

October 30, 2024

Ms. Arianna Wendt
Pennrose, LLC (Haverstraw Community Chair Factory LLC)
45 Main Street, Suite 539
Brooklyn, NY 11201

Re: Phase II Environmental Investigation Letter Summary Report
Haverstraw Chair Factory Site
87 Main Street and a portion of 30 Liberty Street, Haverstraw, NY

Dear Ms. Wendt,

Roux Environmental Engineering and Geology, D.P.C. ("Roux") is pleased to submit this Phase II Environmental Investigation letter summary report regarding soil/fill sampling completed at the Haverstraw Chair Factory Site located in the Village of Haverstraw, Rockland County, New York (Site).

The 4.55-acre Site, which is slated for a mixed-use redevelopment, is currently vacant and underutilized land. The Site is located proximate to the Hudson River in a residential and commercial area. A Site Location and Vicinity Map is provided as Figure 1.

Regarding the historic uses of the Site, portions of the Site were historically developed with a manufacturing structure used for brick manufacturing and chair manufacturing. In addition, a portion of the Site was used as a petroleum refinery. All on-site buildings were reportedly demolished in 2006 and demolition debris from the former buildings was scattered throughout portions of the Site. Based on historic topographic maps, with the Site being proximate to the Hudson River, it appears that fill materials from unknown sources were brought to the Site to build up the grade of the land.

Rockland County Department of Health (DOH) information indicates removal of one 2,000-gallon fuel oil underground storage tank (UST) from the foot of Liberty Street at the former Empire State Chair Company in 1998 under Petroleum Bulk Storage (PBS) No. 3-990891; sufficient UST closure documentation is unavailable. The 30 Liberty Street parcel is listed in the Environmental Restoration Program under E344058 for Damiani and Chair Factory Site. In addition, the Former Empire State Chair Factory is listed in the Brownfield Cleanup Program (BCP) under Site Code C344058. Both BCP and ERP listings are classified as "N". Listing details indicate that the agreement was never completed, and the record was terminated in 2004. There is no indication of remediation completed under these listings. Regulatory information involving the Site also indicates Spill No. 9208892, dated November 1, 1992, involving drums along the side (presumed exterior) of a former on-Site building and solvents and paint thinners that were dumped on the ground surface. This spill was reclassified as "closed" on December 17, 2004. There is no indication that this spill incident resulted in significant remedial activities at the Site.

Roux completed a Phase II Environmental Investigation to further assess environmental conditions on-Site and to assess BCP eligibility. As part of the work, Roux completed 15 test pits (TP-1 through TP-15) across the Site and greater property¹ using an excavator to depths between 6 feet below ground surface (fbgs) and 10 fbgs. Investigation locations are shown on Figure 2. Fill materials, generally consisting of black fines with ash, cinders, and brick fragments, were identified across the Site at depths ranging between 2 fbgs and greater than 10 fbgs (max reach of the excavator). Beneath the fill units, native soils generally consisted of well graded sand.

¹ TP-1 was completed just off the north property line and TP-13 was completed off-site to the south of the Site.

The highest photo-ionization detector (PID) readings (up to 300 parts per million, ppm) were identified at TP-12, completed on the 87 Main Street parcel proximate to the former petroleum refinery operation. Petroleum-like odors were also identified in soil/fill at TP-12.

Table 1 presents a summary of the detected VOCs, PAHs, and metals for each of the soil/fill samples selected for laboratory analysis from Roux's investigation. For comparative purposes, Table 1 includes 6NYCRR Part 375 Unrestricted, Restricted-Residential, Commercial and Industrial Use Soil Cleanup Objectives (USCOs, RRSCOs, CSCOs, and ISCOs, respectively). Based on the anticipated redevelopment plan, USCOs or RRSCOs are the most applicable comparison criteria in that scenario. Figure 3 shows exceedances of detected contaminants above their respective SCOs at their corresponding investigation locations. A copy of the laboratory analytical data package is included in the appendix.

Regarding the soil/fill sample collected from the petroleum area at TP-12, VOCs and PAHs were either not detected at concentrations above laboratory detection limits or concentrations were below their respective USCOs; the lack of VOCs and SVOCs indicates weathered petroleum at TP-12.

PAHs exceeding their respective RRSCOs, CSCOs, and/or ISCOs were identified on the 30 Liberty Street Parcel (TP-3, TP-11) and on the 87 Main Street Parcel (TP-14). Metals exceeding their respective RRSCOs, CSCOs, and ISCOs were also identified on-Site at TP-6, and TP-7. The highest metal concentrations were identified at TP-7 with arsenic (28.8 milligrams per kilogram, mg/kg) and mercury (10.4 mg/kg) exceeding their respective ISCOs and barium (1,040 mg/kg) and lead (1,510 mg/kg) exceeding their respective CSCOs. In Roux's experience, the elevated metal concentrations identified at TP-7 would constitute a hot spot if the Site were in a regulatory program.

In conclusion, based on the field observations and laboratory analytical results, the Site is a potential candidate for the New York Brownfield Cleanup Program (NY BCP). Regardless of whether the BCP is pursued, impacted fill present on-Site and weathered petroleum will require exposure control, remediation and/or proper management either prior to or during redevelopment.

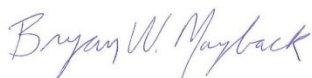
The following documents are attached to this report:

- Table 1 – Summary of Soil/Fill Laboratory Analytical Results
- Figure 1 – Site Location and Vicinity Map
- Figure 2 – Site Plan (Aerial)
- Figure 3 – Investigation Locations and Areas of Concern
- Attachment 1 - Test Pit Logs
- Attachment 2 - Laboratory Analytical Reports

Please contact Bryan Mayback or Mike Lesakowski by telephone at 716-856-0599, or by email at bmayback@rouxinc.com and mlesakowski@rouxinc.com if you have any questions or require additional information.

Sincerely,

ROUX ENVIRONMENTAL ENGINEERING AND GEOLOGY, D.P.C.



Bryan W. Mayback
Technical Director

October 30, 2024
Page 3



Michael A. Lesakowski
Vice President, Principal Scientist, Co-Operations Manager

Enclosures

Phase II Environmental Investigation Report
Haverstraw Chair Factory Site

TABLE 1 – Summary of Soil/Fill Laboratory Analytical Results



TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
HAVERSTRAW CHAIR FACTORY SITE
HAVERSTRAW, NEW YORK

PARAMETER ¹	Unrestricted Use SCOs ²	Restricted Residential Use SCOs ²	Commercial Use SCOs ²	Industrial Use SCOs ²	SAMPLE LOCATION (DEPTH)											
					TP-2 0-2 ft	TP-3 0-2 ft	TP-4 0-2 ft	TP-5 4-5 ft	TP-6 2-4 ft	TP-7 5-7 ft	TP-8 0-2 ft	TP-11 2.5-5 ft	TP-12 4-6 ft	TP-14 0-1.5 ft	TP-15 3-5 ft	
Sample Date	05/30/2024															
Volatile Organic Compounds (VOCs) - mg/kg³																
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--
Polyaromatic Hydrocarbons (PAHs) ³																
Acenaphthene	20	100	500	1000	0.14 J	0.16 J	ND	0.033 J	0.037 J	0.057 J	ND	ND	ND	0.36	ND	
Acenaphthylene	100	100	500	1000	ND	ND	ND	ND	ND	ND	ND	0.76 J	ND	0.15 J	ND	
Anthracene	100	100	500	1000	0.24	0.39 J	ND	0.085 J	0.082 J	0.15 J	ND	ND	ND	0.61	ND	
Benzo(a)anthracene	1	1	5.6	11	0.58	1	ND	0.3	0.25	0.38	0.091 J	1.1 J	0.36	1.9	0.11 J	
Benzo(a)pyrene	1	1	1	1.1	0.64	1	ND	0.34	0.29	0.47	0.096 J	1.2 J	0.25	1.9	0.15 J	
Benzo(b)fluoranthene	1	1	5.6	11	0.69	1.2	ND	0.42	0.31	0.51	0.12 J	1.3 J	0.3	2.2	0.18	
Benzo(ghi)perylene	100	100	500	1000	0.52	0.71 J	ND	0.24	0.22 J	0.34	0.078 J	1.2 J	ND	1.4	0.11 J	
Benzo(k)fluoranthene	0.8	3.9	56	110	0.41	0.61 J	ND	0.21 J	0.16 J	0.19 J	0.06 J	0.65 J	0.14 J	1.1	0.099 J	
Chrysene	1	3.9	56	110	0.58	1	ND	0.34	0.26	0.38	0.11 J	1.2 J	0.34	1.8	0.11 J	
Dibenzo(a,h)anthracene	0.33	0.33	0.56	1.1	0.11 J	0.23 J	ND	0.057 J	0.053 J	0.079 J	ND	ND	ND	0.35	ND	
Fluoranthene	100	100	500	1000	1.3	2.4	4.6 J	0.59	0.68	0.92	0.22	2.9 J	0.3	3.9	0.15 J	
Fluorene	30	100	500	1000	0.11 J	0.15 J	ND	ND	0.038 J	0.057 J	ND	ND	ND	0.34	ND	
Indeno(1,2,3-cd)pyrene	0.5	0.5	5.6	11	0.4	0.61 J	ND	0.2 J	0.16 J	0.24 J	0.061 J	0.78 J	ND	1	0.083 J	
Naphthalene	12	100	500	1000	0.14 J	ND	ND	ND	0.03 J	ND	ND	ND	ND	0.21	ND	
Phenanthrene	100	100	500	1000	0.92	1.4	ND	0.35	0.42	0.57	0.12 J	2.4 J	0.06 J	3.2	0.047 J	
Pyrene	100	100	500	1000	0.95	1.6	3.1 J	0.42	0.52	0.75	0.17 J	2.3 J	0.35	3.2	0.12 J	
Metals - mg/Kg																
Arsenic	13	16	16	16	4	3.7	2.7	4.1	6.5	28.8	9.1	6	2.3 J	4.5	4.8	
Barium	350	400	400	10,000	76	72	62.7	54.5	131	1040	116	109	43.2	89.3	47	
Cadmium	2.5	4.3	9.3	60	0.2 J	0.2 J	0.23 J	0.23 J	0.39	1	0.3	0.35	0.14 J	0.23 J	0.11 J	
Chromium	31	180	1500	6800	15.3	11.7	12.1	10.2	18.8	47.3	18.5	13.6	15.9	16.1	8.5	
Lead	64	400	1000	3900	15.6	21.8	54.1	71.2	402	1510	73.5	134	19.3	262	83.9	
Mercury	0.18	0.81	2.8	5.7	0.021	0.03	0.041	0.067	0.9	10.4	0.098	0.21	0.012 J	0.55	0.067	
Selenium	3.9	180	1500	6800	ND	ND	ND	1.1 J	3.3 J	4.2 J	ND	ND	ND	ND	0.92 J	
Silver	2	180	1500	6800	ND	0.32 J	ND	ND	0.29 J	0.75 J	ND	0.34 J	ND	0.31 J	0.26 J	

Notes:

- Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
- Values per 6NYCRR Part 375 Soil Cleanup Objectives (SCOs).
- Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparisons to SCLs

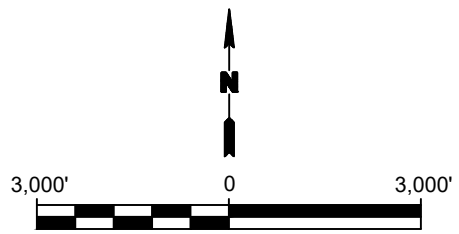
Definitions:

ND = Parameter not detected above laboratory detection limit.
 J = Estimated value; result is less than the sample quantitation limit but greater than zero.

Bold	: Results exceed Unrestricted Use SCOs
Bold	: Results exceed Restricted Residential Use SCOs
Bold	: Results exceed Commercial Use SCOs
Bold	: Results exceed Industrial Use SCOs

Phase II Environmental Investigation Report
Haverstraw Chair Factory Site

FIGURES



BASE MAP: USGS QUADRANGLE HAVERSTRAW, NY 2019

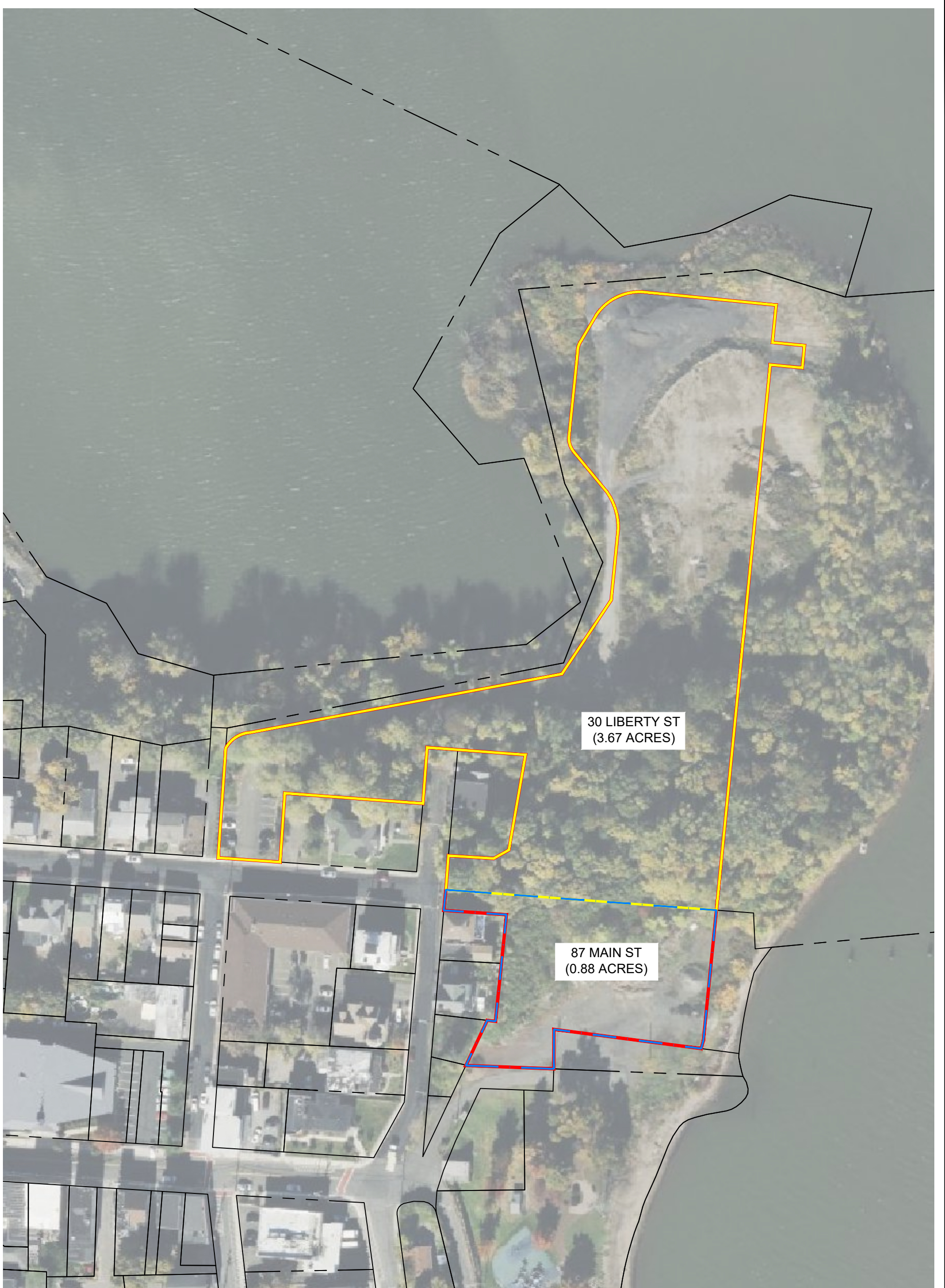
Title: **SITE LOCATION AND VICINITY MAP
PHASE II ENVIRONMENTAL SITE ASSESSMENT**

