

January 17, 2002

Ms. Tracy Bell KeySpan Energy One Metrotech Center Brooklyn, New York 11202

Subject: Delineation of Fuel Oil Contaminated Soil at the

Former Philadelphia Coke Company Site, Philadelphia, Pennsylvania

Project No. 42-87C2839A.00 00012

Dear Ms. Bell:

URS Corporation (URS) is pleased to provide our letter report summarizing results of a subsurface investigation to delineate the extent of visible fuel oil contamination in soil at the Former Fuel Oil Blending Area (Site) on the Former Philadelphia Coke Company Property in Philadelphia, Pennsylvania (Figure 1). The report also provides estimates of contaminated soil volumes, based on both these recent and previous investigations. This work was performed for KeySpan Energy (KeySpan) by URS in accordance with KeySpan Purchase Order No. 61301 (Revision 1) dated November 29, 2001.

BACKGROUND

In connection with KeySpan's evaluation of environmental conditions at the former Philadelphia Coke Company Property (Property) acquired by KeySpan as part of its acquisition of Eastern Enterprises, Inc. (former owners of the Property), KeySpan investigated existing pipeline segments associated with a former fuel oil blending operation. No. 2 fuel oil was discovered and subsequently removed from the pipe segments in 2001 by Miller Environmental Group, Inc. (Miller) of Paulsboro, New Jersey under contract to KeySpan.

During this oil removal process and related excavations, oil was discovered as a light non-aqueous phase liquid (LNAPL) floating on the perched groundwater near the western terminus of the pipe segments (**Figure 1**). This discovery led to the further evaluation of the extent of fuel oil contamination, as discussed in this report.

Fuel Blending Area History

It is not known when the fuel oil blending operation was initiated. However, the storage tanks and blending appurtenances were demolished in the 1985 timeframe. It is also not known whether the fuel oil presently in the subsurface was sourced from blending operations or from the demolition. When URS (formerly Woodward-Clyde) first began working on another area of the Property in 1986, all former fuel oil blending equipment had been removed and the Site was open land.

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In 1988 during a regulatory agency inspection of the Property, oily residue was observed on the soil surface near a former pump house within the Area. This prompted a series of investigations of Area contamination between 1988 and 1991 and resulted in design and construction of a comprehensive remediation project. The project was constructed in 1991 and initiated in 1992. It involved excavation and removal of fuel oil sources like subsurface interconnecting piping (between the former aboveground tanks and the pump house) and oily residue in the basement of the former pump house. The project also involved a complex bioremediation process that targeted both the surface and subsurface soils. The process was operated for almost two years with moderate success in reducing hydrocarbon concentrations in the surface (0 to 3 ft) soils but with limited success with the deeper contamination. The process was shut down in late 1993 and above-grade facilities dismantled and removed in early 1998. There has been no significant activity at the Area since that time.

Two groundwater-monitoring wells (MW-13 and MW-14) were installed in late 1989 in response to regulatory agency requests. These wells were sampled quarterly, beginning in January 1990 and ending in October 1998. Groundwater from Well MW-13 has consistently met Pennsylvania Department of Environmental Protection (PADEP) water quality criteria. Groundwater from Well MW-14 has consistently been very silty and has shown detectable levels of polycyclic aromatic hydrocarbons (PAHs) in unfiltered samples. However, filtered samples of water from MW-14 showed the groundwater met water quality criteria, thus indicating the PAH contaminants are associated with the sediment.

SUBSURFACE INVESTIGATION

On Wednesday, November 28, 2001, URS coordinated the subsurface investigation and Miller provided the excavation equipment and labor. A total of 18 test pits were excavated, 15 near the western terminus of the former oil pipeline and within Site, and three at the eastern oil pipeline terminus near the former coal pier head (Figure 1). Observations made from the test pit excavations are summarized in Table 1. Test pit logs are included in Appendix A. Photographs of test pits and the excavation areas are included in Appendix B.

Test Pit 1 was excavated near the reported location of an oil leak from the western end of the former oil pipeline. The pipeline was not located, but some oil contamination was observed in the soil in a layer approximately 4 feet thick, above and immediately below the water table. A thin layer of fuel oil was observed floating on the water table in the test pit excavation. Based on these observations, Test Pits 2 through 10 were excavated within the soil-bermed area of the Site to evaluate the extent of visible oil contamination.

Test Pits 11 through 15 were excavated outside the soil-bermed area of the Site to define the areal extent of contamination downgradient (groundwater gradient per **Figure 1**) of the pipeline leak and Site. Of these five test pits, visible soil contamination was only observed in Test Pit 12, located between the railroad and the soil-bermed Site, approximately 25 feet east of the pipeline leak area (**Table 1**, **Figure 1**).

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Observations made from Test Pits 1 through 15 are summarized as follows:

- Visible fuel oil contamination present in the soil as a result of the apparent leak at the western terminus of the pipeline is limited in extent to an estimated 25-foot radius.
- Fuel oil contamination from former (i.e., pre-1986) fuel oil blending operations are apparent within the Site.
- Fuel oil contamination, from either the western pipeline terminus leak or operations at the Site, does not appear to extend in a downgradient (groundwater) direction beyond the western side of the railroad.
- Visible fuel oil contamination is generally present in a relatively thin soil zone between 1 and 2 feet above and 1 to 2 feet below the observed water table. Exceptions were observed in Test Pits, 1 and 12 that were closest to the western pipeline terminus leak area where the visible soil contamination was approximately 4 feet thick.

Test Pits 16, 17, and 18 were excavated at the former coal pier head near the eastern terminus of the oil pipeline(s). From **Table 1**, no significant fuel oil contamination was observed in the soil at these locations.

ESTIMATES OF CONTAMINATED SOIL VOLUME

In order to estimate the total volume of soil visually contaminated with fuel oil, URS made several assumptions:

- 1. Based on the test pits observed within the Site area (e.g., Test Pits 1 through 10), residual fuel oil remains in a relatively thin soil zone immediately above and below the perched water table throughout most of the Site.
- 2. Comparison of the 2001 subsurface data to previous (1988, 1989, and 1990) soil boring and test pit data for the entire Site area suggests that much of the historic fuel oil contamination remains at or near the water table.
- 3. Comparison of these same data also suggest that the remediation activities performed in the 1992 and 1993 timeframe removed visible fuel oil and reduced petroleum hydrocarbon concentrations in the upper several feet of the unsaturated zone throughout the Site area.
- 4. From **Table 1**, the average estimated thickness of the visibly contaminated soil zone is 3 feet.

