

Field Sampling Summary Report

INSTALLATION OF
EAST SIDE COASTAL RESILIENCY
FROM MONTGOMERY STREET TO EAST 15th STREET
BOROUGH OF MANHATTAN

NYCDDC PROJECT # SANDRESM1

Prepared for:



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Office of Environmental and Hazmat Services
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Long Island City, New York 11101

On behalf of:

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AES Project No. 0897

REVISION #1
JANUARY 30, 2024

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1.0 INTRODUCTION

American Environmental Solutions, Inc. (AES) of Patchogue, New York, has been contracted by IPC Resiliency Partners (IPC) of Great Neck, New York, as their project environmental consultant to prepare a Field Sampling Summary Report (FSSR) for the New York City Department of Design and Construction (NYCDDC) East Side Coastal Resiliency project (Project No. SANDRESM1) located in Manhattan, New York. This FSSR documents field sampling activities, soil screening, sample collection and analysis.

1.1 Project Description

The project work area extends approximately 1.5 miles along Manhattan's east side waterfront from East 15th Street to Montgomery Street, between FDR Drive and the East River. The site is primarily comprised of John V. Lindsay East River Park. This work area has been designated Project Area One. Due to the size and scope of the project, work areas have been delineated into Reaches A through J. The project location is shown on Figure 1.

The East Side Coastal Resiliency (ESCR) project involves construction of flood protection measures including installation of flood walls and closure structures. Project plans include construction of an above ground floodwall, a transition retaining wall, and installation of flood gates. The scope of work also includes infrastructure improvements to mitigate risk of flood damage including reconstruction of water mains and sewers. East River Park will be elevated nine feet and reconstructed, including existing park structures and recreational features, the amphitheater, track facility and tennis house. Proposed work also includes construction of new pedestrian bridges, street lighting and traffic work.

The infrastructure improvements will generate approximately 287,600 cubic yards (cy) of soil. Soils generated as part of the SANDRESM1 infrastructure activities will be managed as per applicable New York State Department of Environmental Conservation (NYSDEC) Part 375 Commercial Use Soil Cleanup Objectives (CSCOs) for road work areas and Restricted Residential Use SCOs (RRSCOs) for parkland and any additional specifications required by the DDC.

The excavation for infrastructure improvements will range from 4 feet to approximately 40 feet below grade (ftbg).

2.0 FIELD ACTIVITIES

AES performed soil sampling at the site on January 17th, 2024. A total of fourteen soil samples were collected. Thirteen soil samples were collected from borings advanced in the work areas. One sample was collected from stockpiled soil. A description of soil samples collected is shown below:

- Samples BH-66 through BH-73 and BH-75 through BH-79 were collected from borings advanced to fifteen feet below grade surface in areas to be excavated for bulkhead construction.
- The sample identified as Field 3 & 4 S.P. was collected from stockpiled soil generated in Fields 3 and 4.

Soil boring locations are shown on Figures 2a – 2b. Site photographs are included in Attachment I. Soil boring logs are included in Appendix A.

2.1 Soil Sampling and Analysis

Soil samples were field screened using a photoionization detector (PID) and readings were recorded on boring logs. All PID readings collected during the field sampling events were 0.0 parts per million (ppm). One grab sample and one composite soil sample were collected from each sampling location and submitted for laboratory analysis.

Soil samples were placed into laboratory supplied sample jars and properly labeled. The soil samples were stored in a cooler with ice to preserve the samples at approximately 4° Celsius prior to and during sample shipment. A chain-of-custody was prepared prior to sample shipment

Soil samples were delivered in coolers to Phoenix Environmental Laboratories, Inc. of Manchester, Connecticut (NYSDOH ELAP # 11301) for analysis. All soil samples collected were analyzed for the following parameters:

- 40 CFR Part 261, Subpart C (Characteristics of Hazardous Waste)
- Ignitability (Method 1010);
- Corrosivity (Method 9045C);
- Reactivity (Chapter 7.3.2);
- Toxicity Characteristic Leaching Procedure (TCLP) VOC (Method 1311/8260);
- TCLP SVOC (Method 1311/8270);
- TCLP Pesticides (Method 1311/8081) (if required by the selected disposal facility);
- TCLP Herbicides (Method 1311/8151A);
- TCLP Metals (Method 1311/6010B/7470A);

- Polychlorinated biphenyls (PCBs) (Method 8082);
- Pesticides (Method 8081);
- Total Petroleum Hydrocarbons (TPH) (Method 8015);
- Extractable Petroleum Hydrocarbons (EPH);
- Target Analyte List Metals (TAL) (Method 6010);
- Target Compound List (TCL) VOCS (Method 8260) and SVOCS (Method 8270)

Laboratory analysis is included in Appendix B.

2.2 Analytical Results

Analytical laboratory results indicated several samples contained compounds in concentrations exceeding the NYSDEC Part 375 Commercial Soil Cleanup Objectives (CSCOs) and one samples (BH-71) contained concentrations of lead exceeding the RCRA Hazardous Waste Characteristic Regulatory Level. Compound exceedances are shown on Tables 1 and 2.

Initial laboratory analysis indicated the sample collected from BH-71 exhibited a total lead concentration of 130 parts per million (ppm) and a TCLP lead concentration of 6.35 mg/L. A TCLP result as high as 6.32 mg/L with total lead detected at only 130 ppm is atypical. The sample was re-analyzed for total lead and TCLP lead by Phoenix Environmental Laboratories, Inc. in order to verify the hazardous result. The re-analysis indicated TCLP lead was detected at 6.67 mg/L, a hazardous concentration.

Comments:

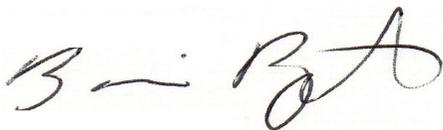
- Analytical results compared to applicable criteria are presented in Tables 1 and 2. A number of sampling locations (BH-66, BH-68, BH-69, BH-72) exhibited exceedances of CSCOs. Exceedances of CSCOs are highlighted in yellow on Table 1. Material exceeding CSCOs should not be reused as backfill on-site and should be transported off-site for disposal at a permitted disposal facility.
- The TCLP Lead result exceeded the RCRA Hazardous Waste Characteristic Regulatory Level of 5 milligrams per liter (mg/L) in soil sample BH-71 at a concentration of 6.67 mg/L. TCLP results are summarized in Table 2.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Based on review and evaluation of analytical data and field screening, the following findings, conclusions and recommendations are presented:

- Laboratory analytical results indicated soil sample BH-71 exhibited evidence of hazardous waste characteristics for toxicity as discussed above and identified in Table 2. Upon commencement of the infrastructure improvement activities, the material should be properly disposed of at a USEPA approved RCRA-Part B TSDF facility. TCLP lead concentrations detected in soil samples may be attributed to the presence of historic fill material in the subsurface.
- Contamination was found in a number of soil samples mentioned above and shown on Tables 1 and 2. Material exceeding CSCOs should not be used as backfill on-site and should be transported to a licensed, permitted facility for disposal pursuant to federal, state and local regulations. Non-native material such as historic fill should be transported off-site for disposal pursuant to Federal, State and local regulations.
- The soil analytical results should be presented to disposal facilities for classification and acceptance in accordance with the individual permit requirements and State and Federal regulations.

