	103300.	14626.	3750.5	8172.0

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 15:56:55 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	F **.0002**	**.0001**	**.0003**	**-.0000**	**.0002**	**.0002**	**.0002**	**.0005**
Stddev	.0003	.0000	.0001	.0003	.0003	.0002	.0000	.0001	.0000
%RSD	142.1	11.38	279.9	86.67	584.5	108.4	2.243	30.36	10.34
#1	-.0000	.0002	-.0001	.0005	.0001	.0003	.0002	.0003	.0005
#2	.0004	.0002	.0002	.0001	-.0002	.0000	.0002	.0002	.0004
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0008**	**.0005**	**.0005**	**-.0006**	**-.0007**	**-.0053**	**.0070**
Stddev	.0001	.0001	.0004	.0002	.0002	.0013	.0001	.0081	.0002
%RSD	280.7	299.3	48.19	38.46	34.89	239.5	12.65	152.0	3.453
#1	-.0000	.0001	.0005	.0006	.0006	-.0015	-.0006	.0004	.0072
#2	.0001	-.0000	.0010	.0004	.0004	.0004	-.0007	-.0110	.0068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0107**	**.0062**	**-.0508**	**.0245**	**.0024**	**.0005**	**.0073**	**.0003**	**.0003**
Stddev	.0041	.0060	.0066	.0032	.0007	.0002	.0003	.0013	.0000
%RSD	38.41	96.37	13.07	13.00	30.10	45.94	4.614	422.6	6.770
#1	.0078	.0104	-.0555	.0267	.0029	.0006	.0075	.0012	.0003
#2	.0137	.0020	-.0461	.0222	.0019	.0003	.0070	-.0006	.0003
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 15:56:55 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0008**	**.0003**	**-.0002**	**-.0012**	**.0014**	**-.0080**
Stddev	.0001	.0018	.0001	.0017	.0005	.0005	.0006
%RSD	159.8	236.2	27.80	793.9	37.97	33.63	7.926
#1	.0000	.0021	.0003	.0010	-.0016	.0017	-.0084
#2	-.0002	-.0005	.0002	-.0014	-.0009	.0011	-.0075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108440.**	**14726.**	**3881.9**	**9083.3**
Stddev	42.	74.	2.4	2.6
%RSD	.03870	.50107	.06214	.02831
#1	108470.	14778.	3880.2	9081.5
#2	108410.	14674.	3883.6	9085.1

Zoom In Zoom Out

Sample Name: jc62872-9 Acquired: 4/4/2018 16:01:18 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0001**	**-.0000**	**.0004**	**.0004**	**.0015**	**.0012**	**.0007**	**.0004**	**.0004**
Stddev	.0001	.0001	.0000	.0004	.0002	.0006	.0001	.0001	.0004
%RSD	86.62	1398.	2.286	84.64	14.43	52.27	11.40	16.15	90.19
#1	.0000	.0000	.0004	.0007	.0017	.0007	.0007	.0003	.0007
#2	.0002	-.0001	.0004	.0002	.0013	.0016	.0006	.0004	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0000**	**.0007**	**-.0005**	**-.0012**	**-.0003**	**.0010**	**.0010**	**-.0007**	**.0440**
Stddev	.0001	.0000	.0005	.0000	.0001	.0012	.0001	.0071	.0024
%RSD	377.3	3.957	109.5	.2359	17.33	114.4	14.17	1003.	5.546
#1	-.0000	.0007	-.0008	-.0012	-.0003	.0018	.0009	.0043	.0457
#2	.0001	.0007	-.0001	-.0012	-.0004	.0002	.0011	-.0057	.0423

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0372**	**.0108**	**-.0200**	**.0334**	**.0012**	**.0006**	**.0059**	**.0397**	**.0007**
Stddev	.0078	.0474	.0002	.0066	.0003	.0002	.0005	.0005	.0000
%RSD	20.84	438.6	.8471	19.82	22.79	28.13	8.072	1.321	5.285
#1	.0427	.0443	-.0201	.0287	.0014	.0007	.0062	.0393	.0007
#2	.0317	-.0227	-.0198	.0381	.0010	.0004	.0055	.0401	.0007

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0004**	**.0004**	**.0005**	**.0156**	**-.0040**	**.0004**	**.0340**
Stddev	.0002	.0005	.0002	.0048	.0009	.0005	.0005
%RSD	50.09	142.6	37.03	30.65	22.32	116.9	1.525
#1	.0003	-.0000	.0006	.0189	-.0046	.0008	.0344
#2	.0005	.0007	.0003	.0122	-.0034	.0001	.0337

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108020.**	**14768.**	**3836.0**	**9018.0**
Stddev	216.	1.	3.8	.5
%RSD	.20008	.00709	.09909	.00511
#1	107870.	14769.	3838.7	9017.7
#2	108170.	14767.	3833.3	9018.3

Zoom In Zoom Out

Sample Name: mp6420-mb1conf Acquired: 4/4/2018 16:05:39 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**-.0002**	**.0000**	**-.0001**	**.0002**	**.0002**	**.0005**	**-.0000**	**-.0002**	**.0007**
Stddev	.0003	.0000	.0002	.0000	.0001	.0004	.0000	.0002	.0001
%RSD	119.7	513.3	394.7	8.352	47.96	74.59	544.8	113.8	16.41
#1	-.0000	.0000	-.0002	.0002	.0001	.0003	.0000	-.0000	.0006
#2	-.0004	-.0000	.0001	.0002	.0003	.0008	-.0000	-.0003	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0001**	**-.0002**	**-.0011**	**-.0006**	**-.0002**	**.0012**	**-.0057**	**.0067**
Stddev	.0001	.0000	.0008	.0014	.0005	.0014	.0017	.0030	.0033
%RSD	55.77	51.80	411.0	123.5	89.17	665.5	145.2	52.81	48.58
#1	.0001	.0000	.0004	-.0001	-.0002	-.0012	-.0000	-.0079	.0091
#2	.0002	.0001	-.0008	-.0021	-.0010	.0008	.0023	-.0036	.0044

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0061**	**-.0095**	**-.0496**	**.0094**	**.0010**	**.0001**	**.0006**	**-.0006**	**.0001**
Stddev	.0010	.0047	.0216	.0085	.0000	.0002	.0017	.0004	.0000
%RSD	16.27	49.78	43.47	90.12	4.337	150.9	274.1	65.48	72.01
#1	.0069	-.0128	-.0344	.0034	.0009	-.0000	-.0006	-.0003	.0000
#2	.0054	-.0061	-.0649	.0154	.0010	.0003	.0018	-.0009	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**.0001**	**.0005**	**.0028**	**-.0028**	**.0010**	**-.0061**
Stddev	.0001	.0007	.0002	.0003	.0009	.0000	.0023
%RSD	418.3	611.2	38.21	12.46	31.69	4.667	37.36
#1	.0001	.0006	.0004	.0030	-.0022	.0010	-.0077
#2	-.0001	-.0004	.0007	.0025	-.0034	.0010	-.0045

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**108450.**	**14847.**	**3864.5**	**9049.3**
Stddev	252.	85.	9.7	1.9
%RSD	.23227	.56926	.25046	.02073
#1	108270.	14788.	3871.4	9048.0
#2	108630.	14907.	3857.7	9050.6

Zoom In Zoom Out

Sample Name: mp6420-b1conf Acquired: 4/4/2018 16:10:00 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.163**	**2.100**	**2.165**	**2.053**	**2.133**	**2.081**	**2.135**	**2.126**
Stddev	.005	.011	.002	.001	.001	.004	.002	.000
%RSD	.2439	.5070	.0877	.0391	.0299	.1697	.0811	.0086
#1	2.166	2.107	2.164	2.054	2.133	2.083	2.134	2.126
#2	2.159	2.092	2.166	2.052	2.134	2.078	2.137	2.126

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2591**	**2.135**	**2.150**	**2.113**	**2.080**	**2.108**	**2.114**	**2.146**
Stddev	.0001	.002	.003	.002	.005	.001	.002	.001
%RSD	.0396	.0891	.1193	.1103	.2413	.0619	.0811	.0666
#1	.2590	2.134	2.148	2.111	2.083	2.107	2.113	2.147
#2	.2591	2.137	2.152	2.115	2.076	2.109	2.115	2.144

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**26.64**	**27.08**	**26.68**	**25.99**	**26.59**	**26.90**	**2.105**	**2.136**
Stddev	.02	.10	.09	.13	.09	.08	.003	.002
%RSD	.0895	.3565	.3416	.4903	.3261	.3036	.1550	.1044
#1	26.66	27.15	26.75	26.08	26.66	26.96	2.108	2.134
#2	26.63	27.01	26.62	25.90	26.53	26.84	2.103	2.137

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	W **-.0365**	**2.160**	**2.135**	**2.098**	**2.037**	**2.067**	F **-.0787**	**-.0035**
Stddev	.0005	.004	.004	.002	.002	.001	.0018	.0009
%RSD	1.275	.1649	.1819	.1005	.0768	.0403	2.259	26.26
#1	-.0369	2.157	2.138	2.097	2.036	2.066	-.0800	-.0042
#2	-.0362	2.162	2.132	2.100	2.038	2.068	-.0775	-.0029

Elem	Li6707	P_1774
Avg	**.0011**	**2.130**
Stddev	.0015	.003
%RSD	140.0	.1391
#1	.0021	2.132
#2	.0000	2.127

Zoom In Zoom Out

Sample Name: mp6420-b1conf Acquired: 4/4/2018 16:10:00 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104580.**	**14833.**	**3766.1**	**8357.0**
Stddev	222.	67.	8.2	16.5
%RSD	.21273	.44983	.21758	.19790
#1	104420.	14785.	3771.9	8368.7
#2	104730.	14880.	3760.3	8345.3

Zoom In Zoom Out

Sample Name: jc62918-1f 2 Acquired: 4/4/2018 16:14:04 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 50.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0787**	**.0085**	**.0035**	**.0312**	**.0119**	**.0711**	**9.799**	**.0316**	**.0087**
Stddev	.0092	.0014	.0111	.0059	.0367	.0131	.017	.0095	.0169
%RSD	11.71	16.96	318.6	18.79	309.4	18.39	.1699	30.23	193.6
#1	.0852	.0096	-.0044	.0353	-.0141	.0619	9.811	.0248	-.0032
#2	.0722	.0075	.0114	.0270	.0378	.0804	9.787	.0383	.0206

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0300**	**.0061**	**.0064**	**-.0042**	**-.0199**	**-.0267**	**-.0302**	**-.2436**	**266.8**
Stddev	.0230	.0047	.0155	.0254	.0503	.2045	.0073	.6765	.5
%RSD	76.47	77.30	242.5	609.6	252.7	765.4	24.30	277.7	.1857
#1	.0462	.0028	-.0046	.0138	.0157	-.1713	-.0354	.2347	266.4
#2	.0138	.0094	.0174	-.0221	-.0555	.1179	-.0250	-.7220	267.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**35.08**	**604.9**	**140.5**	**5367.**	**2.933**	**.0365**	**9.945**	**.0147**	**3.994**
Stddev	.02	1.1	2.8	5.	.027	.0131	.007	.0188	.013
%RSD	.0461	.1824	2.019	.0921	.9234	35.80	.0711	127.8	.3321
#1	35.09	605.7	142.5	5371.	2.914	.0457	9.950	.0280	3.985
#2	35.07	604.2	138.5	5364.	2.952	.0273	9.940	.0014	4.004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0016**	**.1423**	**.0324**	**361.2**	**-.1342**	**.0769**	**-.2466**
Stddev	.0209	.0350	.0020	.2	.0182	.0093	.0183
%RSD	1320.	24.62	6.197	.0430	13.58	12.10	7.409
#1	.0132	.1671	.0338	361.1	-.1213	.0703	-.2595
#2	-.0163	.1175	.0310	361.3	-.1470	.0834	-.2337

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102720.**	**14587.**	**3741.3**	**8349.2**
Stddev	65.	40.	10.6	15.9
%RSD	.06325	.27349	.28356	.19028
#1	102670.	14559.	3733.8	8337.9
#2	102760.	14615.	3748.8	8360.4

Zoom In Zoom Out

Sample Name: mp6460-mb1conf Acquired: 4/4/2018 16:18:23 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0011**	**-.0000**	**.0001**	**.0001**	**.0008**	**.0014**	**.0008**	**.0006**	**.0005**
Stddev	.0001	.0000	.0001	.0001	.0000	.0002	.0000	.0002	.0005
%RSD	7.771	116.6	119.7	75.91	2.687	12.42	1.101	25.90	88.87
#1	.0011	-.0000	.0001	.0001	.0008	.0015	.0008	.0005	.0008
#2	.0012	-.0000	.0000	.0002	.0008	.0013	.0008	.0007	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0034**	**.0002**	**-.0007**	**-.0002**	**.0004**	**.0008**	**.0032**	**.3909**
Stddev	.0002	.0002	.0001	.0006	.0006	.0026	.0001	.0037	.0005
%RSD	377.1	5.808	55.44	82.18	360.0	652.3	15.73	114.3	.1324
#1	-.0001	.0033	.0001	-.0003	.0002	.0023	.0007	.0058	.3912
#2	.0002	.0036	.0003	-.0012	-.0006	-.0015	.0008	.0006	.3905

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0585**	**.1215**	**-.0168**	**.1392**	**.0023**	**.0002**	**.0411**	**.0218**	**.0011**
Stddev	.0003	.0054	.0093	.0053	.0005	.0000	.0001	.0004	.0001
%RSD	.4460	4.442	55.47	3.822	21.46	20.06	.1874	1.820	7.389
#1	.0583	.1177	-.0234	.1354	.0027	.0002	.0411	.0221	.0012
#2	.0587	.1253	-.0102	.1429	.0020	.0001	.0412	.0215	.0011

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0009**	**.0016**	**.0015**	**.0116**	**-.0041**	**.0021**	**.0197**
Stddev	.0001	.0002	.0001	.0007	.0013	.0011	.0005
%RSD	6.486	11.70	5.550	5.671	31.02	52.35	2.523
#1	.0008	.0018	.0016	.0111	-.0050	.0029	.0200
#2	.0009	.0015	.0014	.0120	-.0032	.0013	.0193

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107610.**	**14857.**	**3849.5**	**9012.1**
Stddev	339.	39.	2.7	8.4
%RSD	.31526	.26578	.07045	.09366
#1	107850.	14885.	3847.6	9006.1
#2	107370.	14829.	3851.4	9018.0

Zoom In Zoom Out

Sample Name: mp6460-b1conf Acquired: 4/4/2018 16:22:43 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.164**	**2.110**	**2.129**	**2.041**	**2.118**	**2.061**	**2.133**	**2.114**
Stddev	.005	.001	.000	.003	.002	.001	.000	.002
%RSD	.2301	.0347	.0149	.1328	.1072	.0227	.0055	.0980
#1	2.167	2.111	2.129	2.039	2.119	2.061	2.134	2.112
#2	2.160	2.110	2.129	2.043	2.116	2.062	2.133	2.115

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2440**	**2.116**	**2.148**	**2.091**	**2.034**	**2.085**	**2.076**	**2.105**
Stddev	.0000	.004	.000	.001	.003	.003	.001	.002
%RSD	.0061	.2094	.0040	.0444	.1504	.1200	.0443	.0846
#1	.2440	2.119	2.148	2.092	2.036	2.083	2.077	2.107
#2	.2440	2.113	2.148	2.091	2.032	2.087	2.076	2.104

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**26.06**	**27.04**	**26.42**	**26.02**	**26.21**	**26.45**	**2.046**	**2.116**
Stddev	.00	.03	.04	.13	.01	.00	.001	.001
%RSD	.0140	.1190	.1394	.5083	.0344	.0110	.0459	.0610
#1	26.06	27.02	26.39	25.93	26.20	26.45	2.047	2.117
#2	26.06	27.06	26.44	26.11	26.22	26.44	2.046	2.116

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.1006**	**2.154**	**2.138**	**2.089**	**1.889**	**2.052**	F **-.0656**	**-.0030**
Stddev	.0010	.002	.003	.003	.003	.001	.0035	.0002
%RSD	1.021	.1028	.1283	.1356	.1320	.0617	5.260	6.769
#1	.1013	2.153	2.140	2.087	1.888	2.051	-.0681	-.0029
#2	.0999	2.156	2.136	2.091	1.891	2.053	-.0632	-.0032

Elem	Li6707	P_1774
Avg	**.0009**	**2.118**
Stddev	.0014	.002
%RSD	163.0	.0721
#1	-.0001	2.120
#2	.0019	2.117

Zoom In Zoom Out

Sample Name: mp6460-b1conf Acquired: 4/4/2018 16:22:43 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103230.**	**14428.**	**3728.2**	**8279.2**
Stddev	167.	41.	11.6	15.4
%RSD	.16143	.28176	.31011	.18612
#1	103350.	14456.	3720.0	8268.3
#2	103120.	14399.	3736.3	8290.1

Zoom In Zoom Out

Sample Name: jc63322-16 2 Acquired: 4/4/2018 16:26:44 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.8436**	**.0058**	**.0043**	**.0503**	**.1492**	**.2052**	**10.71**	**.1034**	**.0047**
Stddev	.0008	.0000	.0003	.0001	.0002	.0011	.01	.0011	.0007
%RSD	.0907	.1901	7.332	.1259	.1038	.5168	.0721	1.074	15.77
#1	.8441	.0058	.0045	.0504	.1493	.2060	10.70	.1042	.0041
#2	.8430	.0058	.0041	.0503	.1491	.2045	10.71	.1027	.0052

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2368**	**.4875**	**.0465**	**.0002**	**.3984**	**.0085**	**-.0023**	**111.2**	**201.7**
Stddev	.0009	.0018	.0018	.0001	.0044	.0052	.0014	.0	.1
%RSD	.3859	.3769	3.943	78.64	1.095	61.29	58.65	.0276	.0317
#1	.2361	.4888	.0452	.0001	.4015	.0123	-.0014	111.3	201.6
#2	.2374	.4862	.0478	.0003	.3953	.0048	-.0033	111.2	201.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**155.3**	**77.78**	**9.775**	**1.938**	**.0829**	**.0036**	**3.945**	**.0389**	**.2760**
Stddev	.4	.23	.049	.004	.0003	.0000	.005	.0020	.0003
%RSD	.2816	.2961	.5013	.2304	.4108	1.202	.1383	5.115	.1150
#1	155.0	77.62	9.810	1.935	.0831	.0036	3.949	.0403	.2762
#2	155.6	77.94	9.741	1.942	.0827	.0036	3.941	.0375	.2758

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.615**	**.0129**	**.0627**	**2.283**	**-.0127**	**.0839**	**3.401**
Stddev	.002	.0039	.0005	.011	.0014	.0006	.003
%RSD	.0755	30.00	.8213	.4725	10.83	.6928	.0915
#1	2.614	.0102	.0623	2.275	-.0136	.0843	3.403
#2	2.617	.0156	.0631	2.290	-.0117	.0835	3.399

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105110.**	**14712.**	**3789.8**	**8255.9**
Stddev	208.	13.	6.5	7.9
%RSD	.19796	.08942	.17204	.09544
#1	105260.	14721.	3785.2	8250.3
#2	104960.	14702.	3794.4	8261.5