Using these conditions as a basis, and assuming they are representative of the entire Site area (approximately 2.8 acres), a volume of 13,800 cubic yards is estimated. This estimate may be conservative, but is based on the assumptions noted above.

Contamination resulting directly from the apparent pipeline leak is limited to a relatively small area (25-foot radius estimated) and accounts for approximately 75 cubic yards of visibly contaminated soil (assuming a 4-foot thickness per Test Pits 1 and 12).

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Of particular importance is the indication that fuel oil contamination is apparently not spreading in a downgradient (groundwater) direction toward the Delaware River beyond the Site area defined by previous (1988 - 1990) investigations. This observation, coupled with KeySpan's recent removal of oil within the remaining pipeline segment and remediation work completed in 1992-1993 by Eastern Enterprises to remove fuel oil source material (subsurface interconnecting pipes between the former aboveground tanks and oily debris from the former pump house basement), should eliminate potential fuel oil sources at the Site.

URS appreciates this opportunity to be of service to KeySpan and looks forward to future assignments. Please do not hesitate to call at (215) 619-4119 should you have any questions pertaining to this report. Very truly yours,

James V. Husted, P.E. Principal Engineer

Attachments

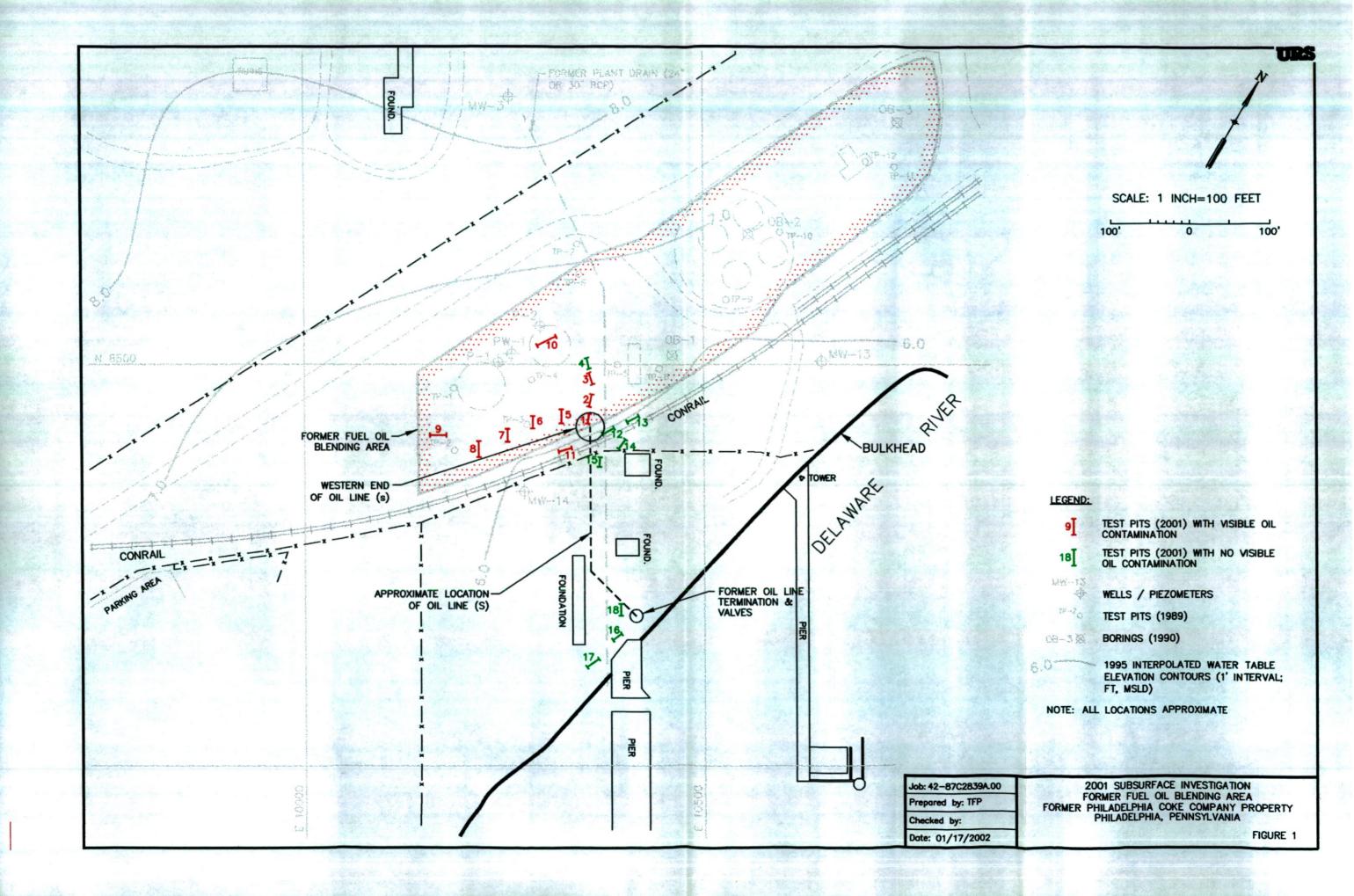
cc: G. Riehle, URS

Table 1

Summary of Observed Subsurface Conditions Area of Former Oil Pipeline(s) and Fuel Blending Area Former Philadelphia Coke Company Property Philadelphia, Pennsylvania