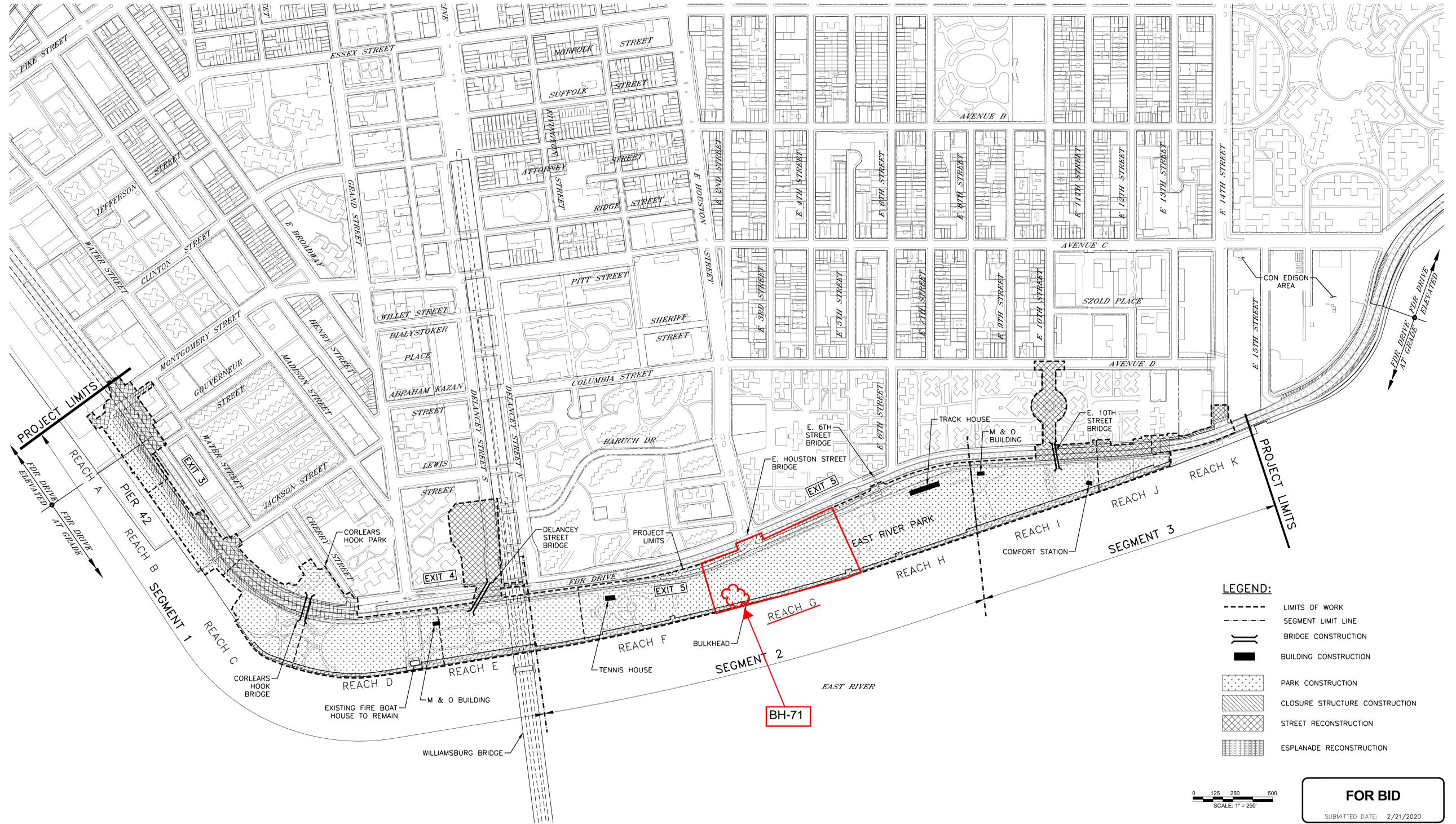
Report prepared by:



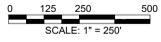
Brian Pendergast
Environmental Project Manager

FIGURES

SANDRESM1 BIDDABLE PACKAGE 2/21/2020



- LEGEND:**
- LIMITS OF WORK
 - SEGMENT LIMIT LINE
 - BRIDGE CONSTRUCTION
 - BUILDING CONSTRUCTION
 - PARK CONSTRUCTION
 - CLOSURE STRUCTURE CONSTRUCTION
 - STREET RECONSTRUCTION
 - ESPLANADE RECONSTRUCTION



FOR BID
SUBMITTED DATE: 2/21/2020

NO.	DATE	DESCRIPTIONS REVISIONS	BY	APPR'D

FINAL DESIGN SUBMITTED BY:
AKRF KSE
The AKRF-KSE JV

FINAL DESIGN PREPARED BY:
KSE
KS ENGINEERS, P.C.
NAME OF CONSULTANT



CITY OF NEW YORK
DEPARTMENT OF DESIGN + CONSTRUCTION
DIVISION OF INFRASTRUCTURE
BUREAU OF DESIGN

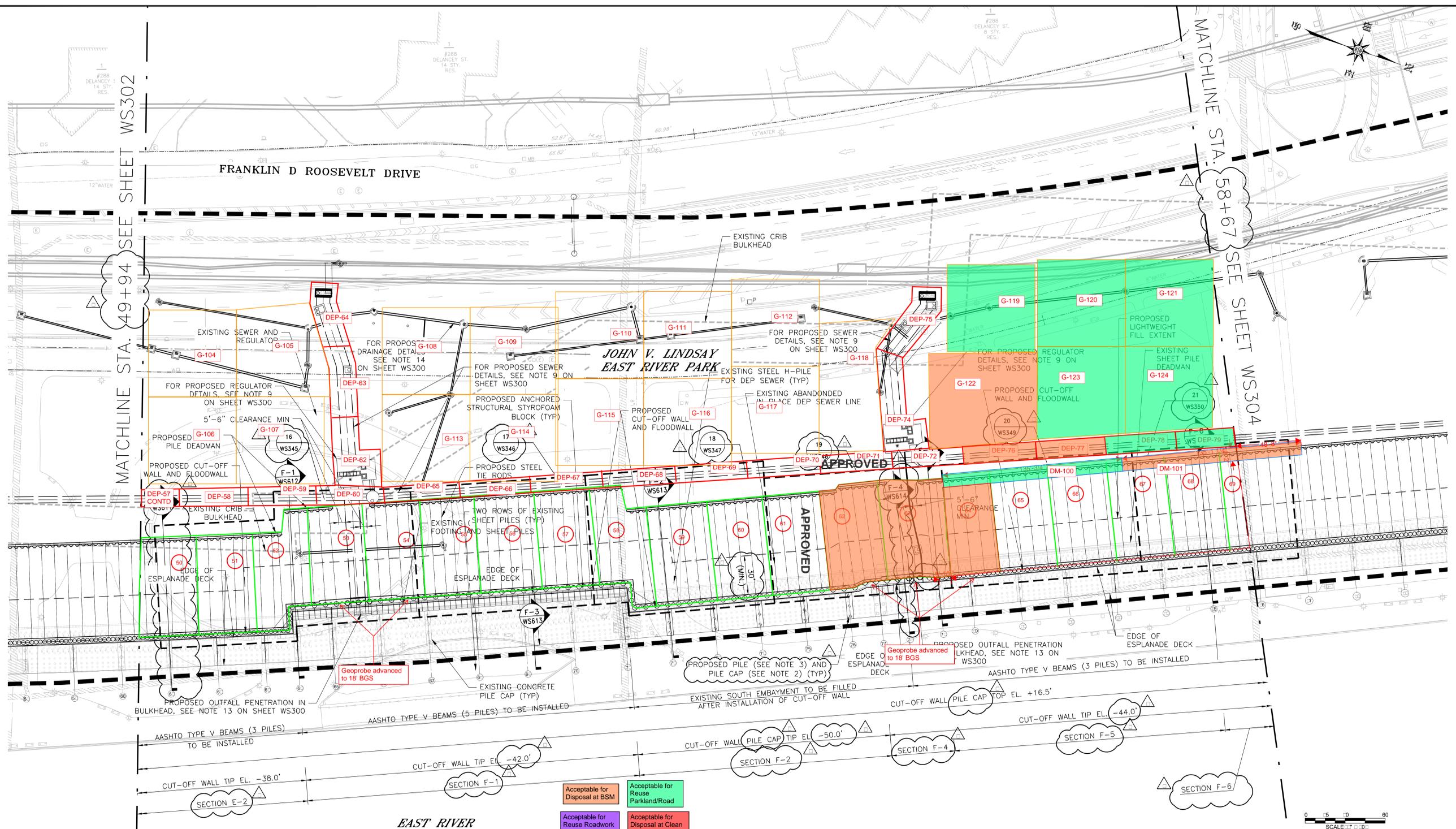
PROJECT GENERAL CONSTRUCTION
PLAN

KSE DRAWN BY _____ SANDRESM1-TC101-00.dwg
CADD FILE

INSTALLATION OF
EAST SIDE COASTAL RESILIENCY
BOROUGH OF MANHATTAN

CAPITAL PROJECT NO. SANDRESM1 2/21/20 SHEET 2651 OF 2791 TC101

SANDRESM1 BIDDABLE PACKAGE 2/21/2020



MATCHLINE STA. 49+94 SEE SHEET WS302

MATCHLINE STA. 58+67 SEE SHEET WS304

FRANKLIN D ROOSEVELT DRIVE

JOHN V. LINDSAY EAST RIVER PARK

EAST RIVER

LEGEND:

--- LIMITS OF WORK

--- PROPOSED COMB. SEWER

Acceptable for Disposal at BSM

Acceptable for Reuse Parkland/Road

Acceptable for Reuse Roadwork

Acceptable for Disposal at Clean Earth

NOTE:

- FOR NOTES, REFER TO SHEET WS300.
- REFER TO SHEET WS511 FOR PROPOSED PILE CAP DETAILS.
- REFER TO SHEETS WS500 AND WS501 FOR PROPOSED PILE DETAILS.