PARCELS OFF ALLISON AVE. AND LIBERTY ST.
HAVERSTRAW, NEW YORK

Prepared for: **PENNROSE, LLC**

ROUX	Compiled by: RFL	Date: JUNE 2024	FIGURE 1
	Prepared by: RFL	Scale: AS SHOWN	
	Project Mgr: NAS	Project: 4375.0004B000	
	File: FIGURE 1; SITE VIC AND LOC PLAN.DWG		

F:\CAD\06\ROUX\PENNROSE\HAVERSTRAW\FIGURE 1 - SITE VIC AND LOC PLAN.DWG

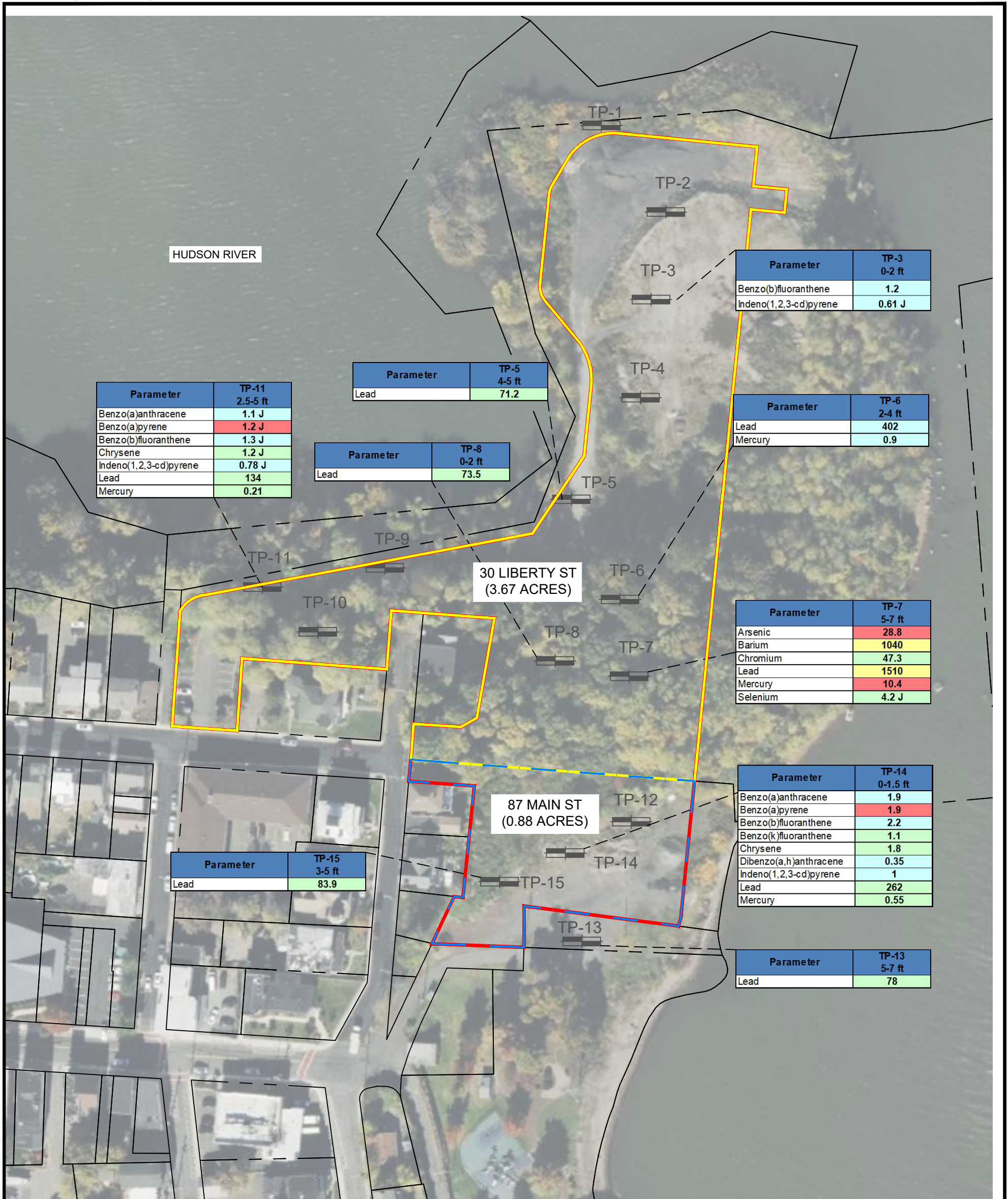


LEGEND:

- PROPERTY BOUNDARY (~4.55 AC)
- - - - - PARCEL BOUNDARY
- · - · - 87 MAIN ST.
- 30 LIBERTY ST



<p>SITE PLAN (AERIAL) PHASE II INVESTIGATION HAVERSTRAW CHAIR FACTORY SITE</p> <p>30 LIBERTY AND 87 MAIN STREET PARCELS HAVERSTRAW, NEW YORK</p>								
<p>Prepared for HAVERSTRAW COMMUNITY CHAIR FACTORY LLC</p>								
ROUX	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Compiled by: AEP</td> <td>Date: 10/22/2024</td> </tr> <tr> <td>Prepared by: AEP</td> <td>Scale: AS SHOWN</td> </tr> <tr> <td>Project Mgr: BM</td> <td>Project: 4375.0004B000</td> </tr> </table>	Compiled by: AEP	Date: 10/22/2024	Prepared by: AEP	Scale: AS SHOWN	Project Mgr: BM	Project: 4375.0004B000	<p>FIGURE 2</p>
Compiled by: AEP	Date: 10/22/2024							
Prepared by: AEP	Scale: AS SHOWN							
Project Mgr: BM	Project: 4375.0004B000							
<p>File: HAVERSTRAW-HAVERSTRAW CHAIR FACTORY-SITE PLAN (AERIAL)-FIGURE 2.DWG</p>								



LEGEND:

- PROPERTY BOUNDARY (~4.55 AC)
- - - - - PARCEL BOUNDARY
- · - · - 87 MAIN ST.
- 30 LIBERTY ST.



TEST PIT

Parameter	TP-3	SAMPLE LOCATION AND DEPTH (FT)
Benzo(b)fluoranthene	1.2	
Indeno(1,2,3-cd)pyrene	0.61 J	PARAMETER CONCENTRATION IN MILLIGRAMS PER KILOGRAM

- Bold = Results Exceed Part 375 Unrestricted Use SCOs
- Bold = Results Exceed Part 375 Restricted Residential Use SCOs
- Bold = Results Exceed Part 375 Industrial Use SCOs
- Bold = Results Exceed Part 375 Commercial Use SCOs



<p>Title: INVESTIGATION LOCATIONS & AREAS OF CONCERN PHASE II INVESTIGATION HARVERSTRAW CHAIR FACTORY SITE 30 LIBERTY AND 87 MAIN STREET PARCELS HAVERSTRAW, NEW YORK</p>		
<p>Prepared for: HAVERSTRAW COMMUNITY CHAIR FACTORY LLC</p>		
<p>Compiled by: AEP</p>	<p>Date: 10/22/2024</p>	<p>FIGURE 3</p>
<p>Prepared by: RFL</p>	<p>Scale: AS SHOWN</p>	
<p>Project Mgr: BM</p>	<p>Project: 4375.0004B000</p>	
<p>File: HAVERSTRAW-HAVERSTRAW CHAIR FACTORY-INVESTIGATION LOCATIONS & AREAS OF CONCERN-FIGURE 4.DWG</p>		

Phase II Environmental Investigation Report
Haverstraw Chair Factory Site

ATTACHMENT 1 – Test Pit Logs



Client: Pennrose, LLC		Site: Haverstraw Site		Project Number: 4375.0004B000	
Address: Parcels off Allison Avenue & Liberty		City/State: Haverstraw, NY		Logged By: NAS	
Start to Finish Date: 5/30/2024 - 5/30/2024		Contractor: Brookside Environmental		Drill Type:	
Borehole Depth: 6 feet		Backfill:		Borehole Diameter:	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
	ASPH		Asphalt		0		
			Tan, moist, mostly fine sand, medium dense, no odors		1	0	
	SP				1	0	
			Tan, wet, mostly lean clay, some fine sand, stiff, no odors		1	0	
					1	0	
	CLS				1	0	
5					1	0	

Bottom of test pit at 6 feet



Client: Pennrose, LLC		Site: Haverstraw Site		Project Number: 4375.0004B000	
Address: Parcels off Allison Avenue & Liberty		City/State: Haverstraw, NY		Logged By: NAS	
Start to Finish Date: 5/30/2024 - 5/30/2024		Contractor: Brookside Environmental		Drill Type:	
Borehole Depth: 8 feet		Backfill:		Borehole Diameter:	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
		△△	Grey/tan/black, moist, mostly fine sand, some fill (concrete, asphalt, brick, black fines), loose when disturbed, no odors	G	0	0	
		△△			2	0	
		△△			1	0	
		△△			1	0	
		△△			1	0	
		△△			1	0	
		△△			1	0	
		△△			1	0	
		△△			1	0	
		△△			1	0	
		△△					
	MIXD	△△					
5		△△					
		△△					
	SP	△△	Tan, wet, mostly fine sand, medium dense, no odors		1	0	
		△△					
	CLS	△△	Tan, wet, mostly lean clay, some fine sand, stiff, no odors		1	0	

Bottom of test pit at 8 feet

ROUX STANDARD LOG - 6/13/24 14:10 - F:\GINT\PROJECTS\HAVERSTRAW\HAVERSTRAW SITE TEST PIT LOGS.GPJ



Client: Pennrose, LLC		Site: Haverstraw Site		Project Number: 4375.0004B000	
Address: Parcels off Allison Avenue & Liberty		City/State: Haverstraw, NY		Logged By: NAS	
Start to Finish Date: 5/30/2024 - 5/30/2024		Contractor: Brookside Environmental		Drill Type:	
Borehole Depth: 8 feet		Backfill:		Borehole Diameter:	
Area: NM		Elevation: NM		Northing: NM	
				Eastings: NM	

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
		△△	Brown, moist, mostly fine sand, some fill (concrete, asphalt, brick), loose when disturbed, no odors	G	0	0	
		△△			2	0	
		△△			1	0	
		△△			1	0	
	MIXD	△△			1	0	
5		△△			1	0	
		△△			1	0	
		△△			1	0	
	SP	△△			1	0	
		△△			1	0	
	CLS	▨▨	Tan, wet, mostly lean clay, some fine sand, stiff, no odors	1	0		

Bottom of test pit at 8 feet

ROUX STANDARD LOG - 6/13/24 14:10 - F:\GINT\PROJECTS\HAVERSTRAW\HAVERSTRAW SITE TEST PIT LOGS.GPJ



Client: Pennrose, LLC		Site: Haverstraw Site		Project Number: 4375.0004B000	
Address: Parcels off Allison Avenue & Liberty		City/State: Haverstraw, NY		Logged By: NAS	
Start to Finish Date: 5/30/2024 - 5/30/2024		Contractor: Brookside Environmental		Drill Type:	
Borehole Depth: 8 feet		Backfill:		Borehole Diameter:	
Area: NM		Elevation: NM		Northing: NM	
				Eastings: NM	

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
		△△△	Tan, moist, mostly fine sand, few fill (brick, asphalt), loose when disturbed, no odors		1	0	
	MIXD	△△△			0		
		△△△	Black/grey, moist, mostly fill (ash, cinders, brick, black fines), loose when disturbed, no odors		1	0	
	MIXD	△△△			0		
		△△△	Brick		1	0	
5	MIXD	△△△			0		
		△△△			1		
	CLS	▨▨▨	Tan, wet, mostly lean clay, some fine sand, stiff, no odors		1	0	

Bottom of test pit at 8 feet

ROUX STANDARD LOG - 6/13/24 14:10 - F:\GINT\PROJECTS\HAVERSTRAW\HAVERSTRAW SITE TEST PIT LOGS.GPJ



Client: Pennrose, LLC		Site: Haverstraw Site		Project Number: 4375.0004B000	
Address: Parcels off Allison Avenue & Liberty		City/State: Haverstraw, NY		Logged By: NAS	
Start to Finish Date: 5/30/2024 - 5/30/2024		Contractor: Brookside Environmental		Drill Type:	
Borehole Depth: 5 feet		Backfill:		Borehole Diameter:	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
1	MIXD	[USCS Graphic]	Grey, moist, mostly fine sand, few fill (brick, cinders), loose when disturbed, no odors	G	1	0	
						0	
2	MIXD	[USCS Graphic]	Black/white, moist, mostly fill (ash, cinders, brick, black fines), loose when disturbed, no odors	G	1	0	
						0	
3	MIXD	[USCS Graphic]		G	2	0	
						0	
4	MIXD	[USCS Graphic]		G	1	0	
						0	
5	MIXD	[USCS Graphic]	Pipe encountered, wet Bottom of test pit at 5 feet				

ROUX STANDARD LOG - 6/13/24 14:10 - F:\GINT\PROJECTS\HAVERSTRAW\HAVERSTRAW SITE TEST PIT LOGS.GPJ



Client: Pennrose, LLC		Site: Haverstraw Site		Project Number: 4375.0004B000	
Address: Parcels off Allison Avenue & Liberty		City/State: Haverstraw, NY		Logged By: NAS	
Start to Finish Date: 5/30/2024 - 5/30/2024		Contractor: Brookside Environmental		Drill Type:	
Borehole Depth: 9 feet		Backfill:		Borehole Diameter:	
Area: NM		Elevation: NM		Northing: NM	
				Eastings: NM	

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
		△△	Tan, moist, mostly fine sand, few fill (brick), loose when disturbed, no odors		0		
	MIXD	△△			1	0	
		△△	Black/grey/red, moist to wet (6"), mostly fill (ash, cinders, brick, metal, black fines), loose when disturbed, no odors		0		
		△△			1	0	
		△△			1	0	
		△△			1	0	
		△△			1	0	
		△△			1	0	
5	MIXD	△△			1	0	
		△△			2	0	
		△△		1	0		
		△△		1	0		