Zoom In Zoom Out

Sample Name: mp6464-mb1conf Acquired: 4/4/2018 16:30:56 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0009**	**.0000**	**-.0002**	**.0002**	**.0005**	**.0018**	**.0004**	**.0007**	**.0004**
Stddev	.0002	.0001	.0002	.0001	.0000	.0006	.0000	.0000	.0004
%RSD	22.55	457.5	115.8	40.01	6.058	31.09	6.750	6.573	98.35
#1	.0011	-.0000	-.0000	.0003	.0005	.0014	.0004	.0006	.0001
#2	.0008	.0001	-.0003	.0002	.0005	.0022	.0004	.0007	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0026**	**-.0002**	**-.0012**	**-.0003**	**.0006**	**.0004**	**-.0011**	**.2630**
Stddev	.0001	.0000	.0004	.0007	.0003	.0026	.0011	.0012	.0012
%RSD	59.11	1.497	163.7	55.51	80.01	457.0	258.9	108.5	.4659
#1	-.0002	.0026	.0000	-.0008	-.0001	-.0013	.0013	-.0019	.2621
#2	-.0001	.0025	-.0005	-.0017	-.0005	.0024	-.0004	-.0002	.2639

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0227**	**.0694**	**-.0270**	**.0827**	**.0020**	**.0003**	**.0342**	**.0269**	**.0010**
Stddev	.0004	.0035	.0164	.0056	.0007	.0001	.0006	.0005	.0001
%RSD	1.900	5.048	60.66	6.799	36.50	48.73	1.786	2.018	7.289
#1	.0224	.0719	-.0386	.0787	.0015	.0003	.0346	.0265	.0010
#2	.0230	.0669	-.0154	.0867	.0025	.0002	.0337	.0273	.0011

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0004**	**.0023**	**.0009**	**.0071**	**-.0022**	**.0018**	**.0187**
Stddev	.0000	.0006	.0000	.0016	.0017	.0009	.0006
%RSD	9.605	27.92	2.290	22.36	74.88	47.18	3.042
#1	.0003	.0018	.0009	.0060	-.0034	.0024	.0191
#2	.0004	.0027	.0009	.0082	-.0010	.0012	.0183

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107640.**	**14677.**	**3854.7**	**9034.3**
Stddev	183.	26.	3.3	11.3
%RSD	.17031	.17868	.08666	.12463
#1	107510.	14659.	3852.4	9026.4
#2	107770.	14696.	3857.1	9042.3

Zoom In Zoom Out

Sample Name: mp6464-b1conf Acquired: 4/4/2018 16:35:15 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.134**	**2.073**	**2.098**	**1.994**	**2.084**	**2.022**	**2.095**	**2.069**
Stddev	.004	.002	.005	.000	.008	.002	.006	.000
%RSD	.1796	.0701	.2314	.0210	.3632	.0851	.2895	.0197
#1	2.137	2.072	2.094	1.994	2.079	2.021	2.090	2.069
#2	2.131	2.074	2.101	1.993	2.090	2.023	2.099	2.070

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2417**	**2.089**	**2.112**	**2.051**	**1.985**	**2.043**	**2.031**	**2.066**
Stddev	.0003	.005	.003	.009	.000	.004	.004	.003
%RSD	.1189	.2304	.1199	.4459	.0046	.2216	.1732	.1416
#1	.2415	2.086	2.111	2.045	1.985	2.046	2.034	2.064
#2	.2419	2.093	2.114	2.058	1.985	2.039	2.029	2.068

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.85**	**26.90**	**26.20**	**25.73**	**25.97**	**26.18**	**2.006**	**2.087**
Stddev	.02	.02	.00	.26	.02	.01	.001	.003
%RSD	.0807	.0670	.0061	1.007	.0608	.0362	.0626	.1237
#1	25.83	26.88	26.20	25.55	25.98	26.17	2.006	2.085
#2	25.86	26.91	26.20	25.91	25.96	26.19	2.007	2.089

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0622**	**2.120**	**2.107**	**2.057**	**1.987**	**2.021**	F **-.0737**	**-.0037**
Stddev	.0020	.001	.002	.006	.002	.004	.0012	.0009
%RSD	3.169	.0616	.1034	.3135	.1162	.2200	1.571	23.25
#1	.0636	2.119	2.109	2.053	1.985	2.017	-.0729	-.0043
#2	.0608	2.121	2.106	2.062	1.988	2.024	-.0745	-.0031

Elem	Li6707	P_1774
Avg	**.0001**	**2.081**
Stddev	.0001	.007
%RSD	162.2	.3246
#1	.0002	2.076
#2	-.0000	2.085

Zoom In Zoom Out

Sample Name: mp6464-b1conf Acquired: 4/4/2018 16:35:15 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**103030.**	**14350.**	**3721.1**	**8278.1**
Stddev	10.	31.	1.0	9.7
%RSD	.00966	.21875	.02696	.11772
#1	103040.	14372.	3721.8	8271.2
#2	103030.	14328.	3720.4	8285.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 16:39:20 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.078**	**2.017**	**2.092**	**1.974**	**2.048**	**1.992**	**2.053**	**2.054**	**.2561**
Stddev	.001	.003	.000	.002	.003	.004	.001	.001	.0003
%RSD	.0656	.1452	.0076	.1156	.1337	.2255	.0593	.0484	.1350
#1	2.077	2.015	2.092	1.976	2.046	1.995	2.052	2.054	.2564
#2	2.079	2.019	2.092	1.973	2.050	1.989	2.054	2.055	.2559
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.045**	**2.069**	**2.087**	**1.966**	**2.027**	**2.034**	**2.107**	**40.87**	**41.52**
Stddev	.001	.002	.002	.005	.005	.003	.001	.03	.03
%RSD	.0359	.0921	.1158	.2561	.2438	.1429	.0242	.0768	.0797
#1	2.044	2.068	2.085	1.969	2.023	2.032	2.107	40.85	41.49
#2	2.046	2.070	2.088	1.962	2.030	2.036	2.106	40.90	41.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.79**	**40.56**	**40.75**	**41.06**	**2.035**	**2.077**	**4.921**	**2.094**	**2.063**
Stddev	.03	.09	.09	.04	.001	.003	.005	.002	.004
%RSD	.0729	.2157	.2283	.0973	.0378	.1225	.1083	.1010	.1929
#1	40.77	40.49	40.69	41.03	2.036	2.075	4.918	2.095	2.060
#2	40.82	40.62	40.82	41.09	2.035	2.079	4.925	2.092	2.066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

13.5 13

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 16:39:20 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.058**	**2.067**	**2.033**	**2.028**	**2.133**	**2.034**	**2.058**
Stddev	.002	.002	.001	.001	.000	.000	.005
%RSD	.0845	.1024	.0484	.0668	.0146	.0008	.2265
#1	2.057	2.069	2.034	2.027	2.133	2.034	2.055
#2	2.059	2.066	2.032	2.029	2.133	2.034	2.062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**103160.**	**14572.**	**3742.3**	**8189.2**
Stddev	275.	36.	.6	2.3
%RSD	.26655	.24509	.01719	.02835
#1	103360.	14597.	3742.8	8187.5
#2	102970.	14546.	3741.9	8190.8

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 16:43:24 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	F **.0002**	**.0001**	**.0004**	**.0002**	**.0004**	**.0002**	**.0004**	**.0004**
Stddev	.0002	.0001	.0001	.0001	.0006	.0004	.0000	.0002	.0001
%RSD	117.8	46.18	76.43	25.11	268.0	88.83	4.417	47.75	31.37
#1	.0003	.0001	.0002	.0005	-.0002	.0007	.0002	.0005	.0005
#2	.0000	.0003	.0000	.0003	.0006	.0002	.0002	.0003	.0003
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0000**	**.0025**	**.0008**	**-.0008**	**-.0014**	**.0000**	**.0031**	**.0100**
Stddev	.0001	.0000	.0004	.0005	.0005	.0018	.0001	.0063	.0007
%RSD	26.67	4985.	15.12	72.38	71.37	131.7	132.2	204.3	6.813
#1	.0002	.0000	.0028	.0004	-.0004	-.0026	.0000	.0076	.0095
#2	.0003	-.0000	.0023	.0011	-.0011	-.0001	.0001	-.0014	.0104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0125**	**-.0036**	**-.0580**	**.0250**	**.0024**	**.0008**	**.0077**	**.0005**	**.0003**
Stddev	.0018	.0118	.0474	.0064	.0012	.0004	.0001	.0001	.0001
%RSD	14.54	324.7	81.84	25.45	49.71	45.87	1.263	27.98	25.86
#1	.0138	-.0120	-.0244	.0205	.0032	.0005	.0077	.0004	.0003
#2	.0112	.0047	-.0915	.0295	.0015	.0011	.0078	.0006	.0002
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 16:43:24 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0016**	**.0003**	**-.0000**	**-.0008**	**.0021**	**-.0072**
Stddev	.0003	.0012	.0001	.0030	.0002	.0005	.0009
%RSD	253.5	72.84	44.94	44510.	23.75	23.75	12.20
#1	.0004	.0024	.0002	-.0021	-.0009	.0024	-.0065
#2	-.0001	.0008	.0004	.0021	-.0007	.0017	-.0078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108310.**	**14683.**	**3887.5**	**9073.9**
Stddev	134.	41.	7.4	7.2
%RSD	.12351	.27730	.19150	.07897
#1	108220.	14712.	3882.2	9068.9
#2	108410.	14654.	3892.7	9079.0

Zoom In Zoom Out

Sample Name: jc63322-150 2 Acquired: 4/4/2018 16:47:46 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.8164**	**.0049**	**.0050**	**.0579**	**.2514**	**.3682**	**3.019**	**.1415**	**.0041**
Stddev	.0025	.0002	.0001	.0003	.0001	.0000	.001	.0002	.0006
%RSD	.3086	3.744	1.597	.4556	.0269	.0008	.0208	.1551	15.93
#1	.8181	.0050	.0051	.0581	.2513	.3682	3.019	.1414	.0045
#2	.8146	.0048	.0050	.0577	.2514	.3682	3.019	.1417	.0036

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2912**	**.8910**	**.0462**	**-.0003**	**1.377**	**.0092**	**.0009**	**112.7**	**30.77**
Stddev	.0016	.0007	.0002	.0001	.002	.0006	.0004	.3	.16
%RSD	.5351	.0813	.5132	49.82	.1411	6.392	48.16	.2371	.5114
#1	.2901	.8915	.0464	-.0002	1.376	.0097	.0012	112.9	30.89
#2	.2923	.8905	.0461	-.0004	1.379	.0088	.0006	112.5	30.66

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**144.7**	**24.36**	**7.098**	**1.457**	**.0802**	**.0064**	**2.865**	**.0523**	**.1510**
Stddev	.9	.16	.020	.022	.0002	.0001	.006	.0008	.0004
%RSD	.5958	.6494	.2800	1.507	.2246	1.202	.2088	1.501	.2517
#1	145.3	24.47	7.112	1.473	.0800	.0063	2.869	.0529	.1513
#2	144.1	24.25	7.084	1.442	.0803	.0064	2.861	.0518	.1507

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**3.478**	**.0077**	**.0278**	**1.745**	**-.0089**	**.1121**	**5.217**
Stddev	.004	.0003	.0001	.010	.0009	.0003	.006
%RSD	.1029	4.019	.2582	.5506	9.586	.2881	.1215
#1	3.480	.0080	.0278	1.739	-.0083	.1123	5.212
#2	3.475	.0075	.0277	1.752	-.0095	.1118	5.221

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107820.**	**15185.**	**3923.9**	**8384.6**
Stddev	4.	64.	1.9	12.0
%RSD	.00389	.41834	.04720	.14263
#1	107820.	15141.	3925.2	8393.0
#2	107820.	15230.	3922.6	8376.1

Zoom In Zoom Out

Sample Name: mp6465-mb1conf Acquired: 4/4/2018 16:51:57 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0011**	**.0000**	**-.0000**	**.0001**	**.0003**	**.0007**	**.0006**	**.0006**	**.0007**
Stddev	.0000	.0000	.0000	.0001	.0000	.0002	.0000	.0001	.0000
%RSD	.6848	205.2	108.8	112.9	12.39	22.28	2.253	16.90	3.526
#1	.0011	-.0000	-.0000	.0000	.0003	.0006	.0006	.0007	.0007
#2	.0011	.0000	-.0001	.0002	.0003	.0008	.0005	.0005	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0002**	**.0017**	**-.0005**	**-.0012**	**-.0003**	**.0006**	**.0003**	**.0006**	**.3043**
Stddev	.0001	.0000	.0002	.0002	.0004	.0006	.0010	.0013	.0014
%RSD	45.07	2.140	45.84	16.46	141.8	95.91	329.2	217.6	.4585
#1	.0002	.0017	-.0006	-.0013	.0000	.0011	.0010	.0015	.3053
#2	.0001	.0017	-.0003	-.0011	-.0005	.0002	-.0004	-.0003	.3033

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0258**	**.1002**	**.0093**	**.0845**	**.0021**	**.0003**	**.0310**	**.0262**	**.0009**
Stddev	.0011	.0222	.0088	.0069	.0001	.0001	.0006	.0005	.0001
%RSD	4.417	22.14	93.93	8.213	3.144	29.24	1.950	2.086	7.440
#1	.0266	.1159	.0031	.0894	.0020	.0004	.0306	.0258	.0010
#2	.0250	.0845	.0155	.0796	.0021	.0002	.0314	.0266	.0009

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0009**	**.0023**	**.0004**	**.0054**	**-.0023**	**.0010**	**.0202**
Stddev	.0006	.0006	.0000	.0003	.0003	.0000	.0001
%RSD	68.70	24.28	4.187	5.030	11.63	3.064	.3773
#1	.0014	.0019	.0004	.0052	-.0021	.0009	.0203
#2	.0005	.0027	.0003	.0056	-.0025	.0010	.0201

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**107060.**	**14466.**	**3831.7**	**8991.1**
Stddev	251.	76.	1.7	.9
%RSD	.23451	.52871	.04408	.00998
#1	106880.	14412.	3830.5	8990.5
#2	107240.	14520.	3832.9	8991.7

Zoom In Zoom Out

Sample Name: mp6465-b1conf Acquired: 4/4/2018 16:56:18 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.188**	**2.125**	**2.150**	**2.048**	**2.141**	**2.075**	**2.155**	**2.121**
Stddev	.004	.000	.001	.003	.005	.001	.001	.002
%RSD	.1755	.0124	.0473	.1500	.2257	.0417	.0334	.0719
#1	2.185	2.125	2.151	2.051	2.144	2.074	2.155	2.122
#2	2.191	2.125	2.149	2.046	2.138	2.075	2.156	2.120

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2477**	**2.140**	**2.167**	**2.101**	**2.036**	**2.097**	**2.082**	**2.118**
Stddev	.0004	.004	.003	.001	.007	.004	.003	.002
%RSD	.1758	.1689	.1226	.0269	.3295	.1961	.1609	.0790
#1	.2474	2.143	2.169	2.101	2.040	2.100	2.080	2.119
#2	.2481	2.138	2.165	2.101	2.031	2.094	2.085	2.116

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**26.64**	**27.70**	**27.02**	**26.65**	**26.75**	**26.96**	**2.055**	**2.145**
Stddev	.06	.02	.03	.02	.03	.00	.003	.001
%RSD	.2254	.0608	.1182	.0750	.0962	.0109	.1341	.0431
#1	26.60	27.69	26.99	26.67	26.74	26.96	2.053	2.146
#2	26.68	27.71	27.04	26.64	26.77	26.96	2.057	2.145

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0569**	**2.182**	**2.161**	**2.118**	**2.058**	**2.073**	F **-.0712**	**-.0017**
Stddev	.0007	.002	.003	.003	.002	.000	.0006	.0000
%RSD	1.297	.1011	.1494	.1252	.0728	.0050	.8914	1.590
#1	.0574	2.184	2.158	2.120	2.057	2.073	-.0708	-.0017
#2	.0563	2.180	2.163	2.116	2.059	2.073	-.0717	-.0018

Elem	Li6707	P_1774
Avg	**.0000**	**2.135**
Stddev	.0010	.003
%RSD	41220.	.1560
#1	-.0007	2.132
#2	.0007	2.137

Zoom In Zoom Out

Sample Name: mp6465-b1conf Acquired: 4/4/2018 16:56:18 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**102650.**	**14192.**	**3714.5**	**8252.2**
Stddev	111.	17.	.1	7.3
%RSD	.10851	.11939	.00190	.08799
#1	102570.	14180.	3714.5	8247.0
#2	102730.	14204.	3714.6	8257.3

Zoom In Zoom Out

Sample Name: mp6465-s1 Acquired: 4/4/2018 17:00:22 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**3.013**	**1.942**	**2.012**	**1.929**	**2.120**	**2.324**	**10.23**	**2.067**	**.2370**
Stddev	.012	.003	.003	.004	.004	.006	.00	.001	.0010
%RSD	.3861	.1516	.1286	.2162	.1788	.2425	.0146	.0497	.4340
#1	3.021	1.944	2.011	1.932	2.123	2.320	10.23	2.068	.2377
#2	3.005	1.940	2.014	1.926	2.118	2.328	10.23	2.067	.2363

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.233**	**3.015**	**2.013**	**1.850**	**3.875**	**1.911**	**1.414**	**125.9**	**82.56**
Stddev	.003	.001	.000	.006	.006	.006	.001	.3	.38
%RSD	.1343	.0291	.0161	.3050	.1478	.3178	.0556	.2552	.4624
#1	2.235	3.015	2.013	1.854	3.871	1.907	1.413	126.2	82.83
#2	2.231	3.014	2.013	1.846	3.879	1.916	1.414	125.7	82.29

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**406.4**	**46.32**	**34.96**	**27.10**	**1.907**	**1.939**	**4.276**	**2.088**	**2.253**
Stddev	1.1	.00	.17	.09	.001	.003	.010	.003	.004
%RSD	.2652	.0039	.4748	.3209	.0616	.1778	.2267	.1605	.1717
#1	407.1	46.32	35.08	27.16	1.906	1.936	4.269	2.090	2.256
#2	405.6	46.32	34.84	27.04	1.908	1.941	4.282	2.085	2.251

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**4.430**	**1.374**	**1.902**	**11.12**	**-.0165**	**.1671**	**8.474**
Stddev	.002	.001	.000	.02	.0029	.0013	.015
%RSD	.0549	.0411	.0144	.2154	17.57	.7855	.1731
#1	4.431	1.374	1.902	11.14	-.0186	.1662	8.484
#2	4.428	1.375	1.902	11.11	-.0145	.1680	8.464

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104090.**	**14659.**	**3779.8**	**8359.3**
Stddev	266.	79.	6.1	1.9
%RSD	.25531	.54208	.16103	.02239
#1	104280.	14603.	3784.1	8360.7
#2	103900.	14715.	3775.5	8358.0

Zoom In Zoom Out

Sample Name: mp6465-s2 Acquired: 4/4/2018 17:04:23 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.928**	**1.919**	**1.985**	**1.925**	**2.126**	**2.421**	**5.180**	**2.074**	**.2323**
Stddev	.004	.005	.001	.001	.088	.104	.209	.004	.0053
%RSD	.1436	.2566	.0336	.0514	4.120	4.310	4.035	.2146	2.292
#1	2.931	1.922	1.985	1.926	2.188	2.495	5.328	2.077	.2361
#2	2.926	1.915	1.986	1.924	2.064	2.347	5.033	2.071	.2286

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.219**	**3.265**	**1.983**	**1.859**	**4.958**	**1.890**	**1.358**	**128.0**	**79.21**
Stddev	.093	.006	.001	.007	.000	.006	.002	.3	.08
%RSD	4.195	.1977	.0694	.3861	.0082	.3211	.1100	.2613	.0962
#1	2.285	3.270	1.982	1.854	4.957	1.894	1.359	128.2	79.26
#2	2.153	3.261	1.984	1.864	4.958	1.886	1.357	127.8	79.15