FOR BID

SUBMITTED DATE: 02/21/2020

NO.	DATE	DESCRIPTIONS	BY	APPR'D
4	4/7/2021	SANDRESM1 BULLETIN	JM	DF
3	7/16/2020	DRAWING REVISED	MKS	DF
2	6/26/2020	DRAWING REVISED	BP	DF
1	5/28/2020	DRAWING REVISED	JM	DF

FINAL DESIGN SUBMITTED BY:

AKRF KSE

The AKRF-KSE JV

FINAL DESIGN PREPARED BY:

ch2m

CH2M HILL NEW YORK, INC.
NAME OF CONSULTANT

SIGNATURE:

DATE: _____

CITY OF NEW YORK
DEPARTMENT OF DESIGN + CONSTRUCTION
DIVISION OF INFRASTRUCTURE
BUREAU OF DESIGN

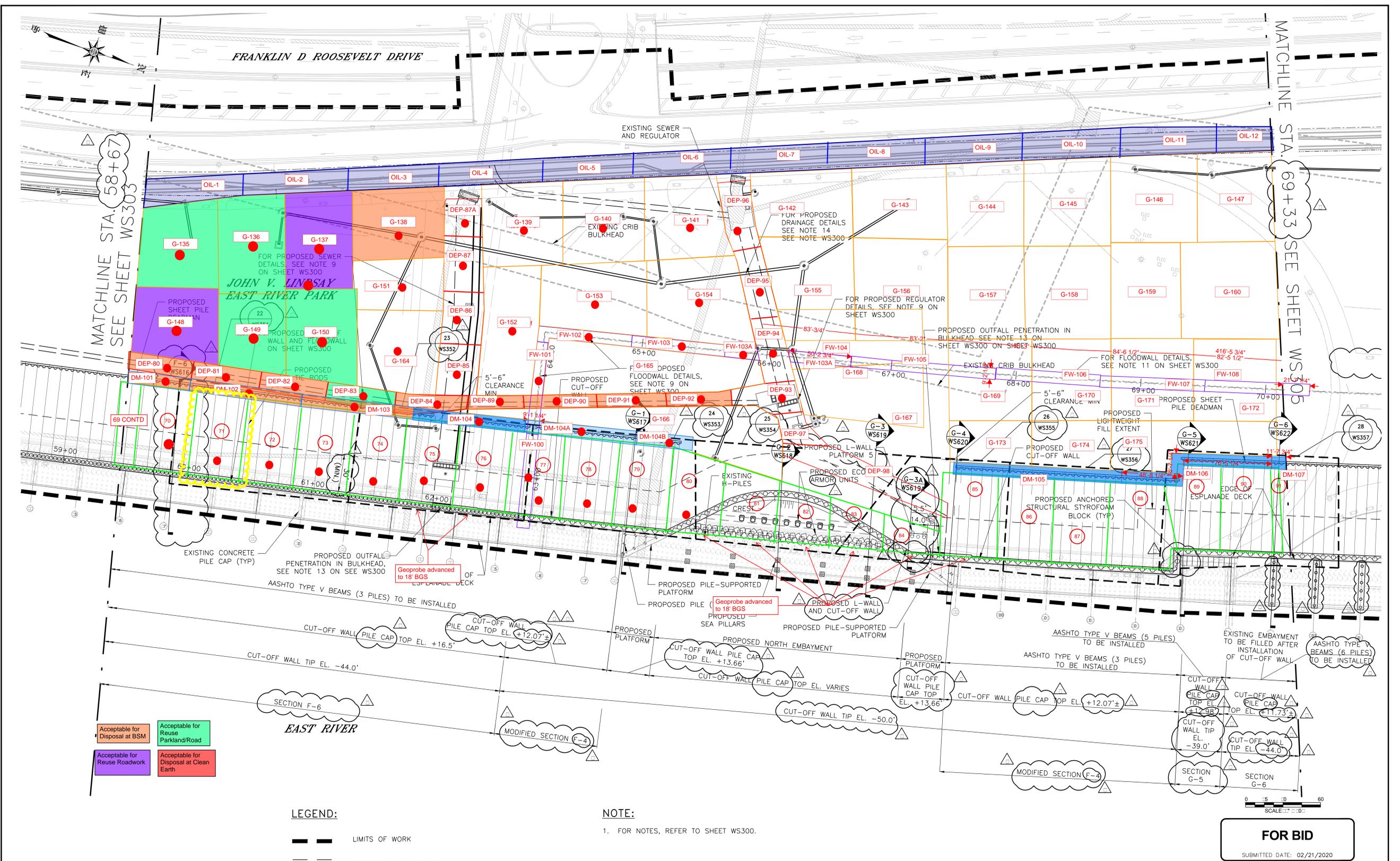
WATERFRONT STRUCTURAL PLAN
SEGMENT 2 - REACH F
STA. 49+94 - 58+67

CH2M DRAWN BY _____
SANDRESM1-WS303-04.DWG
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INSTALLATION OF
EAST SIDE COASTAL RESILIENCY
BOROUGH OF MANHATTAN

CAPITAL PROJECT NO. SANDRESM1 2/21/20 SHEET 729 OF 2791 WS303

SANDRESM1 BIDDABLE PACKAGE 2/21/2020



Acceptable for Disposal at BSM	Acceptable for Reuse Parkland/Road
Acceptable for Reuse Roadwork	Acceptable for Disposal at Clean Earth

LEGEND:

--- LIMITS OF WORK

--- PROPOSED COMB. SEWER

NOTE:

1. FOR NOTES, REFER TO SHEET WS300.

FOR BID

SUBMITTED DATE: 02/21/2020

NO.	DATE	DESCRIPTIONS	BY	APPR'D
4	4/7/2021	SANDRESM1 BULLETIN	JM	DF
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1	5/28/2020	DRAWING REVISED	JM	DF

FINAL DESIGN SUBMITTED BY:

AKRF KSE

The AKRF-KSE JV

FINAL DESIGN PREPARED BY:

ch2m

CH2M HILL NEW YORK, INC.
NAME OF CONSULTANT

SIGNATURE:

DATE:

CITY OF NEW YORK
DEPARTMENT OF DESIGN + CONSTRUCTION
DIVISION OF INFRASTRUCTURE
BUREAU OF DESIGN

WATERFRONT STRUCTURAL PLAN
SEGMENT 2 - REACH G
STA. 58+67 - 69+33

CH2M DRAWN BY: _____
SANDRESM1-WS304-04.DWG
CADD FILE

INSTALLATION OF
EAST SIDE COASTAL RESILIENCY
BOROUGH OF MANHATTAN

CAPITAL PROJECT NO. SANDRESM1 2/21/20 SHEET 730 OF 2791 WS304

TABLES

EAST SIDE COASTAL RESILIENCY FROM MONTGOMERY STREET TO EAST 15TH STREET, MANHATTAN
NYCDDC PROJECT SANDRESM1
IPC RESILIENCY PARTNERS