Tes	st Pit Description		Subsurfa	ce Conditions Ob	served		
Number	Location	Fuel Oil Contamination Present	Estimated Depth Range of Visible Fuel Oil Contamination (ft)	Estimated Thickness of Visible Fuel Oil Contamination (ft)	Depth to Groundwater (ft)	Extent of Fuel Oil Observed on Groundwater	Notes
1	In soil berm of former blending area near western pipeline	Yes	2.5 - 6.5	4	5.5	Thin Layer	
2	terminus In former tank farm area approx. 20 ft west of Pit 1	Yes	4.5 -7.0	2.5	6	Thin Layer	
3	In former tank farm larea approx. 30 ft west of Pit 2	Yes	4.0 - 6.5	2.5	5	Thin Layer	
4	In former tank farm area approx. 30 ft west of Pit 2	Odor Only	Not Observed	N/A	5.5	Not Observed	Strong fuel oil odor in saturated zone soil but no visible contamination
5	In former tank farm area approx. 35 ft south of Pit 1	Yes	4.5 7.0	2.5	5.5	Slight Sheen	
6	In former tank farm area approx, 40 ft south of Pit 5	Yes	4.5 - 8.0	3.5	5.5	Thin Layer	
7	In former tank farm area approx. 35 ft south of Pit 5	Yes	4.5 -8.0	3.5	5.5	Slight Sheen	
8	In former tank farm area approx. 35 ft south of Pit 5	Yes	4.5 - 8.0	3.5	5.5	Thin Layer	
9	At southern end of former tank farm area next to former recovery well	Yes	4.5 - 7.0	2.5	5.5	Not Observed	
10	In former tank farm area near former pump test well	Yes	4.5 - 7.0	2.5	5.5	Slight Sheen	
11	Between railroad and former tank farm area berm south of oil line(s)	Yes	4.5 - 6.5	2	5	Slight Sheen	
12	Between railroad and former tank farm area berm over former plant RCP drain line	Yes	2.0 - 6.0	4	5	Thin Layer	Crown of 24 or 30- inch RCP former plant drain line encountered at 4 ft.
13	Between railroad and former tank farm area berm north of oil line(s)	No	Not Observed	N/A	5.5	Not Observed	
14	East side of railroad and west of oil line(s) end	No	Not Observed	N/A	5	Not Observed	
15	East side of railroad and west of oil line(s) end between Pits 11 and 14	No	Not Observed	N/A	5 5	Not Observed	Lot of brick, concrete and metal rubble
16	At head of former coal pier	Odor Only	Not Observed	N/A	6	Not Observed	Slight petroleum odor but no contamination observed
17	Approx. 35 ft south of Pit 16	No	Not Observed	N/A	6	Not Observed	
18	Approx. 22 ft northwest of Pit 16	No	Not Observed	N/A	5.5	Not Observed	Slight petroleum odor but no contamination observed

PROJECT NAME/LOCATION			GROUND ELEVATIO	N (FT)	PROJECT NUMBER			-
	phia Coke Company Site - Fue				<u> </u>			
EXCAVATION CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED			
Miller Environmental Grou	p, Inc.	Morris Robinson		28/01	11//	28/01		
EXCAVATION EQUIPMENT			NO. SAMPLES	DIST				
John Deere 310SE Backh	oe		WATER LEVEL	5 5 ft				
COMPLETION DEPTH (FT)	APPROX DIMENSIONS (FT) L x \	W×D	TEST PIT LOCATION	1	INSPECTOR			
7 0	8 x 2	x 7		TP-18	Gary Riehle	_		
						Sample Interval		
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		DESCRIPTION				l å	Depth	Number
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0 - 1: Dry; Black, silty fir	ne to coarse SAND.					-	0	
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1 - 7: Wet at 5.5 ft: Brow	vn, silty coarse to fine SAND	with come fine to cos	area arayal and for	w small cobbl	oc.		, -	
	no floating product observed;			ii siriaii çobbi	C5,			
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note: Test pit located a	djacent to coal pier head.					1		į
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PROJECT NAME/LOCATION	GROUND ELEVATIO	N (FT)	PROJECT NUMBER					
Former Philadel	phia Coke Company Site - Fuel	Oil Blending Area	DATE STARTED DATE COMPLETED					
Miller Environmental Group	in Inc	Morris Robinson	ľ	28/01	DATE COMPLETED	(OR (OA		
EXCAVATION EQUIPMENT	p, me.	MOTTS RODITSUIT	NO SAMPLES	DIST	<u></u>	/28/01		
John Deere 310SE Backho	oe		WATER LEVEL	6 ft	 			_
COMPLETION DEPTH (FT)	APPROX DIMENSIONS (FT) L x V	N×D	TEST PIT LOCATION	· · · · · · · · · · · · · · · · · · ·	INSPECTOR			
7 0	8 x 2			TP-17	Gary Riehle			
						2		
						Sample Interva		Sample
		DESCRIPTION				d e	Depth	Number
						12	(ft)	
0 - 2.5: Dry, Black, silty	fine to coarse SAND with little	le fine to coarse grav	/el.				0	
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2.5. 7: Wat at 6 ft: Light	t brown to brown gilty goars.	s to fine CAND with I	ittle eredies to end	anners to fine	a manual			
	t brown to brown, silty coarse to product odors or floating p				e graver		_	
and lew small copples, in	to product odors or noating p	roduct observed, o.c	ppm organic vapo	115.			- 3 -	
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Note: Test pit located ac	djacent to coal pier head.						i	
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PROJECT NAME/LOCATION			GROUND ELEVATION	₹(FT)	PROJECT	NUMBER			•
Former Philadel	phia Coke Company Site - Fue	l Oil Blending Area			1				
EXCAVATION CONTRACTOR		FOREMAN	DATE STARTED		DATE COM	APLETED			
Miller Environmental Grou	p, Inc.	Morris Robinson	11/2			11/2	8/01		
EXCAVATION EQUIPMENT			NO SAMPLES	DIST					
John Deere 310SE Backh		· <u>· · · · · · · · · · · · · · · · · · </u>	WATER LEVEL	6 ft		<u> </u>			
COMPLETION DEPTH (FT)		W×D	TEST PIT LOCATION		i	INSPECTOR			
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1.5 - 7: Wet at 6 ft; Brow	vn to light greyish-brown, silty	y coarse to fine SAND	with some to and	fine to coarse	е				
gravel and few small cob	obles; minor light fuel oil odor	rs; no floating product o	bserved; 17.7 pp	m organic va	pors.			- 2 ·	
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Note: Test pit located ac	djacent to coal pier head.								
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LOG OF TEST PIT TP-15 SHEET 1 OF 1 PROJECT NAME/LOCATION GROUND ELEVATION (FT) PROJECT NUMBER Former Philadelphia Coke Company Site - Fuel Oil Blending Area EXCAVATION CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Miller Environmental Group, Inc. 11/28/01 Morris Robinson 11/28/01 EXCAVATION EQUIPMENT NO SAMPLES John Deere 310SE Backhoe WATER LEVEL 5 5 ft COMPLETION DEPTH (FT) APPROX DIMENSIONS (FT) INSPECTOR LxWxD TEST PIT LOCATION 7.0 Gary Riehle 8 x 2 x 7 TP-15 Sample Sample DESCRIPTION Depth Number (ft) 0 - 7: Wet at 5.5 ft; Brown, dark brown, and blackish brown, sifty coarse to fine SAND with little to some fine to 0 coarse gravel; some brick, concrete, and metallic debris; no product odors or floating product observed; 0.0 ppm organic vapors. 2 3 5 6 7 . END OF TEST PIT @ 7 FT BGS 8 9 10

Note: Test pit located adjacent to eastern side of rail line.