G

Bottom of test pit at 9 feet

ROUX STANDARD LOG - 6/13/24 14:10 - F:\GINT\PROJECTS\HAVERSTRAW\HAVERSTRAW SITE TEST PIT LOGS.GPJ



Client: Pennrose, LLC		Site: Haverstraw Site		Project Number: 4375.0004B000	
Address: Parcels off Allison Avenue & Liberty		City/State: Haverstraw, NY		Logged By: NAS	
Start to Finish Date: 5/30/2024 - 5/30/2024		Contractor: Brookside Environmental		Drill Type:	
Borehole Depth: 8 feet		Backfill:		Borehole Diameter:	
Area: NM		Elevation: NM		Northing: NM	
				Eastings: NM	

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
		△ △	Brown, moist, mostly fine sand, some fill (brick), loose when disturbed, no odors		0		
	MIXD	△ △			1		
		△ △	Silver/grey, moist to wet (6'), mostly well graded sand, petroleum-like odors, water rushing in to test pit		0		
		△ △			1		
		△ △				50	
		△ △			1		
		△ △				180	
		△ △			1		
5	SP	△ △			300		
		△ △		G	2		
		△ △			110		
		△ △		1			
		△ △			80		
		△ △		1			

Bottom of test pit at 8 feet

ROUX STANDARD LOG - 6/13/24 14:10 - F:\GINT\PROJECTS\HAVERSTRAW\HAVERSTRAW SITE TEST PIT LOGS.GPJ



Client: Pennrose, LLC	Site: Haverstraw Site	Project Number: 4375.0004B000	
Address: Parcels off Allison Avenue & Liberty	City/State: Haverstraw, NY	Logged By: NAS	
Start to Finish Date: 5/30/2024 - 5/30/2024	Contractor: Brookside Environmental	Drill Type:	Sampler Type/Method:
Borehole Depth: 8 feet	Backfill:	Borehole Diameter:	DTW: 6 feet
Area: NM	Elevation: NM	Northing: NM	Easting: NM

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
	ASPH		Asphalt		0		
			Brown, moist to wet (6'), mostly fine to medium sand, some fill (concrete, brick, wood (5-6'), asphalt), loose when disturbed, no odors		1		
					0		
					1		
					0		
					1		
					0		
					1		
					0		
5	MIXD				1		
					0		
					2		
					0		
					1		

Bottom of test pit at 8 feet

ROUX STANDARD LOG - 6/13/24 14:10 - F:\GINT\PROJECTS\HAVERSTRAW\HAVERSTRAW SITE TEST PIT LOGS.GPJ



Client: Pennrose, LLC		Site: Haverstraw Site		Project Number: 4375.0004B000	
Address: Parcels off Allison Avenue & Liberty		City/State: Haverstraw, NY		Logged By: NAS	
Start to Finish Date: 5/30/2024 - 5/30/2024		Contractor: Brookside Environmental		Drill Type:	
Borehole Depth: 8 feet		Backfill:		Borehole Diameter:	
Area: NM		Elevation: NM		Northing: NM	
				Eastings: NM	

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
	MIXD	△△△△△△△△	Brown, moist, mostly subangular gravel, some fill (cinders, asphalt), loose when disturbed, no odors	G	1.5	0	
			Tan/brown, moist to wet (6'), mostly well graded sand with sea shells, no odors			0	
					1	0	
					1	0	
					1	0	
5	SP	●●●●●●●●			1	0	
					1	0	
					1	0	
					1	0	

Bottom of test pit at 8 feet

ROUX STANDARD LOG - 6/13/24 14:10 - F:\GINT\PROJECTS\HAVERSTRAW\HAVERSTRAW SITE TEST PIT LOGS.GPJ

Phase II Environmental Investigation Report
Haverstraw Chair Factory Site

ATTACHMENT 2 – Laboratory Analytical Reports



ANALYTICAL REPORT

PREPARED FOR

Attn: Bryan Mayback
Roux Environmental Engineering and Geology DPC
2558 Hamburg Turnpike
Lackawanna, New York 14218

Generated 6/11/2024 11:37:51 AM

JOB DESCRIPTION

Haverstraw site

JOB NUMBER

480-220428-1

Eurofins Buffalo

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



Generated
6/11/2024 11:37:51 AM

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Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	7
Client Sample Results	13
Surrogate Summary	27
QC Sample Results	28
QC Association Summary	35
Lab Chronicle	39
Certification Summary	45
Method Summary	46
Sample Summary	47
Chain of Custody	48
Receipt Checklists	49

Definitions/Glossary

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Roux Environmental Engineering and Geology DPC
Project: Haverstraw site

Job ID: 480-220428-1

Job ID: 480-220428-1

Eurofins Buffalo

Job Narrative 480-220428-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 6/4/2024 11:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C.

GC/MS VOA

Method 8260C: The following sample was analyzed using medium level soil analysis and diluted due to the nature of the sample matrix: TP-12 4-6ft (480-220428-9). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714630 recovered outside acceptance criteria, low biased, for Cyclohexane, 1,2,4-Trichlorobenzene, Chloromethane, and Methyl tert-butyl ether. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA

Method 8270D: The following samples: TP-12 4-6ft (480-220428-9) and TP-13 5-7ft (480-220428-10) was decanted prior to preparation.

Method 8270D: Due to the matrix, the following sample could not be concentrated to the final method required volume: TP-4 0-2ft (480-220428-3). The reporting limits (RLs) are elevated proportionately.

Method 8270D: The following sample required a dilution due to the nature of the sample matrix: TP-11 2.5-5ft (480-220428-8). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The following samples were diluted due to color, appearance and viscosity: TP-3 0-2ft (480-220428-2) and TP-4 0-2ft (480-220428-3). Elevated reporting limits (RL) are provided.

Method 8270D: Surrogate recovery for the following sample was outside control limits: TP-7 5-7ft (480-220428-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: TP-8 0-2ft (480-220428-7). These results have been reported and qualified.

Method 8270D: Surrogate recovery for the following sample was outside control limits: TP-14 0-1.5ft (480-220428-12). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: The following sample was diluted due to color, appearance and viscosity: TP-13 5-7ft (480-220428-10). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Case Narrative

Client: Roux Environmental Engineering and Geology DPC
Project: Haverstraw site

Job ID: 480-220428-1

Job ID: 480-220428-1 (Continued)

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General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Detection Summary

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-2 0-2ft

Lab Sample ID: 480-220428-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	140	J	190	29	ug/Kg	1	✳	8270D	Total/NA
Anthracene	240		190	48	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	580		190	19	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	640		190	29	ug/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	690		190	31	ug/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	520		190	21	ug/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	410		190	25	ug/Kg	1	✳	8270D	Total/NA
Chrysene	580		190	43	ug/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	110	J	190	34	ug/Kg	1	✳	8270D	Total/NA
Fluoranthene	1300		190	21	ug/Kg	1	✳	8270D	Total/NA
Fluorene	110	J	190	23	ug/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	400		190	24	ug/Kg	1	✳	8270D	Total/NA
Naphthalene	140	J	190	25	ug/Kg	1	✳	8270D	Total/NA
Phenanthrene	920		190	29	ug/Kg	1	✳	8270D	Total/NA
Pyrene	950		190	23	ug/Kg	1	✳	8270D	Total/NA
Arsenic	4.0		2.2	0.97	mg/Kg	1	✳	6010C	Total/NA
Barium	76.0		0.57	0.16	mg/Kg	1	✳	6010C	Total/NA
Cadmium	0.20	J	0.23	0.080	mg/Kg	1	✳	6010C	Total/NA
Chromium	15.3		0.57	0.41	mg/Kg	1	✳	6010C	Total/NA
Lead	15.6		1.1	0.52	mg/Kg	1	✳	6010C	Total/NA
Mercury	0.021	J	0.023	0.0053	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: TP-3 0-2ft

Lab Sample ID: 480-220428-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	160	J	1000	150	ug/Kg	5	✳	8270D	Total/NA
Anthracene	390	J	1000	260	ug/Kg	5	✳	8270D	Total/NA
Benzo[a]anthracene	1000		1000	100	ug/Kg	5	✳	8270D	Total/NA
Benzo[a]pyrene	1000		1000	150	ug/Kg	5	✳	8270D	Total/NA
Benzo[b]fluoranthene	1200		1000	160	ug/Kg	5	✳	8270D	Total/NA
Benzo[g,h,i]perylene	710	J	1000	110	ug/Kg	5	✳	8270D	Total/NA
Benzo[k]fluoranthene	610	J	1000	130	ug/Kg	5	✳	8270D	Total/NA
Chrysene	1000		1000	230	ug/Kg	5	✳	8270D	Total/NA
Dibenz(a,h)anthracene	230	J	1000	180	ug/Kg	5	✳	8270D	Total/NA
Fluoranthene	2400		1000	110	ug/Kg	5	✳	8270D	Total/NA
Fluorene	150	J	1000	120	ug/Kg	5	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	610	J	1000	130	ug/Kg	5	✳	8270D	Total/NA
Phenanthrene	1400		1000	150	ug/Kg	5	✳	8270D	Total/NA
Pyrene	1600		1000	120	ug/Kg	5	✳	8270D	Total/NA
Arsenic	3.7		2.5	1.1	mg/Kg	1	✳	6010C	Total/NA
Barium	72.0		0.62	0.17	mg/Kg	1	✳	6010C	Total/NA
Cadmium	0.20	J	0.25	0.086	mg/Kg	1	✳	6010C	Total/NA
Chromium	11.7		0.62	0.44	mg/Kg	1	✳	6010C	Total/NA
Lead	21.8		1.2	0.57	mg/Kg	1	✳	6010C	Total/NA
Silver	0.32	J	0.75	0.25	mg/Kg	1	✳	6010C	Total/NA
Mercury	0.030		0.024	0.0056	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: TP-4 0-2ft

Lab Sample ID: 480-220428-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	4600	J	20000	2100	ug/Kg	10	✳	8270D	Total/NA
Pyrene	3100	J	20000	2300	ug/Kg	10	✳	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-4 0-2ft (Continued)

Lab Sample ID: 480-220428-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.7		2.4	1.1	mg/Kg	1	☒	6010C	Total/NA
Barium	62.7		0.60	0.17	mg/Kg	1	☒	6010C	Total/NA
Cadmium	0.23	J	0.24	0.084	mg/Kg	1	☒	6010C	Total/NA
Chromium	12.1		0.60	0.43	mg/Kg	1	☒	6010C	Total/NA
Lead	54.1		1.2	0.55	mg/Kg	1	☒	6010C	Total/NA
Mercury	0.041		0.023	0.0052	mg/Kg	1	☒	7471B	Total/NA

Client Sample ID: TP-5 4-5ft

Lab Sample ID: 480-220428-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	33	J	220	32	ug/Kg	1	☒	8270D	Total/NA
Anthracene	85	J	220	54	ug/Kg	1	☒	8270D	Total/NA
Benzo[a]anthracene	300		220	22	ug/Kg	1	☒	8270D	Total/NA
Benzo[a]pyrene	340		220	32	ug/Kg	1	☒	8270D	Total/NA
Benzo[b]fluoranthene	420		220	35	ug/Kg	1	☒	8270D	Total/NA
Benzo[g,h,i]perylene	240		220	23	ug/Kg	1	☒	8270D	Total/NA
Benzo[k]fluoranthene	210	J	220	29	ug/Kg	1	☒	8270D	Total/NA
Chrysene	340		220	49	ug/Kg	1	☒	8270D	Total/NA
Dibenz(a,h)anthracene	57	J	220	39	ug/Kg	1	☒	8270D	Total/NA
Fluoranthene	590		220	23	ug/Kg	1	☒	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	200	J	220	27	ug/Kg	1	☒	8270D	Total/NA
Phenanthrene	350		220	32	ug/Kg	1	☒	8270D	Total/NA
Pyrene	420		220	26	ug/Kg	1	☒	8270D	Total/NA
Arsenic	4.1		2.8	1.2	mg/Kg	1	☒	6010C	Total/NA
Barium	54.5		0.64	0.18	mg/Kg	1	☒	6010C	Total/NA
Cadmium	0.23	J	0.25	0.089	mg/Kg	1	☒	6010C	Total/NA
Chromium	10.2		0.64	0.46	mg/Kg	1	☒	6010C	Total/NA
Lead	71.2		1.3	0.58	mg/Kg	1	☒	6010C	Total/NA
Selenium	1.1	J	5.1	1.0	mg/Kg	1	☒	6010C	Total/NA
Mercury	0.067		0.026	0.0059	mg/Kg	1	☒	7471B	Total/NA

Client Sample ID: TP-6 2-4ft

Lab Sample ID: 480-220428-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	37	J	230	34	ug/Kg	1	☒	8270D	Total/NA
Anthracene	82	J	230	58	ug/Kg	1	☒	8270D	Total/NA
Benzo[a]anthracene	250		230	23	ug/Kg	1	☒	8270D	Total/NA
Benzo[a]pyrene	290		230	34	ug/Kg	1	☒	8270D	Total/NA
Benzo[b]fluoranthene	310		230	37	ug/Kg	1	☒	8270D	Total/NA
Benzo[g,h,i]perylene	220	J	230	25	ug/Kg	1	☒	8270D	Total/NA
Benzo[k]fluoranthene	160	J	230	30	ug/Kg	1	☒	8270D	Total/NA
Chrysene	260		230	52	ug/Kg	1	☒	8270D	Total/NA
Dibenz(a,h)anthracene	53	J	230	41	ug/Kg	1	☒	8270D	Total/NA
Fluoranthene	680		230	25	ug/Kg	1	☒	8270D	Total/NA
Fluorene	38	J	230	28	ug/Kg	1	☒	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	160	J	230	29	ug/Kg	1	☒	8270D	Total/NA
Naphthalene	30	J	230	30	ug/Kg	1	☒	8270D	Total/NA
Phenanthrene	420		230	34	ug/Kg	1	☒	8270D	Total/NA
Pyrene	520		230	28	ug/Kg	1	☒	8270D	Total/NA
Arsenic	6.5		2.8	1.2	mg/Kg	1	☒	6010C	Total/NA
Barium	131		0.71	0.20	mg/Kg	1	☒	6010C	Total/NA
Cadmium	0.39		0.28	0.099	mg/Kg	1	☒	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-6 2-4ft (Continued)

Lab Sample ID: 480-220428-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	18.8		0.71	0.51	mg/Kg	1	✳	6010C	Total/NA
Lead	402		1.4	0.65	mg/Kg	1	✳	6010C	Total/NA
Selenium	3.3	J	5.7	1.1	mg/Kg	1	✳	6010C	Total/NA
Silver	0.29	J	0.83	0.28	mg/Kg	1	✳	6010C	Total/NA
Mercury	0.90		0.028	0.0063	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: TP-7 5-7ft