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**210.2**	**40.63**	**35.00**	**26.59**	**1.897**	**1.903**	**4.743**	**2.174**	**2.231**
Stddev	.7	.02	.06	.04	.004	.001	.002	.002	.006
%RSD	.3188	.0398	.1757	.1341	.2388	.0655	.0358	.0993	.2792
#1	210.7	40.64	35.04	26.62	1.901	1.903	4.744	2.176	2.236
#2	209.8	40.62	34.95	26.57	1.894	1.902	4.742	2.173	2.227

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**4.502**	**1.290**	**1.884**	**13.67**	**-.0110**	**.1615**	**8.699**
Stddev	.186	.003	.079	.01	.0005	.0014	.009
%RSD	4.128	.2432	4.203	.0423	4.462	.8493	.1062
#1	4.633	1.288	1.940	13.67	-.0114	.1624	8.692
#2	4.370	1.292	1.828	13.67	-.0107	.1605	8.705

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**104500.**	**14744.**	**3806.5**	**8366.1**
Stddev	3436.	21.	2.6	7.8
%RSD	3.2875	.14409	.06734	.09278
#1	102070.	14729.	3804.7	8360.6
#2	106930.	14759.	3808.3	8371.6

Zoom In Zoom Out

Sample Name: jc63292-2 Acquired: 4/4/2018 17:08:26 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.6488**	**.0043**	**.0016**	**.0553**	**.1828**	**.0905**	**2.645**	**.1156**
Stddev	.0004	.0000	.0004	.0002	.0001	.0001	.001	.0000
%RSD	.0682	.7354	22.61	.2832	.0804	.1369	.0467	.0109
#1	.6492	.0042	.0014	.0552	.1827	.0904	2.644	.1156
#2	.6485	.0043	.0019	.0554	.1829	.0905	2.646	.1156

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0023**	**.2970**	**.3762**	**.0566**	**-.0012**	**.1072**	**.0076**	**.0092**
Stddev	.0004	.0001	.0007	.0004	.0027	.0000	.0001	.0028
%RSD	17.37	.0196	.1808	.7021	228.5	.0419	.9431	30.92
#1	.0020	.2969	.3757	.0569	.0007	.1071	.0077	.0072
#2	.0026	.2970	.3767	.0563	-.0031	.1072	.0076	.0112

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**163.0**	**7.412**	**181.3**	**20.80**	**7.649**	**6.649**	**.0262**	**.0123**
Stddev	.1	.008	.2	.00	.005	.008	.0010	.0001
%RSD	.0425	.1131	.1041	.0045	.0648	.1203	3.763	.5884
#1	163.0	7.418	181.2	20.80	7.653	6.655	.0255	.0122
#2	162.9	7.406	181.5	20.81	7.646	6.643	.0269	.0123

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.536**	**.0344**	**.0717**	**3.142**	**.0138**	**.0860**	**.3338**	W **-.0151**
Stddev	.002	.0002	.0001	.003	.0002	.0003	.0011	.0022
%RSD	.0929	.6253	.1557	.0863	1.663	.3888	.3383	14.77
#1	2.537	.0342	.0718	3.140	.0136	.0863	.3346	-.0135
#2	2.534	.0345	.0716	3.143	.0139	.0858	.3330	-.0167

Elem	Li6707	P_1774
Avg	**.1160**	**2.585**
Stddev	.0009	.003
%RSD	.7926	.1024
#1	.1153	2.587
#2	.1166	2.583

Zoom In Zoom Out

Sample Name: jc63292-2 Acquired: 4/4/2018 17:08:26 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**105900.**	**14828.**	**3904.3**	**8369.7**
Stddev	200.	37.	2.0	3.5
%RSD	.18844	.24906	.05123	.04188
#1	105760.	14854.	3902.9	8367.3
#2	106040.	14802.	3905.7	8372.2

Zoom In Zoom Out

Sample Name: jc63292-3 Acquired: 4/4/2018 17:12:38 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.6603**	**.0067**	**.0025**	**.0855**	**.2059**	**.1400**	W **9.143**	**.1592**
Stddev	.0014	.0000	.0004	.0000	.0006	.0006	.002	.0002
%RSD	.2076	.3985	14.65	.0068	.3006	.4392	.0190	.1297
#1	.6613	.0067	.0023	.0855	.2055	.1395	9.144	.1590
#2	.6594	.0067	.0028	.0855	.2063	.1404	9.142	.1593

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0035**	**.3759**	**.4824**	**.0361**	**-.0013**	**.0983**	**.0130**	**-.0045**
Stddev	.0003	.0007	.0008	.0009	.0004	.0011	.0007	.0000
%RSD	7.560	.1881	.1655	2.480	32.94	1.105	5.652	.0916
#1	.0036	.3764	.4818	.0355	-.0010	.0991	.0124	-.0044
#2	.0033	.3754	.4829	.0367	-.0016	.0976	.0135	-.0045

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**168.7**	**9.073**	**253.4**	**33.17**	**8.479**	**1.490**	**.0253**	**.0052**
Stddev	.0	.037	.3	.02	.007	.000	.0001	.0001
%RSD	.0255	.4134	.1121	.0546	.0805	.0235	.5550	2.451
#1	168.7	9.046	253.6	33.18	8.484	1.489	.0252	.0053
#2	168.7	9.099	253.2	33.15	8.474	1.490	.0254	.0051

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.712**	**.0323**	**.0686**	**3.321**	**.0074**	**.0622**	**.8591**	W **-.0175**
Stddev	.003	.0000	.0001	.004	.0006	.0001	.0012	.0005
%RSD	.1058	.0250	.1546	.1350	8.514	.2321	.1370	2.666
#1	2.714	.0323	.0687	3.318	.0078	.0623	.8583	-.0171
#2	2.710	.0323	.0686	3.324	.0069	.0621	.8599	-.0178

Elem	Li6707	P_1774
Avg	**.1984**	**2.785**
Stddev	.0017	.001
%RSD	.8395	.0280
#1	.1972	2.785
#2	.1995	2.784

Zoom In Zoom Out

Sample Name: jc63292-3 Acquired: 4/4/2018 17:12:38 Type: Unk
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**106030.**	**14773.**	**3862.5**	**8363.2**
Stddev	45.	5.	5.2	7.7
%RSD	.04245	.03636	.13478	.09191
#1	106070.	14777.	3866.2	8368.7
#2	106000.	14769.	3858.8	8357.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 17:16:58 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.090**	**2.019**	**2.080**	**1.975**	**2.042**	**1.981**	**2.057**	**2.054**	**.2553**
Stddev	.000	.001	.002	.005	.004	.002	.002	.000	.0004
%RSD	.0192	.0324	.1029	.2757	.1740	.1073	.0909	.0018	.1559
#1	2.090	2.019	2.082	1.979	2.040	1.983	2.056	2.054	.2551
#2	2.089	2.020	2.079	1.971	2.045	1.980	2.059	2.054	.2556
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.036**	**2.076**	**2.073**	**1.951**	**2.034**	**2.013**	**2.079**	**40.75**	**41.69**
Stddev	.001	.001	.002	.007	.002	.000	.002	.03	.05
%RSD	.0301	.0602	.0749	.3508	.1009	.0219	.0813	.0796	.1302
#1	2.035	2.076	2.072	1.955	2.035	2.013	2.080	40.77	41.73
#2	2.036	2.075	2.075	1.946	2.032	2.013	2.078	40.73	41.65
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.95**	**40.87**	**41.06**	**41.19**	**2.018**	**2.070**	**4.883**	**2.088**	**2.068**
Stddev	.01	.04	.00	.02	.000	.002	.008	.006	.000
%RSD	.0277	.0978	.0011	.0510	.0063	.1124	.1686	.2730	.0084
#1	40.94	40.84	41.06	41.20	2.018	2.071	4.889	2.092	2.068
#2	40.95	40.90	41.06	41.17	2.018	2.068	4.877	2.084	2.068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 17:16:58 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.057**	**2.062**	**2.029**	**2.006**	**2.110**	**2.039**	**2.037**
Stddev	.000	.003	.001	.003	.001	.001	.005
%RSD	.0188	.1535	.0393	.1408	.0578	.0348	.2340
#1	2.057	2.064	2.028	2.004	2.109	2.040	2.040
#2	2.057	2.060	2.029	2.007	2.110	2.039	2.034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**103090.**	**14356.**	**3764.0**	**8208.5**
Stddev	248.	36.	1.2	.0
%RSD	.24049	.25019	.03273	.00034
#1	103270.	14330.	3764.9	8208.5
#2	102910.	14381.	3763.1	8208.6

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 17:21:02 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	F **.0002**	**-.0000**	**.0004**	**.0004**	**.0004**	**.0001**	**.0007**	**.0008**
Stddev	.0001	.0001	.0000	.0001	.0004	.0003	.0000	.0001	.0002
%RSD	77.53	29.61	87.57	36.31	119.4	76.03	21.40	20.42	19.98
#1	-.0000	.0002	-.0000	.0003	.0007	.0006	.0001	.0008	.0007
#2	-.0002	.0003	-.0000	.0005	.0001	.0002	.0001	.0006	.0009
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**.0003**	**.0013**	**-.0004**	**.0013**	**-.0004**	**-.0032**	**.0122**
Stddev	.0002	.0000	.0010	.0009	.0001	.0018	.0008	.0030	.0021
%RSD	1351.	40.96	303.1	67.82	35.80	139.7	194.6	93.38	17.33
#1	.0002	-.0002	-.0004	.0020	-.0003	.0000	.0002	-.0053	.0107
#2	-.0001	-.0001	.0010	.0007	-.0005	.0025	-.0010	-.0011	.0137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0071**	**.0369**	**-.0398**	**.0116**	**.0021**	**.0005**	**.0067**	**-.0001**	**.0002**
Stddev	.0071	.0095	.0110	.0006	.0002	.0001	.0003	.0007	.0000
%RSD	100.4	25.67	27.52	5.283	7.515	16.58	3.871	1018.	10.52
#1	.0020	.0436	-.0476	.0120	.0022	.0006	.0065	-.0005	.0003
#2	.0121	.0302	-.0321	.0112	.0020	.0005	.0069	.0004	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 17:21:02 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0010**	**.0002**	**-.0013**	**-.0016**	**.0027**	**-.0090**
Stddev	.0003	.0012	.0001	.0025	.0000	.0005	.0003
%RSD	63.52	119.3	45.40	188.6	2.481	16.98	2.800
#1	.0007	.0018	.0002	-.0030	-.0016	.0024	-.0089
#2	.0003	.0002	.0003	.0004	-.0016	.0030	-.0092
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108280.**	**14626.**	**3914.3**	**9146.3**
Stddev	78.	39.	5.4	3.6
%RSD	.07206	.26590	.13718	.03929
#1	108330.	14653.	3918.1	9143.7
#2	108220.	14598.	3910.5	9148.8

Zoom In Zoom Out

Sample Name: crid Acquired: 4/4/2018 17:25:25 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043**	**.0011**	**.0010**	**.0032**	**.0022**	F **.0004**	**.0034**	**.0048**
Stddev	.0000	.0000	.0001	.0003	.0003	.0003	.0000	.0003
%RSD	.8910	3.788	7.367	9.181	14.52	97.44	1.110	7.174
#1	.0044	.0011	.0010	.0034	.0024	.0001	.0034	.0050
#2	.0043	.0011	.0011	.0030	.0020	.0006	.0034	.0046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0005**	**.0019**	**.0120**	**.0038**	**.0026**	F **-.0005**	**.0054**	F **-.0005**
Stddev	.0005	.0003	.0000	.0018	.0000	.0001	.0008	.0002
%RSD	92.93	13.52	.3057	48.17	1.663	26.14	14.29	47.74
#1	.0008	.0018	.0121	.0025	.0026	-.0006	.0049	-.0003
#2	.0002	.0021	.0120	.0051	.0026	-.0004	.0060	-.0006
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-30.00%					-30.00%		-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1073**	**1.139**	**.0069**	**.1153**	**2.109**	**1.108**	F **.0013**	**.0001**
Stddev	.0050	.004	.0025	.0149	.026	.001	.0005	.0002
%RSD	4.671	.3727	35.65	12.95	1.232	.1265	34.99	337.2
#1	.1038	1.142	.0052	.1047	2.127	1.107	.0016	-.0001
#2	.1109	1.136	.0086	.1258	2.090	1.109	.0010	.0002
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None
Value							.0100	
Range							-30.00%	

Zoom In Zoom Out

Sample Name: crid Acquired: 4/4/2018 17:25:25 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0008**	**.0000**	**-.0002**	F **.0001**	F **.0001**	F **.0009**	F **-.0028**
Stddev	.0001	.0008	.0000	.0001	.0008	.0001	.0031	.0000
%RSD	18.61	92.99	85.57	48.37	1077.	39.57	330.2	.3194
#1	-.0003	.0014	.0000	-.0002	-.0005	.0001	.0031	-.0028
#2	-.0004	.0003	.0000	-.0001	.0006	.0002	-.0012	-.0028
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F **.0015**	F **-.0095**
Stddev	.0013	.0000
%RSD	87.43	.3723
#1	.0006	-.0095
#2	.0024	-.0095
Check ?	Chk Fail	Chk Fail
Value	.0040	.0040
Range	-30.00%	-30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107660.**	**14433.**	**3874.0**	**9027.4**
Stddev	307.	76.	9.6	16.4
%RSD	.28483	.52326	.24667	.18135
#1	107880.	14380.	3867.3	9015.8
#2	107440.	14486.	3880.8	9038.9

Zoom In Zoom Out

Sample Name: cri Acquired: 4/4/2018 17:29:47 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2119**	**.0020**	**.0032**	**.0488**	**.0107**	**.0109**	**.0164**	**.0106**	**.0054**
Stddev	.0003	.0000	.0002	.0001	.0002	.0000	.0000	.0003	.0001
%RSD	.1184	1.637	4.722	.2936	1.477	.4150	.1754	2.921	1.531
#1	.2118	.0021	.0033	.0487	.0108	.0108	.0164	.0104	.0053
#2	.2121	.0020	.0031	.0489	.0106	.0109	.0164	.0109	.0054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0514**	**.0211**	**.0088**	**.0106**	**.0027**	**.0122**	**.0059**	**.1993**	**5.398**
Stddev	.0001	.0001	.0003	.0001	.0004	.0010	.0002	.0010	.008
%RSD	.2641	.3005	3.582	1.007	15.17	8.243	3.175	.5252	.1466
#1	.0515	.0210	.0086	.0105	.0030	.0129	.0061	.1985	5.403
#2	.0513	.0211	.0091	.0107	.0024	.0115	.0058	.2000	5.392
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1105**	**5.220**	**5.193**	**5.255**	**.1021**	**.0218**	**.1704**	**.0115**	**.0104**
Stddev	.0083	.068	.032	.009	.0010	.0002	.0001	.0002	.0002
%RSD	7.471	1.305	.6097	.1731	1.022	.6900	.0309	1.657	1.535
#1	.1163	5.172	5.171	5.249	.1014	.0217	.1703	.0114	.0105
#2	.1046	5.268	5.216	5.261	.1029	.0219	.1704	.0117	.0103
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: cri Acquired: 4/4/2018 17:29:47 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0104**	**.0544**	F **.0175**	**.0491**	**.0218**	**.0532**	**.0428**
Stddev	.0002	.0006	.0006	.0009	.0006	.0014	.0021
%RSD	1.681	1.031	3.630	1.811	2.933	2.626	4.878
#1	.0105	.0548	.0180	.0497	.0214	.0541	.0413
#2	.0103	.0540	.0171	.0485	.0223	.0522	.0443
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.0100				
Range			30.00%				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**106630.**	**14424.**	**3847.3**	**8889.3**
Stddev	125.	69.	1.4	1.8
%RSD	.11737	.47833	.03704	.02064
#1	106540.	14472.	3848.3	8890.6
#2	106710.	14375.	3846.3	8888.0

Zoom In Zoom Out

Sample Name: icsa Acquired: 4/4/2018 17:34:06 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0002**	**.0001**	**-.0006**	**-.0027**	**.0031**	**-.0033**	**-.0026**	**.0029**
Stddev	.0000	.0001	.0004	.0006	.0005	.0010	.0002	.0005	.0023
%RSD	17.03	30.63	258.2	94.91	18.47	34.18	6.046	18.37	79.13
#1	-.0003	.0002	-.0001	-.0002	-.0023	.0023	-.0035	-.0022	.0013
#2	-.0002	.0003	.0004	-.0010	-.0030	.0038	-.0032	-.0029	.0045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0041**	**.0000**	**-.0007**	**.0011**	**-.0007**	**-.0040**	**517.8**	**398.3**
Stddev	.0003	.0003	.0005	.0016	.0038	.0043	.0018	16.0	.6
%RSD	29.60	6.465	1980.	224.2	345.9	657.4	43.87	3.082	.1381
#1	-.0010	.0043	-.0003	-.0019	-.0016	-.0037	-.0053	506.5	397.9
#2	-.0007	.0039	.0004	.0004	.0038	.0024	-.0028	529.1	398.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**189.8**	**505.4**	**-.5102**	**.0229**	**-.0014**	**-.0014**	**-.0164**	**-.0014**	**.0044**
Stddev	6.1	16.4	.0333	.0113	.0014	.0003	.0017	.0002	.0004
%RSD	3.190	3.244	6.527	49.34	98.26	23.47	10.09	17.49	9.641
#1	185.5	493.8	-.4866	.0308	-.0004	-.0016	-.0152	-.0012	.0041
#2	194.1	517.0	-.5337	.0149	-.0024	-.0012	-.0176	-.0016	.0047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icsa Acquired: 4/4/2018 17:34:06 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0085**	**.0022**	**.0549**	**-.0046**	**-.0095**	**-.0175**
Stddev	.0002	.0001	.0002	.0090	.0008	.0013	.0024
%RSD	21.53	1.091	9.708	16.35	17.97	13.75	13.50
#1	-.0008	.0085	.0020	.0485	-.0052	-.0104	-.0192
#2	-.0010	.0086	.0023	.0612	-.0040	-.0086	-.0158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**94082.**	**14198.**	**3462.1**	**7176.7**
Stddev	32.	425.	10.3	11.7
%RSD	.03414	2.9948	.29805	.16363
#1	94059.	14499.	3469.4	7185.0
#2	94104.	13898.	3454.8	7168.4

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 4/4/2018 17:38:32 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5328**	**.5004**	**1.087**	**.4920**	**.4957**	**.5234**	**.5085**	**1.011**	**1.069**
Stddev	.0007	.0004	.002	.0007	.0019	.0013	.0003	.000	.001
%RSD	.1377	.0796	.2133	.1403	.3930	.2469	.0654	.0311	.0774
#1	.5323	.5007	1.089	.4915	.4944	.5225	.5087	1.011	1.068
#2	.5333	.5001	1.085	.4925	.4971	.5243	.5082	1.012	1.069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5056**	**.9967**	**1.106**	**1.027**	**.9953**	**1.035**	**1.110**	**527.3**	**404.8**
Stddev	.0009	.0011	.001	.004	.0016	.004	.002	5.8	2.2
%RSD	.1747	.1121	.1144	.3965	.1566	.3612	.2190	1.101	.5429
#1	.5063	.9974	1.107	1.025	.9964	1.032	1.112	531.4	403.2
#2	.5050	.9959	1.105	1.030	.9942	1.038	1.108	523.2	406.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**190.6**	**521.8**	**-.4556**	**.0338**	**.5031**	**.5063**	**.4757**	**.4863**	**.5483**
Stddev	.0	.1	.0269	.0046	.0012	.0004	.0016	.0004	.0010
%RSD	.0023	.0234	5.894	13.61	.2460	.0812	.3428	.0828	.1851
#1	190.6	521.7	-.4366	.0305	.5040	.5061	.4768	.4860	.5476
#2	190.6	521.8	-.4746	.0370	.5022	.5066	.4745	.4865	.5490
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