PROJECT NAME/LOCATION			GROUND ELEVATIO	N (FT)	PROJEC	T NUMBER			-
Former Philadel	phia Coke Company Site - Fue	Oil Blending Area							
EXCAVATION CONTRACTOR	· · · · · · · · · · · · · · · · · · ·	FOREMAN	DATE STARTED		DATE CO	MPLETED			
Miller Environmental Grou	p, Inc.	Morris Robinson	11/	28/01	ļ		11/28/01		
EXCAVATION EQUIPMENT			NO SAMPLES	DIST			-		-
John Deere 310SE Backh	oe		WATER LEVEL	5 ft					
COMPLETION DEPTH (FT)	APPROX DIMENSIONS (FT) L x 1	W×D	TEST PIT LOCATION	1		INSPECTOR			
7.5	8 x 2 x	7.5		TP-14		Gary Riehle	•		
			<u></u>	•					
							nter		Sample
		DESCRIPTION					- - -	Depth	Number
		DECORAL FIGH					Sample Interval	(ft)	Number
0 - 4 Dry: Light brown.	silty fine to coarse SAND wit	h little fine to coarse	gravel.					0	
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4 - 7.5: Wet at 5 ft; Grey	y, SILT; no product odors or f	floating product obser	ved; 0.0 ppm orga	inic vapors.			Ì		
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Note: Test pit located a	djacent to eastern side of rail	line.]	
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SHEET 1 OF 1 PROJECT NAME/LOCATION GROUND ELEVATION (FT) PROJECT NUMBER Former Philadelphia Coke Company Site - Fuel Oil Blending Area **EXCAVATION CONTRACTOR** FOREMAN DATE STARTED DATE COMPLETED Miller Environmental Group, Inc. Morris Robinson 11/28/01 11/28/01 EXCAVATION EQUIPMENT NO SAMPLES DIST John Deere 310SE Backhoe WATER LEVEL 5.5 ft COMPLETION DEPTH (FT) APPROX DIMENSIONS (FT) LxWxD TEST PIT LOCATION INSPECTOR $10 \times 2 \times 7.5$ TP-13 Gary Riehle Samore Sample DESCRIPTION Depth Number (ft) 0 - 2: Dry; Dark brown to black, silty coarse to fine SAND 0 1 . 2 2 - 4: Dry; Light brown and light greyish-brown, silty coarse to fine SAND with little fine to coarse gravel. - 3 -4 - 5.5: Dry; Light grey, silty coarse to fine SAND with little fine to coarse gravel. 5 5.5 - 7.5: Wet; Black, decayed organic rich, silty coarse to fine SAND with little to some grading to some fine to coarse gravel with trace clayey areas; wood debris; no product odors or floating product observed; 6 . 0.0 ppm organic vapors. END OF TEST PIT @ 7.5 FT BGS 8 9 - 10 -Note: Test pit located adjacent to western side of rail line.

SHEET 1 OF 1 PROJECT NAME/LOCATION GROUND ELEVATION (FT) PROJECT NUMBER Former Philadelphia Coke Company Site - Fuel Oil Blending Area EXCAVATION CONTRACTOR DATE STARTED DATE COMPLETED Miller Environmental Group, Inc. Morris Robinson 11/28/01 11/28/01 EXCAVATION EQUIPMENT NO SAMPLES DIST John Deere 310SE Backhoe 5 ft WATER LEVEL COMPLETION DEPTH (FT) APPROX DIMENSIONS (FT) LxWxD TEST PIT LOCATION INSPECTOR 12 x 2 x 6 TP-12 Gary Riehle Sample DESCRIPTION Depth Number (ft) 0 - 6: Wet at 5 ft; Dark blackish-brown becoming black and greyish-brown, silty coarse to fine SAND with little 0 fine to coarse gravel; strong heavy fuel oil odor; thin black floating product layer on water surface; 115 ppm organic vapors. 1 -Note: Crown of 30 - 36-inch underground pipe encountered 4 ft bgs. 2 -3 4 . 5 -6 -END OF TEST PIT @ 6 FT BGS 7 9 - 10 -Note: Test pit located adjacent to western side of rail line.

PROJECT NAME/LOCATION	·		GROUND ELEVA	TION (FT)	PROJECT NUMBER			LI I QI I
Former Philas	delphia Coke Company Site	- Fuel Oil Blending Area						
EXCAVATION CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED		-	
Miller Environmental Gr	oup, Inc.	Morris Robinson	1	1/28/01		11/28/01		
EXCAVATION EQUIPMENT			NO SAMPLES	DIST	<u> </u>		-	
John Deere 310SE Bad	khoe		WATER LEVEL	5 ft				
COMPLETION DEPTH (FT)	APPROX DIMENSIONS (FT)	L×W×D	TEST PIT LOCATI		INSPECTOR			
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4 - 6.5: Wet at 5 ft; Alt	ternating dark grey and g	reyish-black, silty coarse to	fine SAND with	little grading	to some	- 1		
to and fine to coarse g	ravel; no product odors o	bserved; slight product she	een on water sur	face; 0.0 ppm	n organic			
vapors.					_]	
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Note: Test pit located	adjacent to western side	of rail line					"	İ
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PROJECT NAME/LOCATION			GROUND ELEVATION	GROUND ELEVATION (FT) PROJECT NUMBER				
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EXCAVATION CONTRACTOR		FOREMAN			DATE COMPLETED			
Miller Environmental Gro	up, Inc.	Morris Robinson		8/01	11/2	8/01		
EXCAVATION EQUIPMENT			NO SAMPLES	DIST				
John Deere 310SE Back	'		WATER LEVEL	5.5 ft				
COMPLETION DEPTH (FT)		x W x D	TEST PIT LOCATION		INSPECTOR			
8.0	10 x	2 x 8		TP-10	Gary Riehle	1 =	,	
		DESCRIPTION				Sample interval	Depth (ft)	Sample Number
0 - 2 Dry Brown to ar	eyish-brown, silty fine to coa	rse SAND with little fin	e to coarse gravel	some glass		1 "	0	
and brick fill debris.	by bit brown, bitty time to boa		grant grant	, 3				
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2 - 4: Dry; Light brown	, silty coarse to fine SAND w	rith little fine to coarse	gravel.			1		
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	ey to dark grey, silty coarse t				oarse	1		
gravel; minor light fuel	oil odor; light product sheen	on water surface; 14.9	ppm organic vapo	rs.		1		
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END OF TEST PIT @	8 FT BGS				-	1		
								