TABLE 1: SUMMARY OF SOIL ANALYSIS - SAMPLES COLLECTED 1/17/2024

Parameter	Compounds Detected	Unit	NYSDEC Part 375 Commercial Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives	FIELD 3+4 S.P.	BH-66	BH-67	BH-68	BH-69	BH-70	BH-71	BH-72	BH-73	BH-75	BH-76	BH-77	BH-78	BH-79
PCBs	None detected	ppm	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides/Herbicides	4,4-DDD	ppm	92	13	ND	0.0054	ND	0.006	0.053	0.0044	ND	0.0071	ND	ND	ND	0.0049	0.079	ND
	4,4-DDE	ppm	62	8.9	0.018	0.013	ND	0.011	0.018	0.0064	ND	0.014	ND	0.0034	0.013	0.0075	0.072	0.0061
	4,4-DDT	ppm	47	7.9	0.014	0.002	0.004	0.004	0.0087	0.0054	ND	0.01	ND	0.0046	0.014	0.0037	0.015	0.0089
	a-Chlordane	ppm	24	4.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0077	ND	ND
	Chlordane	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.046	ND	ND
	g-Chlordane	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0079	ND	ND
TAL Metals	Dieldrin	ppm	24	4.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.01
	Aluminum	ppm	NS	NS	6980	7170	5000	6590	9350	6510	6110	6480	5710	4430	7000	2920	5180	8160
	Antimony	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	ppm	16	16	5.45	5.6	5.75	4.56	7.26	8.99	3.86	5.46	4.16	13.3	8.18	1.25	2.54	7.16
	Barium	ppm	400	400	64.5	257	125	139	176	154	55.5	95.8	154	73	137	31.3	57.6	85.4
	Beryllium	ppm	590	72	.38	.44	ND	.4	.48	.59	ND	.35	.3	.35	.45	ND	ND	.49
	Cadmium	ppm	9.3	4.3	ND	ND	ND	ND	.72	.94	ND	ND	ND	1.1	1.31	.57	.75	1.15
	Calcium	ppm	NS	NS	25,100	8,820	12,400	9,830	10,400	6,580	1,900	25,000	8170	9500	6920	29,700	4,380	18,000
	Chromium	ppm	1500	180	14.9	16.9	12.6	15.7	21.7	24.8	14	17.1	12.1	2.1	17.6	7.57	9.15	16.9
	Hexavalent Chromium	ppm	400	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trivalent Chromium	ppm	1500	180	14.9	16.9	12.6	15.7	21.7	24.8	14	17.1	12.1	2.1	17.6	7.57	9.15	16.9
	Cobalt	ppm	NS	NS	4.92	7.19	4.45	4.84	8.78	7.7	4.74	6.29	4.91	4.78	7.77	2.76	3.34	8.01
	Copper	ppm	270	270	24.1	48.8	29	33.7	70.9	52.9	33.8	38.3	45.7	19.7	42.9	10.8	17.5	25.5
	Iron	ppm	NS	NS	11,400	15,800	10,500	11,600	18,200	19,400	11,700	13,100	11,300	14,000	18,500	6,930	7,880	15,000
	Lead	ppm	1000	400	99.9	425	151	174	177	273	130	122	160	60.1	273	33.9	91.8	73.6
	Manganese	ppm	10,000	2000	217	491	200	141	398	217	137	489	185	187	263	102	130	238
	Magnesium	ppm	NS	NS	15,000	4,020	3,620	5,930	4,960	3,890	2,860	12,300	3200	2370	3720	4720	1710	3700
	Mercury	ppm	2.8	0.81	0.17	0.44	0.55	.43	.34	.31	2.26	.14	.23	.1	.07	.14	.09	.17
	Nickel	ppm	310	310	10.9	16.9	11	14.4	33.3	24.7	14.8	20.2	12.1	13.2	18.7	6.63	9.3	16.7
	Silver	ppm	1500	180	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	ppm	NS	NS	113	201	142	178	663	968	1430	179	544	235	212	204	1010	335	
Potassium	ppm	NS	NS	753	1280	1040	907	1050	1100	914	1390	744	854	2210	992	834	1540	
Vanadium	ppm	NS	NS	25.6	26.1	17	22.4	43.4	46.5	18.1	22.3	18.1	16.6	2.3	12.7	15.4	27.1	
Zinc	ppm	10,000	10,000	98.8	225	95.6	124	293	255	99.3	200	118	74.9	177	33.6	65.5	15	
Semi-Volatile Organic Compounds	Acenaphthene	ppm	500	100	ND	ND	ND	.92	ND	ND	ND							
	Acenaphthylene	ppm	500	100	ND	.26	ND	ND	ND									
	Anthracene	ppm	500	100	ND	.68	ND	1.5	ND	ND	ND	62	.3	ND	ND	ND	ND	ND
	Benzo(a)anthracene	ppm	5.6	1	ND	2.1	.91	2.4	ND	68	ND	1.1	.83	.35	ND	.3	.32	ND
	Benzo(a)pyrene	ppm	1	1	ND	2.3	.94	2.3	1.1	.76	ND	1.3	.91	.41	ND	.36	.34	ND
	Benzo(b)fluoranthene	ppm	5.6	1	ND	2.7	1.1	2.6	1.2	.89	ND	1.5	1.1	.46	ND	.43	.37	ND
	Benzo(ghi)perylene	ppm	500	100	ND	1.2	.5	1	ND	.4	ND	.7	.54	ND	ND	ND	ND	ND
	Benzo(k)fluoranthene	ppm	56	3.9	ND	.83	.37	.89	ND	.31	ND	ND	ND	ND	ND	ND	ND	ND
	Carbazole	ppm	NS	NS	ND	ND	ND	.49	ND	ND	ND							
	Chrysene	ppm	56	3.9	ND	2	.88	2.1	ND	.65	ND	1.4	.8	.33	ND	.32	.31	ND
	Dibenz(a,h)anthracene	ppm	0.56	.33	ND	.27	ND	.23	ND	ND	ND	.2	ND	ND	ND	ND	ND	ND
	Dibenzofuran	ppm	NS	NS	ND	ND	ND	.37	ND	ND	ND							
	Fluoranthene	ppm	500	100	ND	5.4	1.8	5.7	ND	1.5	ND	2.4	1.9	.57	ND	.62	.6	.31
	Fluorene	ppm	500	100	ND	ND	ND	.73	ND	ND	ND							
	Indeno(1,2,3-cd)pyrene	ppm	5.6	0.5	ND	1.3	.53	1.2	.71	.45	ND	.89	.6	.27	ND	.27	ND	ND
	Naphthalene	ppm	500	100	ND	ND	ND	.4	ND	ND	ND							
	Phenanthrene	ppm	500	100	ND	2.9	1.1	5.4	ND	.74	ND	1.8	1	.26	ND	.3	.36	ND
Pyrene	ppm	500	100	ND	4.9	1.6	5	ND	1.3	ND	2.1	1.7	.58	ND	.6	.55	.31	
Cyanide	Cyanide	ppm	27	27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds	1,2,4-Trimethylbenzene	ppm	190	52	ND	0.0058	ND	ND	ND									
	Acetone	ppm	500	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.064	ND	ND
	Carbon Disulfide	ppm	NS	NS	ND	ND	ND	ND	0.009	ND	ND	ND						
EPH	>C28-C40	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	C9-C28	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Total EPH	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH	DRO	ppm	NS	NS	ND	ND	ND	ND	ND	ND	310	ND	ND	ND	ND	ND	ND	ND
	GRO	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
 ND Not detected
 NS No regulatory criteria available
 Green highlighted concentrations exceed NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives
 Yellow highlighted concentrations exceed NYSDEC Part 375 Restricted Residential and Commercial Soil Cleanup Objectives

**EAST SIDE COASTAL RESILIENCY FROM MONTGOMERY STREET TO EAST 15TH STREET, MANHATTAN
NYCDDC PROJECT SANDRESM1
IPC RESILIENCY PARTNERS
TABLE 2: SUMMARY OF TCLP & RCRA ANALYSIS - SAMPLES COLLECTED 1/17/24**

Parameter	Compounds Detected	Unit	Regulatory Criteria	FIELD 3+4 S.P.	BH-66	BH-67	BH-68	BH-69	BH-70	BH-71	BH-72	BH-73	BH-75	BH-76	BH-77	BH-78	BH-79	
RCRA Characteristics	pH	pH units	<2 or >12.5	8.16	7.95	8.45	8.18	8.11	8.3	8.17	8.19	8.89	9.52	8.08	10.2	8.49	9.06	
	Flashpoint	° F	>200° F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F
	Ignitability	° F	<140° F	passed	passed	passed	passed	passed	passed	passed	passed	passed	passed	passed	passed	passed	passed	passed
	Reactivity - Cyanide	ppm	—	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Reactivity - Sulfide	ppm	—	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOXICITY		Unit	USEPA Toxicity Characteristic Regulatory Criteria	FIELD 3+4 S.P.	BH-66	BH-67	BH-68	BH-69	BH-70	BH-71	BH-72	BH-73	BH-75	BH-76	BH-77	BH-78	BH-79	
TCLP Metals	Barium	mg/L	100	0.75	1.42	1	1.11	1.91	1.38	0.59	1.43	0.41	0.91	0.39	0.36	0.74	0.82	
	Lead	mg/L	5	ND	1.03	0.27	1.31	1.09	1.99	6.67	0.2	ND	ND	ND	ND	ND	ND	
TCLP VOCs	None Detected			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
TCLP SVOCs	None Detected			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
TCLP Pests/Herbicides	None Detected	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

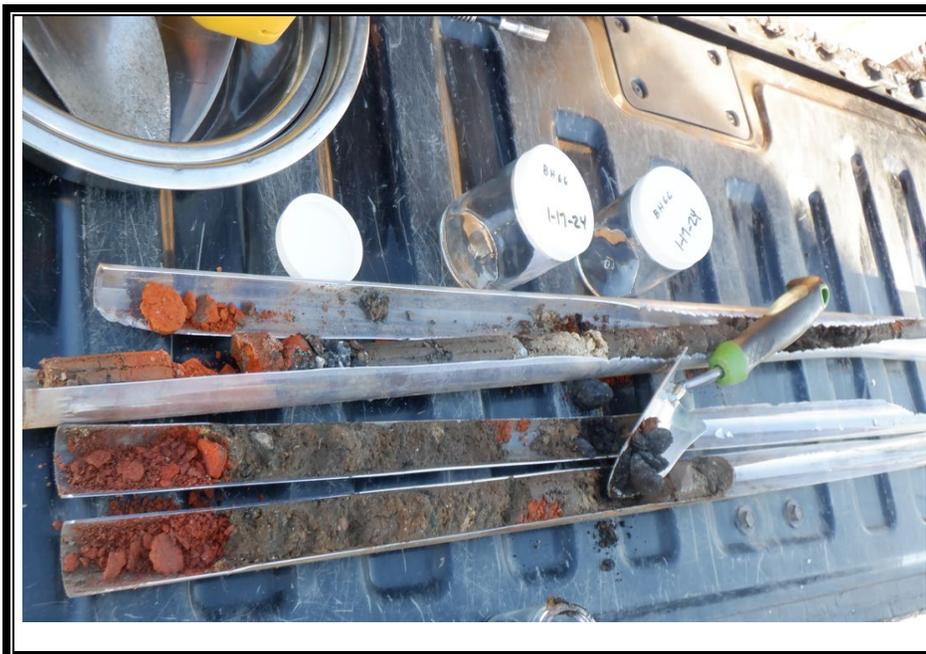
Notes:

NS No regulatory criteria available

ND Not detected

Yellow highlighted concentrations and boring locations exceed hazardous waste regulatory criteria.