Lab Sample ID: 480-220428-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	57	J	290	43	ug/Kg	1	✳	8270D	Total/NA
Anthracene	150	J	290	71	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	380		290	29	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	470		290	43	ug/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	510		290	46	ug/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	340		290	31	ug/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	190	J	290	37	ug/Kg	1	✳	8270D	Total/NA
Chrysene	380		290	65	ug/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	79	J	290	51	ug/Kg	1	✳	8270D	Total/NA
Fluoranthene	920		290	31	ug/Kg	1	✳	8270D	Total/NA
Fluorene	57	J	290	34	ug/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	240	J	290	36	ug/Kg	1	✳	8270D	Total/NA
Phenanthrene	570		290	43	ug/Kg	1	✳	8270D	Total/NA
Pyrene	750		290	34	ug/Kg	1	✳	8270D	Total/NA
Arsenic	28.8		3.5	1.6	mg/Kg	1	✳	6010C	Total/NA
Barium	1040		0.83	0.23	mg/Kg	1	✳	6010C	Total/NA
Cadmium	1.0		0.33	0.12	mg/Kg	1	✳	6010C	Total/NA
Chromium	47.3		0.83	0.60	mg/Kg	1	✳	6010C	Total/NA
Lead	1510		1.7	0.77	mg/Kg	1	✳	6010C	Total/NA
Selenium	4.2	J	6.7	1.3	mg/Kg	1	✳	6010C	Total/NA
Silver	0.75	J	1.1	0.35	mg/Kg	1	✳	6010C	Total/NA
Mercury	10.4		0.34	0.079	mg/Kg	10	✳	7471B	Total/NA

Client Sample ID: TP-8 0-2ft

Lab Sample ID: 480-220428-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	91	J	220	22	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	96	J	220	32	ug/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	120	J	220	35	ug/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	78	J	220	23	ug/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	60	J	220	28	ug/Kg	1	✳	8270D	Total/NA
Chrysene	110	J	220	49	ug/Kg	1	✳	8270D	Total/NA
Fluoranthene	220		220	23	ug/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	61	J	220	27	ug/Kg	1	✳	8270D	Total/NA
Phenanthrene	120	J	220	32	ug/Kg	1	✳	8270D	Total/NA
Pyrene	170	J	220	26	ug/Kg	1	✳	8270D	Total/NA
Arsenic	9.1		2.7	1.2	mg/Kg	1	✳	6010C	Total/NA
Barium	116		0.67	0.19	mg/Kg	1	✳	6010C	Total/NA
Cadmium	0.30		0.27	0.093	mg/Kg	1	✳	6010C	Total/NA
Chromium	18.5		0.67	0.48	mg/Kg	1	✳	6010C	Total/NA
Lead	73.5		1.3	0.61	mg/Kg	1	✳	6010C	Total/NA
Mercury	0.098		0.025	0.0059	mg/Kg	1	✳	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-11 2.5-5ft

Lab Sample ID: 480-220428-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	760	J	4100	530	ug/Kg	20	✳	8270D	Total/NA
Benzo[a]anthracene	1100	J	4100	410	ug/Kg	20	✳	8270D	Total/NA
Benzo[a]pyrene	1200	J	4100	600	ug/Kg	20	✳	8270D	Total/NA
Benzo[b]fluoranthene	1300	J	4100	650	ug/Kg	20	✳	8270D	Total/NA
Benzo[g,h,i]perylene	1200	J	4100	430	ug/Kg	20	✳	8270D	Total/NA
Benzo[k]fluoranthene	650	J	4100	530	ug/Kg	20	✳	8270D	Total/NA
Chrysene	1200	J	4100	920	ug/Kg	20	✳	8270D	Total/NA
Fluoranthene	2900	J	4100	430	ug/Kg	20	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	780	J	4100	510	ug/Kg	20	✳	8270D	Total/NA
Phenanthrene	2400	J	4100	600	ug/Kg	20	✳	8270D	Total/NA
Pyrene	2300	J	4100	480	ug/Kg	20	✳	8270D	Total/NA
Arsenic	6.0		2.4	1.1	mg/Kg	1	✳	6010C	Total/NA
Barium	109		0.63	0.18	mg/Kg	1	✳	6010C	Total/NA
Cadmium	0.35		0.25	0.088	mg/Kg	1	✳	6010C	Total/NA
Chromium	13.6		0.63	0.45	mg/Kg	1	✳	6010C	Total/NA
Lead	134		1.3	0.58	mg/Kg	1	✳	6010C	Total/NA
Silver	0.34	J	0.73	0.24	mg/Kg	1	✳	6010C	Total/NA
Mercury	0.21		0.024	0.0054	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: TP-12 4-6ft

Lab Sample ID: 480-220428-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	360		210	21	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	250		210	31	ug/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	300		210	33	ug/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	140	J	210	27	ug/Kg	1	✳	8270D	Total/NA
Chrysene	340		210	47	ug/Kg	1	✳	8270D	Total/NA
Fluoranthene	300		210	22	ug/Kg	1	✳	8270D	Total/NA
Phenanthrene	60	J	210	31	ug/Kg	1	✳	8270D	Total/NA
Pyrene	350		210	25	ug/Kg	1	✳	8270D	Total/NA
Arsenic	2.3	J	2.4	1.1	mg/Kg	1	✳	6010C	Total/NA
Barium	43.2		0.65	0.18	mg/Kg	1	✳	6010C	Total/NA
Cadmium	0.14	J	0.26	0.091	mg/Kg	1	✳	6010C	Total/NA
Chromium	15.9		0.65	0.47	mg/Kg	1	✳	6010C	Total/NA
Lead	19.3		1.3	0.60	mg/Kg	1	✳	6010C	Total/NA
Mercury	0.012	J	0.025	0.0057	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: TP-13 5-7ft

Lab Sample ID: 480-220428-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	440	J	1900	190	ug/Kg	10	✳	8270D	Total/NA
Benzo[a]pyrene	520	J	1900	290	ug/Kg	10	✳	8270D	Total/NA
Benzo[b]fluoranthene	560	J	1900	310	ug/Kg	10	✳	8270D	Total/NA
Benzo[g,h,i]perylene	530	J	1900	210	ug/Kg	10	✳	8270D	Total/NA
Benzo[k]fluoranthene	350	J	1900	250	ug/Kg	10	✳	8270D	Total/NA
Chrysene	440	J	1900	430	ug/Kg	10	✳	8270D	Total/NA
Fluoranthene	700	J	1900	210	ug/Kg	10	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	380	J	1900	240	ug/Kg	10	✳	8270D	Total/NA
Pyrene	610	J	1900	230	ug/Kg	10	✳	8270D	Total/NA
Arsenic	7.5		2.3	1.0	mg/Kg	1	✳	6010C	Total/NA
Barium	58.2		0.62	0.17	mg/Kg	1	✳	6010C	Total/NA
Cadmium	0.26		0.25	0.087	mg/Kg	1	✳	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-13 5-7ft (Continued)

Lab Sample ID: 480-220428-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	11.8		0.62	0.45	mg/Kg	1	☼	6010C	Total/NA
Lead	78.0		1.2	0.57	mg/Kg	1	☼	6010C	Total/NA
Silver	0.28	J	0.70	0.23	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.16		0.023	0.0053	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-15 3-5ft

Lab Sample ID: 480-220428-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	110	J	180	18	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	150	J	180	26	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	180		180	28	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	110	J	180	19	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	99	J	180	23	ug/Kg	1	☼	8270D	Total/NA
Chrysene	110	J	180	40	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	150	J	180	19	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	83	J	180	22	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	47	J	180	26	ug/Kg	1	☼	8270D	Total/NA
Pyrene	120	J	180	21	ug/Kg	1	☼	8270D	Total/NA
Arsenic	4.8		2.3	1.0	mg/Kg	1	☼	6010C	Total/NA
Barium	47.0		0.52	0.15	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.11	J	0.21	0.073	mg/Kg	1	☼	6010C	Total/NA
Chromium	8.5		0.52	0.37	mg/Kg	1	☼	6010C	Total/NA
Lead	83.9		1.0	0.48	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.92	J	4.1	0.83	mg/Kg	1	☼	6010C	Total/NA
Silver	0.26	J	0.68	0.23	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.067		0.021	0.0048	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TP-14 0-1.5ft

Lab Sample ID: 480-220428-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	360		210	30	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	150	J	210	27	ug/Kg	1	☼	8270D	Total/NA
Anthracene	610		210	51	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	1900		210	21	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	1900		210	30	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	2200		210	33	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1400		210	22	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	1100		210	27	ug/Kg	1	☼	8270D	Total/NA
Chrysene	1800		210	46	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	350		210	36	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	3900		210	22	ug/Kg	1	☼	8270D	Total/NA
Fluorene	340		210	24	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1000		210	25	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	210		210	27	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	3200		210	30	ug/Kg	1	☼	8270D	Total/NA
Pyrene	3200		210	24	ug/Kg	1	☼	8270D	Total/NA
Arsenic	4.5		2.4	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	89.3		0.60	0.17	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.23	J	0.24	0.084	mg/Kg	1	☼	6010C	Total/NA
Chromium	16.1		0.60	0.43	mg/Kg	1	☼	6010C	Total/NA
Lead	262		1.2	0.55	mg/Kg	1	☼	6010C	Total/NA
Silver	0.31	J	0.73	0.24	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-14 0-1.5ft (Continued)

Lab Sample ID: 480-220428-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.55		0.025	0.0056	mg/Kg	1	☼	7471B	Total/NA

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This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-2 0-2ft

Lab Sample ID: 480-220428-1

Date Collected: 05/30/24 09:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 86.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	140	J	190	29	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Acenaphthylene	ND		190	25	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Anthracene	240		190	48	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Benzo[a]anthracene	580		190	19	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Benzo[a]pyrene	640		190	29	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Benzo[b]fluoranthene	690		190	31	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Benzo[g,h,i]perylene	520		190	21	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Benzo[k]fluoranthene	410		190	25	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Chrysene	580		190	43	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Dibenz(a,h)anthracene	110	J	190	34	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Fluoranthene	1300		190	21	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Fluorene	110	J	190	23	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Indeno[1,2,3-cd]pyrene	400		190	24	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Naphthalene	140	J	190	25	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Phenanthrene	920		190	29	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Pyrene	950		190	23	ug/Kg	☼	06/04/24 15:55	06/05/24 19:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	88		50 - 121				06/04/24 15:55	06/05/24 19:18	1
Nitrobenzene-d5 (Surr)	73		40 - 121				06/04/24 15:55	06/05/24 19:18	1
p-Terphenyl-d14 (Surr)	79		46 - 143				06/04/24 15:55	06/05/24 19:18	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0		2.2	0.97	mg/Kg	☼	06/04/24 15:43	06/05/24 11:33	1
Barium	76.0		0.57	0.16	mg/Kg	☼	06/06/24 14:39	06/07/24 16:33	1
Cadmium	0.20	J	0.23	0.080	mg/Kg	☼	06/06/24 14:39	06/07/24 16:33	1
Chromium	15.3		0.57	0.41	mg/Kg	☼	06/06/24 14:39	06/07/24 16:33	1
Lead	15.6		1.1	0.52	mg/Kg	☼	06/06/24 14:39	06/07/24 16:33	1
Selenium	ND		4.6	0.91	mg/Kg	☼	06/06/24 14:39	06/07/24 16:33	1
Silver	ND		0.66	0.22	mg/Kg	☼	06/04/24 15:43	06/05/24 11:33	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021	J	0.023	0.0053	mg/Kg	☼	06/06/24 08:50	06/06/24 12:07	1

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-3 0-2ft

Lab Sample ID: 480-220428-2

Date Collected: 05/30/24 10:00

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 80.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	160	J	1000	150	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Acenaphthylene	ND		1000	130	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Anthracene	390	J	1000	260	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Benzo[a]anthracene	1000		1000	100	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Benzo[a]pyrene	1000		1000	150	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Benzo[b]fluoranthene	1200		1000	160	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Benzo[g,h,i]perylene	710	J	1000	110	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Benzo[k]fluoranthene	610	J	1000	130	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Chrysene	1000		1000	230	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Dibenz(a,h)anthracene	230	J	1000	180	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Fluoranthene	2400		1000	110	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Fluorene	150	J	1000	120	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Indeno[1,2,3-cd]pyrene	610	J	1000	130	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Naphthalene	ND		1000	130	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Phenanthrene	1400		1000	150	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Pyrene	1600		1000	120	ug/Kg	☼	06/04/24 15:55	06/05/24 19:47	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		50 - 121				06/04/24 15:55	06/05/24 19:47	5
Nitrobenzene-d5 (Surr)	60		40 - 121				06/04/24 15:55	06/05/24 19:47	5
p-Terphenyl-d14 (Surr)	72		46 - 143				06/04/24 15:55	06/05/24 19:47	5

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.7		2.5	1.1	mg/Kg	☼	06/04/24 15:43	06/05/24 11:35	1
Barium	72.0		0.62	0.17	mg/Kg	☼	06/06/24 14:39	06/07/24 16:35	1
Cadmium	0.20	J	0.25	0.086	mg/Kg	☼	06/06/24 14:39	06/07/24 16:35	1
Chromium	11.7		0.62	0.44	mg/Kg	☼	06/06/24 14:39	06/07/24 16:35	1
Lead	21.8		1.2	0.57	mg/Kg	☼	06/06/24 14:39	06/07/24 16:35	1
Selenium	ND		4.9	0.99	mg/Kg	☼	06/06/24 14:39	06/07/24 16:35	1
Silver	0.32	J	0.75	0.25	mg/Kg	☼	06/04/24 15:43	06/05/24 11:35	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.024	0.0056	mg/Kg	☼	06/06/24 08:50	06/06/24 12:08	1

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-4 0-2ft

Lab Sample ID: 480-220428-3

Date Collected: 05/30/24 10:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 85.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		20000	2900	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Acenaphthylene	ND		20000	2600	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Anthracene	ND		20000	4900	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Benzo[a]anthracene	ND		20000	2000	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Benzo[a]pyrene	ND		20000	2900	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Benzo[b]fluoranthene	ND		20000	3100	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Benzo[g,h,i]perylene	ND		20000	2100	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Benzo[k]fluoranthene	ND		20000	2600	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Chrysene	ND		20000	4400	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Dibenz(a,h)anthracene	ND		20000	3500	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Fluoranthene	4600	J	20000	2100	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Fluorene	ND		20000	2300	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Indeno[1,2,3-cd]pyrene	ND		20000	2400	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Naphthalene	ND		20000	2600	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Phenanthrene	ND		20000	2900	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Pyrene	3100	J	20000	2300	ug/Kg	✱	06/04/24 15:55	06/05/24 20:16	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		50 - 121				06/04/24 15:55	06/05/24 20:16	10
Nitrobenzene-d5 (Surr)	56		40 - 121				06/04/24 15:55	06/05/24 20:16	10
p-Terphenyl-d14 (Surr)	62		46 - 143				06/04/24 15:55	06/05/24 20:16	10