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Note: Test pit located	within former blending area.							
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PROJECT NAMELOCATION			GROUND ELEVATION	ON (FT)	PROJECT NI	JMBER	-		
Former Philad	delphia Coke Company Site	- Fuel Oil Blending Area							
EXCAVATION CONTRACTOR		FOREMAN	DATE STARTED		DATE COMP	LETED			
Miller Environmental Gr	oup, Inc.	Morris Robinson		28/01		11/2	8/01		
EXCAVATION EQUIPMENT			NO SAMPLES	DIST					
John Deere 310SE Bac	khoe		WATER LEVEL	5.5 ft					
COMPLETION DEPTH (FT)	APPROX DIMENSIONS (FT)	L × W × D	TEST PIT LOCATIO	N		SPECTOR			
7.0		12 x 2 x 7		TP-9	G	ary Riehle			
									
							Sample Interval		Sample
		DESCRIPTION					ğ	Depth	Number
							Sav	(ft)	
0 - 1: Dry; Black, orga	anic rich silty SAND with:	few brick fragments.						0	
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1 4: Doy Light brow	n situ poerso to fine CAI	ND with little to some fine t	o coarco graval	-			1	'	
11-4 Dry, Light blow	i, saty coarse to fine on	1D with little to some line t	o coarse graves.						
								- 2 -	
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								- 4 -	
4 ~ 7: Wet at 5.5 ft; Br	own to greyish-brown, si	Ity coarse to fine SAND wi	th little to some fin-	e to coarse	gravel;				
minor product stained	soils; minor light fuel oil of	odor; no observed floating	product; 27.7 ppm	organic va	pors.				
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Note: Test pit located	d within former blending a	rea.					1	1	
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SHEET 1 OF 1 PROJECT NUMBER GROUND ELEVATION (FT) PROJECT NAME/LOCATION Former Philadelphia Coke Company Site - Fuel Oil Blending Area DATE STARTED DATE COMPLETED EXCAVATION CONTRACTOR 11/28/01 Miller Environmental Group, Inc. Morris Robinson 11/28/01 NO SAMPLES **EXCAVATION EQUIPMENT** WATER LEVEL 5.5 ft John Deere 310SE Backhoe INSPECTOR TEST PIT LOCATION LxWxD COMPLETION DEPTH (FT) APPROX DIMENSIONS (FT) Gary Riehle TP-8 12 x 2 x 8 80 ampie Inter-DESCRIPTION Depth (ft) 0 - 3: Dry; Brown to light brown, silty coarse to fine SAND with little to some fine to coarse gravel. 0 2 . 3. 3 - 8: Wet at 5.5 ft; Grey to greyish-black, silty coarse to fine SAND with some fine to coarse gravel; strong light fuel oil odor; thin brownish-black floating product layer on water surface; 47.4 ppm organic vapors. 4. 5 6 8 END OF TEST PIT @ 8 FT BGS 9 - 10 Note: Test pit located within former blending area.