13.5 13

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 4/4/2018 17:38:32 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5275**	**.5065**	**.5300**	**.5693**	**.5475**	**.5196**	**.5378**
Stddev	.0023	.0028	.0025	.0011	.0025	.0005	.0023
%RSD	.4450	.5603	.4632	.1908	.4592	.0943	.4312
#1	.5258	.5085	.5283	.5685	.5457	.5192	.5362
#2	.5291	.5045	.5318	.5701	.5492	.5199	.5395
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**93782.**	**13835.**	**3448.2**	**7157.6**
Stddev	171.	31.	4.9	5.5
%RSD	.18255	.22404	.14197	.07675
#1	93903.	13813.	3444.8	7153.7
#2	93661.	13857.	3451.7	7161.5

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 17:42:47 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.083**	**2.023**	**2.088**	**1.973**	**2.033**	**1.981**	**2.051**	**2.054**	**.2538**
Stddev	.008	.000	.002	.004	.001	.004	.002	.002	.0005
%RSD	.3837	.0050	.0997	.1898	.0412	.2244	.0709	.1044	.1855
#1	2.077	2.023	2.086	1.970	2.034	1.978	2.050	2.052	.2535
#2	2.088	2.023	2.089	1.975	2.033	1.984	2.052	2.055	.2542
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.030**	**2.076**	**2.083**	**1.953**	**2.035**	**2.022**	**2.095**	**40.80**	**41.62**
Stddev	.000	.006	.003	.002	.006	.003	.001	.07	.07
%RSD	.0149	.2967	.1351	.0756	.2788	.1452	.0636	.1806	.1609
#1	2.030	2.071	2.081	1.952	2.031	2.020	2.096	40.85	41.58
#2	2.029	2.080	2.085	1.954	2.039	2.025	2.094	40.75	41.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.06**	**40.99**	**40.92**	**41.14**	**2.017**	**2.076**	**4.891**	**2.093**	**2.071**
Stddev	.06	.03	.12	.04	.002	.003	.005	.001	.002
%RSD	.1572	.0727	.2877	.0855	.1097	.1645	.1023	.0325	.0825
#1	41.01	40.97	40.84	41.12	2.015	2.074	4.887	2.092	2.069
#2	41.10	41.01	41.00	41.17	2.018	2.079	4.894	2.093	2.072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 4/4/2018 17:42:47 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.053**	**2.063**	**2.024**	**2.010**	**2.120**	**2.027**	**2.056**
Stddev	.002	.001	.002	.001	.001	.008	.004
%RSD	.0997	.0611	.1037	.0330	.0428	.3836	.1884
#1	2.052	2.063	2.023	2.011	2.120	2.022	2.053
#2	2.054	2.062	2.026	2.010	2.119	2.033	2.058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**103330.**	**14267.**	**3759.5**	**8209.4**
Stddev	66.	16.	4.5	12.3
%RSD	.06350	.11024	.11997	.14930
#1	103280.	14256.	3762.7	8218.0
#2	103380.	14278.	3756.4	8200.7

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/4/2018 17:46:51 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	F **.0002**	**-.0000**	**.0006**	**.0001**	**.0005**	**.0002**	**.0007**	**.0002**
Stddev	.0001	.0001	.0001	.0001	.0002	.0000	.0001	.0001	.0000
%RSD	516.5	39.29	504.9	11.86	266.9	8.553	35.17	8.496	18.49
#1	-.0001	.0001	.0001	.0006	-.0001	.0004	.0002	.0007	.0003
#2	.0001	.0003	-.0001	.0007	.0002	.0005	.0003	.0006	.0002
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0001**	**.0013**	**.0016**	**.0000**	**-.0007**	**.0009**	**-.0014**	**.0159**
Stddev	.0003	.0000	.0007	.0003	.0006	.0018	.0008	.0035	.0026
%RSD	83.28	67.82	53.48	20.02	1246.	259.9	91.44	258.2	16.18
#1	.0006	.0001	.0018	.0013	-.0004	-.0020	.0014	-.0038	.0177
#2	.0002	.0000	.0008	.0018	.0005	.0006	.0003	.0011	.0141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0090**	**.0207**	**-.0410**	**.0053**	**.0018**	**.0007**	**.0055**	**-.0004**	**.0002**
Stddev	.0082	.0006	.0004	.0021	.0003	.0000	.0002	.0007	.0001
%RSD	91.03	2.934	.8569	40.06	18.07	3.554	2.946	162.3	69.81
#1	.0032	.0212	-.0408	.0038	.0020	.0007	.0054	-.0009	.0003
#2	.0147	.0203	-.0413	.0068	.0015	.0007	.0056	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Inst QC: MA44142

Zoom In
Zoom Out

Sample Name: ccb Acquired: 4/4/2018 17:46:51 Type: QC
Method: Accutest 2(v145) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0006**	**.0003**	**-.0025**	**.0004**	**.0022**	**-.0095**
Stddev	.0001	.0001	.0002	.0003	.0001	.0004	.0003
%RSD	110.2	10.99	54.80	11.83	27.36	19.98	3.634
#1	.0001	.0006	.0004	-.0028	.0003	.0025	-.0097
#2	.0000	.0007	.0002	-.0023	.0005	.0019	-.0092
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108280.**	**14524.**	**3908.2**	**9129.8**
Stddev	252.	25.	5.1	14.4
%RSD	.23234	.17478	.12989	.15752
#1	108100.	14506.	3911.8	9140.0
#2	108460.	14542.	3904.6	9119.7

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Ba 455.403 { 74}	☒	3	Mg	0.000001	0.000000	No
				Al	0.000002	0.000000	No
				Zr	0.000727	0.000000	No
	Be 313.042 {108}	☒	9	V	-0.000006	0.000000	No
				Mo	-0.000030	0.000000	No
				Ti	-0.001300	0.000000	No
				Mn	-0.000018	0.000000	No
				Ni	0.000011	0.000000	No
				Ca	-0.000000	0.000000	No
				Cu	0.000014	0.000000	No
				Zn	-0.000010	0.000000	No
				Fe	-0.000002	0.000000	No
	Cd 228.802 {448}	☒	12	As	0.007093	0.000000	No
				Ni	-0.000320	0.000000	No
				Fe	0.000001	0.000000	No
				V	0.000110	0.000000	No
				Ba	0.000054	0.000000	No
				Co	-0.001354	0.000000	No
				Ca	0.000000	0.000000	No
				Mn	-0.000226	0.000000	No
				Cr	-0.000013	0.000000	No
				Cu	0.000024	0.000000	No
				Al	0.000000	0.000000	No
				Mo	0.000004	0.000000	No
	Co 228.616 {448}	☒	9	Fe	0.000001	0.000000	No
				Cr	-0.000049	0.000000	No
				Mo	-0.001930	0.000000	No
				Ni	0.000256	0.000000	No
				Ti	0.001776	0.000000	No
				W	0.000160	0.000000	No
				Cd	0.000012	0.000000	No
				Ca	-0.000003	0.000000	No
				As	-0.000047	0.000000	No
	Cr 267.716 {126}	☒	11	Mn	0.000200	0.000000	No
				Mo	-0.000027	0.000000	No
				Fe	-0.000002	0.000000	No
				Cd	-0.000050	0.000000	No
				Al	0.000002	0.000000	No
				Ca	0.000002	0.000000	No
				Mg	0.000001	0.000000	No
				Ti	0.000050	0.000000	No
				Ba	0.000013	0.000000	No
				Cu	0.000100	0.000000	No
				Sr	-0.000100	0.000000	No
	Cu 324.754 {104}2	☒	17	Cr	0.000000	0.000000	No
				V	-0.000466	0.000000	No
				Mo	0.000812	0.000000	No
				Ti	0.000030	0.000000	No
				Fe	-0.000184	0.000000	No
				Al	0.000002	0.000000	No
				Sn	0.000403	0.000000	No
				Co	-0.001458	0.000000	No
				Zr	0.000030	0.000000	No
				Si	-0.000002	0.000000	No
				Mn	-0.000080	0.000000	No
				Se	0.000050	0.000000	No
				Ag	0.000166	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Sb	0.000024	0.000000	No
			Pb	0.000040	0.000000	No
			Be	-0.000031	0.000000	No
			W	-0.010000	0.000000	No
Mn 257.610 {131}	☒	6	Fe	-0.000033	0.000000	No
			Si	0.000050	0.000000	No
			Ba	0.000012	0.000000	No
			Ni	0.000028	0.000000	No
			Mo	0.000000	0.000000	No
			Cr	-0.000114	0.000000	No
Ni 231.604 {446}	☒	11	Fe	0.000035	0.000000	No
			Zn	-0.000021	0.000000	No
			Be	-0.000112	0.000000	No
			Co	-0.000227	0.000000	No
			Tl	0.000209	0.000000	No
			V	-0.000032	0.000000	No
			Cu	0.000100	0.000000	No
			Cr	0.000040	0.000000	No
			Si	-0.000030	0.000000	No
			Sn	0.000079	0.000000	No
			W	0.000830	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000119	0.000000	No
			Mo	-0.000054	0.000000	No
			Ti	-0.000381	0.000000	No
			Fe	-0.000251	0.000000	No
			V	-0.002173	0.000000	No
			Zn	0.000057	0.000000	No
			Ca	-0.000002	0.000000	No
			Al	-0.000002	0.000000	No
			Mg	-0.000004	0.000000	No
			Ba	0.000010	0.000000	No
			Cr	-0.000038	0.000000	No
			Zr	0.007400	0.000000	No
			Sn	-0.000100	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	☒	7	Ti	0.000776	0.000000	No
			Mo	-0.012800	0.000000	No
			Fe	0.000010	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.004218	0.000000	No
			Mn	-0.001560	0.000000	No
			W	0.000050	0.000000	No
Zn 206.200 {464}	☒	15	Cr	-0.000874	0.000000	No
			Mo	-0.000228	0.000000	No
			Fe	0.000010	0.000000	No
			Al	0.000000	0.000000	No
			Si	0.000065	0.000000	No
			Ba	-0.000060	0.000000	No
			Ca	0.000004	0.000000	No
			Sr	0.000017	0.000000	No
			Sn	0.000069	0.000000	No
			Cu	0.001256	0.000000	No
			As	-0.000050	0.000000	No
			Be	0.000071	0.000000	No
			Bi	-0.000400	0.000000	No
			W	0.020000	0.000000	No
			Ti	0.000580	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	As 189.042 {478}	☒	23	Al	0.000008	0.000000	No
				Fe	-0.000001	0.000000	No
				Ca	0.000000	0.000000	No
				Mn	-0.000156	0.000000	No
				Mo	0.001270	0.000000	No
				Cr	0.000639	0.000000	No
				V	0.000198	0.000000	No
				Co	-0.000191	0.000000	No
				W	0.000000	0.000000	No
				Sn	-0.000123	0.000000	No
				Cd	-0.000194	0.000000	No
				Tl	0.000085	0.000000	No
				Be	-0.000017	0.000000	No
				Mg	-0.000003	0.000000	No
				Si	-0.000048	0.000000	No
				Zn	0.000070	0.000000	No
				Sr	-0.000080	0.000000	No
				Zr	0.000074	0.000000	No
				Ti	0.000076	0.000000	No
				Cu	0.000100	0.000000	No
				K	0.000000	0.000000	No
				B	-0.000030	0.000000	No
				S	-0.000006	0.000000	No
	Tl 190.856 {477}	☒	24	Cr	0.000162	0.000000	No
				Mo	-0.000400	0.000000	No
				Al	-0.000000	0.000000	No
				Fe	-0.000037	0.000000	No
				V	-0.001590	0.000000	No
				Mn	0.000650	0.000000	No
				Si	-0.000075	0.000000	No
				Ca	-0.000002	0.000000	No
				Ti	-0.000550	0.000000	No
				Mg	-0.000003	0.000000	No
				Co	0.002821	0.000000	No
				Sr	-0.000050	0.000000	No
				B	-0.000268	0.000000	No
				Ba	0.000110	0.000000	No
				Zn	0.000025	0.000000	No
				As	0.000015	0.000000	No
				Ni	0.000051	0.000000	No
				Cu	-0.000032	0.000000	No
				W	-0.020000	0.000000	No
				Sn	0.000020	0.000000	No
				Se	0.000040	0.000000	No
				S	-0.000010	0.000000	No
				K	0.000060	0.000000	No
				P	0.000000	0.000000	No
	Pb 220.353 {453}	☒	23	Al	-0.000146	0.000000	No
				Fe	0.000032	0.000000	No
				Ca	0.000000	0.000000	No
				Mn	0.000106	0.000000	No
				Zn	-0.000036	0.000000	No
				Mo	-0.001200	0.000000	No
				Cu	0.000380	0.000000	No
				V	-0.000147	0.000000	No
				Co	-0.000892	0.000000	No
				Ti	-0.000380	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Si	0.000054	0.000000	No
			Ba	-0.000012	0.000000	No
			Sb	0.000006	0.000000	No
			Sr	-0.000050	0.000000	No
			W	0.000000	0.000000	No
			Mg	0.000001	0.000000	No
			Cd	0.000476	0.000000	No
			Cr	-0.000214	0.000000	No
			Zr	-0.000300	0.000000	No
			Ni	0.000177	0.000000	No
			S	-0.000007	0.000000	No
			Se	0.000036	0.000000	No
			As	-0.000021	0.000000	No
Se 196.090 {472}	☒	22	Al	0.000008	0.000000	No
			Ca	-0.000002	0.000000	No
			Mn	0.000691	0.000000	No
			Mo	0.000277	0.000000	No
			Fe	-0.000164	0.000000	No
			Co	0.000065	0.000000	No
			V	0.000476	0.000000	No
			Sr	-0.000008	0.000000	No
			Cu	-0.000150	0.000000	No
			W	0.000000	0.000000	No
			Si	-0.000072	0.000000	No
			Tl	0.000180	0.000000	No
			Be	-0.000143	0.000000	No
			Zn	-0.000250	0.000000	No
			B	-0.000141	0.000000	No
			Ti	-0.000001	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000280	0.000000	No
			Ba	0.000180	0.000000	No
			Mg	0.000004	0.000000	No
			Cr	-0.000113	0.000000	No
			S	0.000010	0.000000	No
Sb 206.833 {463}	☒	14	Fe	0.000001	0.000000	No
			Al	0.000004	0.000000	No
			Ca	-0.000011	0.000000	No
			Ni	-0.000225	0.000000	No
			Cr	0.013146	0.000000	No
			V	-0.002950	0.000000	No
			Zn	-0.000200	0.000000	No
			Mo	0.000490	0.000000	No
			Ti	0.000365	0.000000	No
			Sn	-0.009200	0.000000	No
			Mg	0.000002	0.000000	No
			Zr	-0.000227	0.000000	No
			Sr	0.000209	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000913	0.000000	No
			Ca	0.000078	0.000000	No
			Mo	0.046534	0.000000	No
			Zr	-0.016318	0.000000	No
			Ti	-0.000017	0.000000	No
Ca 317.933 {106}	☒	13	Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004950	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.001513	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.002000	0.000000	No
			Co	0.000540	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
Fe 259.940 {130}	☒	13	Co	0.000004	0.000000	No
			Si	-0.000100	0.000000	No
			Tl	-0.002590	0.000000	No
			Se	-0.000050	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	-0.001433	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.000953	0.000000	No
			K	-0.000200	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	1	Mo	-0.020780	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000340	0.000000	No
			Al	0.000301	0.000000	No
			Ca	0.000448	0.000000	No
			Mn	0.001430	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Na	0.000300	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.010000	0.000000	No
			Mg	0.000400	0.000000	No
Na 589.592 { 57}	☒	5	K	0.000038	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000055	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.024500	0.000000	No
Mo 202.030 {467}	☒	5	Fe	-0.000010	0.000000	No
			Mg	-0.000001	0.000000	No
			Ca	0.000003	0.000000	No
			W	-0.000376	0.000000	No
			V	-0.000230	0.000000	No
Si 212.412 {459}	☒	13	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.024406	0.000000	No
			Ti	0.003216	0.000000	No
			Al	0.000012	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Fe	0.000040	0.000000	No
			Sn	-0.000784	0.000000	No
			Zn	0.000385	0.000000	No
			As	-0.000560	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Pb	0.000471	0.000000	No
			V	0.040490	0.000000	No
Sn 189.989 {478}	☒	6	Ti	-0.003408	0.000000	No
			Mo	0.000011	0.000000	No
			Fe	0.000005	0.000000	No
			Mn	0.000060	0.000000	No
			Si	0.000089	0.000000	No
			W	0.000000	0.000000	No
Sr 407.771 { 83}	☒	2	Fe	0.000002	0.000000	No
			Ca	0.000023	0.000000	No
Ti 334.904 {101}	☒	4	Cr	-0.000084	0.000000	No
			Mo	0.001269	0.000000	No
			Si	0.000035	0.000000	No
			Ca	-0.000003	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	25	Al	0.000002	0.000000	No
			Si	-0.000900	0.000000	No
			Fe	-0.000007	0.000000	No
			As	-0.000200	0.000000	No
			Mg	-0.000006	0.000000	No
			Mn	-0.000110	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.012200	0.000000	No
			Sn	0.000078	0.000000	No
			Zr	0.000230	0.000000	No
			B	-0.001000	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	0.000041	0.000000	No
			Ni	-0.000263	0.000000	No
			Be	-0.000130	0.000000	No
			Se	-0.000080	0.000000	No
			Cu	-0.000118	0.000000	No
			Ba	-0.000090	0.000000	No
			Tl	-0.000110	0.000000	No
			Ag	0.000224	0.000000	No
Zr 339.198 { 99}	☒	8	Mo	0.000483	0.000000	No
			Ti	-0.000010	0.000000	No
			Fe	-0.000060	0.000000	No
			Si	0.000070	0.000000	No
			Bi	0.000295	0.000000	No
			Cr	-0.000900	0.000000	No
			V	0.000700	0.000000	No
			W	0.000000	0.000000	No
S 182.034 {485}	☒	8	Ca	0.000051	0.000000	No
			Mo	-0.000884	0.000000	No
			Al	-0.000084	0.000000	No
			Fe	0.000007	0.000000	No
			Mn	0.003900	0.000000	No
			W	0.000000	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Zn	-0.001538	0.000000	No
				Cr	-0.000200	0.000000	No
	Bi 223.061 {451}	☒	9	V	-0.000680	0.000000	No
				Co	-0.002200	0.000000	No
				Ca	-0.000005	0.000000	No
				Mg	-0.000002	0.000000	No
				W	-0.002000	0.000000	No
				Cu	-0.001186	0.000000	No
				Fe	0.000090	0.000000	No
				Cr	0.001500	0.000000	No
				Ti	-0.001100	0.000000	No
	Li 670.784 { 50}	☒	1	Ca	0.000056	0.000000	No
	P 177.495 {490}	☒	2	Mn	-0.003328	0.000000	No
				Ca	0.000044	0.000000	No