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		2.4	1.1	mg/Kg	✱	06/04/24 15:43	06/05/24 11:37	1
Barium	62.7		0.60	0.17	mg/Kg	✱	06/06/24 14:39	06/07/24 16:37	1
Cadmium	0.23	J	0.24	0.084	mg/Kg	✱	06/06/24 14:39	06/07/24 16:37	1
Chromium	12.1		0.60	0.43	mg/Kg	✱	06/06/24 14:39	06/07/24 16:37	1
Lead	54.1		1.2	0.55	mg/Kg	✱	06/06/24 14:39	06/07/24 16:37	1
Selenium	ND		4.8	0.96	mg/Kg	✱	06/06/24 14:39	06/07/24 16:37	1
Silver	ND		0.73	0.24	mg/Kg	✱	06/04/24 15:43	06/05/24 11:37	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.041		0.023	0.0052	mg/Kg	✱	06/06/24 08:50	06/06/24 12:10	1

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-5 4-5ft

Lab Sample ID: 480-220428-4

Date Collected: 05/30/24 11:00

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 75.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	33	J	220	32	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Acenaphthylene	ND		220	29	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Anthracene	85	J	220	54	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Benzo[a]anthracene	300		220	22	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Benzo[a]pyrene	340		220	32	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Benzo[b]fluoranthene	420		220	35	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Benzo[g,h,i]perylene	240		220	23	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Benzo[k]fluoranthene	210	J	220	29	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Chrysene	340		220	49	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Dibenz(a,h)anthracene	57	J	220	39	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Fluoranthene	590		220	23	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Fluorene	ND		220	26	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Indeno[1,2,3-cd]pyrene	200	J	220	27	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Naphthalene	ND		220	29	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Phenanthrene	350		220	32	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Pyrene	420		220	26	ug/Kg	☼	06/04/24 15:55	06/05/24 20:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	89		50 - 121				06/04/24 15:55	06/05/24 20:45	1
Nitrobenzene-d5 (Surr)	74		40 - 121				06/04/24 15:55	06/05/24 20:45	1
p-Terphenyl-d14 (Surr)	84		46 - 143				06/04/24 15:55	06/05/24 20:45	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.1		2.8	1.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:39	1
Barium	54.5		0.64	0.18	mg/Kg	☼	06/06/24 14:39	06/07/24 16:39	1
Cadmium	0.23	J	0.25	0.089	mg/Kg	☼	06/06/24 14:39	06/07/24 16:39	1
Chromium	10.2		0.64	0.46	mg/Kg	☼	06/06/24 14:39	06/07/24 16:39	1
Lead	71.2		1.3	0.58	mg/Kg	☼	06/06/24 14:39	06/07/24 16:39	1
Selenium	1.1	J	5.1	1.0	mg/Kg	☼	06/06/24 14:39	06/07/24 16:39	1
Silver	ND		0.84	0.28	mg/Kg	☼	06/04/24 15:43	06/05/24 11:39	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.067		0.026	0.0059	mg/Kg	☼	06/06/24 08:50	06/06/24 12:14	1

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-6 2-4ft

Lab Sample ID: 480-220428-5

Date Collected: 05/30/24 11:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 72.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	37	J	230	34	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Acenaphthylene	ND		230	30	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Anthracene	82	J	230	58	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Benzo[a]anthracene	250		230	23	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Benzo[a]pyrene	290		230	34	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Benzo[b]fluoranthene	310		230	37	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Benzo[g,h,i]perylene	220	J	230	25	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Benzo[k]fluoranthene	160	J	230	30	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Chrysene	260		230	52	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Dibenz(a,h)anthracene	53	J	230	41	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Fluoranthene	680		230	25	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Fluorene	38	J	230	28	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Indeno[1,2,3-cd]pyrene	160	J	230	29	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Naphthalene	30	J	230	30	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Phenanthrene	420		230	34	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Pyrene	520		230	28	ug/Kg	☼	06/04/24 15:55	06/05/24 21:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	87		50 - 121				06/04/24 15:55	06/05/24 21:13	1
Nitrobenzene-d5 (Surr)	75		40 - 121				06/04/24 15:55	06/05/24 21:13	1
p-Terphenyl-d14 (Surr)	84		46 - 143				06/04/24 15:55	06/05/24 21:13	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.5		2.8	1.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:47	1
Barium	131		0.71	0.20	mg/Kg	☼	06/06/24 14:39	06/07/24 16:47	1
Cadmium	0.39		0.28	0.099	mg/Kg	☼	06/06/24 14:39	06/07/24 16:47	1
Chromium	18.8		0.71	0.51	mg/Kg	☼	06/06/24 14:39	06/07/24 16:47	1
Lead	402		1.4	0.65	mg/Kg	☼	06/06/24 14:39	06/07/24 16:47	1
Selenium	3.3	J	5.7	1.1	mg/Kg	☼	06/06/24 14:39	06/07/24 16:47	1
Silver	0.29	J	0.83	0.28	mg/Kg	☼	06/04/24 15:43	06/05/24 11:47	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.90		0.028	0.0063	mg/Kg	☼	06/06/24 08:50	06/06/24 12:15	1

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-7 5-7ft

Lab Sample ID: 480-220428-6

Date Collected: 05/30/24 12:00

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 57.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	57	J	290	43	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Acenaphthylene	ND		290	37	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Anthracene	150	J	290	71	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Benzo[a]anthracene	380		290	29	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Benzo[a]pyrene	470		290	43	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Benzo[b]fluoranthene	510		290	46	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Benzo[g,h,i]perylene	340		290	31	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Benzo[k]fluoranthene	190	J	290	37	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Chrysene	380		290	65	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Dibenz(a,h)anthracene	79	J	290	51	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Fluoranthene	920		290	31	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Fluorene	57	J	290	34	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Indeno[1,2,3-cd]pyrene	240	J	290	36	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Naphthalene	ND		290	37	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Phenanthrene	570		290	43	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Pyrene	750		290	34	ug/Kg	☼	06/04/24 15:55	06/05/24 21:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	43	S1-	50 - 121				06/04/24 15:55	06/05/24 21:42	1
Nitrobenzene-d5 (Surr)	37	S1-	40 - 121				06/04/24 15:55	06/05/24 21:42	1
p-Terphenyl-d14 (Surr)	51		46 - 143				06/04/24 15:55	06/05/24 21:42	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	28.8		3.5	1.6	mg/Kg	☼	06/04/24 15:43	06/05/24 11:49	1
Barium	1040		0.83	0.23	mg/Kg	☼	06/06/24 14:39	06/07/24 16:49	1
Cadmium	1.0		0.33	0.12	mg/Kg	☼	06/06/24 14:39	06/07/24 16:49	1
Chromium	47.3		0.83	0.60	mg/Kg	☼	06/06/24 14:39	06/07/24 16:49	1
Lead	1510		1.7	0.77	mg/Kg	☼	06/06/24 14:39	06/07/24 16:49	1
Selenium	4.2	J	6.7	1.3	mg/Kg	☼	06/06/24 14:39	06/07/24 16:49	1
Silver	0.75	J	1.1	0.35	mg/Kg	☼	06/04/24 15:43	06/05/24 11:49	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	10.4		0.34	0.079	mg/Kg	☼	06/06/24 08:50	06/06/24 13:14	10

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-8 0-2ft

Lab Sample ID: 480-220428-7

Date Collected: 05/30/24 12:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 76.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		220	32	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Acenaphthylene	ND		220	28	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Anthracene	ND		220	54	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Benzo[a]anthracene	91	J	220	22	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Benzo[a]pyrene	96	J	220	32	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Benzo[b]fluoranthene	120	J	220	35	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Benzo[g,h,i]perylene	78	J	220	23	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Benzo[k]fluoranthene	60	J	220	28	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Chrysene	110	J	220	49	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Fluoranthene	220		220	23	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Fluorene	ND		220	26	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Indeno[1,2,3-cd]pyrene	61	J	220	27	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Naphthalene	ND		220	28	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Phenanthrene	120	J	220	32	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Pyrene	170	J	220	26	ug/Kg	☼	06/04/24 15:55	06/05/24 22:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	49	S1-	50 - 121				06/04/24 15:55	06/05/24 22:10	1
Nitrobenzene-d5 (Surr)	42		40 - 121				06/04/24 15:55	06/05/24 22:10	1
p-Terphenyl-d14 (Surr)	65		46 - 143				06/04/24 15:55	06/05/24 22:10	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.1		2.7	1.2	mg/Kg	☼	06/04/24 15:43	06/05/24 12:06	1
Barium	116		0.67	0.19	mg/Kg	☼	06/06/24 14:39	06/07/24 16:51	1
Cadmium	0.30		0.27	0.093	mg/Kg	☼	06/06/24 14:39	06/07/24 16:51	1
Chromium	18.5		0.67	0.48	mg/Kg	☼	06/06/24 14:39	06/07/24 16:51	1
Lead	73.5		1.3	0.61	mg/Kg	☼	06/06/24 14:39	06/07/24 16:51	1
Selenium	ND		5.3	1.1	mg/Kg	☼	06/06/24 14:39	06/07/24 16:51	1
Silver	ND		0.82	0.27	mg/Kg	☼	06/04/24 15:43	06/05/24 12:06	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.098		0.025	0.0059	mg/Kg	☼	06/06/24 08:50	06/06/24 12:20	1

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-11 2.5-5ft

Lab Sample ID: 480-220428-8

Date Collected: 05/30/24 14:00

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 82.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4100	600	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Acenaphthylene	760	J	4100	530	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Anthracene	ND		4100	1000	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Benzo[a]anthracene	1100	J	4100	410	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Benzo[a]pyrene	1200	J	4100	600	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Benzo[b]fluoranthene	1300	J	4100	650	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Benzo[g,h,i]perylene	1200	J	4100	430	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Benzo[k]fluoranthene	650	J	4100	530	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Chrysene	1200	J	4100	920	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Dibenz(a,h)anthracene	ND		4100	720	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Fluoranthene	2900	J	4100	430	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Fluorene	ND		4100	480	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Indeno[1,2,3-cd]pyrene	780	J	4100	510	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Naphthalene	ND		4100	530	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Phenanthrene	2400	J	4100	600	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Pyrene	2300	J	4100	480	ug/Kg	☼	06/04/24 15:55	06/05/24 22:38	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		50 - 121				06/04/24 15:55	06/05/24 22:38	20
Nitrobenzene-d5 (Surr)	61		40 - 121				06/04/24 15:55	06/05/24 22:38	20
p-Terphenyl-d14 (Surr)	69		46 - 143				06/04/24 15:55	06/05/24 22:38	20

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.0		2.4	1.1	mg/Kg	☼	06/04/24 15:43	06/05/24 12:15	1
Barium	109		0.63	0.18	mg/Kg	☼	06/06/24 14:39	06/07/24 16:56	1
Cadmium	0.35		0.25	0.088	mg/Kg	☼	06/06/24 14:39	06/07/24 16:56	1
Chromium	13.6		0.63	0.45	mg/Kg	☼	06/06/24 14:39	06/07/24 16:56	1
Lead	134		1.3	0.58	mg/Kg	☼	06/06/24 14:39	06/07/24 16:56	1
Selenium	ND		5.1	1.0	mg/Kg	☼	06/06/24 14:39	06/07/24 16:56	1
Silver	0.34	J	0.73	0.24	mg/Kg	☼	06/04/24 15:43	06/05/24 12:15	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.21		0.024	0.0054	mg/Kg	☼	06/06/24 08:50	06/06/24 12:21	1

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-12 4-6ft

Lab Sample ID: 480-220428-9

Date Collected: 05/30/24 14:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 80.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2700	750	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,1,2,2-Tetrachloroethane	ND		2700	440	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2700	1400	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,1,2-Trichloroethane	ND		2700	570	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,1-Dichloroethane	ND		2700	840	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,1-Dichloroethene	ND		2700	940	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,2,4-Trichlorobenzene	ND		2700	1000	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,2,4-Trimethylbenzene	ND		2700	760	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,2-Dibromo-3-Chloropropane	ND		2700	1400	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,2-Dibromoethane	ND		2700	470	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,2-Dichlorobenzene	ND		2700	690	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,2-Dichloroethane	ND		2700	1100	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,2-Dichloropropane	ND		2700	440	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,3,5-Trimethylbenzene	ND		2700	820	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,3-Dichlorobenzene	ND		2700	720	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
1,4-Dichlorobenzene	ND		2700	380	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
2-Butanone (MEK)	ND		14000	8100	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
2-Hexanone	ND		14000	5600	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
4-Isopropyltoluene	ND		2700	910	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
4-Methyl-2-pentanone (MIBK)	ND		14000	870	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Acetone	ND		14000	11000	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Benzene	ND		2700	520	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Bromodichloromethane	ND		2700	540	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Bromoform	ND		2700	1400	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Bromomethane	ND		2700	600	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Carbon disulfide	ND		2700	1200	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Carbon tetrachloride	ND		2700	690	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Chlorobenzene	ND		2700	360	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Chloroethane	ND		2700	560	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Chloroform	ND		2700	1900	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Chloromethane	ND		2700	650	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
cis-1,2-Dichloroethene	ND		2700	750	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
cis-1,3-Dichloropropene	ND		2700	650	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Cyclohexane	ND		2700	600	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Dibromochloromethane	ND		2700	1300	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Dichlorodifluoromethane	ND		2700	1200	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Ethylbenzene	ND		2700	790	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Isopropylbenzene	ND		2700	410	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
m,p-Xylene	ND		5400	1500	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Methyl acetate	ND		14000	1300	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Methyl tert-butyl ether	ND		2700	1000	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Methylcyclohexane	ND		2700	1300	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Methylene Chloride	ND		2700	540	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
n-Butylbenzene	ND		2700	790	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
N-Propylbenzene	ND		2700	710	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
o-Xylene	ND		2700	350	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
sec-Butylbenzene	ND		2700	1000	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Styrene	ND		2700	650	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
tert-Butylbenzene	ND		2700	750	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20

Eurofins Buffalo

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-12 4-6ft

Lab Sample ID: 480-220428-9

Date Collected: 05/30/24 14:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 80.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		2700	360	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Toluene	ND		2700	730	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
trans-1,2-Dichloroethene	ND		2700	640	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
trans-1,3-Dichloropropene	ND		2700	270	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Trichloroethene	ND		2700	750	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Trichlorofluoromethane	ND		2700	1300	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Vinyl chloride	ND		2700	910	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20
Xylenes, Total	ND		5400	1500	ug/Kg	✱	06/06/24 09:16	06/06/24 13:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		53 - 146	06/06/24 09:16	06/06/24 13:46	20
4-Bromofluorobenzene (Surr)	106		49 - 148	06/06/24 09:16	06/06/24 13:46	20
Dibromofluoromethane (Surr)	95		60 - 140	06/06/24 09:16	06/06/24 13:46	20
Toluene-d8 (Surr)	100		50 - 149	06/06/24 09:16	06/06/24 13:46	20