Former Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Blending Area Normal Philadephia Coke Company Ster. Fuel Dil Dil Blending Area Normal Philadephia Company Ster. Fuel Dil Dil Dil Blending Area Normal Philadephia Company Ster. Fuel Dil Dil Dil Dil Dil Dil Dil Dil Dil Di	PROJECT NAMELOCATION			GROUND ELEVATION	N (FT)	PROJECT NUMBER			
Make Environmental Group, Inc. Note: Test pit located within former blending area. Note: Test pit located within former blending area. Note: Test pit located within former blending area. Note: Test pit located within former blending area. Note: Test pit located within former blending area.		alphia Coke Company Site - Fuel		<u> </u>				-	_
DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION 3 - 5 - 5 Dry, Light brown to brown, silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor, 27 ppm organic vapors. 5 - 8 Wet; Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5 5 - 6 5 ft depth, minor light fuel oil odor; thin product sheen on water surface. Note: Test pit located within former blending area Note: Test pit located within former blending area			L .						
John Developer 3/15E Backhoes St.		up, Inc.	Morris Robinson				∠8/01		
DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCR		hoe			+				
DESCRIPTION DESCRIPTION DESCRIPTION O 3 Dry; Light brown to brown, silty coarse to fine SAND with little to some fine to coarse gravel 3 - 5 - 5 Dry. Brown, silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oic odor. 3 - 5 - 5 Wet: Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5 - 5 - 5 ft depth; minor light fuel oil odor, thin product sheen on water surface; 10 4 prin organic vapors. Note: Test pit located within former blending area.			W z D			INSPECTOR			
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0 - 3 Dry; Light brown to brown, silly coarse to fine SAND with little to some fine to coarse gravel 1 - 1 - 2 - 3 - 5.5 Dry; Brown, silly coarse to fine SAND with little to some fine to coarse gravel: minor light fuel oil odor, 27.7 ppm organic vapors. 1 - 3 - 3 - 5.5 Dry; Brown, silly coarse to fine SAND with little to some fine to coarse gravel: minor light fuel oil odor, 27.7 ppm organic vapors. 1 - 5 - 5 - 8 Wet: Greyish brown, silly coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth, minor light fuel oil odor, thin product sheen on water surface; 10 4 ppm organic vapors. 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10							2 2	1 1	Sample
0 - 3 Dry; Light brown to brown, silly coarse to fine SAND with little to some fine to coarse gravel 1 - 1 - 2 - 3 - 5.5 Dry; Brown, silly coarse to fine SAND with little to some fine to coarse gravel: minor light fuel oil odor, 27.7 ppm organic vapors. 1 - 3 - 3 - 5.5 Dry; Brown, silly coarse to fine SAND with little to some fine to coarse gravel: minor light fuel oil odor, 27.7 ppm organic vapors. 1 - 5 - 5 - 8 Wet: Greyish brown, silly coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth, minor light fuel oil odor, thin product sheen on water surface; 10 4 ppm organic vapors. 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10			DESCRIPTION				n ple	Depth	Number
3 - 5.5 Dry, Brown, silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor; 27.7 ppm organic vapors. - 3 - 3 - 3 - 5 - 8 Wet; Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth, minor light fuel oil odor; thin product sheen on water surface. - 6 - 10 4 ppm organic vapors. END OF TEST PIT @ 3 FT BGS							Sar	(ft)	
3 - 5 - 5 Dry. Brown silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor. 27.7 ppm organic vapors. - 4	0 - 3 Dry; Light brown	to brown, silty coarse to fine \$	SAND with little to some	fine to coarse g	gravel			0	
3 - 5 5 Dry. Brown silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor, 27.7 ppm organic vapors. - 3 3 4 5 - 8 Wet; Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth, minor light fuel oil odor, thin product sheen on water surface; - 6 7 8 8 Note; Test pit located within former blending area.									
3 - 5 - 5 Dry. Brown silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor. 27.7 ppm organic vapors. - 3 - - 3 - - 4 - - 5 - - 5 - 8 Wel: Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth, minor light fuel oil odor, thin product sheen on water surface; - 6 - - 7 - - 8 - END OF TEST PIT @ 8 FT BGS - 9 - - 10 - Note; Test pit located within former blending area.									
3 - 5 - 5 Dry. Brown silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor. 27.7 ppm organic vapors. - 4									
3 - 5.5 Dry, Brown, silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor, 27.7 ppm organic vapors - 3 - 3 - 27.7 ppm organic vapors - 4								- 1 -	
3 - 5.5 Dry; Brown, silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor, 27.7 ppm organic vapors - 4									ļ
3 - 5.5 Dry, Brown, silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor, 27.7 ppm organic vapors - 3 - 3 - 27.7 ppm organic vapors - 4								-	
3 - 5.5 Dry, Brown, silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor, 27.7 ppm organic vapors - 3 - 3 - 27.7 ppm organic vapors - 4								,	
3 - 5.5 Dry; Brown, silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor; 27.7 ppm organic vapors. 4								2 .	l I
3 - 5.5 Dry; Brown, silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor; 27.7 ppm organic vapors. 4							1]	
3 - 5.5 Dry; Brown, silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor; 27.7 ppm organic vapors. - 4								1	
3 - 5.5 Dry; Brown, silty coarse to fine SAND with little to some fine to coarse gravel; minor light fuel oil odor; 27.7 ppm organic vapors. - 4								- 3 -	
27.7 ppm organic vapors.	3 - 5.5° Dry Brown sil	ty coarse to fine SAND with lit	ttle to some fine to coar	se gravel; minor	r light fuel oil d	odor;			
5.5 - 8 Wet: Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth, minor light fuel oil odor, thin product sheen on water surface; 10.4 ppm organic vapors. FIND OF TEST PIT @ 8 FT BGS Note: Test pit located within former blending area.				3 · · · ·	Ŭ				
5.5 - 8 Wet; Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth, minor light fuel oil odor; thin product sheen on water surface; 10.4 ppm organic vapors. END OF TEST PIT @ 8 FT BGS Note: Test pit located within former blending area.	FF 3 F								
5.5 - 8 Wet; Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth; minor light fuel oil odor; thin product sheen on water surface; 10.4 ppm organic vapors. END OF TEST PIT @ 8 FT BGS Note: Test pit located within former blending area.								- 4 -	
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5.5 - 8 Wet; Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth; minor light fuel oil odor; thin product sheen on water surface; 10.4 ppm organic vapors. END OF TEST PIT @ 8 FT BGS Note: Test pit located within former blending area.									
5.5 - 8 Wet; Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth; minor light fuel oil odor; thin product sheen on water surface; 10.4 ppm organic vapors. END OF TEST PIT @ 8 FT BGS Note: Test pit located within former blending area.							l		
5.5 - 8 Wet: Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth, minor light fuel oil odor; thin product sheen on water surface; 10.4 ppm organic vapors. END OF TEST PIT @ 8 FT BGS Note: Test pit located within former blending area.							ľ	- 5 -	
5.5 - 8 Wet: Greyish brown, silty coarse to fine SAND with some to little fine to coarse gravel; black decayed organic materials within 5.5 - 6.5 ft depth, minor light fuel oil odor; thin product sheen on water surface; 10.4 ppm organic vapors. END OF TEST PIT @ 8 FT BGS Note: Test pit located within former blending area.							1		
organic materials within 5.5 - 6.5 ft depth, minor light fuel oil odor; thin product sheen on water surface; 10.4 ppm organic vapors. - 6 - 10.4 ppm organic vapors. END OF TEST PIT @ 8 FT BGS - 9 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -			im to the same factor	- 4	ali bianti dono	wad		-	
10.4 ppm organic vapors.	5.5 - 8 Wet; Greyish b	prown, silty coarse to fine SAN	ID with some to little fine	e to coarse gravi	er, brack deca or surface:	iyed	1	ء ا	
END OF TEST PIT @ 8 FT BGS 9 - Note: Test pit located within former blending area.			tuei oii odor, triin produ	Ct Sheen on was	er surrace,				ļ
END OF TEST PIT @ 8 FT BGS - 9 10 - Note: Test pit located within former blending area.	TO:4 ppm organic vapo	15.							
END OF TEST PIT @ 8 FT BGS - 9 10 - Note: Test pit located within former blending area.									1
Note: Test pit located within former blending area.								. 7 .	1
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Note: Test pit located within former blending area.									
Note: Test pit located within former blending area.								- 8 -	
Note: Test pit located within former blending area.	END OF TEST PIT @	8 FT BGS	<u>-</u>						
Note: Test pit located within former blending area.								-	
Note: Test pit located within former blending area.									
Note: Test pit located within former blending area.								- 9 -	
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Note: Test pit located within former blending area.								-	
Note: Test pit located within former blending area.									
	L							- 10 -	
	Note: Test pit located	within former blending area.							
- 11 -									
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ROJECT NAME/LOCATION		GROUND ELEVATION (FT) PROJECT N		PROJECT NUMBER	-	O. IL	LI I OI I	
	delphia <u>Coke</u> Company Si	te - Fuel Oil Blending Area						
EXCAVATION CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED			
Miller Environmental Gr	oup, Inc.	Morris Robinson		28/01		/28/01		_
EXCAVATION EQUIPMENT			NO. SAMPLES	DIST.				
John Deere 310SE Bac			WATER LEVEL 5.5 ft					-
COMPLETION DEPTH (FT)	APPROX. DIMENSIONS (FT)	LxWxD	TEST PIT LOCATION		INSPECTOR			
9.0		12 x 2 x 9		TP-6	Gary Riehle			
						Sample Interval		
						e ii		Sample
		DESCRIPTION				Ē	Depth	Number
0 0 0 0	-0	AND SERVERS		-0 - 1.61		S	(ft)	
0 - 3: Dry; Light brow	n, silty coarse to tine SA	AND with little fine to coarse	gravei and few sm	all copples	•		0	
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							- 1 -	
							•	
-								ļ
							- 2 -	
							- 3 -	
		silty coarse to fine SAND wi						
	light fuel oil odor; thin bl	ack floating product layer or	n water surface; 54	.7 ppm org	anic	1		
vapors.								
							- 4 -	
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							- 5 -	:
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							- 6 -	
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							- 7 -	
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n n water		OAMB			II		- 8 -	
	grey, sity coarse to fine	SAND with some to little fir	ne to coarse gravel	and few sh	nail	1		
to medium cobbles.								[
						-	- 9 -	
END OF TEST PIT @	9 FT BGS							
						1		
						1	- 10 -	Ì
Note: Test pit located	within former blending	area.				1		
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						1	1- 11 -	