ATTACHMENT I
SITE PHOTOGRAPHS



Soil boring BH-66, collected 1/17/24



Soil boring BH-67, collected 1/17/24



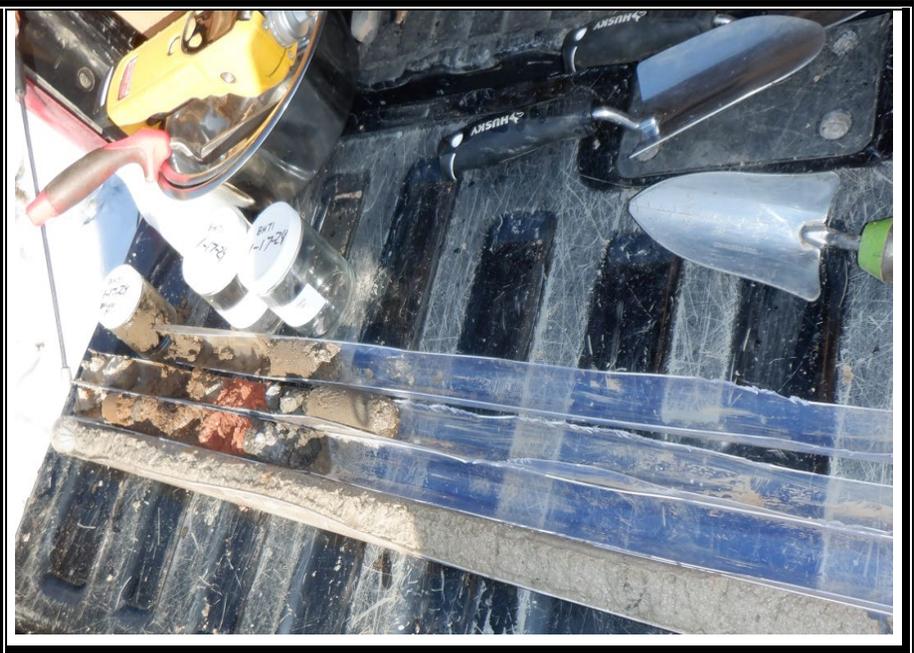
Soil boring BH-68, collected 1/17/24



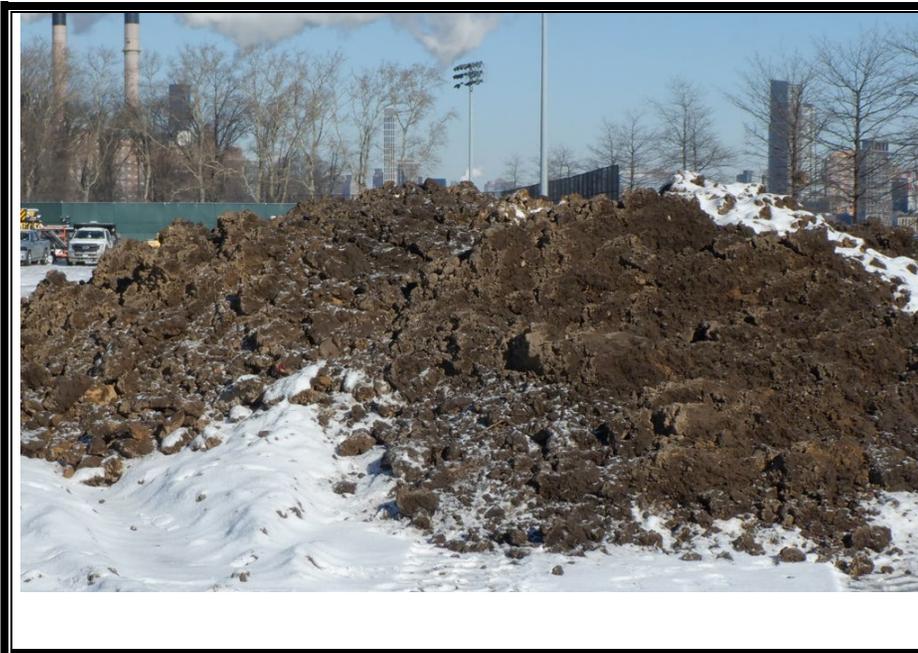
Soil boring BH-69, collected 1/17/24



Soil boring BH-70, collected 1/17/24



Soil boring BH-71, collected 1/17/24



Stockpile Field 3 + 4 S.P., sampled 1/17/24



Soil boring BH-73, collected 1/17/24



Soil boring BH-75, collected 1/17/24



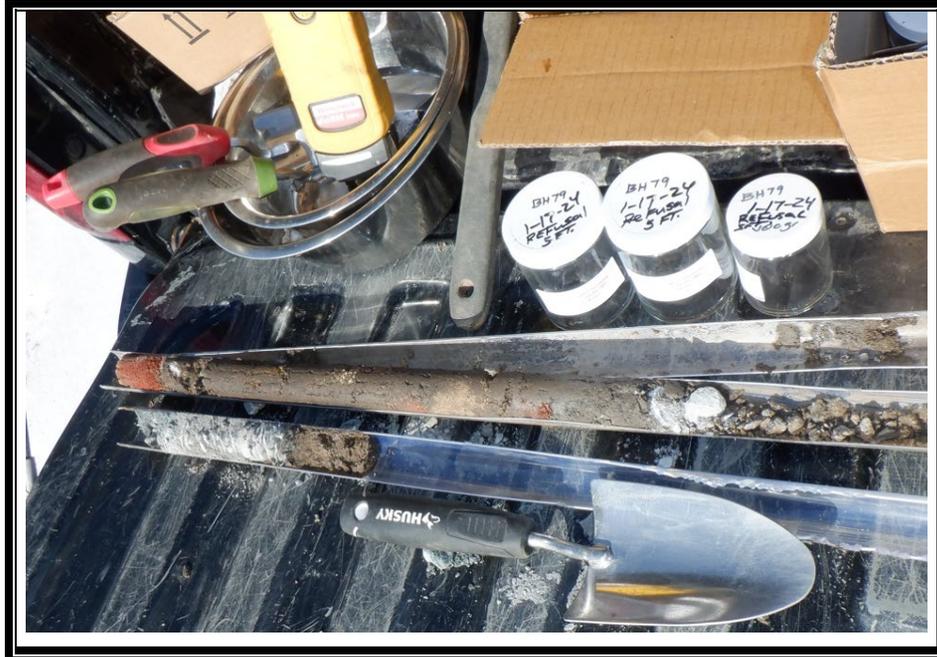
Soil boring BH-76, collected 1/17/24



Soil boring BH-77, collected 1/17/24



Soil boring BH-78, collected 1/17/24



Soil boring BH-79, collected 1/17/24

APPENDIX A
SOIL BORING LOGS

AES, Inc. SOIL BORING LOG			CLIENT:	IPC Resiliency Partners	BORING ID:	BH-68		
			AGENCY:	NYCDDC	DEPTH OF BORING	15'		
			DRILLER:	Associated Environmental Services	BORING DATE	1/17/2024		
PROJECT ID:	SANDRESM1	PROJECT No.	0897	TIME STARTED:	9:30	GROUND WATER COMMENTS		
ADDRESS :	East Side Coastal Resiliency East River Park, NYC	GEOLOGIST:	Brian Pendergast					
LOCATION:	Ballfields 3, 4, & 5							
EQUIPMENT TYPE/SIZE:	Geoprobe 6011 DT							
DEPTH FEET	SAMPLE			PID (ppm)	SOIL CLASSIFICATION COLOR, CONSISTENCY, DESCRIPTION	REMARKS		
	STRATA	SAMPLE #	PEN/REC					
1'			3'	0.0	Brown sand			
							Trace concrete	
							Fine silty brown sand	
5'				6"	0.0	Concrete and stone		
							Fine brown sand	
10'				2'	0.0	Brown silt		
							Gray clay	
							Wood	
							Crushed brick	
15'								
GENERAL COMMENTS								
VOC grab @ 11'					TIME SAMPLE COLLECTED:	9:38 AM		