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		210	31	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Acenaphthylene	ND		210	27	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Anthracene	ND		210	52	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Benzo[a]anthracene	360		210	21	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Benzo[a]pyrene	250		210	31	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Benzo[b]fluoranthene	300		210	33	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Benzo[g,h,i]perylene	ND		210	22	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Benzo[k]fluoranthene	140 J		210	27	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Chrysene	340		210	47	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Dibenz(a,h)anthracene	ND		210	37	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Fluoranthene	300		210	22	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Fluorene	ND		210	25	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Indeno[1,2,3-cd]pyrene	ND		210	26	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Naphthalene	ND		210	27	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Phenanthrene	60 J		210	31	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1
Pyrene	350		210	25	ug/Kg	✱	06/04/24 15:55	06/07/24 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61		50 - 121	06/04/24 15:55	06/07/24 12:25	1
Nitrobenzene-d5 (Surr)	56		40 - 121	06/04/24 15:55	06/07/24 12:25	1
p-Terphenyl-d14 (Surr)	67		46 - 143	06/04/24 15:55	06/07/24 12:25	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3 J		2.4	1.1	mg/Kg	✱	06/04/24 15:43	06/05/24 12:17	1
Barium	43.2		0.65	0.18	mg/Kg	✱	06/06/24 14:39	06/07/24 16:58	1
Cadmium	0.14 J		0.26	0.091	mg/Kg	✱	06/06/24 14:39	06/07/24 16:58	1
Chromium	15.9		0.65	0.47	mg/Kg	✱	06/06/24 14:39	06/07/24 16:58	1
Lead	19.3		1.3	0.60	mg/Kg	✱	06/06/24 14:39	06/07/24 16:58	1
Selenium	ND		5.2	1.0	mg/Kg	✱	06/06/24 14:39	06/07/24 16:58	1
Silver	ND		0.73	0.24	mg/Kg	✱	06/04/24 15:43	06/05/24 12:17	1

Eurofins Buffalo

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-12 4-6ft

Lab Sample ID: 480-220428-9

Date Collected: 05/30/24 14:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 80.1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.025	0.0057	mg/Kg	☼	06/06/24 08:50	06/06/24 12:26	1

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Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-13 5-7ft

Lab Sample ID: 480-220428-10

Date Collected: 05/30/24 15:00

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 85.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1900	290	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Acenaphthylene	ND		1900	250	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Anthracene	ND		1900	480	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Benzo[a]anthracene	440	J	1900	190	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Benzo[a]pyrene	520	J	1900	290	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Benzo[b]fluoranthene	560	J	1900	310	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Benzo[g,h,i]perylene	530	J	1900	210	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Benzo[k]fluoranthene	350	J	1900	250	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Chrysene	440	J	1900	430	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Dibenz(a,h)anthracene	ND		1900	340	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Fluoranthene	700	J	1900	210	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Fluorene	ND		1900	230	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Indeno[1,2,3-cd]pyrene	380	J	1900	240	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Naphthalene	ND		1900	250	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Phenanthrene	ND		1900	290	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Pyrene	610	J	1900	230	ug/Kg	☼	06/04/24 15:55	06/07/24 12:59	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	75		50 - 121				06/04/24 15:55	06/07/24 12:59	10
Nitrobenzene-d5 (Surr)	61		40 - 121				06/04/24 15:55	06/07/24 12:59	10
p-Terphenyl-d14 (Surr)	68		46 - 143				06/04/24 15:55	06/07/24 12:59	10

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.5		2.3	1.0	mg/Kg	☼	06/04/24 15:43	06/05/24 12:25	1
Barium	58.2		0.62	0.17	mg/Kg	☼	06/06/24 14:39	06/07/24 17:00	1
Cadmium	0.26		0.25	0.087	mg/Kg	☼	06/06/24 14:39	06/07/24 17:00	1
Chromium	11.8		0.62	0.45	mg/Kg	☼	06/06/24 14:39	06/07/24 17:00	1
Lead	78.0		1.2	0.57	mg/Kg	☼	06/06/24 14:39	06/07/24 17:00	1
Selenium	ND		5.0	0.99	mg/Kg	☼	06/06/24 14:39	06/07/24 17:00	1
Silver	0.28	J	0.70	0.23	mg/Kg	☼	06/04/24 15:43	06/05/24 12:25	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.16		0.023	0.0053	mg/Kg	☼	06/06/24 08:50	06/06/24 12:27	1

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-15 3-5ft

Lab Sample ID: 480-220428-11

Date Collected: 05/30/24 16:00

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 93.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		180	26	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Acenaphthylene	ND		180	23	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Anthracene	ND		180	44	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Benzo[a]anthracene	110	J	180	18	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Benzo[a]pyrene	150	J	180	26	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Benzo[b]fluoranthene	180		180	28	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Benzo[g,h,i]perylene	110	J	180	19	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Benzo[k]fluoranthene	99	J	180	23	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Chrysene	110	J	180	40	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Dibenz(a,h)anthracene	ND		180	31	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Fluoranthene	150	J	180	19	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Fluorene	ND		180	21	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Indeno[1,2,3-cd]pyrene	83	J	180	22	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Naphthalene	ND		180	23	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Phenanthrene	47	J	180	26	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Pyrene	120	J	180	21	ug/Kg	☼	06/04/24 15:55	06/07/24 13:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	63		50 - 121				06/04/24 15:55	06/07/24 13:27	1
Nitrobenzene-d5 (Surr)	54		40 - 121				06/04/24 15:55	06/07/24 13:27	1
p-Terphenyl-d14 (Surr)	76		46 - 143				06/04/24 15:55	06/07/24 13:27	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.8		2.3	1.0	mg/Kg	☼	06/04/24 15:43	06/05/24 12:27	1
Barium	47.0		0.52	0.15	mg/Kg	☼	06/06/24 14:39	06/07/24 17:02	1
Cadmium	0.11	J	0.21	0.073	mg/Kg	☼	06/06/24 14:39	06/07/24 17:02	1
Chromium	8.5		0.52	0.37	mg/Kg	☼	06/06/24 14:39	06/07/24 17:02	1
Lead	83.9		1.0	0.48	mg/Kg	☼	06/06/24 14:39	06/07/24 17:02	1
Selenium	0.92	J	4.1	0.83	mg/Kg	☼	06/06/24 14:39	06/07/24 17:02	1
Silver	0.26	J	0.68	0.23	mg/Kg	☼	06/04/24 15:43	06/05/24 12:27	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.067		0.021	0.0048	mg/Kg	☼	06/06/24 08:50	06/06/24 12:31	1

Client Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-14 0-1.5ft

Lab Sample ID: 480-220428-12

Date Collected: 05/30/24 15:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 79.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	360		210	30	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Acenaphthylene	150	J	210	27	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Anthracene	610		210	51	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Benzo[a]anthracene	1900		210	21	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Benzo[a]pyrene	1900		210	30	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Benzo[b]fluoranthene	2200		210	33	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Benzo[g,h,i]perylene	1400		210	22	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Benzo[k]fluoranthene	1100		210	27	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Chrysene	1800		210	46	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Dibenz(a,h)anthracene	350		210	36	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Fluoranthene	3900		210	22	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Fluorene	340		210	24	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Indeno[1,2,3-cd]pyrene	1000		210	25	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Naphthalene	210		210	27	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Phenanthrene	3200		210	30	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Pyrene	3200		210	24	ug/Kg	☼	06/04/24 15:55	06/07/24 13:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	35	S1-	50 - 121				06/04/24 15:55	06/07/24 13:55	1
Nitrobenzene-d5 (Surr)	26	S1-	40 - 121				06/04/24 15:55	06/07/24 13:55	1
p-Terphenyl-d14 (Surr)	57		46 - 143				06/04/24 15:55	06/07/24 13:55	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.5		2.4	1.1	mg/Kg	☼	06/04/24 15:43	06/05/24 12:29	1
Barium	89.3		0.60	0.17	mg/Kg	☼	06/06/24 14:39	06/07/24 17:09	1
Cadmium	0.23	J	0.24	0.084	mg/Kg	☼	06/06/24 14:39	06/07/24 17:09	1
Chromium	16.1		0.60	0.43	mg/Kg	☼	06/06/24 14:39	06/07/24 17:09	1
Lead	262		1.2	0.55	mg/Kg	☼	06/06/24 14:39	06/07/24 17:09	1
Selenium	ND		4.8	0.96	mg/Kg	☼	06/06/24 14:39	06/07/24 17:09	1
Silver	0.31	J	0.73	0.24	mg/Kg	☼	06/04/24 15:43	06/05/24 12:29	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.55		0.025	0.0056	mg/Kg	☼	06/06/24 08:50	06/06/24 12:33	1

Surrogate Summary

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	BFB	DBFM	TOL
		(53-146)	(49-148)	(60-140)	(50-149)
480-220428-9	TP-12 4-6ft	102	106	95	100
LCS 480-714650/1-A	Lab Control Sample	100	104	95	100
MB 480-714650/3-A	Method Blank	109	110	101	110

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane (Surr)
 TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP	NBZ	TPHd14
		(50-121)	(40-121)	(46-143)
480-220428-1	TP-2 0-2ft	88	73	79
480-220428-2	TP-3 0-2ft	74	60	72
480-220428-3	TP-4 0-2ft	76	56	62
480-220428-4	TP-5 4-5ft	89	74	84
480-220428-5	TP-6 2-4ft	87	75	84
480-220428-6	TP-7 5-7ft	43 S1-	37 S1-	51
480-220428-7	TP-8 0-2ft	49 S1-	42	65
480-220428-8	TP-11 2.5-5ft	77	61	69
480-220428-9	TP-12 4-6ft	61	56	67
480-220428-10	TP-13 5-7ft	75	61	68
480-220428-11	TP-15 3-5ft	63	54	76
480-220428-12	TP-14 0-1.5ft	35 S1-	26 S1-	57
LCS 480-714386/2-A	Lab Control Sample	90	74	83
MB 480-714386/1-A	Method Blank	83	71	79

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

QC Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-714650/3-A
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714650

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		100	28	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,1-Dichloroethane	ND		100	31	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,1-Dichloroethene	ND		100	35	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2,4-Trimethylbenzene	ND		100	28	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2-Dibromoethane	ND		100	18	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2-Dichlorobenzene	ND		100	26	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2-Dichloroethane	ND		100	41	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2-Dichloropropane	ND		100	16	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,3,5-Trimethylbenzene	ND		100	30	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
2-Butanone (MEK)	ND		500	300	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
2-Hexanone	ND		500	210	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
4-Isopropyltoluene	ND		100	34	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Acetone	ND		500	410	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Benzene	ND		100	19	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Bromodichloromethane	ND		100	20	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Bromoform	ND		100	50	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Bromomethane	ND		100	22	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Carbon disulfide	ND		100	46	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Carbon tetrachloride	ND		100	26	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Chlorobenzene	ND		100	13	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Chloroethane	ND		100	21	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Chloroform	ND		100	69	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Chloromethane	ND		100	24	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Cyclohexane	ND		100	22	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Dibromochloromethane	ND		100	48	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Ethylbenzene	ND		100	29	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Isopropylbenzene	ND		100	15	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
m,p-Xylene	ND		200	55	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Methyl acetate	ND		500	48	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Methylcyclohexane	ND		100	47	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Methylene Chloride	35.9	J	100	20	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
n-Butylbenzene	ND		100	29	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
N-Propylbenzene	ND		100	26	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
o-Xylene	ND		100	13	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
sec-Butylbenzene	ND		100	37	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Styrene	ND		100	24	ug/Kg		06/06/24 09:16	06/06/24 12:09	1

QC Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-714650/3-A
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714650

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		100	28	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Tetrachloroethene	ND		100	13	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Toluene	ND		100	27	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Trichloroethene	ND		100	28	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Trichlorofluoromethane	ND		100	47	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Vinyl chloride	ND		100	34	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Xylenes, Total	ND		200	55	ug/Kg		06/06/24 09:16	06/06/24 12:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		53 - 146	06/06/24 09:16	06/06/24 12:09	1
4-Bromofluorobenzene (Surr)	110		49 - 148	06/06/24 09:16	06/06/24 12:09	1
Dibromofluoromethane (Surr)	101		60 - 140	06/06/24 09:16	06/06/24 12:09	1
Toluene-d8 (Surr)	110		50 - 149	06/06/24 09:16	06/06/24 12:09	1

Lab Sample ID: LCS 480-714650/1-A
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	2500	2330		ug/Kg		93	68 - 130
1,1,1,2-Tetrachloroethane	2500	2250		ug/Kg		90	73 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	1910		ug/Kg		76	10 - 179
1,1,2-Trichloroethane	2500	2530		ug/Kg		101	80 - 120
1,1-Dichloroethane	2500	2230		ug/Kg		89	78 - 121
1,1-Dichloroethene	2500	2080		ug/Kg		83	48 - 133
1,2,4-Trichlorobenzene	2500	1990		ug/Kg		80	70 - 140
1,2,4-Trimethylbenzene	2500	2390		ug/Kg		96	77 - 127
1,2-Dibromo-3-Chloropropane	2500	1880		ug/Kg		75	56 - 122
1,2-Dibromoethane	2500	2680		ug/Kg		107	80 - 120
1,2-Dichlorobenzene	2500	2340		ug/Kg		94	78 - 125
1,2-Dichloroethane	2500	2480		ug/Kg		99	74 - 127
1,2-Dichloropropane	2500	2610		ug/Kg		105	80 - 120
1,3,5-Trimethylbenzene	2500	2430		ug/Kg		97	79 - 120
1,3-Dichlorobenzene	2500	2540		ug/Kg		102	80 - 120
1,4-Dichlorobenzene	2500	2520		ug/Kg		101	80 - 120
2-Butanone (MEK)	12500	12200		ug/Kg		98	54 - 149
2-Hexanone	12500	12300		ug/Kg		99	59 - 127
4-Isopropyltoluene	2500	2410		ug/Kg		96	80 - 120
4-Methyl-2-pentanone (MIBK)	12500	9850		ug/Kg		79	74 - 120
Acetone	12500	9640		ug/Kg		77	47 - 141
Benzene	2500	2540		ug/Kg		102	77 - 125
Bromodichloromethane	2500	2380		ug/Kg		95	71 - 121
Bromoform	2500	2280		ug/Kg		91	48 - 125
Bromomethane	2500	2020		ug/Kg		81	39 - 149
Carbon disulfide	2500	1920		ug/Kg		77	40 - 136
Carbon tetrachloride	2500	2330		ug/Kg		93	54 - 135