PROJECT NAME/LOCATION			GROUND ELEVATION (FT)	PROJECT NUMBER			
Former Philad	delphia Coke Company S	ite - Fuel Oil Blending Area					
EXCAVATION CONTRACTOR		FOREMAN	DATE STARTED	DATE COMPLETED			
Miller Environmental Gr	oup, Inc.	Morris Robinson	11/28/01	11/.	28/01		
EXCAVATION EQUIPMENT			NO SAMPLES DIST				
John Deere 310SE Bac			WATER LEVEL 5.5 ft			. <u>-</u>	
COMPLETION DEPTH (FT)	APPROX DIMENSIONS (FT)	L×W×D	TEST PIT LOCATION	INSPECTOR			
7 0		12 x 2 x 7	TP-5	Gary Riehle		•	
					interval.	1	
					€ 5		Sample
,		DESCRIPTION			Sample	Depth	Nurreber
0 2 0 1 1 1 1 1 1 1		0.01D	and favorable as black		18-	(ft)	
10 - 3: Dry; Light brow	n, slity coarse to fine 5/	AND with little fine to coarse	gravel and few small cobbles.			0	
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						- 3 -	
2 7 Mat at E E 4. At	tornating arou and links	brown eilby coares to fine C	AND with some to little fine to	coarse		3 -	-
grouply mines light for	ternating grey and light	heen on water surface; 28.7	PDM organic vapore	CD013E			
graver, millor light fue	i on odor, trim product s	neen on water Sunace, 20.7	ppm organic vapors.				
						- 4	Ì
						" "	
						. 5 .	
]	
						- 6 -	
						1	
						- 7 -	
END OF TEST PIT @	7 FT BGS				7		
	,				1		
						- 8 -	
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						. 9 .	
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						- 10 -	
Note: Test nit located	d within former blending	area					
rest pit rocatet	2 and the former promoting	U. U.					
						- 11 -	

PROJECT NAME/LOCATION			GROUND ELEVATION	N (FT)	PROJECT NUMBER			Ì
	phia Coke Company Site - Fuel							
EXCAVATION CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED			
Miller Environmental Group EXCAVATION EQUIPMENT	p, Inc.	Morris Robinson	11/2	8/01 Dist	11/	28/01		
John Deere 310SE Backho			NO SAMPLES	5.5 ft	*		· · · · · · · · · · · · · · · · · · ·	
			WATER LEVEL		uuchd at an		_	
COMPLETION DEPTH (FT)		W×0	TEST PIT LOCATION	TP-4	INSPECTOR			į
80	15 x 2	x 8	<u> </u>	11-4	Gary Riehle		,	
						Sample interval		
		DECORIDATION					5	Samule
		DESCRIPTION				du e	Depth i	Number
0 - 31 Dry: Brown, sitty o	coarse to fine SAND with som	ne fine to coarse gravel				 "	0	
						1		
						1	- 1 -	
						1		
							- 2 -	
						1		
						1	. 3 .	
	r, silty coarse to fine SAND w			coarse gravel;				
strong light fuel oil odor:	no floating product observed	l; 172 ppm organic vapo	ors.			1		
							- 4 -	
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END OF TEST PIT @ 8	ET BGS				····	┪		
LIND OF ILST FIT @ 8	7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
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						1	- 9 -	
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Note: Test bit located w	rithin former blending area.							İ
TENE . COL PICTOGGIOG W	remier zienang arad.							
						<u> </u>	. 11 -	<u> </u>

SHEET 1 OF 1

PROJECT NAME/LOCATION GROUND ELEVATION (FT) PROJECT NUMBER Former Philadelphia Coke Company Site - Fuel Oil Blending Area DATE STARTED DATE COMPLETED Miller Environmental Group, Inc. Morris Robinson 11/28/01 11/28/01 EXCAVATION EQUIPMENT NO SAMPLES DIST John Deere 310SE Backhoe WATER LEVEL APPROX DIMENSIONS (FT) COMPLETION DEPTH (FT) TEST PIT LOCATION INSPECTOR LXWXD 15 x 2 x 6.5 TP-3 Gary Riehle 65 evia;u. DESCRIPTION Depth Number 0 - 3: Dry; Brown, silty coarse to fine SAND with some fine to coarse gravel. 0 1 -- 2 -3 - 6.5: Wet at 5 ft; Light grey to brownish-grey, silty coarse to fine SAND with little grading to some fine to coarse gravel; strong light fuel oil odor; thin black floating product layer on water surface; 84.7 ppm organic vapors. 4 -. 5 . - 6 -END OF TEST PIT @ 6.5 FT BGS - 8 -9 - 10 -Note: Test pit located within former blending area



PROJECT NAME/LOCATION			GROUND ELEVATION	(FT)	PROJECT NUMBER	ECT NUMBER				
Former Philadelphia Coke Company Site - Fuel Oil Blending Area					1					
EXCAVATION CONTRACTOR FOREMAN			DATE STARTED		DATE COMPLETED			_		
Miller Environmental Group, Inc. Morris Robinson			11/28		11/28/01					
EXCAVATION EQUIPMENT			NO SAMPLES	DIST						
John Deere 310SE Bad			WATER LEVEL	6 ft						
COMPLETION DEPTH (FT)	APPROX DIMENSIONS (FT)	L×W×D	TEST PIT LOCATION INSPECTOR							
7.5		15 x 2 x 7.5		TP-2	Gary Riehle	 -	γ	1		
		DESCRIPTION				Sample interval	Depth	Sample Number		
0 - 3: Dry: Light brow	n silty coarse to fine SAI	ND with some to and fine t	o coarse gravel and	few			Ö			
medium cobbles.	in, only doubted to this of the		g							
mediam cobbico.										
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3 - 7: Wet at 6 ft: Ligi	nt grey silty coarse to fine	e SAND with some fine to	coarse gravel: strong	a heavy fuel	oil odor:	1				
		ce; 54 ppm organic vapors		J						
	analysis an merel editor)								
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							- 5 -			
						1				
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							1			
]	- 7 -			
7 - 7.5: Wet; Grey SI	LT; no product odors or s	taining observed.				1				
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END OF TEST PIT @	7.5 FT BGS		•		<u></u>					
	-						- 8 -			
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							- 10 -			
Note: Test pit locate	d within former blending a	area.								
	9									
							- 11 -	<u>l</u> .		