AES, Inc. SOIL BORING LOG			CLIENT:	IPC Resiliency Partners	BORING ID:	BH-69			
			AGENCY:	NYCDDC	DEPTH OF BORING	15'			
			DRILLER:	Associated Environmental Services	BORING DATE	1/17/2024			
PROJECT ID:	SANDRESM1	PROJECT No.	0897	TIME STARTED:	9:45	GROUND WATER COMMENTS			
ADDRESS :	East Side Coastal Resiliency East River Park, NYC	GEOLOGIST:	Brian Pendergast						
LOCATION:	Ballfields 3, 4, & 5								
EQUIPMENT TYPE/SIZE:	Geoprobe 6011 DT								
DEPTH FEET	SAMPLE			PID (ppm)	SOIL CLASSIFICATION COLOR, CONSISTENCY, DESCRIPTION	REMARKS			
	STRATA	SAMPLE #	PEN/REC						
1'			6"	0.0	Brown topsoil with snow and ice				
5'				3'	0.0	Brown silty clay			
								Fine light brown sand	
10'				2'	0.0	Fine brown silty sand			
								Trace brick, wood and ash	
15'									

AES, Inc. SOIL BORING LOG			CLIENT:	IPC Resiliency Partners	BORING ID:	BH-70		
			AGENCY:	NYCDDC	DEPTH OF BORING:	15'		
			DRILLER:	Associated Environmental Services	BORING DATE:	1/17/2024		
PROJECT ID:	SANDRESM1	PROJECT No.:	0897	TIME STARTED:	9:59	GROUND WATER COMMENTS		
ADDRESS :	East Side Coastal Resiliency East River Park, NYC	GEOLOGIST:	Brian Pendergast					
LOCATION:	Ballfields 3, 4, & 5							
EQUIPMENT TYPE/SIZE:	Geoprobe 6011 DT							
DEPTH FEET	SAMPLE			PID (ppm)	SOIL CLASSIFICATION COLOR, CONSISTENCY, DESCRIPTION	REMARKS		
	STRATA	SAMPLE #	PEN/REC					
1'			6"	0.0	Wet brown sand			
5'			4'	0.0	Fine brown silty clay			
				Gray clay				
				Crushed brick				
				Trace ash				
10'			4'	0.0	Wet brown sand			
				Black ash				
				Wet fine gray sand				
15'								
GENERAL COMMENTS								
VOC grab @ 12'					TIME SAMPLE COLLECTED:	10:06 AM		

AES, Inc. SOIL BORING LOG			CLIENT:	IPC Resiliency Partners	BORING ID:	BH-71		
			AGENCY:	NYCDDC	DEPTH OF BORING	15'		
			DRILLER:	Associated Environmental Services	BORING DATE	1/17/2024		
PROJECT ID:	SANDRESM1	PROJECT No.	0897	TIME STARTED:	10:15	GROUND WATER COMMENTS		
ADDRESS :	East Side Coastal Resiliency East River Park, NYC	GEOLOGIST:	Brian Pendergast					
LOCATION:	Ballfields 3, 4, & 5							
EQUIPMENT TYPE/SIZE:	Geoprobe 6011 DT							
DEPTH FEET	SAMPLE			PID (ppm)	SOIL CLASSIFICATION COLOR, CONSISTENCY, DESCRIPTION	REMARKS		
	STRATA	SAMPLE #	PEN/REC					
1'			6"	0.0	Wet brown sand			
							Crushed brick	
5'			2'		0.0	Fine brown sand		
							Crushed brick with gravel	
							Brown silt with crushed brick	
10'		3'		0.0	Fine wet gray sand			
15'								
GENERAL COMMENTS								
VOC grab @ 5'					TIME SAMPLE COLLECTED:	10:21 AM		

AES, Inc. SOIL BORING LOG			CLIENT:	IPC Resiliency Partners	BORING ID:	BH-72		
			AGENCY:	NYCDDC	DEPTH OF BORING	15'		
			DRILLER:	Associated Environmental Services	BORING DATE	1/17/2024		
PROJECT ID:	SANDRESM1	PROJECT No.	0897	TIME STARTED:	10:25	GROUND WATER COMMENTS		
ADDRESS :	East Side Coastal Resiliency East River Park, NYC	GEOLOGIST:	Brian Pendergast					
LOCATION:	Ballfields 3, 4, & 5							
EQUIPMENT TYPE/SIZE:	Geoprobe 6011 DT							
DEPTH FEET	SAMPLE			PID (ppm)	SOIL CLASSIFICATION COLOR, CONSISTENCY, DESCRIPTION	REMARKS		
	STRATA	SAMPLE #	PEN/REC					
1'			6"	0.0	Brown soil and gravel			
							Fine gray silt	
5'			6"	0.0	Fine brown sand			
10'		2"	0.0	Water, wet brown sand				
15'								
GENERAL COMMENTS								
VOC grab @ 10'					TIME SAMPLE COLLECTED:	10:32 AM		

AES, Inc. SOIL BORING LOG			CLIENT:	IPC Resiliency Partners	BORING ID:	BH-73				
			AGENCY:	NYCDDC	DEPTH OF BORING	15'				
			DRILLER:	Associated Environmental Services	BORING DATE	1/17/2024				
PROJECT ID:	SANDRESM1	PROJECT No.	0897	TIME STARTED:	11:06					
ADDRESS :	East Side Coastal Resiliency East River Park, NYC	GEOLOGIST:	Brian Pendergast	GROUND WATER COMMENTS						
LOCATION:		Ballfields 3, 4, & 5								
EQUIPMENT TYPE/SIZE:		Geoprobe 6011 DT								
DEPTH FEET	SAMPLE			PID (ppm)	SOIL CLASSIFICATION COLOR, CONSISTENCY, DESCRIPTION	REMARKS				
	STRATA	SAMPLE #	PEN/REC							
1'			5'	0.0	Fine brown sand					
							Black cinders			
							Crushed brick			
							Brown clay			
5'							Crushed concrete			
				3'	0.0	Fine gray silt				
							Brown clay			
							Wet gray sand			
10'				3'	0.0	Wet fine tan sand				
15'										

APPENDIX B
LABORATORY ANALYSIS



Monday, January 29, 2024

Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Project ID: EAST SIDE COASTAL RESILIENCY
SDG ID: GCP90643
Sample ID#s: CP90643 - CP90656

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



SDG Comments

January 29, 2024

SDG I.D.: GCP90643

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Re-analyzed TCLP lead on Lab ID CP90649, the original result was confirmed.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Sample Id Cross Reference

January 29, 2024

SDG I.D.: GCP90643

Project ID: EAST SIDE COASTAL RESILIENCY

Client Id	Lab Id	Matrix
FIELD 3 + 4 S.P.	CP90643	SOIL
BH66	CP90644	SOIL
BH67	CP90645	SOIL
BH68	CP90646	SOIL
BH69	CP90647	SOIL
BH70	CP90648	SOIL
BH71	CP90649	SOIL
BH72	CP90650	SOIL
BH73	CP90651	SOIL
BH75	CP90652	SOIL
BH76	CP90653	SOIL
BH77	CP90654	SOIL
BH78	CP90655	SOIL
BH79	CP90656	SOIL



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
 American Environmental Solutions, Inc
 42 West Avenue
 Patchogue, NY 11772

Sample Information

Matrix: SOIL
 Location Code: AES-EASTSIDE
 Rush Request: Standard
 P.O.#: 0897

Custody Information

Collected by:
 Received by: CP
 Analyzed by: see "By" below

Date

01/17/24
 01/18/24

Time

10:45
 16:16

Laboratory Data

SDG ID: GCP90643
 Phoenix ID: CP90643

Project ID: EAST SIDE COASTAL RESILIENCY
 Client ID: FIELD 3 + 4 S.P.

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	01/19/24	TH	SW6010D
Aluminum	6980	6.0	mg/Kg	1	01/19/24	TH	SW6010D
Arsenic	5.45	0.80	mg/Kg	1	01/19/24	TH	SW6010D
Barium	64.5	0.40	mg/Kg	1	01/19/24	TH	SW6010D
Beryllium	0.38	0.32	mg/Kg	1	01/19/24	TH	SW6010D
Calcium	25100	60	mg/Kg	10	01/19/24	TH	SW6010D
Cadmium	< 0.40	0.40	mg/Kg	1	01/19/24	TH	SW6010D
Cobalt	4.92	0.40	mg/Kg	1	01/19/24	TH	SW6010D
Chromium	14.9	0.40	mg/Kg	1	01/19/24	TH	SW6010D
Copper	24.1	0.8	mg/kg	1	01/19/24	TH	SW6010D
Iron	11400	6.0	mg/Kg	1	01/19/24	TH	SW6010D
Mercury	0.17	0.03	mg/Kg	2	01/19/24	ZT	SW7471B
Potassium	753	60	mg/Kg	10	01/19/24	TH	SW6010D
Magnesium	15000	6.0	mg/Kg	1	01/19/24	TH	SW6010D
Manganese	217	0.40	mg/Kg	1	01/19/24	TH	SW6010D
Sodium	113	6.0	mg/Kg	1	01/19/24	TH	SW6010D
Nickel	10.9	0.40	mg/Kg	1	01/19/24	TH	SW6010D
Lead	99.9	0.40	mg/Kg	1	01/19/24	TH	SW6010D
Antimony	< 4.0	4.0	mg/Kg	1	01/19/24	CPP	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Barium	0.75	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	01/19/24	GW	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	01/19/24	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.6	3.6	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	14.9	0.40	mg/kg	1	01/23/24		CALC 6010-7196
Vanadium	25.6	0.40	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	98.8	0.8	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	77		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.45	0.45	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit
pH at 25C - Soil	8.16	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D
Reactivity Cyanide	< 6	6	mg/Kg	1	01/19/24	GD	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	01/19/24	GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	01/19/24	GD	SW846-React
Redox Potential	77.1		mV	1	01/18/24	MW	SM2580B-09
Total Cyanide (SW9010C Distill.)	< 0.65	0.65	mg/Kg	1	01/19/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/18/24	L/MQ	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/18/24	H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	51	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
C9-C28	ND	100	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
Total EPH	ND	51	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3