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QC Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-714650/1-A
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzene	2500	2630		ug/Kg		105	76 - 126
Chloroethane	2500	1480		ug/Kg		59	23 - 150
Chloroform	2500	2100		ug/Kg		84	78 - 120
Chloromethane	2500	1620		ug/Kg		65	61 - 124
cis-1,2-Dichloroethene	2500	2130		ug/Kg		85	79 - 124
cis-1,3-Dichloropropene	2500	2960		ug/Kg		118	75 - 121
Cyclohexane	2500	2010		ug/Kg		80	49 - 129
Dibromochloromethane	2500	2370		ug/Kg		95	64 - 120
Dichlorodifluoromethane	2500	1250		ug/Kg		50	10 - 150
Ethylbenzene	2500	2540		ug/Kg		102	78 - 124
Isopropylbenzene	2500	2500		ug/Kg		100	76 - 120
m,p-Xylene	2500	2520		ug/Kg		101	77 - 125
Methyl acetate	5000	4280		ug/Kg		86	71 - 123
Methyl tert-butyl ether	2500	2100		ug/Kg		84	67 - 137
Methylcyclohexane	2500	2070		ug/Kg		83	50 - 130
Methylene Chloride	2500	2340		ug/Kg		94	75 - 118
n-Butylbenzene	2500	2310		ug/Kg		92	80 - 120
N-Propylbenzene	2500	2480		ug/Kg		99	76 - 120
o-Xylene	2500	2340		ug/Kg		93	80 - 124
sec-Butylbenzene	2500	2530		ug/Kg		101	79 - 120
Styrene	2500	2580		ug/Kg		103	80 - 120
tert-Butylbenzene	2500	2660		ug/Kg		106	78 - 120
Tetrachloroethene	2500	2570		ug/Kg		103	73 - 133
Toluene	2500	2460		ug/Kg		98	75 - 124
trans-1,2-Dichloroethene	2500	2200		ug/Kg		88	74 - 129
trans-1,3-Dichloropropene	2500	2760		ug/Kg		110	73 - 120
Trichloroethene	2500	2520		ug/Kg		101	75 - 131
Trichlorofluoromethane	2500	1950		ug/Kg		78	29 - 158
Vinyl chloride	2500	2010		ug/Kg		80	59 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		53 - 146
4-Bromofluorobenzene (Surr)	104		49 - 148
Dibromofluoromethane (Surr)	95		60 - 140
Toluene-d8 (Surr)	100		50 - 149

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-714386/1-A
Matrix: Solid
Analysis Batch: 714479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714386

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		170	25	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Acenaphthylene	ND		170	22	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Anthracene	ND		170	42	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Benzo[a]anthracene	ND		170	17	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Benzo[a]pyrene	ND		170	25	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		06/04/24 15:55	06/05/24 15:48	1

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QC Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-714386/1-A
Matrix: Solid
Analysis Batch: 714479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714386

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Chrysene	ND		170	38	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Fluoranthene	ND		170	18	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Fluorene	ND		170	20	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Naphthalene	ND		170	22	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Phenanthrene	ND		170	25	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Pyrene	ND		170	20	ug/Kg		06/04/24 15:55	06/05/24 15:48	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	83		50 - 121	06/04/24 15:55	06/05/24 15:48	1
Nitrobenzene-d5 (Surr)	71		40 - 121	06/04/24 15:55	06/05/24 15:48	1
p-Terphenyl-d14 (Surr)	79		46 - 143	06/04/24 15:55	06/05/24 15:48	1

Lab Sample ID: LCS 480-714386/2-A
Matrix: Solid
Analysis Batch: 714479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthylene	1670	1430		ug/Kg		86	58 - 121
Anthracene	1670	1450		ug/Kg		87	62 - 120
Benzo[a]anthracene	1670	1490		ug/Kg		89	65 - 120
Benzo[a]pyrene	1670	1520		ug/Kg		91	64 - 120
Benzo[b]fluoranthene	1670	1480		ug/Kg		89	64 - 120
Benzo[g,h,i]perylene	1670	1640		ug/Kg		98	45 - 145
Benzo[k]fluoranthene	1670	1610		ug/Kg		96	65 - 120
Chrysene	1670	1400		ug/Kg		84	64 - 120
Dibenz(a,h)anthracene	1670	1590		ug/Kg		96	54 - 132
Fluoranthene	1670	1600		ug/Kg		96	62 - 120
Fluorene	1670	1480		ug/Kg		89	63 - 120
Indeno[1,2,3-cd]pyrene	1670	1620		ug/Kg		97	56 - 134
Naphthalene	1670	1290		ug/Kg		77	55 - 120
Phenanthrene	1670	1450		ug/Kg		87	60 - 120
Pyrene	1670	1420		ug/Kg		85	61 - 133

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	90		50 - 121
Nitrobenzene-d5 (Surr)	74		40 - 121
p-Terphenyl-d14 (Surr)	83		46 - 143

QC Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-714375/1-A
Matrix: Solid
Analysis Batch: 714526

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714375

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	ND		0.51	0.14	mg/Kg		06/04/24 15:43	06/05/24 11:29	1
Cadmium	0.0727	J	0.20	0.071	mg/Kg		06/04/24 15:43	06/05/24 11:29	1
Chromium	ND		0.51	0.36	mg/Kg		06/04/24 15:43	06/05/24 11:29	1
Selenium	0.945	J	4.0	0.81	mg/Kg		06/04/24 15:43	06/05/24 11:29	1
Silver	ND		0.61	0.20	mg/Kg		06/04/24 15:43	06/05/24 11:29	1

Lab Sample ID: MB 480-714375/1-A
Matrix: Solid
Analysis Batch: 714624

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714375

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		2.0	0.89	mg/Kg		06/04/24 15:43	06/05/24 17:15	1
Lead	ND		1.0	0.47	mg/Kg		06/04/24 15:43	06/05/24 17:15	1

Lab Sample ID: LCSSRM 480-714375/2-A
Matrix: Solid
Analysis Batch: 714624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714375

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits	
							Result	Qualifiers
Arsenic	200	144.9		mg/Kg		72	60.8 - 113.2	

Lab Sample ID: 480-220428-7 MS
Matrix: Solid
Analysis Batch: 714526

Client Sample ID: TP-8 0-2ft
Prep Type: Total/NA
Prep Batch: 714375

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
									Result	Qualifiers
Silver	ND		13.2	11.76		mg/Kg	✱	89	75 - 125	

Lab Sample ID: 480-220428-7 MSD
Matrix: Solid
Analysis Batch: 714526

Client Sample ID: TP-8 0-2ft
Prep Type: Total/NA
Prep Batch: 714375

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	
									Result	Qualifiers	RPD	Limit
Silver	ND		13.1	11.76		mg/Kg	✱	90	75 - 125	0	20	

Lab Sample ID: MB 480-714675/1-A
Matrix: Solid
Analysis Batch: 714940

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714675

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	ND		0.50	0.14	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Cadmium	ND		0.20	0.070	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Chromium	ND		0.50	0.36	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Lead	ND		1.0	0.46	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Selenium	ND		4.0	0.80	mg/Kg		06/06/24 14:39	06/07/24 16:01	1

QC Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-714675/2-A
Matrix: Solid
Analysis Batch: 714940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714675

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Barium	431	393.3		mg/Kg		91.2	74.9 - 125.1
Cadmium	199	187.0		mg/Kg		94.0	74.9 - 125.1
Chromium	210	205.5		mg/Kg		97.9	70.0 - 130.0
Lead	261	274.3		mg/Kg		105.1	78.2 - 121.0
Selenium	117	100.4		mg/Kg		85.8	65.8 - 133.3

Lab Sample ID: 480-220428-7 MS
Matrix: Solid
Analysis Batch: 714940

Client Sample ID: TP-8 0-2ft
Prep Type: Total/NA
Prep Batch: 714675

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	116		273	388.6		mg/Kg	⊛	100	75 - 125
Cadmium	0.30		136	123.3		mg/Kg	⊛	90	75 - 125
Chromium	18.5		136	149.2		mg/Kg	⊛	96	75 - 125
Lead	73.5		136	192.4		mg/Kg	⊛	87	75 - 125
Selenium	ND		273	206.6		mg/Kg	⊛	76	75 - 125

Lab Sample ID: 480-220428-7 MSD
Matrix: Solid
Analysis Batch: 714940

Client Sample ID: TP-8 0-2ft
Prep Type: Total/NA
Prep Batch: 714675

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Barium	116		254	379.2		mg/Kg	⊛	104	75 - 125	2	20
Cadmium	0.30		127	114.0		mg/Kg	⊛	89	75 - 125	8	20
Chromium	18.5		127	138.2		mg/Kg	⊛	94	75 - 125	8	20
Lead	73.5		127	176.6		mg/Kg	⊛	81	75 - 125	9	20
Selenium	ND		254	191.9		mg/Kg	⊛	75	75 - 125	7	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-714628/1-A
Matrix: Solid
Analysis Batch: 714714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714628

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0046	mg/Kg		06/06/24 08:50	06/06/24 11:38	1

Lab Sample ID: LCSSRM 480-714628/2-A ^10
Matrix: Solid
Analysis Batch: 714714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714628

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	19.1	21.10		mg/Kg		110.5	59.7 - 139.8

QC Sample Results

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: MB 480-714635/1-A
Matrix: Solid
Analysis Batch: 714714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714635

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0045	mg/Kg		06/06/24 08:50	06/06/24 12:22	1

Lab Sample ID: LCSSRM 480-714635/2-A ^10
Matrix: Solid
Analysis Batch: 714714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714635

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	19.1	19.70		mg/Kg		103.2	59.7 - 139.8

QC Association Summary

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

GC/MS VOA

Analysis Batch: 714630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-9	TP-12 4-6ft	Total/NA	Solid	8260C	714650
MB 480-714650/3-A	Method Blank	Total/NA	Solid	8260C	714650
LCS 480-714650/1-A	Lab Control Sample	Total/NA	Solid	8260C	714650

Prep Batch: 714650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-9	TP-12 4-6ft	Total/NA	Solid	5035A_H	
MB 480-714650/3-A	Method Blank	Total/NA	Solid	5035A_H	
LCS 480-714650/1-A	Lab Control Sample	Total/NA	Solid	5035A_H	

GC/MS Semi VOA

Prep Batch: 714386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-1	TP-2 0-2ft	Total/NA	Solid	3550C	
480-220428-2	TP-3 0-2ft	Total/NA	Solid	3550C	
480-220428-3	TP-4 0-2ft	Total/NA	Solid	3550C	
480-220428-4	TP-5 4-5ft	Total/NA	Solid	3550C	
480-220428-5	TP-6 2-4ft	Total/NA	Solid	3550C	
480-220428-6	TP-7 5-7ft	Total/NA	Solid	3550C	
480-220428-7	TP-8 0-2ft	Total/NA	Solid	3550C	
480-220428-8	TP-11 2.5-5ft	Total/NA	Solid	3550C	
480-220428-9	TP-12 4-6ft	Total/NA	Solid	3550C	
480-220428-10	TP-13 5-7ft	Total/NA	Solid	3550C	
480-220428-11	TP-15 3-5ft	Total/NA	Solid	3550C	
480-220428-12	TP-14 0-1.5ft	Total/NA	Solid	3550C	
MB 480-714386/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-714386/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 714479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-1	TP-2 0-2ft	Total/NA	Solid	8270D	714386
480-220428-2	TP-3 0-2ft	Total/NA	Solid	8270D	714386
480-220428-3	TP-4 0-2ft	Total/NA	Solid	8270D	714386
480-220428-4	TP-5 4-5ft	Total/NA	Solid	8270D	714386
480-220428-5	TP-6 2-4ft	Total/NA	Solid	8270D	714386
480-220428-6	TP-7 5-7ft	Total/NA	Solid	8270D	714386
480-220428-7	TP-8 0-2ft	Total/NA	Solid	8270D	714386
480-220428-8	TP-11 2.5-5ft	Total/NA	Solid	8270D	714386
MB 480-714386/1-A	Method Blank	Total/NA	Solid	8270D	714386
LCS 480-714386/2-A	Lab Control Sample	Total/NA	Solid	8270D	714386

Analysis Batch: 714483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-9	TP-12 4-6ft	Total/NA	Solid	8270D	714386
480-220428-10	TP-13 5-7ft	Total/NA	Solid	8270D	714386
480-220428-11	TP-15 3-5ft	Total/NA	Solid	8270D	714386
480-220428-12	TP-14 0-1.5ft	Total/NA	Solid	8270D	714386

QC Association Summary

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Metals

Prep Batch: 714375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-1	TP-2 0-2ft	Total/NA	Solid	3050B	
480-220428-2	TP-3 0-2ft	Total/NA	Solid	3050B	
480-220428-3	TP-4 0-2ft	Total/NA	Solid	3050B	
480-220428-4	TP-5 4-5ft	Total/NA	Solid	3050B	
480-220428-5	TP-6 2-4ft	Total/NA	Solid	3050B	
480-220428-6	TP-7 5-7ft	Total/NA	Solid	3050B	
480-220428-7	TP-8 0-2ft	Total/NA	Solid	3050B	
480-220428-8	TP-11 2.5-5ft	Total/NA	Solid	3050B	
480-220428-9	TP-12 4-6ft	Total/NA	Solid	3050B	
480-220428-10	TP-13 5-7ft	Total/NA	Solid	3050B	
480-220428-11	TP-15 3-5ft	Total/NA	Solid	3050B	
480-220428-12	TP-14 0-1.5ft	Total/NA	Solid	3050B	
MB 480-714375/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-714375/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-220428-7 MS	TP-8 0-2ft	Total/NA	Solid	3050B	
480-220428-7 MSD	TP-8 0-2ft	Total/NA	Solid	3050B	

Analysis Batch: 714526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-1	TP-2 0-2ft	Total/NA	Solid	6010C	714375
480-220428-2	TP-3 0-2ft	Total/NA	Solid	6010C	714375
480-220428-3	TP-4 0-2ft	Total/NA	Solid	6010C	714375
480-220428-4	TP-5 4-5ft	Total/NA	Solid	6010C	714375
480-220428-5	TP-6 2-4ft	Total/NA	Solid	6010C	714375
480-220428-6	TP-7 5-7ft	Total/NA	Solid	6010C	714375
480-220428-7	TP-8 0-2ft	Total/NA	Solid	6010C	714375
480-220428-8	TP-11 2.5-5ft	Total/NA	Solid	6010C	714375
480-220428-9	TP-12 4-6ft	Total/NA	Solid	6010C	714375
480-220428-10	TP-13 5-7ft	Total/NA	Solid	6010C	714375
480-220428-11	TP-15 3-5ft	Total/NA	Solid	6010C	714375
480-220428-12	TP-14 0-1.5ft	Total/NA	Solid	6010C	714375
MB 480-714375/1-A	Method Blank	Total/NA	Solid	6010C	714375
480-220428-7 MS	TP-8 0-2ft	Total/NA	Solid	6010C	714375
480-220428-7 MSD	TP-8 0-2ft	Total/NA	Solid	6010C	714375

Analysis Batch: 714624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-714375/1-A	Method Blank	Total/NA	Solid	6010C	714375
LCSSRM 480-714375/2-A	Lab Control Sample	Total/NA	Solid	6010C	714375

Prep Batch: 714628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-1	TP-2 0-2ft	Total/NA	Solid	7471B	
480-220428-2	TP-3 0-2ft	Total/NA	Solid	7471B	
480-220428-3	TP-4 0-2ft	Total/NA	Solid	7471B	
480-220428-4	TP-5 4-5ft	Total/NA	Solid	7471B	
480-220428-5	TP-6 2-4ft	Total/NA	Solid	7471B	
480-220428-6	TP-7 5-7ft	Total/NA	Solid	7471B	
480-220428-7	TP-8 0-2ft	Total/NA	Solid	7471B	
480-220428-8	TP-11 2.5-5ft	Total/NA	Solid	7471B	
MB 480-714628/1-A	Method Blank	Total/NA	Solid	7471B	