SHEET 2 OF

PROJECT NAME LOCATION Philadelphia Coke Company, Former Fuel Oil Blending Area			GROUND ELEVATION	PROJEC	PROJECT NUMBER				
EXCAVATION CONTRACTOR FOREMAN		DATE STARTED		DATE CO	OMPLETED				
Miller Environmental G	roup, Inc.			Ta-a-					
EXCAVATION EQUIPMENT			NO SAMPLES	DIST					
			WATER LEVEL			T			
COMPLETION DEPTH (FT)	APPROX. DIMENSIONS (FT)	L × W × D	TEST PIT LOCATIO	N		INSPECTOR			
	<u></u>		L			Gary Riehle	7.	1	
							Sample interva-		
		O E O O DIDITI O	N. I				, i		Sample
		DESCRIPTIO)N				E.	Depth (ft)	Number
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							1	- 12 -	
							ì	- 12 -	
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SHEET 1 OF 1

PROJECT NAME/LOCATION GROUND ELEVATION (FT) PROJECT NUMBER Former Philadelphia Coke Company Site - Fuel Oil Blending Area DATE STARTED DATE COMPLETED EXCAVATION CONTRACTOR FOREMAN Miller Environmental Group, Inc. Morris Robinson 11/28/01 11/28/01 EXCAVATION EQUIPMENT NO SAMPLES DIST. 5.5 ft John Deere 310SE Backhoe WATER LEVEL INSPECTOR COMPLETION DEPTH (FT) APPROX DIMENSIONS (FT) L x W x D TEST PIT LOCATION Gary Riehle TP-1 65 15 x 2 x 6 5 lample Interval DESCRIPTION Depth Number (ft) 0 - 15: Dry: Light brown and greyish-brown, silty coarse to fine SAND with some to and fine to coarse gravel 0 and few medium cobbles. 1.5 - 6.5° Wet at 5.5 ft; Blackish-grey, product stained silty coarse to fine SAND with some to little fine to medium gravel; heavy fuel oil odor; thin black floating product layer on water surface. . 2 . . 3 4 5 6 END OF TEST PIT @ 6.5 FT BGS - 7 - В 9 - 10 -Note: Test pit located within former blending area



Site Location:

Former Philadelphia Coke Company Property; Fuel Oil Blending Area

Project No. 42-87C2839A.00

Photo No.

Date: 11/28/01

Direction Photo

Taken:

Northwest

Description:

Test Pits 1-4

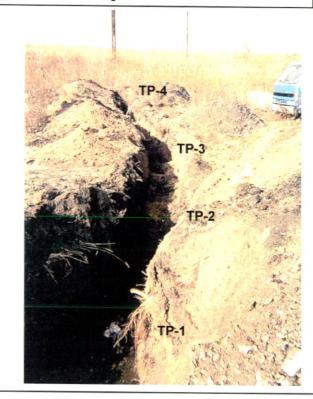


Photo No.

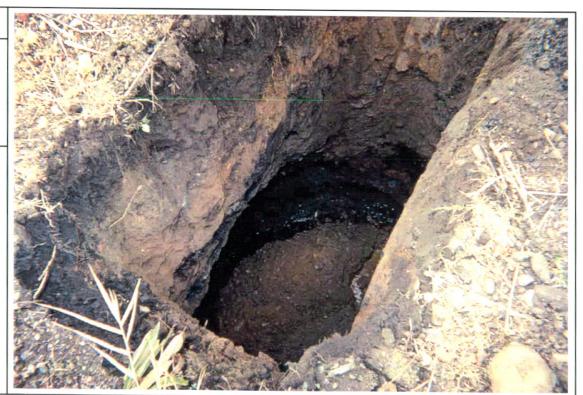
Date: 11/28/01

Direction Photo Taken:

NA

Description:

Test Pit No. 5





Site Location:

Project No.

Former Philadelphia Coke Company Property; Fuel Oil Blending Area

42-87C2839A.00

Photo No.

Date: 11/28/01

Direction Photo Taken:

NA

Description:

Test Pit No. 6

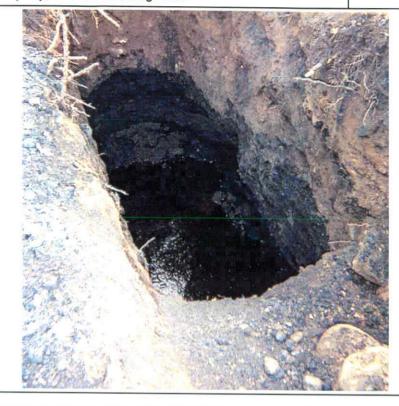


Photo No.

Date: 11/28/01

Direction Photo

Taken:

NA

Description:

Test Pit No. 7





Site Location:

Former Philadelphia Coke Company Property; Fuel Oil Blending Area

Project No. 42-87C2839A.00

Photo No. Date: 5 11/28/01

Direction Photo Taken:

NA

Description:

Test Pit No. 11



Photo No. Date: 6 11/28/01

Direction Photo Taken:

NA

Description:

Test Pit No. 12



Crown of RCP

URS

PHOTOGRAPHIC LOG

Site Location:

Former Philadelphia Coke Company Property; Fuel Oil Blending Area

Project No. 42-87C2839A.00

Photo No.

Date: 11/28/01

Direction Photo

Taken:



Test Pit No. 16.
Delaware River and
North Pier in
background.



Photo No.

Date: 11/28/01

Direction Photo

Taken:

NA

Description:

Test Pit No. 16





Site Location:

Former Philadelphia Coke Company Property; Fuel Oil Blending Area

Project No.

42-87C2839A.00

Photo No. Date: 9 11/28/01

Direction Photo Taken:

i ancii.

Southwest

Description:

Test Pits Nos. 6, 7, and 8



Photo No. 10

Date: 11/28/01

Direction Photo Taken:

North-Northeast

Description:

Test Pits Nos. 1, 2, 3, 4, and 5





Site Location:

Former Philadelphia Coke Company Property; Fuel Oil Blending Area

Project No.

42-87C2839A.00

Photo No.

Date: 11/28/01

Direction Photo

Taken:

Northeast

Description:

Test Pits Nos. 11, 12, 13, and 14



Photo No. 12 Date: 11/28/01

Direction Photo Taken:

North-Northeast

Description:

Test Pits Nos. 16, 17, and 18 (not visible behind brush)





Site Location:

Former Philadelphia Coke Company Property; Fuel Oil Blending Area

Project No.

42-87C2839A.00

Photo No.

Date: 11/28/01

Direction Photo Taken:

NA

Description:

Heavy sheen of fuel oil on fine-coarse gravel from Test Pit No. 3 (typical of water table interface conditions within fuel oil blending area).