QA/QC Surrogates

% COD (surr)	65		%	5	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	72		%	5	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	10	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	98		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	160	ug/Kg	10	01/19/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	160	ug/Kg	10	01/19/24	JRB	SW8151A
2,4-D	ND	320	ug/Kg	10	01/19/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	3200	ug/Kg	10	01/19/24	JRB	SW8151A
Dalapon	ND	160	ug/Kg	10	01/19/24	JRB	SW8151A
Dicamba	ND	160	ug/Kg	10	01/19/24	JRB	SW8151A
Dichloroprop	ND	320	ug/Kg	10	01/19/24	JRB	SW8151A
Dinoseb	ND	320	ug/Kg	10	01/19/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	46		%	10	01/19/24	JRB	30 - 150 %
% DCAA (Confirmation)	47		%	10	01/19/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	86	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1221	ND	86	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1232	ND	86	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1242	ND	86	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1248	ND	86	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1254	ND	86	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1260	ND	86	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1262	ND	86	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1268	ND	86	ug/Kg	2	01/19/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	72		%	2	01/19/24	SC	30 - 150 %
% DCBP (Confirmation)	68		%	2	01/19/24	SC	30 - 150 %
% TCMX	75		%	2	01/19/24	SC	30 - 150 %
% TCMX (Confirmation)	72		%	2	01/19/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	ND	2.6	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	18	2.6	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	14	2.6	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	8.6	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	ND	4.3	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	4.3	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	8.6	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	ND	43	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	8.6	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	ND	4.3	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	8.6	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	8.6	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	8.6	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	8.6	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	8.6	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	8.6	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.7	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	ND	4.3	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	8.6	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	8.6	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	43	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	170	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	73		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	69		%	2	01/19/24	AW	30 - 150 %
% TCMX	66		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	64		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	49		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	52		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/22/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/22/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	55		%	10	01/22/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	60		%	10	01/22/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	54		%	10	01/22/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	60		%	10	01/22/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	130	mg/Kg	1	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	62		%	1	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	70		%	1	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,1-Dichloroethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,1-Dichloroethene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dibromoethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichloroethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichloropropane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
2-Hexanone	ND	32	ug/kg	1	01/18/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	32	ug/kg	1	01/18/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/18/24	JLI	SW8260D
Benzene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Bromochloromethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Bromodichloromethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Bromoform	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Bromomethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Carbon Disulfide	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Carbon tetrachloride	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Chlorobenzene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Chloroethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Chloroform	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Chloromethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Cyclohexane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Dibromochloromethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Dichlorodifluoromethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Ethylbenzene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Isopropylbenzene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
m&p-Xylene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Methyl ethyl ketone	ND	39	ug/kg	1	01/18/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	13	ug/kg	1	01/18/24	JLI	SW8260D
Methylacetate	ND	5.2	ug/kg	1	01/18/24	JLI	SW8260D
Methylcyclohexane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Methylene chloride	ND	32	ug/kg	1	01/18/24	JLI	SW8260D
o-Xylene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Styrene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Tetrachloroethene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Toluene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Total Xylenes	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Trichloroethene	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Trichlorofluoromethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
Vinyl chloride	ND	6.5	ug/kg	1	01/18/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	90		%	1	01/18/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylnaphthalene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	330	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitroaniline	ND	1400	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitrophenol	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	890	ug/Kg	1	01/19/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	1100	ug/Kg	1	01/19/24	MR	SW8270E
3-Nitroaniline	ND	1400	ug/Kg	1	01/19/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	2600	ug/Kg	1	01/19/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	890	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloroaniline	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitroaniline	ND	1400	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitrophenol	ND	2600	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthylene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Acetophenone	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Anthracene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Atrazine	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Benz(a)anthracene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Benzaldehyde	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(a)pyrene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(b)fluoranthene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(ghi)perylene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(k)fluoranthene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Benzyl butyl phthalate	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	890	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Caprolactam	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Carbazole	ND	890	ug/Kg	1	01/19/24	MR	SW8270E
Chrysene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Dibenz(a,h)anthracene	ND	330	ug/Kg	1	01/19/24	MR	SW8270E
Dibenzofuran	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Diethyl phthalate	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Dimethylphthalate	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-butylphthalate	ND	1800	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-octylphthalate	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Fluoranthene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Fluorene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobenzene	ND	330	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobutadiene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Hexachloroethane	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	ND	500	ug/Kg	1	01/19/24	MR	SW8270E
Isophorone	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Naphthalene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Nitrobenzene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	890	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	440	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	890	ug/Kg	1	01/19/24	MR	SW8270E
Pentachlorophenol	ND	800	ug/Kg	1	01/19/24	MR	SW8270E
Phenanthrene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
Phenol	ND	330	ug/Kg	1	01/19/24	MR	SW8270E
Pyrene	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	85		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorobiphenyl	74		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorophenol	70		%	1	01/19/24	MR	30 - 130 %
% Nitrobenzene-d5	70		%	1	01/19/24	MR	30 - 130 %
% Phenol-d5	75		%	1	01/19/24	MR	30 - 130 %
% Terphenyl-d14	82		%	1	01/19/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	102		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	96		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	88		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	86		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	72		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	110		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/19/24	E	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Semi-Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
 American Environmental Solutions, Inc
 42 West Avenue
 Patchogue, NY 11772

Sample Information

Matrix: SOIL
 Location Code: AES-EASTSIDE
 Rush Request: Standard
 P.O.#: 0897

Custody Information

Collected by:
 Received by: CP
 Analyzed by: see "By" below

Date

01/17/24
 01/18/24

Time

9:18
 16:16

Laboratory Data

SDG ID: GCP90643
 Phoenix ID: CP90644

Project ID: EAST SIDE COASTAL RESILIENCY
 Client ID: BH66

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Aluminum	7170	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Arsenic	5.60	0.73	mg/Kg	1	01/19/24	TH	SW6010D
Barium	257	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Beryllium	0.44	0.29	mg/Kg	1	01/19/24	TH	SW6010D
Calcium	8820	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Cadmium	< 0.37	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Cobalt	7.19	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Chromium	16.9	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Copper	48.8	0.7	mg/kg	1	01/19/24	TH	SW6010D
Iron	15800	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Mercury	0.44	0.03	mg/Kg	2	01/19/24	ZT	SW7471B
Potassium	1280	55	mg/Kg	10	01/19/24	TH	SW6010D
Magnesium	4020	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Manganese	491	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Sodium	201	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Nickel	16.9	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Lead	425	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Antimony	< 3.7	3.7	mg/Kg	1	01/19/24	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Barium	1.42	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	01/19/24	GW	SW846 1311/7470
TCLP Lead	1.03	0.10	mg/L	1	01/19/24	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.3	3.3	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	16.9	0.37	mg/kg	1	01/23/24		CALC 6010-7196
Vanadium	26.1	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	225	0.7	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	91		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr 1
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.40	0.40	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit 1
pH at 25C - Soil	7.95	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D 1
Reactivity Cyanide	< 5	5	mg/Kg	1	01/19/24	GD	SW846 7.3.3.1/90 1
Reactivity Sulfide	< 20	20	mg/Kg	1	01/19/24	GD	SW846 CH7 1
Reactivity	Negative		Pos/Neg	1	01/19/24	GD	SW846-React 1
Redox Potential	194		mV	1	01/18/24	MW	SM2580B-09 1
Total Cyanide (SW9010C Distill.)	< 0.55	0.55	mg/Kg	1	01/19/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/18/24	L/MQ	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/18/24	H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	43	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1
C9-C28	ND	86	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1
Total EPH	ND	43	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1

