
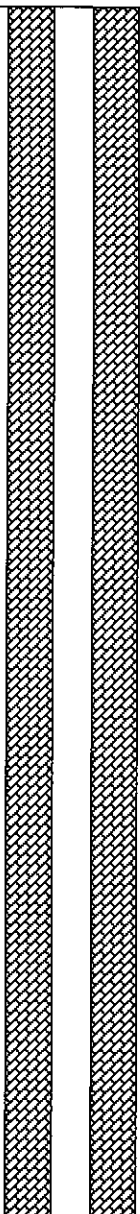


EC12-49

 MWH MWH Americas, Inc. 335 Phoenixville Pike Malvern, Pennsylvania 19355	Boring ID: D61_MWH Page 1 of 5	
	Project Name: 2009 Dissolved Phase Plume Continued Delineation Location: Delaware City, DE Project Number: Date Started: 4/9/2009 Date Finished: 4/22/2009 Drilling Method: Roto-Sonic Sampling Method: State Permit Number: NA	Boring Location: Delaware City Refinery Drilling Company: Bowser Morner Ground Elevation (ft/msl): Total Depth (ft): 195.0' Boring Diameter (in): 8" Water Level During Drilling (ft/bgs): Weather Conditions: Logged By: Joseph Remenicky

Depth (feet)	Blow Counts	Recovery (inches)	PID (ppm)	Sample ID	Sample Interval	USCS	Lithology	Lithologic Description	Well Diagram	Remarks
0								0' - 59' No sample.		Stick up well completion
5										
10										
15										
20										
25										
30		0								
35										



Depth (feet)	Blow Counts	Recovery (inches)	PID (ppm)	Sample ID	Sample Interval	USCS	Lithology	Lithologic Description	Well Diagram	Remarks
35										
40										
45										
50										
55										
60						SP		59' - 63.9' Brownish yellow (10YR 6/8) medium- to fine-grained SAND; trace silt, coarse-grained subrounded to rounded gravel. 61.9' Little coarse-grained sand grading to coarse- to fine-grained gravel.		
65	14					ML SP ML		63.8' - 63.9' Little coarse- to fine-grained gravel. 63.9' - 64.7' Yellowish brown (10YR 5/8) SILT; little medium- to fine-grained sand; trace fine-grained subrounded to rounded gravel; low plasticity. 64.7' - 65.1' Yellowish brown (10YR 5/8) medium- to fine-grained SAND; little silt. 65.1' - 118.8' Yellowish brown (10YR 5/8) SILT; low plasticity; micaceous. 69.35' Color grades to gray (10YR 5/1).		Columbia-Merchantville Contact (66.7).
70										
75	14									



MWH

MWH Americas, Inc.
335 Phoenixville Pike
Malvern, Pennsylvania 19355

Boring ID: D61_MWH

Page 3 of 5

Depth (feet)	Blow Counts	Recovery (inches)	PID (ppm)	Sample ID	Sample Interval	USCS	Lithology	Lithologic Description	Well Diagram	Remarks
80										
85		13.5								
90										
95		11.5								
100										
105		5								
110										
115		15.5								
								86.9' - 97.1' Gray (10YR 5/1) and dark olive gray (5Y 3/2) mottled; glauconitic.		



MWH

MWH Americas, Inc.
335 Phoenixville Pike
Malvern, Pennsylvania 19355

Boring ID: D61_MWH

Page 4 of 5

Depth (feet)	Blow Counts	Recovery (inches)	PID (ppm)	Sample ID	Sample Interval	USCS	Lithology	Lithologic Description	Well Diagram	Remarks
120						CH		118.8' - 156.1' White (10YR 8/1), red (10R 4/6), and reddish gray (10R 5/1) mottled CLAY; hard; plastic		Merchantville-Potomac contact (118.3).
125		15.5								
130										
135		5								
140										
145		12.5								
150										
155		12.5						153.4' - 153.6' Color grades to red (10R 4/6).		
						ML		156.1' - 156.9' Light gray (10YR 7/1) CLAYEY SILT; hard.		
						SM		156.9' - 158' Gray (10YR 5/1) SILTY fine-grained SAND.		
						ML		158' - 164.9' Light gray (10YR 7/1) CLAYEY SILT; hard.		
160										



Depth (feet)	Blow Counts	Recovery (inches)	PID (ppm)	Sample ID	Sample Interval	USCS	Lithology	Lithologic Description	Well Diagram	Remarks
165		13				ML		164.9' - 165.7' Pink (2.5YR 8/4) fine-grained SANDY SILT.		
						ML		165.7' - 168.6' Light red (2.5YR 7/6) CLAYEY SILT; hard.		
170						CL		168.6' - 178.7' White (10YR 8/1), red (10R 4/6), and reddish gray (10R 5/1) mottled CLAY.		
175		12.5								
180						ML		178.7' - 182' Light gray (10YR 7/1) fine-grained SANDY SILT.		
						SW		181.5' Color grades to light red (2.5YR 7/6).		No. 1 filter sand placed from 175-187' bgs.
					ML		182' - 182.2' Red (2.5YR 5/8) fine-grained SAND; little silt.			
185					CL		182.2' - 183.2' Gray (10YR 6/1) CLAYEY SILT.			
					SP		183.2' - 184' Gray (10YR 6/1) fine-grained SANDY SILT.			
					ML		184' - 185.8' Gray (10YR 6/1) SILTY CLAY.			
					ML		185.8' - 186' Light gray (10YR 7/1) fine-grained SAND.			
190						CH	186' - 186.3' Gray (10YR 6/1) CLAYEY SILT.			
		8					186.3' - 186.8' Gray (10YR 6/1) fine-grained SANDY SILT.			
							186.8' - 187' Gray (10YR 6/1) CLAYEY SILT.			
195							187' - 187.2' Light gray (10YR 7/1) fine-grained SAND.			
							187.2' - 192' Light gray (10YR 7/1) SILTY CLAY; hard.			
							192' - 195' Light gray (10YR 7/1) CLAY; hard; plastic.			
200							193.5' Color becomes light gray (10YR 7/1), red (10R 4/6), and reddish gray (10R 5/1) mottled.			