	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
	Ba 455.403 { 74}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.001905	1.946771	0.000000	1.000000
	Be 313.042 {108}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.000098	1.236782	0.000000	1.000000
	Cd 228.802 {448}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.000266	0.827303	0.000000	1.000000
	Co 228.616 {448}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	-0.000376	0.414741	0.000000	1.000000
	Cr 267.716 {126}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.000005	0.055859	0.000000	1.000000
	Cu 324.754 {104}2	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.002264	0.159656	0.000000	1.000000
	Mn 257.610 {131}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	0.000026	0.314655	0.000000	1.000000
	Ni 231.604 {446}	4/5/2018 8:50:27	4/4/2018 9:40:41	Linear	1/Conc	-0.000159	0.318214	0.000000	1.000000
	Ag 328.068 {103}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000103	0.089516	0.000000	1.000000
	V 292.402 {115}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000024	0.092865	0.000000	1.000000
	Zn 206.200 {464}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000516	1.112551	0.000000	1.000000
	As 189.042 {478}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000166	0.120224	0.000000	1.000000
	Tl 190.856 {477}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000105	0.065087	0.000000	1.000000
	Pb 220.353 {453}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000243	0.145466	0.000000	1.000000
	Se 196.090 {472}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000323	0.091314	0.000000	1.000000
	Sb 206.833 {463}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000102	0.169509	0.000000	1.000000
	Al 396.152 { 85}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.001470	0.033580	0.000000	1.000000
	Ca 317.933 {106}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.003702	0.043409	0.000000	1.000000
	Fe 259.940 {130}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000025	0.016352	0.000000	1.000000
	Mg 279.079 {121}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000005	0.003093	0.000000	1.000000
	K 766.490 { 44}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.001497	0.033539	0.000000	1.000000
	Na 589.592 { 57}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000435	0.092928	0.000000	1.000000
	B 208.959 {462}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000092	0.191983	0.000000	1.000000
	Mo 202.030 {467}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000114	0.839641	0.000000	1.000000
	Si 212.412 {459}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.004049	0.219832	0.000000	1.000000
	Sn 189.989 {478}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000023	0.186314	0.000000	1.000000
	Sr 407.771 { 83}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000030	3.440258	0.000000	1.000000
	Ti 334.904 {101}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000009	0.109665	0.000000	1.000000
	Y 360.073 { 94}*	4/5/2018 8:50:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 371.030 { 91}*	4/5/2018 8:50:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 224.306 {451}*	4/5/2018 8:50:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	In 230.606 {446}*	4/5/2018 8:50:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	W 207.911 {462}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	0.000950	0.406148	0.000000	1.000000
	Zr 339.198 { 99}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000228	0.271844	0.000000	1.000000
	S 182.034 {485}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000468	0.053499	0.000000	1.000000
	Bi 223.061 {451}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.000152	0.198300	0.000000	1.000000
	Li 670.784 { 50}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.002555	0.641627	0.000000	1.000000
	P 177.495 {490}	4/5/2018 8:50:27	4/4/2018 9:40:42	Linear	1/Conc	-0.009231	0.118545	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ba 455.403 { 74}	1.000000	0.000000	0.000243	0.000811	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000119	0.000395	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000268	0.000893	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000375	0.001250	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000552	0.001841	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000490	0.001634	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000085	0.000282	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000419	0.001396	OK.	1.000000	0.000000	1	0
	Ag 328.068 {103}	1.000000	0.000000	0.000586	0.001952	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000445	0.001485	OK.	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000188	0.000627	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.001645	0.005482	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.001377	0.004592	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.001392	0.004641	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.002455	0.008182	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.001655	0.005518	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.012328	0.041095	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.004066	0.013552	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.004842	0.016141	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.033782	0.112607	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.030164	0.100548	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.009777	0.032591	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.000951	0.003172	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000292	0.000973	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.001237	0.004122	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000866	0.002887	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000101	0.000337	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000452	0.001508	OK.	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	W 207.911 {462}	1.000000	0.000000	0.001198	0.003994	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000240	0.000799	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.003318	0.011059	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.001811	0.006037	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.001558	0.005195	OK.	1.000000	0.000000	1	0
	P 177.495 {490}	1.000000	0.000000	0.001722	0.005740	OK.	1.000000	0.000000	1	0

ACCUTEST LABORATORIES

Mercury Hot Block Digestion Log

Product **HG / EHG / HGCLP**
Matrix: Aq / Liq / DW

MA Batch #: MA44080
Analyst: JA
Date: 3/27/2018
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID: M-72

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**

Required corrected Temp. Range is 90-95 C.
Hot Block # 8 Start Time: 7:25 End Time: 9:25 Tube # 1-27
Start Temp: 96 Corrected Start Temp: 94 Correction: -2 Thermometer ID: 11517
End Temp: 96 Corrected End Temp: 94 Correction: -2 Thermometer ID: 11517

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used Amount Spiked	Spiked Used Added- Y or N	Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
1	ICV (External)	N	30	30	3.0 ml	Y	0.03		HG-18-134-273-HGB3, Ultra Scientific
2	ICB	N	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
3	CRI	N	30	30	2.0 ml	Y	0.003		HG-18-134-272-HGA4, Inorganic Venture
4	MP6363-MB1	N	30	30				MP6363	
5	MP6363-B1	N	30	30	2.0 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
6	MP6363-S1	Y	30	30	2.0 ml	Y	0.03		JC62872-1, HG-18-134-271-HGA3 (IV)
7	MP6363-S2	Y	30	30	2.0 ml	Y	0.03		JC62872-1, HG-18-134-271-HGA3 (IV)
8	JC62872-1	Y	30	30					
9	JC62872-1F	Y	30	30					
10	JC62872-2	Y	30	30					
11	JC62872-2F	Y	30	30					
12	JC62872-3	Y	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
13	JC62872-3F	Y	30	30					
14	JC62872-4	Y	30	30					
15	JC62872-4F	Y	30	30					
16	JC62872-5	Y	30	30					
17	JC62872-5F	Y	30	30					
18	JC62872-6	Y	30	30					
19	JC62872-6F	Y	30	30					
20	JC62872-7	Y	30	30					
21	JC62872-7F	Y	30	30					
22	JC62872-8	Y	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
23	JC62872-8F	Y	30	30					
24	JC62872-9	Y	30	30					
25	JC62872-9F	Y	30	30					
26	JC62872-10	Y	30	30					
27	JC62872-10F	Y	30	30					
28	MP6364-MB1	N	30	30				MP6364	
29	MP6364-B1	N	30	30	2.0 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
30	MP6364-S1	Y	10.0	30	2.0 ml	Y	0.03		JC62879-9, HG-18-134-271-HGA3 (IV)
31	MP6364-S2	Y	10.0	30	2.0 ml	Y	0.03		JC62879-9, HG-18-134-271-HGA3 (IV)
32	MP6364-S3	Y	30	30	2.0 ml	Y	0.03		JC62879-11, HG-18-134-271-HGA3 (IV)
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
CCB	CCB	N	30	30					

ANALYST: JA DATE: 3/27/18
Spike witness: DP DATE: 3/27/18
QC: REVIEWER: DATE:

Form HG022-03
Revision Date: 8/24/15

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ACCUTEST LABORATORIES

Mercury Hot Block Digestion Log

Product **HG / EHG / HGCLP**
Matrix: Aq / Liq / DW

MA Batch #: MA44080
Analyst: JA
Date: 3/27/2018
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID: M-72

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**

Required corrected Temp. Range is 90-95 C.
Hot Block # 7 Start Time: 8:30 End Time: 10:30 Tube # 28-54
Start Temp: 97 Corrected Start Temp: 94 Correction: -3 Thermometer ID: 4156488
End Temp: 97 Corrected End Temp: 94 Correction: -3 Thermometer ID: 4156488

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used Amount Spiked	Spiked Used Added- Y or N	Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
33	MP6364-S4	Y	30	30	2.0 ml	Y	0.03		JC62879-11, HG-18-134-271-HGA3 (IV)
34	JC62879-9	Y	10.0	30					BRIGHT ORANGE
35	JC62879-11	Y	30	30					
36	JC62879-1	Y	30	30					
37	JC62879-2	Y	30	30					
38	JC62879-3	Y	30	30					
39	JC62879-4	Y	30	30					
40	JC62879-5	Y	30	30					
41	JC62879-6	Y	30	30					
42	JC62879-7	Y	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
43	JC62879-8	Y	30	30					
44	JC62879-10	Y	30	30					
45	JC62879-12	Y	30	30					
46	JC62879-13	Y	15.0	30					FOAMY
47	JC62879-14	Y	30	30					
48	JC62879-15	Y	30	30					
49	JC62879-16	Y	30	30					
50	JC62879-17	Y	30	30					
51	JC62879-18	Y	10.0	30					ORANGE SEDIMENT
52	JC62879-20	Y	30	30					
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
53	JC62942-6	Y	30	30					
54	JC62569-1CONF	Y	30	30					
55	MP6365-MB1	N	30	30				MP6365	TCLP
56	MP6365-B1	N	30	30	2.0 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
57	MP6365-S1	N	30	30	2.0 ml	Y	0.03		JC62351-1, HG-18-134-271-HGA3 (IV)
58	MP6365-S2	N	30	30	2.0 ml	Y	0.03		JC62351-1, HG-18-134-271-HGA3 (IV)
59	JC62351-1	N	30	30					
60	MP6369-MB1	N	30	30				MP6369	TCLP
61	MP6369-B1	N	30	30	2.0 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
62	MP6369-S1	N	30	30	2.0 ml	Y	0.03		JC62494-5, HG-18-134-271-HGA3 (IV)
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
CCB	CCB	N	30	30					

#0.5ml conc HNO3 was added at 9:15am 3/27/18 to bring the PH<2.

ANALYST: JA
Spike witness: JA
QC: REVIEWER:

DATE: 3/27/18
DATE: 3/27/18
DATE:

Form HG022-03
Revision Date: 8/24/15

ACCUTEST LABORATORIES

Mercury Hot Block Digestion Log

Product **HG / EHG / HGCLP**
Matrix: Aq / Liq / DW

MA Batch #: MA44080
Analyst: JA
Date: 3/27/2018
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID: M-72

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**

Required corrected Temp. Range is 90-95 C.
Hot Block # 8 Start Time: 9:30 End Time: 11:30 Tube # 55-68

Start Temp: 96 Corrected Start Temp: 94 Correction: -2 Thermometer ID: 11517
End Temp: 95 Corrected End Temp: 93 Correction: -2 Thermometer ID: 11517

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used Amount Spiked	Spiked Used Added- Y or N	Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
63	MP6369-S2	N	30	30	2.0 ml	Y	0.03		JC62494-5, HG-18-134-271-HGA3 (IV)
64	JC62494-5	N	30	30					
65	MP6370-FMB	Y	30	30				MP6370	
66	MP6370-FLC	Y	30	30	2.0ml	Y	0.03		Hg-18-134-271-HgA3 (IV)
67	MP6371-FMB	Y	30	30				MP6370	
68	MP6371-FLC	Y	30	30	2.0ml	Y	0.03		Hg-18-134-271- HgA3 (IV)
69									
70									
71									
72									
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
73									
74									
75									
76									
77									
78									
79									
80									
81									
82									
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
CCB	CCB	N	30	30					
83									
84									
85									
86									
87									
88									
89									
90									
91									
92									
CCV	CCV	N	30	30	2.5 ml	Y	0.03		HG-18-134-271-HGA3, Inorganic Venture
CCB	CCB	N	30	30					

* 0.5ml conc HNO3 was added at 9:15am 3/27/18 to bring the PH<2.

ANALYST: JA
Spike witness: JA
QC: REVIEWER:

DATE: 3/27/18
DATE: 3/27/18
DATE:

Form HG022-03
Revision Date: 8/24/15

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ACCUTEST LABORATORIES

Mercury Hot Block Digestion Log

Product HG / EHG / HGCLP
Matrix: Aq / Liq / DW

MA Batch #: MA44080
Analyst: JA
Date: 3/27/2018
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID M-72

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**

Required corrected Temp. Range is 90-95 C.
Hot Block # 8 Start Time: 7:20 End Time: 9:20 Tube # S1-S6
Start Temp: 96 Corrected Start Temp: 94 Correction: -2 Thermometer ID: 11517
End Temp: 96 Corrected End Temp: 94 Correction: -2 Thermometer ID: 11517

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used Amount Spiked	Spiked Used Added-Y or N	Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
S-1	Calibration Blank	N	30 ml	30 ml	0.0 ml	N			
S-2	0.2 ug/l Standard	N	30 ml	30 ml	2.0 ml	Y	0.003		HG-18-134-272-HGA4, Inorganic Venture
S-3	0.5 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.003		HG-18-134-272-HGA4, Inorganic Venture
S-4	1.0 ug/l Standard	N	30 ml	30 ml	1.0 ml	Y	0.030		HG-18-134-271-HGA3, Inorganic Venture
S-5	2.5 ug/l Standard	N	30 ml	30 ml	2.5 ml	Y	0.030		HG-18-134-271-HGA3, Inorganic Venture
S-6	5.0 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.030		HG-18-134-271-HGA3, Inorganic Venture

Form HG022-03
Revision Date: 8/24/15

ANALYST: JA
QC: REVIEWER:

DATE: 3/27/18
DATE:

SGS

Reagent Information Log- Hg Waters

MA # 44080

Reagents	Exp. Date	Reagent # or manufacturer lot #
Conc. Sulfuric Acid	3/8/2020	Fisher -177436
Conc. Nitric Acid	3/24/2020	Baker - 192717
Sodium Chloride-Hydroxylamine Hydrochloride	9/23/2018	HG-18-136- 27 -HGHCL
Potassium Permanganate 5%	9/23/2018	HG-18-136- 25 -HGKM1
Potassium Persulfate	9/23/2018	HG-18-136- 26 -HGKS
Stannous Chloride	3/28/2018	HG-18-134- 274 -HGS
STD Hg standard solution 1000 ppm	3/1/2019	Inorganic Ventures K2-HG653768
STD Hg standard solu tion 30 ppb	3/28/2018	HG-18-134- 271 -HGA3
STD Hg standard solu tion 3ppb	3/28/2018	HG-18-134- 272 -HGA4
ICV Hg standard solution 1000 ppm	6/30/2021	Ultra T00601
ICV Hg standard solution 30ppb	3/28/2018	HG-18-134- 273 -HGB3
Dilution Acid	9/17/2018	HG-18-134- 242 -HGD2
Digestion Tubes Lot	N/A	Envrionmental Express 1712272
ph Paper	11/30/2018	Hydrion - 232515

Form:GN087A79-03
Rev. Date: 6/6/17

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP6399	3/29/2018	16:45	3/29/2018	22:15	JC62879-9	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	3	158271	92	0	92
1	End	3	158271	94	0	94
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1712272	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP6399-MB1	N/A	N	50	50	AB		
MP6399-B1	N/A	N	50	50	AB	ABCD	
MP6399-S1	3	Y	10	50	AB	ABCD	LIGHT PINK
MP6399-S2	3	Y	10	50	AB	ABCD	LIGHT PINK
MP6399-SD1	3	Y	10	50	AB		LIGHT PINK
JC62789-1	3	Y	50	50	AB		
JC62789-2	3	Y	50	50	AB		
JC62789-3	3	Y	50	50	AB		
JC62789-4	3	Y	50	50	AB		
JC62879-9	3	Y	10	50	AB		LIGHT PINK
JC62881-1	1	Y	50	50	AB		
JC62881-2	1	Y	50	50	AB		
JC62881-3	1	Y	50	50	AB		
JC62881-4	1	Y	50	50	AB		
JC62881-5	1	Y	50	50	AB		
JC62881-6	1	Y	10	50	AB		CLOUDY/RED
JC63053-10F	4	Y	50	50	AB		
JC63053-7F	4	Y	50	50	AB		
JC63053-8F	4	Y	50	50	AB		
JC63053-9F	4	Y	50	50	AB		
MP6399-MB2	4	Y	50	50	AB		FILTERMET 3/28
MP6399-B2	N/A	Y	50	50	AB	ABCD	FILTERMET 3/28

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCLL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV-1	0.5
B	ACCUTEST 14A REV-1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E		
F	AG 20PPM	0.625
G		
H		

Comments: _____

Analyst COLLEENH **Approved by** Wendyz **Approved on** 3/30/2018

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 60399 **Date:** 3/29/18

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST -13A Rev1)	8/16/2018	MP-015-1038
Spiking Solution - (ACCUTEST -14A Rev1)	8/16/2018	MP-015-1039
Spiking Solution - 5000 mg/l Minerals	2/6/2019	M2-MEB661372 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	2/8/2020	LOT: 020817 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	3/5/2019	K2-SI654310 MFG: INO. VENT
Spiking Solution - Bi 1000ppm	12/1/2018	M2-B1658289 MFG: INO. VENT
Spiking Solution - Se 20ppm	5/9/2018	MA-17-311-244
Spiking Solution - Li 1000ppm	11/14/2018	M2-LI657553 MFG: INO. VENT
Spiking Solution- Ag 10 ppm	9/16/2018	MA-18-328-49
Spiking Solution - (ACCUTEST -13B Rev1)	9/28/2018	MP-015-1044
Spiking Solution - (ACCUTEST -14B Rev1)	9/28/2018	MP-015-1045
Spiking Solution - 400ppm Minerals	8/6/2018	MP-015-1037
Spiking Solution- P		
Nitric Acid	3/21/2018	LOT: 192717 MFG: J.T. BAKER
Nitric Acid (1:1)	9/21/2018	MP-013-20-981 1:1 HNO3
Hydrochloric Acid	3/20/2018	LOT: 187518 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	9/20/2018	MP-013-20-980 1:1 HCL
Hydrogen Peroxide	3/2/2020	LOT: 174426 MFG: FISHER
Soil Lab Control/Soil LC	3/21/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 23047413 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1712272 MFG: ENV. EXPRESS
pH Paper	11/30/2018	LOT: 232515 MFG: HYDRION
Filter paper Q8	N/A	LOT: 9802858 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F7EA83809 MFG: FISHER

Spike witnessed By: RP

Validated By:

Validated On:

AA014-06 (Metals Digest Stds)-DAYT-MET-0039-06-FORM-Metals Digestion Reagants Info Log.xls
1/17/18

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP6402	3/29/2018	9:20	3/29/2018	21:00	JC62879-11	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	8	3106989	93	-1	92
1	End	8	3106989	93	-1	92
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1712272	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP6402-MB1	N/A	N	50	50	AB		
MP6402-B1	N/A	N	50	50	AB	ABCD	
MP6402-S1	3	Y	50	50	AB	ABCD	
MP6402-S2	3	Y	50	50	AB	ABCD	
MP6402-SD1	3	Y	50	50	AB		
JC62879-1	1	Y	50	50	AB		
JC62879-10	1	Y	50	50	AB		
JC62879-11	3	Y	50	50	AB		
JC62879-12	1	Y	50	50	AB		
JC62879-13	1	Y	50	50	AB		
JC62879-14	1	Y	50	50	AB		
JC62879-15	1	Y	50	50	AB		
JC62879-16	1	Y	50	50	AB		
JC62879-17	1	Y	50	50	AB		
JC62879-18	1	Y	10	50	AB		LIGHT ORANGE
JC62879-2	1	Y	50	50	AB		
JC62879-20	1	Y	50	50	AB		
JC62879-3	1	Y	50	50	AB		
JC62879-4	1	Y	50	50	AB		
JC62879-5	1	Y	50	50	AB		
JC62879-6	1	Y	50	50	AB		
JC62879-7	1	Y	50	50	AB		
JC62879-8	1	Y	50	50	AB		
JC63151-3	5	Y	50	50	AB		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTET 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E		
F	AG 20PPM	0.625
G		
H		

Comments:

Analyst RADHIKAM **Approved by** Wendyz **Approved on** 3/30/2018

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 6402 **Date:** 3/29/18

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST -13A Rev1)	8/16/2018	MP-015-1038
Spiking Solution - (ACCUTEST -14A Rev1)	8/16/2018	MP-015-1039
Spiking Solution - 5000 mg/l Minerals	2/6/2019	M2-MEB661372 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	2/8/2020	LOT: 020817 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	3/5/2019	K2-SI654310 MFG: INO. VENT
Spiking Solution - Bi 1000ppm	12/1/2018	M2-B1658289 MFG: INO. VENT
Spiking Solution - Se 20ppm	5/9/2018	MA-17-311-244
Spiking Solution - Li 1000ppm	11/14/2018	M2-LI657553 MFG: INO. VENT
Spiking Solution- Ag 10 ppm	9/16/2018	MA-18-328-49
Spiking Solution - (ACCUTEST -13B Rev1)	9/28/2018	MP-015-1044
Spiking Solution - (ACCUTEST -14B Rev1)	9/28/2018	MP-015-1045
Spiking Solution - 400ppm Minerals	8/6/2018	MP-015-1037
Spiking Solution- P		
Nitric Acid	3/21/2018	LOT: 192717 MFG: J.T. BAKER
Nitric Acid (1:1)	9/21/2018	MP-013-20-981 1:1 HNO3
Hydrochloric Acid	3/20/2018	LOT: 187518 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	9/20/2018	MP-013-20-980 1:1 HCL
Hydrogen Peroxide	3/2/2020	LOT: 174426 MFG: FISHER
Soil Lab Control/Soil LC	3/21/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 23047413 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1712272 MFG: ENV. EXPRESS
pH Paper	11/30/2018	LOT: 232515 MFG: HYDRION
Filter paper Q8	N/A	LOT: 9802858 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F7EA83809 MFG: FISHER

Spike witnessed By: BP

Validated By: _____

Validated On: _____

AA014-06 (Metals Digest Stds)-DAYT-MET-0039-06-FORM-Metals Digestion Reagants Info Log.xls
1/17/18

13.6.3 13

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP12036/GN78021	0.010	0.0	mg/l	0.0833	0.0847	101.7	90-110%

Associated Samples:
Batch GP12036: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Cyanide	GP12036/GN78021	JC62879-9	mg/l	0.060	0.022	92.7*(a)	0-32%
Cyanide	GP12036/GN78021	JC62879-11	mg/l	0.0	0.0	0.0	0-32%

Associated Samples:
Batch GP12036: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20
(*) Outside of QC limits
(a) High RPD due to possible sample nonhomogeneity.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP12036/GN78021	JC62879-9	mg/l	0.060	0.0833	0.053	-8.4N(a)	90-110%
Cyanide	GP12036/GN78021	JC62879-11	mg/l	0.0	0.0833	0.062	74.4N(a)	90-110%

Associated Samples:
Batch GP12036: JC62879-1, JC62879-2, JC62879-3, JC62879-4, JC62879-5, JC62879-6, JC62879-7, JC62879-8, JC62879-9, JC62879-10, JC62879-11, JC62879-12, JC62879-13, JC62879-14, JC62879-15, JC62879-16, JC62879-17, JC62879-18, JC62879-20
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E032918W1.CN Date Analyzed: 03/29/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Analyst: BM Run ID: GN78021
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
07:47	GN78021-STD1	1		STDA
07:48	GN78021-STD2	1		STDB
07:49	GN78021-STD3	1		STDC
07:51	GN78021-STD4	1		STDD
07:52	GN78021-STD5	1		STDE
07:53	GN78021-STD6	1		STDF
07:55	GN78021-STD7	1		STDG
07:56	GN78021-ICV1	1		
07:58	GN78021-ICB1	1		
07:59	GN78021-CCV1	1		
08:00	GN78021-CCB1	1		
08:02	GP11896-MB2	1		
08:03	GP11896-B2	1		
08:04	ZZZZZZ	1		
08:06	ZZZZZZ	1		
08:07	GP12040-MB1	1		
08:08	GP12040-B1	1		
08:10	GP12040-D1	1		
08:11	JC62447-1	1		(sample used for QC only; not part of login JC62879)
08:12	ZZZZZZ	1		
08:14	ZZZZZZ	1		
08:15	GN78021-CCV2	1		
08:17	GN78021-CCB2	1		
08:18	ZZZZZZ	1		
08:19	ZZZZZZ	1		
08:21	ZZZZZZ	1		
08:22	ZZZZZZ	1		
08:23	ZZZZZZ	1		
08:25	ZZZZZZ	1		
08:26	ZZZZZZ	1		
08:27	ZZZZZZ	1		
08:29	ZZZZZZ	1		
08:30	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E032918W1.CN Date Analyzed: 03/29/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Analyst: BM Run ID: GN78021
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:32	GN78021-CCV3	1		
08:33	GN78021-CCB3	1		
08:34	ZZZZZZ	1		
08:36	ZZZZZZ	1		
08:37	ZZZZZZ	1		
08:38	ZZZZZZ	1		
08:40	ZZZZZZ	1		
08:41	ZZZZZZ	1		
08:42	ZZZZZZ	1		
08:44	GP12038-MB1	1		
08:45	GP12038-B1	1		
08:47	GP12038-S1	1		
08:48	GN78021-CCV4	1		
08:49	GN78021-CCB4	1		
08:51	GP12038-S2	1		
08:52	GP12038-D1	1		
08:53	ZZZZZZ	1		
08:55	JC62648-1	1		(sample used for QC only; not part of login JC62879)
08:56	JC62704-1	1		(sample used for QC only; not part of login JC62879)
08:57	ZZZZZZ	1		
08:59	ZZZZZZ	1		
09:00	ZZZZZZ	1		
09:01	ZZZZZZ	1		
09:03	ZZZZZZ	1		
09:04	GN78021-CCV5	1		
09:06	GN78021-CCB5	1		
09:07	ZZZZZZ	1		
09:08	ZZZZZZ	1		
09:10	GP12036-MB1	1		
09:11	GP12036-B1	1		
09:12	GP12036-S1	1		
09:14	GP12036-S2	1		
09:15	GP12036-D1	1		QC sample very bad matrix, a lot of black sediment

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E032918W1.CN Date Analyzed: 03/29/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Analyst: BM Run ID: GN78021
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:16	GP12036-D2	1		
09:18	JC62879-1	1		
09:19	JC62879-2	1		
09:21	GN78021-CCV6	1		
09:22	GN78021-CCB6	1		
09:23	JC62879-3	1		
09:25	JC62879-4	1		
09:26	JC62879-5	1		
09:27	JC62879-6	1		
09:29	JC62879-7	1		
09:30	JC62879-8	1		
09:31	JC62879-9	1		
09:33	JC62879-10	1		
09:34	JC62879-11	1		
09:36	JC62879-12	1		
09:37	GN78021-CCV7	1		
09:38	GN78021-CCB7	1		
09:40	JC62879-13	1		
09:41	JC62879-14	1		
09:42	JC62879-15	1		
09:44	JC62879-16	1		
09:45	JC62879-17	1		
09:46	JC62879-18	1		
09:48	JC62879-20	1		
09:49	GP12037-MB1	1		
09:50	GP12037-B1	1		
09:52	GP12037-S1	1		
09:53	GN78021-CCV8	1		
09:55	GN78021-CCB8	1		
09:56	GP12037-D1	1		
09:57	JC62824-1	1		(sample used for QC only; not part of login JC62879)
09:59	ZZZZZZ	1		
10:00	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E032918W1.CN Date Analyzed: 03/29/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Analyst: BM Run ID: GN78021
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:03	GN78021-CCV9	1		
10:04	GN78021-CCB9	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC62879
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E032918W1.CN Date Analyzed: 03/29/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Run ID: GN78021 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN78021-ICV1	Cyanide	0.28	0.010	0.0058	.3	93.3	90-110
GN78021-ICB1	Cyanide	0.0058 U	0.010	0.0058			
GN78021-CCV1	Cyanide	0.41	0.010	0.0058	.4	102.5	90-110
GN78021-CCB1	Cyanide	0.0058 U	0.010	0.0058			
GN78021-CCV2	Cyanide	0.41	0.010	0.0058	.4	102.5	90-110
GN78021-CCB2	Cyanide	-0.0059	0.010	0.0058			
GN78021-CCV3	Cyanide	0.41	0.010	0.0058	.4	102.5	90-110
GN78021-CCB3	Cyanide	0.0058 U	0.010	0.0058			
GN78021-CCV4	Cyanide	0.42	0.010	0.0058	.4	105.0	90-110
GN78021-CCB4	Cyanide	0.0058 U	0.010	0.0058			
GN78021-CCV5	Cyanide	0.42	0.010	0.0058	.4	105.0	90-110
GN78021-CCB5	Cyanide	0.0058 U	0.010	0.0058			
GN78021-CCV6	Cyanide	0.41	0.010	0.0058	.4	102.5	90-110
GN78021-CCB6	Cyanide	-0.0060	0.010	0.0058			
GN78021-CCV7	Cyanide	0.41	0.010	0.0058	.4	102.5	90-110
GN78021-CCB7	Cyanide	0.0058 U	0.010	0.0058			
GN78021-CCV8	Cyanide	0.41	0.010	0.0058	.4	102.5	90-110
GN78021-CCB8	Cyanide	-0.0063	0.010	0.0058			
GN78021-CCV9	Cyanide	0.41	0.010	0.0058	.4	102.5	90-110
GN78021-CCB9	Cyanide	0.0058 U	0.010	0.0058			

(!) Outside of QC limits

General Chemistry

Raw Data

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E032918W1.CN
Analyst: BM

Date Analyzed: 03/29/18
Run ID: GN78021

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: BM Date 3/29/18

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 3/30/18

Author: chemistry

GN78021

E032918WI.CN

Date : 3/29/2018

Original Run Filename: OM_3-29-2018_07-45-57AM.OMN Created: 3/29/2018 7:45:57 AM
Original Run Author's Signature: [chemistry]
Current Run Filename: OM_3-29-2018_07-45-57AM.OMN Last Modified: 3/29/2018 10:07:06 AM
Current Run Author's Signature: [chemistry]
Description: Default new Run

Sample	Rep.	Cup No.	Channel 1 CN	Detection Time	MDF	%REC
STDA	1	1	0.800	3/29/2018@7:47:06 AM		
STDB	1	2	0.600	3/29/2018@7:48:29 AM		
STDC	1	3	0.400	3/29/2018@7:49:51 AM		
STDD	1	4	0.100	3/29/2018@7:51:13 AM		
STDE	1	5	0.0200	3/29/2018@7:52:35 AM		
STDF	1	6	0.0100	3/29/2018@7:53:57 AM		
STDG	1	7	0.00	3/29/2018@7:55:19 AM		
ICV	1	8	0.280	3/29/2018@7:56:40 AM		93.3%
Known Conc:			0.300			
Calibration:			Table/Fig. : 1			
ICB	1	9	-4.33e-3	3/29/2018@7:58:02 AM		
Known Conc:			0.00			
CCV	1	S9	0.413	3/29/2018@7:59:23 AM		103.2%
Known Conc:			0.400			
CCB	1	S10	-5.71e-3	3/29/2018@8:00:45 AM		
Known Conc:			0.00			
GP11986-MB2	1	10	-4.76e-3	3/29/2018@8:02:06 AM		
GP11986-B2	1	11	0.220	3/29/2018@8:03:28 AM		11%
JC62709-4	1	12	-2.83e-3	3/29/2018@8:04:49 AM		
JC62709-8	1	13	-5.32e-3	3/29/2018@8:06:10 AM		
GP12040-MB1	1	14	-5.45e-3	3/29/2018@8:07:31 AM		
GP12040-B1	1	15	0.229	3/29/2018@8:08:52 AM		11.4%
GP12040-D1	1	16	-4.98e-3	3/29/2018@8:10:14 AM		
JC62447-1	1	17	-6.59e-3	3/29/2018@8:11:37 AM		
JC62447-2	1	18	-5.72e-3	3/29/2018@8:12:59 AM		
JC62447-3	1	19	-5.05e-3	3/29/2018@8:14:21 AM		
CCV	1	S9	0.412	3/29/2018@8:15:43 AM		103%
Known Conc:			0.400			
CCB	1	S10	-5.93e-3	3/29/2018@8:17:05 AM		
Known Conc:			0.00			
JC62448-1	1	20	-7.49e-3	3/29/2018@8:18:27 AM		
JC62448-2	1	21	-5.27e-3	3/29/2018@8:19:48 AM		
JC62449-1	1	22	-3.54e-3	3/29/2018@8:21:10 AM		
JC62449-2	1	23	-2.26e-3	3/29/2018@8:22:32 AM		
JC62450-1	1	24	-1.88e-3	3/29/2018@8:23:53 AM		
JC62450-2	1	25	-6.28e-3	3/29/2018@8:25:15 AM		
JC62450-3	1	26	-3.18e-3	3/29/2018@8:26:36 AM		
JC62451-1	1	27	-7.30e-3	3/29/2018@8:27:57 AM		
JC62452-1	1	28	2.00e-3	3/29/2018@8:29:18 AM		
JC62452-2	1	29	-4.55e-3	3/29/2018@8:30:39 AM		
CCV	1	S9	0.414	3/29/2018@8:32:01 AM		103.5%
Known Conc:			0.400			
CCB	1	S10	-5.37e-3	3/29/2018@8:33:23 AM		
Known Conc:			0.00			
JC62452-3	1	30	-3.75e-3	3/29/2018@8:34:43 AM		
JC62453-1	1	31	-1.34e-3	3/29/2018@8:36:06 AM		
JC62453-2	1	32	-2.04e-3	3/29/2018@8:37:28 AM		
JC62453-3	1	33	-2.64e-3	3/29/2018@8:38:50 AM		
JC62434-1	1	34	-5.69e-3	3/29/2018@8:40:12 AM		
JC62455-1	1	35	-4.54e-3	3/29/2018@8:41:34 AM		
JC62455-2	1	36	-3.71e-3	3/29/2018@8:42:56 AM		
GP12038-MB1	1	37	-5.31e-3	3/29/2018@8:44:18 AM		
GP12038-B1	1	38	0.0831	3/29/2018@8:45:40 AM		99.7%
GP12038-S1	1	39	0.0775	3/29/2018@8:47:01 AM		
CCV	1	S9	0.416	3/29/2018@8:48:23 AM		104%
Known Conc:			0.400			
CCB	1	S10	-4.93e-3	3/29/2018@8:49:45 AM		
Known Conc:			0.00			
GP12038-S2	1	40	0.0975	3/29/2018@8:51:06 AM		
GP12038-D1	1	41	3.65e-3	3/29/2018@8:52:28 AM		

Author: chemistry

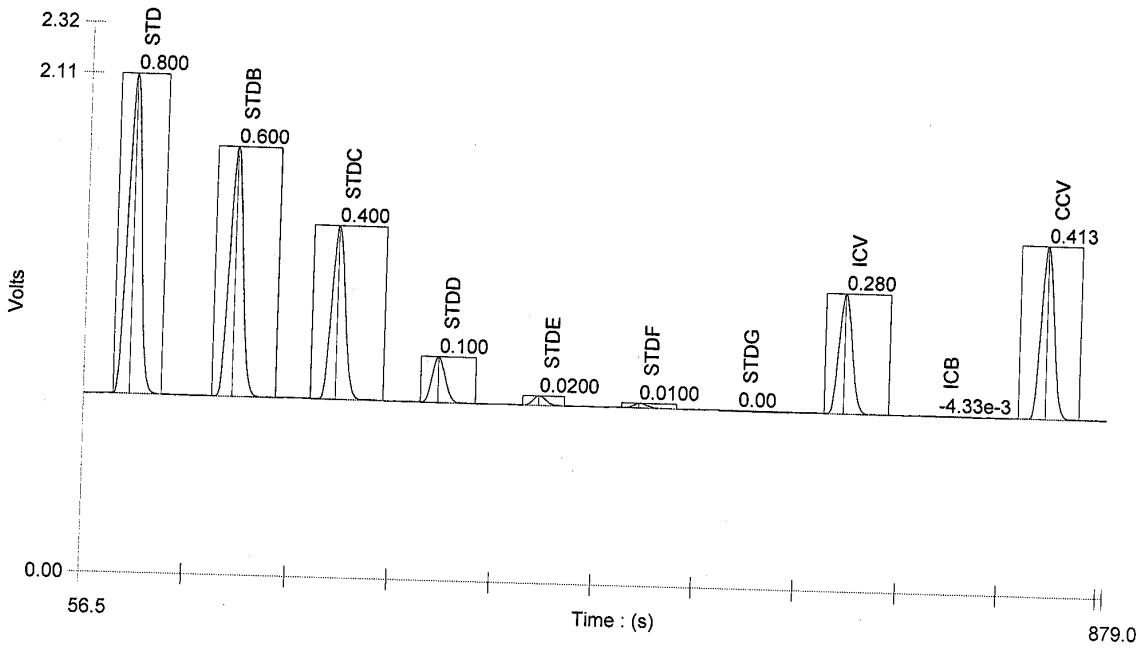
Date : 3/29/2018

JC62507-1	1	42	-1.68e-3	3/29/2018@8:53:49 AM	
JC62648-1	1	43	0.0543	3/29/2018@8:55:10 AM	
JC62704-1	1	44	3.68e-3	3/29/2018@8:56:31 AM	
JC62766-33	1	45	0.0146	3/29/2018@8:57:52 AM	
JC62808-1	1	46	0.0318	3/29/2018@8:59:14 AM	
JC62804-2	1	47	-6.00e-4	3/29/2018@9:00:36 AM	
JC62851-1	1	48	-8.11e-4	3/29/2018@9:01:59 AM	
JC62851-2	1	49	-1.02e-3	3/29/2018@9:03:21 AM	
CCV	1	S9	0.417	3/29/2018@9:04:43 AM	104.2%
Known Conc:			0.400		
CCB	1	S10	-4.37e-3	3/29/2018@9:06:05 AM	
Known Conc:			0.00		
JC62851-3	1	50	1.95e-3	3/29/2018@9:07:26 AM	
JC62851-4	1	51	-5.57e-4	3/29/2018@9:08:48 AM	
GP12036-MB1	1	52	-4.69e-3	3/29/2018@9:10:10 AM	
GP12036-B1	1	53	0.0847	3/29/2018@9:11:32 AM	101.6%
GP12036-S1	1	54	0.0528	3/29/2018@9:12:53 AM	
GP12036-S2	1	55	0.0615	3/29/2018@9:14:15 AM	
GP12036-D1	1	56	0.0216	3/29/2018@9:15:36 AM	
GP12036-D2	1	83	-2.38e-3	3/29/2018@9:16:58 AM	
JC62579-1	1	57	-4.02e-3	3/29/2018@9:18:19 AM	
JC62579-2	1	58	-1.88e-3	3/29/2018@9:19:40 AM	
CCV	1	S9	0.414	3/29/2018@9:21:02 AM	103.5%
Known Conc:			0.400		
CCB	1	S10	-6.03e-3	3/29/2018@9:22:23 AM	
Known Conc:			0.00		
JC62579-3	1	59	8.90e-3	3/29/2018@9:23:44 AM	
JC62579-4	1	60	7.54e-3	3/29/2018@9:25:05 AM	
JC62579-5	1	61	-4.14e-3	3/29/2018@9:26:28 AM	
JC62579-6	1	62	0.210	3/29/2018@9:27:50 AM	
JC62579-7	1	63	0.0203	3/29/2018@9:29:12 AM	
JC62579-8	1	64	0.0180	3/29/2018@9:30:34 AM	
JC62579-9	1	65	0.0602	3/29/2018@9:31:56 AM	
JC62579-10	1	66	1.61e-3	3/29/2018@9:33:18 AM	
JC62579-11	1	67	-5.40e-4	3/29/2018@9:34:40 AM	
JC62579-12	1	68	8.48e-4	3/29/2018@9:36:01 AM	
CCV	1	S9	0.414	3/29/2018@9:37:23 AM	103.5%
Known Conc:			0.400		
CCB	1	S10	-3.74e-3	3/29/2018@9:38:45 AM	
Known Conc:			0.00		
JC62579-13	1	69	0.116	3/29/2018@9:40:06 AM	
JC62579-14	1	70	1.44e-3	3/29/2018@9:41:28 AM	
JC62579-15	1	71	5.24e-4	3/29/2018@9:42:49 AM	
JC62579-16	1	72	-1.23e-3	3/29/2018@9:44:10 AM	
JC62579-17	1	73	4.53e-3	3/29/2018@9:45:31 AM	
JC62579-18	1	74	0.350	3/29/2018@9:46:52 AM	
JC62579-20	1	75	0.0103	3/29/2018@9:48:14 AM	
GP12037-MB1	1	76	-6.43e-3	3/29/2018@9:49:36 AM	
GP12037-B1	1	77	0.0826	3/29/2018@9:50:58 AM	99.1%
GP12037-S1	1	78	0.0609	3/29/2018@9:52:20 AM	
CCV	1	S9	0.412	3/29/2018@9:53:42 AM	105%
Known Conc:			0.400		
CCB	1	S10	-6.33e-3	3/29/2018@9:55:04 AM	
Known Conc:			0.00		
GP12037-D1	1	79	4.48e-3	3/29/2018@9:56:26 AM	
JC62824-1	1	80	3.34e-3	3/29/2018@9:57:48 AM	
JC62824-2	1	81	1.46e-3	3/29/2018@9:59:11 AM	
JC62824-3	1	82	4.15e-3	3/29/2018@10:00:32 AM	
CCV	1	S9	0.411	3/29/2018@10:03:37 AM	102.7%
Known Conc:			0.400		
CCB	1	S10	-5.69e-3	3/29/2018@10:04:59 AM	
Known Conc:			0.00		