Eurofins Buffalo

QC Association Summary

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Metals (Continued)

Prep Batch: 714628 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 480-714628/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 714635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-9	TP-12 4-6ft	Total/NA	Solid	7471B	
480-220428-10	TP-13 5-7ft	Total/NA	Solid	7471B	
480-220428-11	TP-15 3-5ft	Total/NA	Solid	7471B	
480-220428-12	TP-14 0-1.5ft	Total/NA	Solid	7471B	
MB 480-714635/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-714635/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 714675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-1	TP-2 0-2ft	Total/NA	Solid	3050B	
480-220428-2	TP-3 0-2ft	Total/NA	Solid	3050B	
480-220428-3	TP-4 0-2ft	Total/NA	Solid	3050B	
480-220428-4	TP-5 4-5ft	Total/NA	Solid	3050B	
480-220428-5	TP-6 2-4ft	Total/NA	Solid	3050B	
480-220428-6	TP-7 5-7ft	Total/NA	Solid	3050B	
480-220428-7	TP-8 0-2ft	Total/NA	Solid	3050B	
480-220428-8	TP-11 2.5-5ft	Total/NA	Solid	3050B	
480-220428-9	TP-12 4-6ft	Total/NA	Solid	3050B	
480-220428-10	TP-13 5-7ft	Total/NA	Solid	3050B	
480-220428-11	TP-15 3-5ft	Total/NA	Solid	3050B	
480-220428-12	TP-14 0-1.5ft	Total/NA	Solid	3050B	
MB 480-714675/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-714675/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-220428-7 MS	TP-8 0-2ft	Total/NA	Solid	3050B	
480-220428-7 MSD	TP-8 0-2ft	Total/NA	Solid	3050B	

Analysis Batch: 714714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-1	TP-2 0-2ft	Total/NA	Solid	7471B	714628
480-220428-2	TP-3 0-2ft	Total/NA	Solid	7471B	714628
480-220428-3	TP-4 0-2ft	Total/NA	Solid	7471B	714628
480-220428-4	TP-5 4-5ft	Total/NA	Solid	7471B	714628
480-220428-5	TP-6 2-4ft	Total/NA	Solid	7471B	714628
480-220428-6	TP-7 5-7ft	Total/NA	Solid	7471B	714628
480-220428-7	TP-8 0-2ft	Total/NA	Solid	7471B	714628
480-220428-8	TP-11 2.5-5ft	Total/NA	Solid	7471B	714628
480-220428-9	TP-12 4-6ft	Total/NA	Solid	7471B	714635
480-220428-10	TP-13 5-7ft	Total/NA	Solid	7471B	714635
480-220428-11	TP-15 3-5ft	Total/NA	Solid	7471B	714635
480-220428-12	TP-14 0-1.5ft	Total/NA	Solid	7471B	714635
MB 480-714628/1-A	Method Blank	Total/NA	Solid	7471B	714628
MB 480-714635/1-A	Method Blank	Total/NA	Solid	7471B	714635
LCSSRM 480-714628/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	714628
LCSSRM 480-714635/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	714635

QC Association Summary

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Metals

Analysis Batch: 714940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-1	TP-2 0-2ft	Total/NA	Solid	6010C	714675
480-220428-2	TP-3 0-2ft	Total/NA	Solid	6010C	714675
480-220428-3	TP-4 0-2ft	Total/NA	Solid	6010C	714675
480-220428-4	TP-5 4-5ft	Total/NA	Solid	6010C	714675
480-220428-5	TP-6 2-4ft	Total/NA	Solid	6010C	714675
480-220428-6	TP-7 5-7ft	Total/NA	Solid	6010C	714675
480-220428-7	TP-8 0-2ft	Total/NA	Solid	6010C	714675
480-220428-8	TP-11 2.5-5ft	Total/NA	Solid	6010C	714675
480-220428-9	TP-12 4-6ft	Total/NA	Solid	6010C	714675
480-220428-10	TP-13 5-7ft	Total/NA	Solid	6010C	714675
480-220428-11	TP-15 3-5ft	Total/NA	Solid	6010C	714675
480-220428-12	TP-14 0-1.5ft	Total/NA	Solid	6010C	714675
MB 480-714675/1-A	Method Blank	Total/NA	Solid	6010C	714675
LCS SRM 480-714675/2-A	Lab Control Sample	Total/NA	Solid	6010C	714675
480-220428-7 MS	TP-8 0-2ft	Total/NA	Solid	6010C	714675
480-220428-7 MSD	TP-8 0-2ft	Total/NA	Solid	6010C	714675

General Chemistry

Analysis Batch: 714379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220428-1	TP-2 0-2ft	Total/NA	Solid	Moisture	
480-220428-2	TP-3 0-2ft	Total/NA	Solid	Moisture	
480-220428-3	TP-4 0-2ft	Total/NA	Solid	Moisture	
480-220428-4	TP-5 4-5ft	Total/NA	Solid	Moisture	
480-220428-5	TP-6 2-4ft	Total/NA	Solid	Moisture	
480-220428-6	TP-7 5-7ft	Total/NA	Solid	Moisture	
480-220428-7	TP-8 0-2ft	Total/NA	Solid	Moisture	
480-220428-8	TP-11 2.5-5ft	Total/NA	Solid	Moisture	
480-220428-9	TP-12 4-6ft	Total/NA	Solid	Moisture	
480-220428-10	TP-13 5-7ft	Total/NA	Solid	Moisture	
480-220428-11	TP-15 3-5ft	Total/NA	Solid	Moisture	
480-220428-12	TP-14 0-1.5ft	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-2 0-2ft

Lab Sample ID: 480-220428-1

Date Collected: 05/30/24 09:30

Matrix: Solid

Date Received: 06/04/24 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: TP-2 0-2ft

Lab Sample ID: 480-220428-1

Date Collected: 05/30/24 09:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		1	714479	EMD	EET BUF	06/05/24 19:18
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 11:33
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:33
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:07

Client Sample ID: TP-3 0-2ft

Lab Sample ID: 480-220428-2

Date Collected: 05/30/24 10:00

Matrix: Solid

Date Received: 06/04/24 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: TP-3 0-2ft

Lab Sample ID: 480-220428-2

Date Collected: 05/30/24 10:00

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 80.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		5	714479	EMD	EET BUF	06/05/24 19:47
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 11:35
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:35
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:08

Client Sample ID: TP-4 0-2ft

Lab Sample ID: 480-220428-3

Date Collected: 05/30/24 10:30

Matrix: Solid

Date Received: 06/04/24 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Lab Chronicle

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-4 0-2ft

Lab Sample ID: 480-220428-3

Date Collected: 05/30/24 10:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		10	714479	EMD	EET BUF	06/05/24 20:16
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 11:37
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:37
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:10

Client Sample ID: TP-5 4-5ft

Lab Sample ID: 480-220428-4

Date Collected: 05/30/24 11:00

Matrix: Solid

Date Received: 06/04/24 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: TP-5 4-5ft

Lab Sample ID: 480-220428-4

Date Collected: 05/30/24 11:00

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 75.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		1	714479	EMD	EET BUF	06/05/24 20:45
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 11:39
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:39
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:14

Client Sample ID: TP-6 2-4ft

Lab Sample ID: 480-220428-5

Date Collected: 05/30/24 11:30

Matrix: Solid

Date Received: 06/04/24 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: TP-6 2-4ft

Lab Sample ID: 480-220428-5

Date Collected: 05/30/24 11:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 72.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		1	714479	EMD	EET BUF	06/05/24 21:13
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 11:47

Eurofins Buffalo

Lab Chronicle

Client: Roux Environmental Engineering and Geology DPC
 Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-6 2-4ft

Lab Sample ID: 480-220428-5

Date Collected: 05/30/24 11:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 72.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:47
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:15

Client Sample ID: TP-7 5-7ft

Lab Sample ID: 480-220428-6

Date Collected: 05/30/24 12:00

Matrix: Solid

Date Received: 06/04/24 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: TP-7 5-7ft

Lab Sample ID: 480-220428-6

Date Collected: 05/30/24 12:00

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 57.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		1	714479	EMD	EET BUF	06/05/24 21:42
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 11:49
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:49
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		10	714714	ESB	EET BUF	06/06/24 13:14

Client Sample ID: TP-8 0-2ft

Lab Sample ID: 480-220428-7

Date Collected: 05/30/24 12:30

Matrix: Solid

Date Received: 06/04/24 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: TP-8 0-2ft

Lab Sample ID: 480-220428-7

Date Collected: 05/30/24 12:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 76.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		1	714479	EMD	EET BUF	06/05/24 22:10
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 12:06
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:51
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:20

Eurofins Buffalo

Lab Chronicle

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-11 2.5-5ft

Date Collected: 05/30/24 14:00

Date Received: 06/04/24 11:00

Lab Sample ID: 480-220428-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: TP-11 2.5-5ft

Date Collected: 05/30/24 14:00

Date Received: 06/04/24 11:00

Lab Sample ID: 480-220428-8

Matrix: Solid

Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		20	714479	EMD	EET BUF	06/05/24 22:38
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 12:15
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:56
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:21

Client Sample ID: TP-12 4-6ft

Date Collected: 05/30/24 14:30

Date Received: 06/04/24 11:00

Lab Sample ID: 480-220428-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: TP-12 4-6ft

Date Collected: 05/30/24 14:30

Date Received: 06/04/24 11:00

Lab Sample ID: 480-220428-9

Matrix: Solid

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		20	714630	ZN	EET BUF	06/06/24 13:46
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		1	714483	JMM	EET BUF	06/07/24 12:25
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 12:17
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:58
Total/NA	Prep	7471B			714635	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:26

Client Sample ID: TP-13 5-7ft

Date Collected: 05/30/24 15:00

Date Received: 06/04/24 11:00

Lab Sample ID: 480-220428-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Lab Chronicle

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-13 5-7ft

Date Collected: 05/30/24 15:00

Date Received: 06/04/24 11:00

Lab Sample ID: 480-220428-10

Matrix: Solid

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		10	714483	JMM	EET BUF	06/07/24 12:59
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 12:25
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 17:00
Total/NA	Prep	7471B			714635	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:27

Client Sample ID: TP-15 3-5ft

Date Collected: 05/30/24 16:00

Date Received: 06/04/24 11:00

Lab Sample ID: 480-220428-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: TP-15 3-5ft

Date Collected: 05/30/24 16:00

Date Received: 06/04/24 11:00

Lab Sample ID: 480-220428-11

Matrix: Solid

Percent Solids: 93.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		1	714483	JMM	EET BUF	06/07/24 13:27
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 12:27
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 17:02
Total/NA	Prep	7471B			714635	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:31

Client Sample ID: TP-14 0-1.5ft

Date Collected: 05/30/24 15:30

Date Received: 06/04/24 11:00

Lab Sample ID: 480-220428-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: TP-14 0-1.5ft

Date Collected: 05/30/24 15:30

Date Received: 06/04/24 11:00

Lab Sample ID: 480-220428-12

Matrix: Solid

Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		1	714483	JMM	EET BUF	06/07/24 13:55
Total/NA	Prep	3050B			714375	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714526	NZG	EET BUF	06/05/24 12:29

Eurofins Buffalo

Lab Chronicle

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Client Sample ID: TP-14 0-1.5ft

Lab Sample ID: 480-220428-12

Date Collected: 05/30/24 15:30

Matrix: Solid

Date Received: 06/04/24 11:00

Percent Solids: 79.9

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 17:09
Total/NA	Prep	7471B			714635	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:33

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



Accreditation/Certification Summary

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

<u>Analysis Method</u>	<u>Prep Method</u>	<u>Matrix</u>	<u>Analyte</u>
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
3050B	Preparation, Metals	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5035A_H	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Roux Environmental Engineering and Geology DPC
Project/Site: Haverstraw site

Job ID: 480-220428-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-220428-1	TP-2 0-2ft	Solid	05/30/24 09:30	06/04/24 11:00
480-220428-2	TP-3 0-2ft	Solid	05/30/24 10:00	06/04/24 11:00
480-220428-3	TP-4 0-2ft	Solid	05/30/24 10:30	06/04/24 11:00
480-220428-4	TP-5 4-5ft	Solid	05/30/24 11:00	06/04/24 11:00
480-220428-5	TP-6 2-4ft	Solid	05/30/24 11:30	06/04/24 11:00
480-220428-6	TP-7 5-7ft	Solid	05/30/24 12:00	06/04/24 11:00
480-220428-7	TP-8 0-2ft	Solid	05/30/24 12:30	06/04/24 11:00
480-220428-8	TP-11 2.5-5ft	Solid	05/30/24 14:00	06/04/24 11:00
480-220428-9	TP-12 4-6ft	Solid	05/30/24 14:30	06/04/24 11:00
480-220428-10	TP-13 5-7ft	Solid	05/30/24 15:00	06/04/24 11:00
480-220428-11	TP-15 3-5ft	Solid	05/30/24 16:00	06/04/24 11:00
480-220428-12	TP-14 0-1.5ft	Solid	05/30/24 15:30	06/04/24 11:00


- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Regulatory Program: DW NPDES RCRA Other: _____

Project Manager: Blal puzlak Site Contact: Mel Scari Date: 6/13/24 COC No: _____ of _____ COCs

Tel/Email: Brosbeck@Pax/nc Lab Contact: BPW FSH Carrier: _____

Analysis Turnaround Time
 CALENDAR DAYS WORKING DAYS
 TAT if different from Below
 2 weeks
 1 week
 2 days
 1 day

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Sample Specific Notes:
TP-2 0-2FT	5/30/24	9:30	G	Soil	2	X	X	 480-220428 Chain of Custody TP18 VOC'S
TP-3 0-2FT		1000			2	X	X	
TP-4 0-2FT		1030			2	X	X	
TP-5 4-5FT		1100			2	X	X	
TP-6 2-4FT		1130			2	X	X	
TP-7 5-7FT		1200			2	X	X	
TP-8 0-2FT		1230			2	X	X	
TP-11 2.5-5FT		1400			2	X	X	
TP-12 4-6FT		1430			3	X	X	
TP-13 5-7FT		1500			2	X	X	
TP-15 3-5FT		1600			2	X	X	
TP-17 0-15FT		1530			2	X	X	

Observation Used: 1= Ice, 2= H2SO4; 3= HCl; 4= HNO3; 5= NaOH; 6= Other
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments: _____

Custody Seal No.: _____
 Company: Pax Inc
 Date/Time: 6/13/24 13:00

Received by: [Signature]
 Company: TAB
 Date/Time: 6/14/24 1100

Received in Laboratory by: [Signature]
 Company: _____
 Date/Time: _____

Login Sample Receipt Checklist

Client: Roux Environmental Engineering and Geology DPC

Job Number: 480-220428-1

Login Number: 220428

List Number: 1

Creator: Stopa, Erik S

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ROUX INC
Samples received within 48 hours of sampling.	False	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	