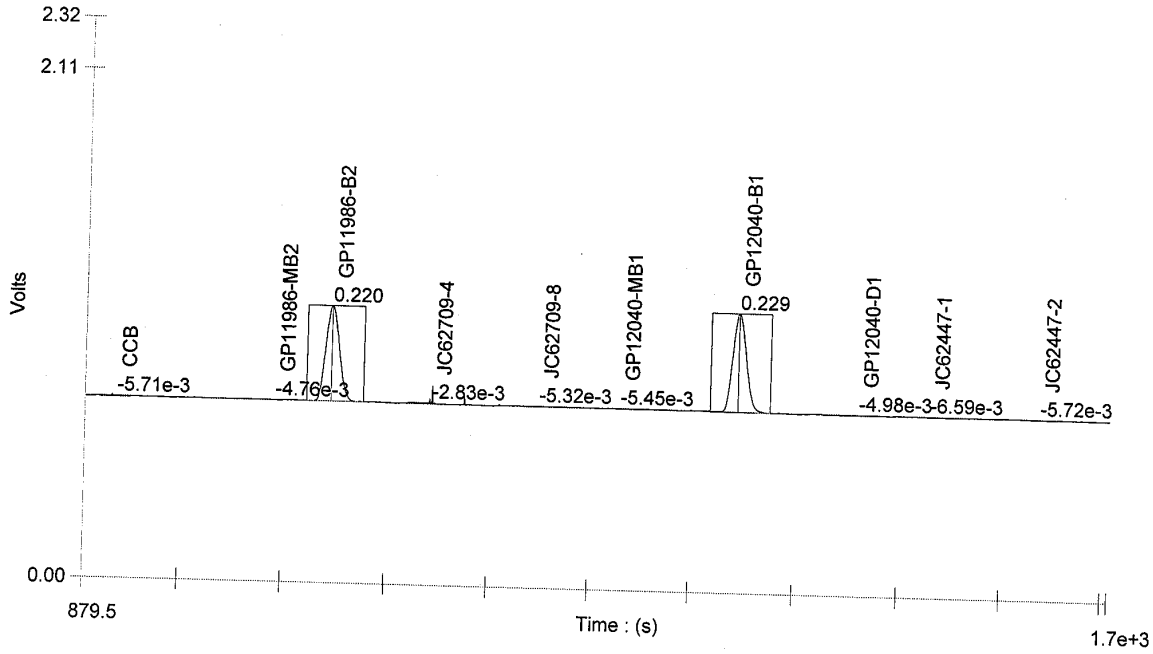
Author: chemistry

Date : 3/29/2018

Channel 1 - Set: 1 / 11



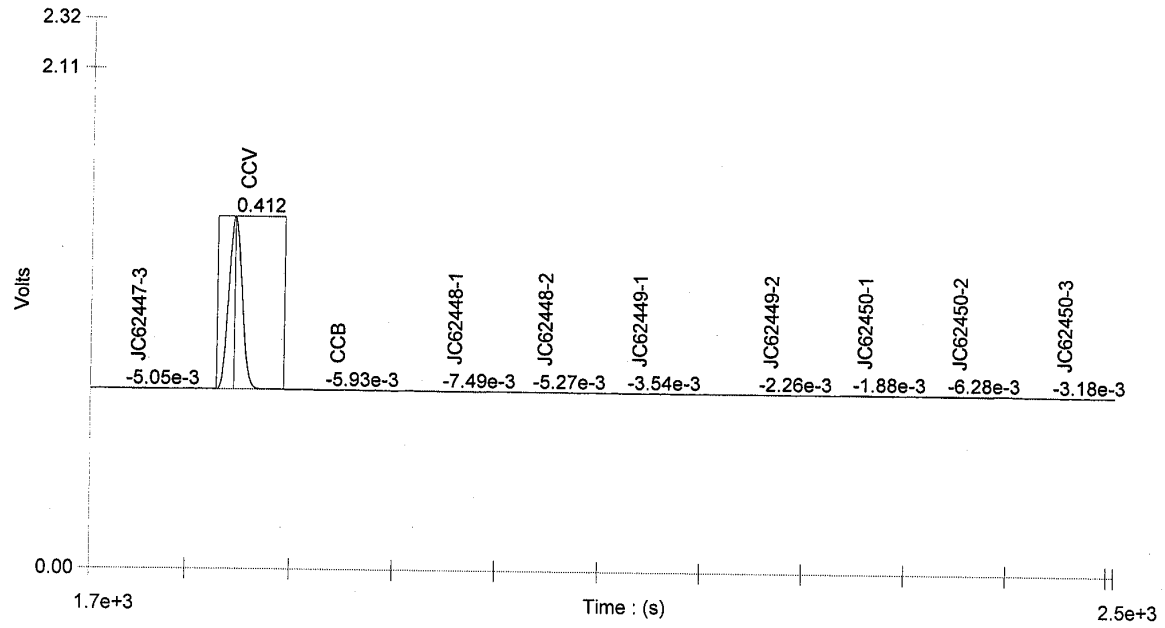
Channel 1 - Set: 2 / 11



Author: chemistry

Date : 3/29/2018

Channel 1 - Set: 3 / 11



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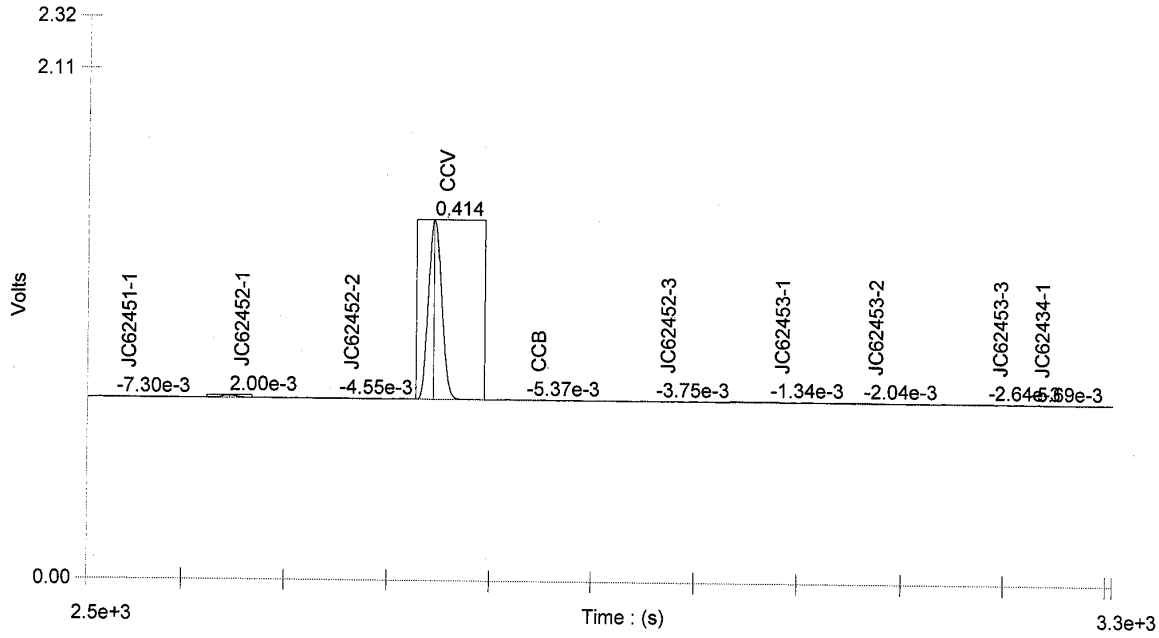

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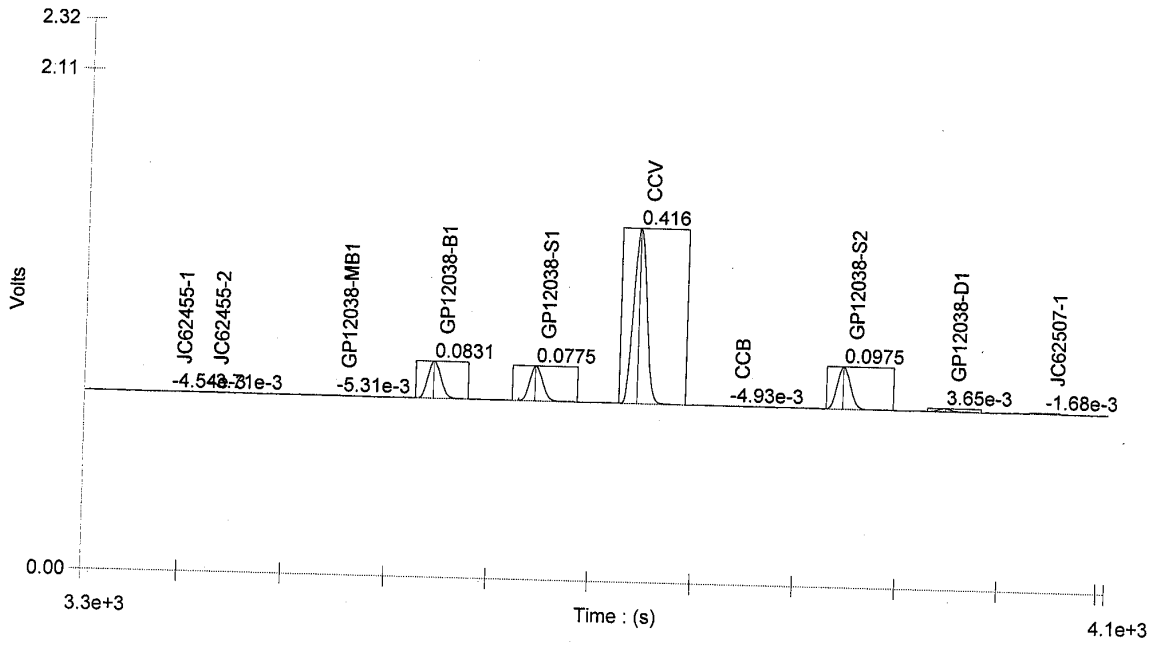
Author: chemistry

Date : 3/29/2018

Channel 1 - Set: 5 / 11



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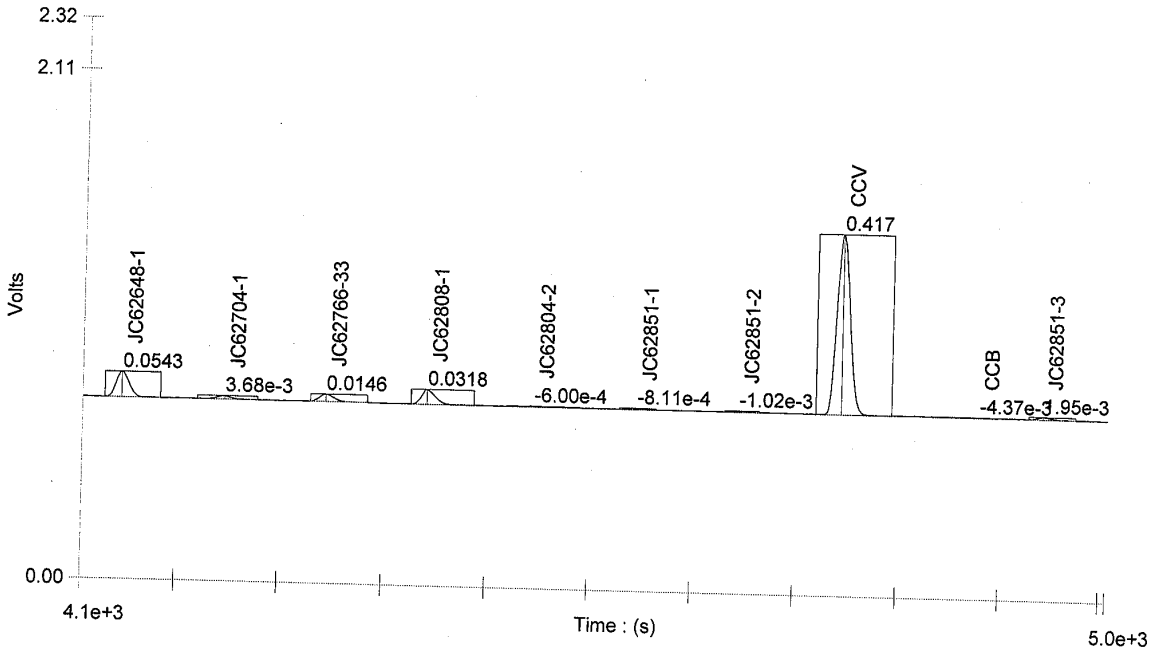
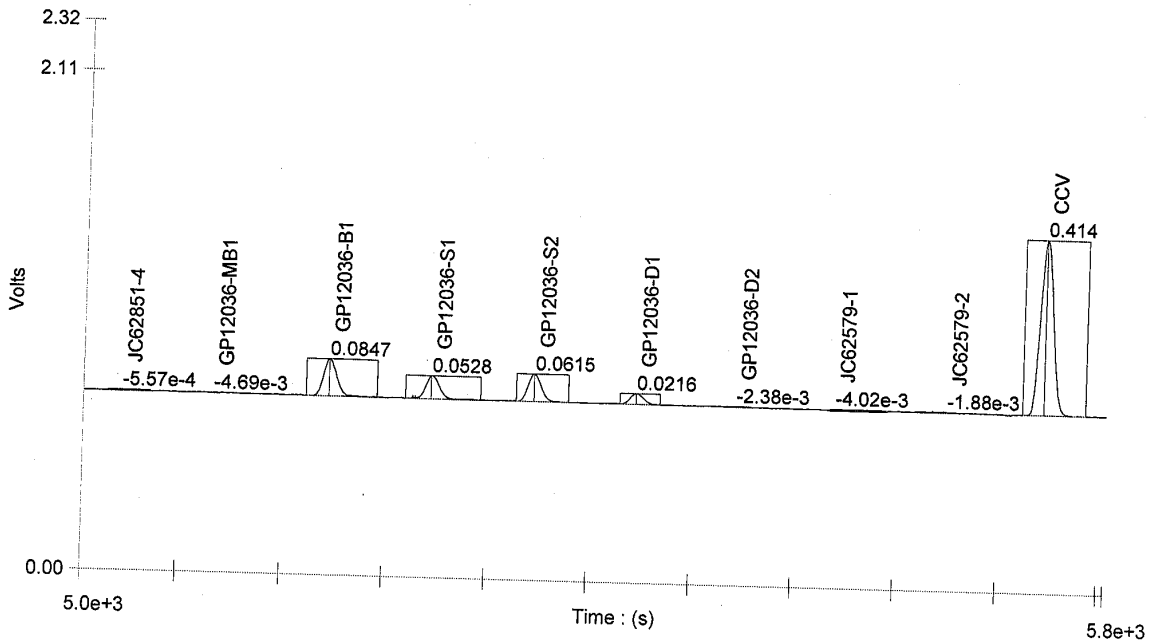


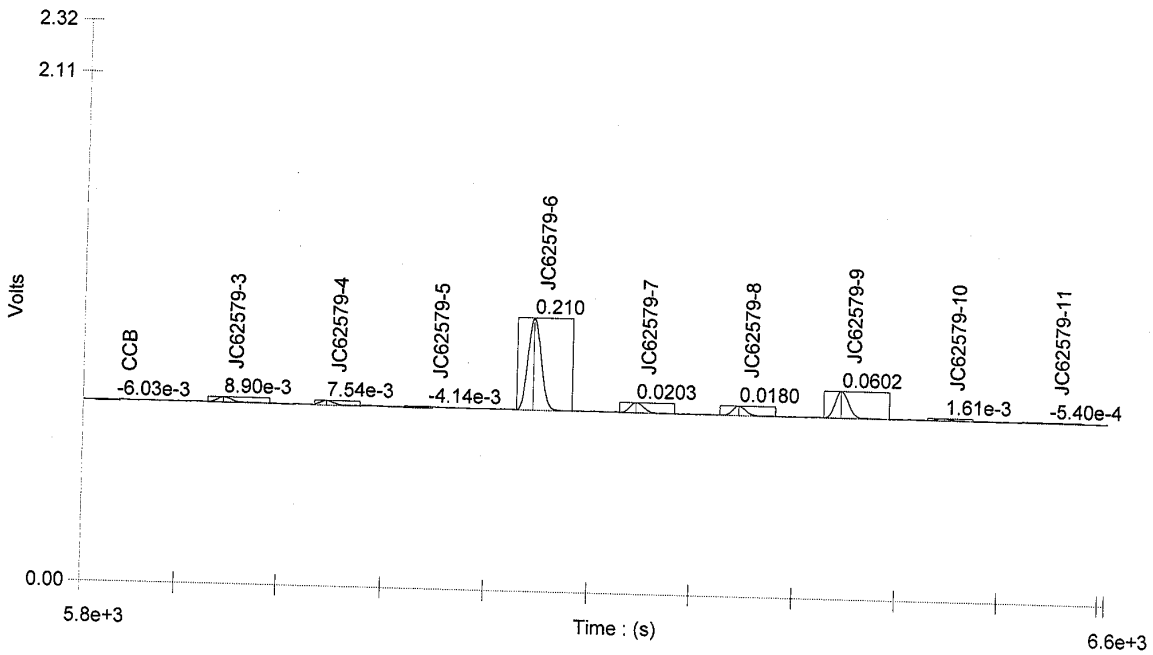
Author: chemistry

Date : 3/29/2018

Channel 1 - Set: 7 / 11



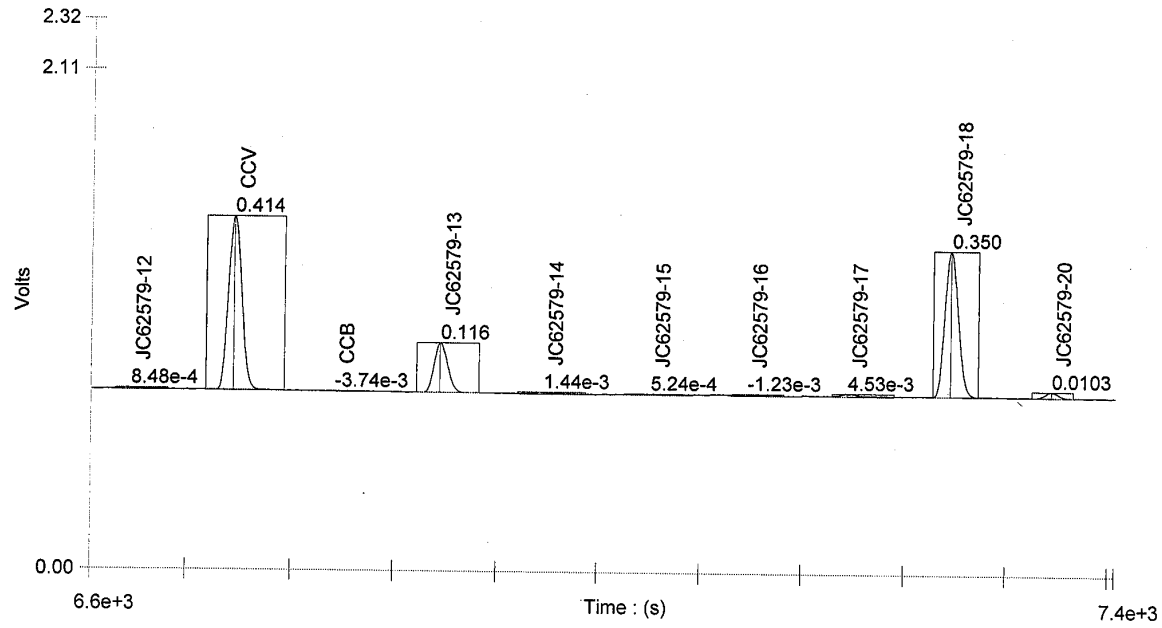
Channel 1 - Set: 8 / 11



Author: chemistry

Date : 3/29/2018

Channel 1 - Set: 9 / 11



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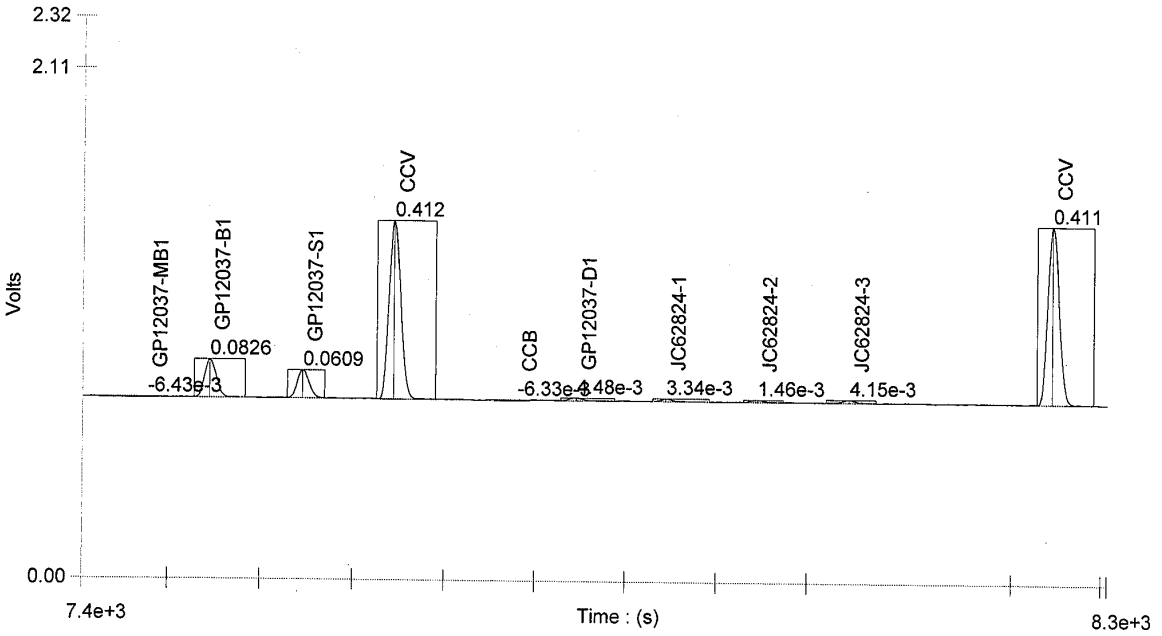


Author: chemistry

Date : 3/29/2018

Channel 1 - Set: 11 / 11

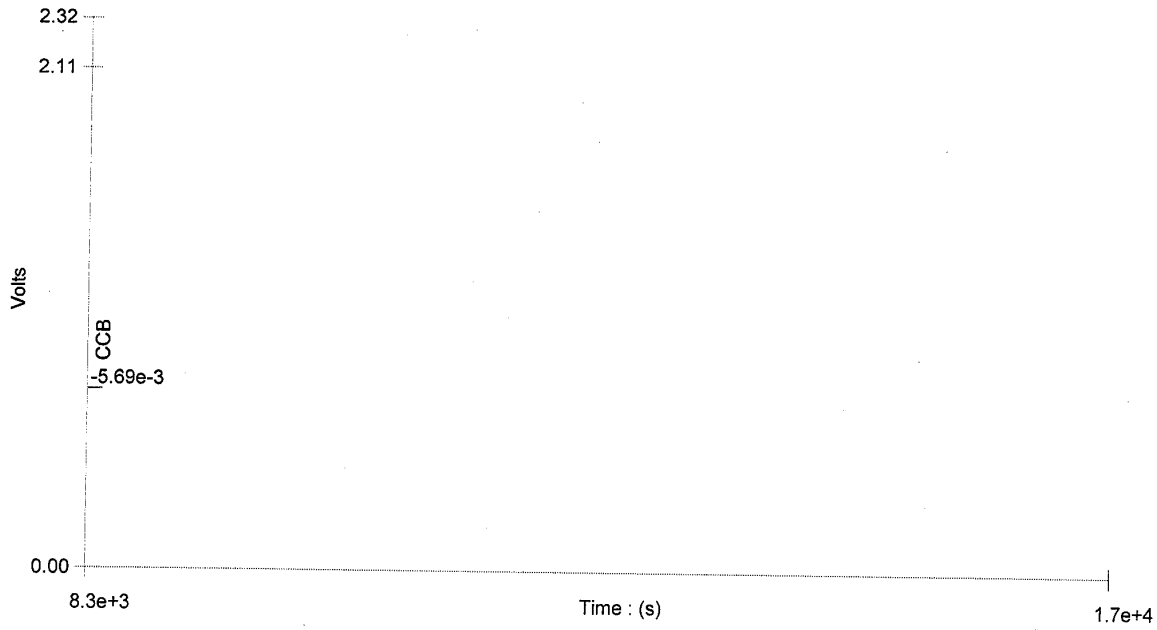
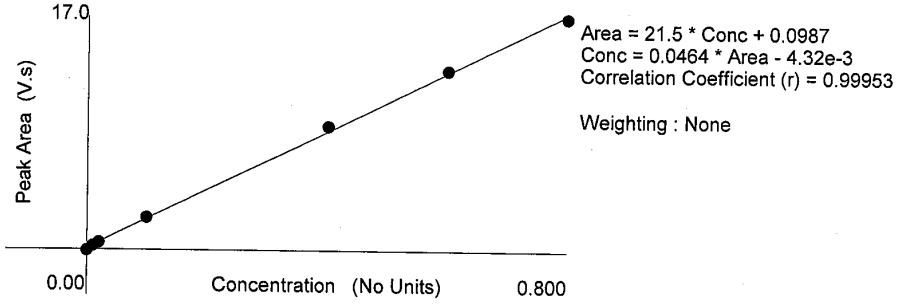


Table : 1 (CN)

	Known Conc. ()	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc ()	Detection Date	Detection Time
1	0.800	1	17.0	1.36	0.0	1.7	0.786	3/29/2018	7:47:06 AM
2	0.600	1	13.2	1.06	0.0	-1.1	0.606	3/29/2018	7:48:29 AM
3	0.400	1	9.07	0.735	0.0	-4.1	0.416	3/29/2018	7:49:51 AM
4	0.100	1	2.33	0.192	0.0	-3.4	0.104	3/29/2018	7:51:13 AM
5	0.0200	1	0.495	0.0408	0.0	6.6	0.0186	3/29/2018	7:52:35 AM
6	0.0100	1	0.256	0.0199	0.0	18.6	7.53e-3	3/29/2018	7:53:57 AM
7	0.00	1	-0.0886	-3.41e-3			-8.43e-3	3/29/2018	7:55:19 AM

Figure : 1 (CN)



ACCUTEST LABORATORIES

SReac | CReac

REACTIVITY DISTILLATION LOG (SOILS) GP11895 | GP11896

Method: SW846 Chapter 7

Batch ID: _____

Autopipette ID: NA

Balance ID: B-27

Bottle #	Sample ID	Initial Volume (ml)	Final Volume (ml)	Start Time	End Time	Date	QC ID	Product (SREAC, CREAC, or both)	Check when spike added	Spike Amounts and Comments including Spike Lots	Analyst
	MB2	10.00	50	1400	1430	3/28/18	GP -MB				JAB
	B2	10.00					GP -B	CREAC		10ml of 100ppm	
	B2	10.00					GP -B	SREAC		10ml of 537ppm	
							GP -S	SREAC		10ml of 537 ppm	
							GP -D				
1	JC62709-4	10.38									
1	-8	10.34									

Comments: Creac Spike: 20 ml of 1000ppm cyanide stock diluted up to 200ml w/ 0.25N NaOH
Sreac Spike: 2.0g of Sodium Sulfide Nonahydrate diluted up to 500ml w/ DI H20

QC Reviewer: _____ Date: _____

Form: GN282-01b
Rev. Date: 02/28/13

ACCUTEST.

Reagent Information Log - CREAC and SREAC Distillations

GP Numbers: GP11895 / GP11896

Reagent	Reagent # or Manufacturer/Lot	Expiration date	Standardization Date
Cyanide Spike Solution	GNE2-53655-CN	6/12/2018	3/26/2018
Sulfide Spike Solution	FISHER # 161566	1/11/2022	NA
Sulfuric Acid, 0.010 N	GNE3-53932-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA

Form: GN087A-64
Rev. Date: 3/12/04

15.1
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ACCUTEST LABORATORIES

SReac | CReac

Batch ID:_____

Autopipette ID:_____

Balance ID:_____B-27_____

REACTIVITY DISTILLATION LOG (SOILS) GP12039 | GP12040

Method: SW846 Chapter 7

Bottle #	Sample ID	Initial Volume (ml)	Final Volume (ml)	Start Time	End Time	Date	QC ID	Product (SREAC, CREAC, or both)	Check when spike added	Spike Amounts and Comments including Spike Lots	Analyst
	MB1	10.60	500	1400	1430	3/28/18	GP -MB				TRG
	B1	10.00					GP -B	CREAC		10ml of 100ppm	
	B1	10.00					GP -B	SREAC		10ml of 537ppm	
2	S1	10.40					GP -S	SREAC		10ml of 537 ppm	
2	D1	10.15					GP -D				
2	JC62447-1 (Cor)	10.25									
1	-2	10.16									
3	-3	9.95		1445	1516						
2	JC62448-1	9.97									
1	-2	10.34									
2	JC62449-1	10.14									
1	-2	9.80									
2	JC62450-1	9.97									
1	-2	10.14									
1	-3	9.99									
3	JC62451-1	10.25									
	JC62452-1	9.90									
3	-2	10.24									
2	-3	10.24		1545	1615						
1	JC62453-1	9.80									
1	-2	10.11									
1	-3	9.91									
2	JC62454-1	10.21									
1	JC62455-1	10.08									
2	JC62455-2	10.42									

Comments: Creac Spike: 20 ml of 1000ppm cyanide stock diluted up to 200ml w/ 0.25N NaOH
Sreac Spike: 2.0g of Sodium Sulfide Nonahydrate diluted up to 500ml w/ DI H20

QC Reviewer: _____ Date: _____

Form: GN282-01b
Rev. Date: 02/28/13

ACCUTEST.

Reagent Information Log - CREAC and SREAC Distillations

GP Numbers: 6812039/6812040

Reagent	Reagent # or Manufacturer/Lot	Expiration date	Standardization Date
Cyanide Spike Solution	GNE2-53655-CN	6/12/2018	3/26/2018
Sulfide Spike Solution	FISHER # 161566	1/11/2022	NA
Sulfuric Acid, 0.010 N	GNE3-53932-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA
Sodium Hydroxide, 0.25 N	GNE3-53931-REAC	9/1/2018	NA

Form: GN087A-64
Rev. Date: 3/12/04

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ACCUTEST LABORATORIES

Batch ID: _____

Autopipette ID: 41

Balance ID: B27

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW846 9012B M

GPN037

Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
	2	MB1	12	—	√	0.25	6	120	2:55	3:25	03/26/18	GP -MB1			FO
		B1				0.25						GP -B1	0.10 ml of 5.0 mg/l (c)		
2		QC S1				0.34						GP -S1	0.10 ml of 5.0 mg/l		
												GP -S2	0.10 ml of 5.0 mg/l		
2		QC D1				0.32						GP -D1			
2		QC JC62824-1				0.30									
1		-2				0.30									
1		-3				0.33									

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(7)

If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1:0 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments: _____

QC Reviewer: _____ Date: _____

Form: GN0012-04A

Rev. Date: 03/09/13

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP12037

Intermediate Standard Description	Stock used to prepare standard	Standard-ization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
Standards Stock	GNE2-53655-CN	3/26/18	1000	1.000	41	.25 N NaOH	200	5.00	6/12/18	TRG	3/12/18
Undistilled ICV Int.	GNE8-51786-CN	1/24/18	992	2.00	41	.25 N NaOH	100	20.00		bm	
Undistilled CCV Int.	GNE7-51646-CN	1/24/18	1004	2.00	41	.25 N NaOH	100	20.00		bm	

Standard Description	Intermediate or Stock used to prepare standard		Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)		Analyst	Date
A	5.0 ppm CN STD		5.0	16.00	A	.25 N NaOH	100	0.80	4/2/18	FO	3/26/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	4/2/18	FO	3/26/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	4/2/18	FO	3/26/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	4/2/18	FO	3/26/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	4/2/18	FO	3/26/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	4/2/18	FO	3/26/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30		BM	
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40		BM	

(a) Concentration will change with standardization concentration.

(b) Diluent reagent reference number: SEE ATTACHED Expiration Date: SEE ATTACHED

(c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP12037

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE2-53817-CN	8/22/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	3/16/2018	NA
0.95 NaOH	GNE-54104-CN	9/19/2018
Cyanide Stock Solution A- Spiking/standards	GNE2-53655-CN	6/12/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

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ACCUTEST LABORATORIES

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Batch ID: GP12036 (FO)

Autopipette ID: 41

Balance ID: B27

Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Volume (ml)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analys
	1	MB1	12	–	✓	6	6	12	13:56	14:26	03/28/18	GP -MB1			FO
		B1										GP -B1	0.10 ml of 5.0 mg/l (c)		
22	Q1	S1										GP -S1	0.10 ml of 5.0 mg/l		
24	Q2	S2										GP -S2	0.10 ml of 5.0 mg/l		
22	Q1	D1										GP -D1			
24	Q2	D2													
4		SC67579-1													
4		-2													
4		-3													
4		-4													
4		-5													
4		-6													
4		-7													
4		-8													
22	Q1	-9													
4		-10													
24	Q2	-11													
4		-12													
4		-13													
4		-14													
4		-15													
4	2	-16													
4		-17													
4		-18													
4		-20													

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: Date:

Form: GN0012-04
Rev. Date: 03/09/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP12036

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE2-53817-CN	8/22/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	3/16/2018	NA
0.95 NaOH	GNE-54104-CN	9/19/2018
Cyanide Stock Solution A- Spiking/standards	GNE2-53655-CN	6/12/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

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ACCUTEST.

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP12036

Intermediate Standard Description	Stock used to prepare standard	Standard-ization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
Standards Stock	GNE2-53655-CN	3/26/18	1000	1.000	41	.25 N NaOH	200	5.00	6/12/18	TRG	3/12/18
Undistilled ICV Int.	GNE8-51786-CN	1/24/18	992	2.00	41	.25 N NaOH	100	20.00		bm	
Undistilled CCV Int.	GNE7-51646-CN	1/24/18	1004	2.00	41	.25 N NaOH	100	20.00		bm	

Standard Description	Intermediate or Stock used to prepare standard		Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)		Analyst	Date
A	5.0 ppm CN STD		5.0	16.00	A	.25 N NaOH	100	0.80	4/2/18	FO	3/26/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	4/2/18	FO	3/26/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	4/2/18	FO	3/26/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	4/2/18	FO	3/26/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	4/2/18	FO	3/26/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	4/2/18	FO	3/26/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30		BM	
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40		BM	

(a) Concentration will change with standardization concentration.

(b) Diluent reagent reference number: SEE ATTACHED Expiration Date: SEE ATTACHED

(c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

ACCUTEST LABORATORIES

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Batch ID: GP12038

Autopipette ID: A1

Balance ID: B27

Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Volume (ml)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analys
	1	MB	12	-	✓	6	6	120	2:55	3:25	03/28/18	GP -MB1			10
		B1										GP -B1	0.10 ml of 5.0 mg/l (c)		
1		S1										GP -S1	0.10 ml of 5.0 mg/l		
21		S2										GP -S2	0.10 ml of 5.0 mg/l		
2		D1										GP -D1			
4		JC62507-1													
21		JC62648-1													
2		JC62704-1													
4		JC62766-33													
11		JC62808-1													
4		JC62804-2													
12		JC62851-1													
12		-2													
12		-3													
12		-4													

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: Date:

Form: GN0012-04
Rev. Date: 03/09/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP12038

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE2-53817-CN	8/22/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	3/16/2018	NA
0.95 NaOH	GNE-54104-CN	9/19/2018
Cyanide Stock Solution A- Spiking/standards	GNE2-53655-CN	6/12/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

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ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP12038

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
Standards Stock	GNE2-53655-CN	3/26/18	1000	1.000	41	.25 N NaOH	200	5.00	6/12/18	TRG	3/12/18
Undistilled ICV Int.	GNE8-51786-CN	1/24/18	992	2.00	41	.25 N NaOH	100	20.00		bm	
Undistilled CCV Int.	GNE7-51646-CN	1/24/18	1004	2.00	41	.25 N NaOH	100	20.00		bm	

Standard Description	Intermediate or Stock used to prepare standard		Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)		Analyst	Date
A	5.0 ppm CN STD		5.0	16.00	A	.25 N NaOH	100	0.80	4/2/18	FO	3/26/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	4/2/18	FO	3/26/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	4/2/18	FO	3/26/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	4/2/18	FO	3/26/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	4/2/18	FO	3/26/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	4/2/18	FO	3/26/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30		BM	
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40		BM	

(a) Concentration will change with standardization concentration.

(b) Diluent reagent reference number: SEE ATTACHED Expiration Date: SEE ATTACHED

(c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

ACCUTEST.

GN78021

Reagent Information Log - CN Lachat Autoanalyzer

GN Number:

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Pyridine-Bartituric Acid Reagent	gne1-53487-cn	7/22/2018
Chloramine-T	gne3-54150-cn	3/30/2018
Phosphate Buffer Solution, 1.0 M	gne3-54000-cn gne2-53715-cn	9/9/2018 8/12/2018
0.25 N Sodium Hydroxide Carrier Solution	gne3-54001-cn GNE12-53078-CN	1/31/2023 6/11/2018

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-27
Rev. Date: 7/19/06

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