QA/QC Surrogates

% COD (surr)	88		%	5	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	93		%	5	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	7.2	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	97		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
2,4-D	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2700	ug/Kg	10	01/19/24	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
Dichloroprop	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A
Dinoseb	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	45		%	10	01/19/24	JRB	30 - 150 %
% DCAA (Confirmation)	44		%	10	01/19/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1221	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1232	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1242	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1248	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1254	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1260	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1262	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1268	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	59		%	2	01/19/24	SC	30 - 150 %
% DCBP (Confirmation)	62		%	2	01/19/24	SC	30 - 150 %
% TCMX	66		%	2	01/19/24	SC	30 - 150 %
% TCMX (Confirmation)	61		%	2	01/19/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	5.4	2.1	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	13	2.1	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	20	2.1	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	ND	36	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.4	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	ND	5.0	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	36	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	140	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	60		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	59		%	2	01/19/24	AW	30 - 150 %
% TCMX	51		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	58		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	45		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	47		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/22/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/22/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	53		%	10	01/22/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	58		%	10	01/22/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	55		%	10	01/22/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	61		%	10	01/22/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	270	mg/Kg	5	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	Interference		%	5	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	78		%	5	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,1-Dichloroethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,1-Dichloroethene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dibromoethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichloroethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichloropropane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
2-Hexanone	ND	24	ug/kg	1	01/18/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	24	ug/kg	1	01/18/24	JLI	SW8260D
Acetone	ND	49	ug/kg	1	01/18/24	JLI	SW8260D
Benzene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Bromochloromethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Bromodichloromethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Bromoform	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Bromomethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Carbon Disulfide	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Carbon tetrachloride	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Chlorobenzene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Chloroethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Chloroform	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Chloromethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Cyclohexane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Dibromochloromethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Dichlorodifluoromethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Ethylbenzene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Isopropylbenzene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
m&p-Xylene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Methyl ethyl ketone	ND	29	ug/kg	1	01/18/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	9.8	ug/kg	1	01/18/24	JLI	SW8260D
Methylacetate	ND	3.9	ug/kg	1	01/18/24	JLI	SW8260D
Methylcyclohexane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Methylene chloride	ND	24	ug/kg	1	01/18/24	JLI	SW8260D
o-Xylene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Styrene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Tetrachloroethene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Toluene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Total Xylenes	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Trichloroethene	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Trichlorofluoromethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
Vinyl chloride	ND	4.9	ug/kg	1	01/18/24	JLI	SW8260D
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	95		%	1	01/18/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Bromofluorobenzene	86		%	1	01/18/24	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	01/18/24	JLI	70 - 130 %
% Toluene-d8	88		%	1	01/18/24	JLI	70 - 130 %

1,4-dioxane

1,4-dioxane	ND	73	ug/kg	1	01/18/24	JLI	SW8260D
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Volatiles

1,2,3-Trichloropropane	ND	4.9	ug/Kg	1	01/18/24	JLI	SW8260D
1,2,4-Trimethylbenzene	5.8	4.9	ug/Kg	1	01/18/24	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	4.9	ug/Kg	1	01/18/24	JLI	SW8260D
1,3-Dichloropropane	ND	4.9	ug/Kg	1	01/18/24	JLI	SW8260D
n-Butylbenzene	ND	4.9	ug/Kg	1	01/18/24	JLI	SW8260D
n-Propylbenzene	ND	4.9	ug/Kg	1	01/18/24	JLI	SW8260D
p-Isopropyltoluene	ND	4.9	ug/Kg	1	01/18/24	JLI	SW8260D
sec-Butylbenzene	ND	4.9	ug/Kg	1	01/18/24	JLI	SW8260D
tert-Butylbenzene	ND	4.9	ug/Kg	1	01/18/24	JLI	SW8260D

TCLP Volatiles

1,1-Dichloroethene	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
1,2-Dichloroethane	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Benzene	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Carbon tetrachloride	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Chlorobenzene	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Chloroform	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Methyl ethyl ketone	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Tetrachloroethene	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Trichloroethene	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Vinyl chloride	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260

QA/QC Surrogates

% 1,2-dichlorobenzene-d4 (10x)	102		%	10	01/19/24	HM	70 - 130 %
% Bromofluorobenzene (10x)	97		%	10	01/19/24	HM	70 - 130 %
% Dibromofluoromethane (10x)	104		%	10	01/19/24	HM	70 - 130 %
% Toluene-d8 (10x)	99		%	10	01/19/24	HM	70 - 130 %

Volatile Library Search Completed 01/19/24 JLI

Semivolatiles

1,1-Biphenyl	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2,2'-Oxybis(1-Chloropropane)	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2,3,4,6-tetrachlorophenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2,4-Dichlorophenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2,4-Dimethylphenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2,4-Dinitrophenol	ND	570	ug/Kg	1	01/19/24	MR	SW8270E
2,4-Dinitrotoluene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2,6-Dinitrotoluene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2-Chloronaphthalene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylnaphthalene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitroaniline	ND	570	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitrophenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	430	ug/Kg	1	01/19/24	MR	SW8270E
3-Nitroaniline	ND	570	ug/Kg	1	01/19/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1000	ug/Kg	1	01/19/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloroaniline	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitroaniline	ND	570	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitrophenol	ND	1000	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthylene	260	250	ug/Kg	1	01/19/24	MR	SW8270E
Acetophenone	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Anthracene	680	250	ug/Kg	1	01/19/24	MR	SW8270E
Atrazine	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Benz(a)anthracene	2100	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzaldehyde	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(a)pyrene	2300	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(b)fluoranthene	2700	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(ghi)perylene	1200	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(k)fluoranthene	830	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzyl butyl phthalate	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Caprolactam	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Carbazole	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Chrysene	2000	250	ug/Kg	1	01/19/24	MR	SW8270E
Dibenz(a,h)anthracene	270	180	ug/Kg	1	01/19/24	MR	SW8270E
Dibenzofuran	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Diethyl phthalate	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Dimethylphthalate	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-butylphthalate	ND	710	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-octylphthalate	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Fluoranthene	5400	250	ug/Kg	1	01/19/24	MR	SW8270E
Fluorene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobenzene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobutadiene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Hexachloroethane	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	1300	250	ug/Kg	1	01/19/24	MR	SW8270E
Isophorone	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Naphthalene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Nitrobenzene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	180	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Pentachlorophenol	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Phenanthrene	2900	250	ug/Kg	1	01/19/24	MR	SW8270E
Phenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Pyrene	4900	250	ug/Kg	1	01/19/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	91		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorobiphenyl	76		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorophenol	65		%	1	01/19/24	MR	30 - 130 %
% Nitrobenzene-d5	69		%	1	01/19/24	MR	30 - 130 %
% Phenol-d5	74		%	1	01/19/24	MR	30 - 130 %
% Terphenyl-d14	82		%	1	01/19/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	103		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	95		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	90		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	88		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	75		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	111		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/23/24	E	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Hexavalent Chromium:
This sample is in a reducing state.

TPH Comment:
The sample chromatogram exhibited non-DRO material outside the C10-C28 range.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
 American Environmental Solutions, Inc
 42 West Avenue
 Patchogue, NY 11772

Sample Information

Matrix: SOIL
 Location Code: AES-EASTSIDE
 Rush Request: Standard
 P.O.#: 0897

Custody Information

Collected by:
 Received by: CP
 Analyzed by: see "By" below

Date

01/17/24
 01/18/24

Time

9:28
 16:16

Laboratory Data

SDG ID: GCP90643
 Phoenix ID: CP90645

Project ID: EAST SIDE COASTAL RESILIENCY
 Client ID: BH67

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Aluminum	5000	5.8	mg/Kg	1	01/19/24	TH	SW6010D
Arsenic	5.75	0.77	mg/Kg	1	01/19/24	TH	SW6010D
Barium	125	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Beryllium	< 0.31	0.31	mg/Kg	1	01/19/24	TH	SW6010D
Calcium	12400	58	mg/Kg	10	01/19/24	TH	SW6010D
Cadmium	< 0.39	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Cobalt	4.45	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Chromium	12.6	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Copper	29.0	0.8	mg/kg	1	01/19/24	TH	SW6010D
Iron	10500	5.8	mg/Kg	1	01/19/24	TH	SW6010D
Mercury	0.55	0.03	mg/Kg	2	01/19/24	ZT	SW7471B
Potassium	1040	58	mg/Kg	10	01/19/24	TH	SW6010D
Magnesium	3620	5.8	mg/Kg	1	01/19/24	TH	SW6010D
Manganese	200	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Sodium	142	5.8	mg/Kg	1	01/19/24	TH	SW6010D
Nickel	11.0	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Lead	151	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Antimony	< 3.9	3.9	mg/Kg	1	01/19/24	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Barium	1.00	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	01/19/24	GW	SW846 1311/7470
TCLP Lead	0.27	0.10	mg/L	1	01/19/24	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.5	3.5	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	12.6	0.39	mg/kg	1	01/23/24		CALC 6010-7196
Vanadium	17.0	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	95.6	0.8	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	90		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr 1
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.44	0.44	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit 1
pH at 25C - Soil	8.45	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D 1
Reactivity Cyanide	< 5	5	mg/Kg	1	01/19/24	GD	SW846 7.3.3.1/90 1
Reactivity Sulfide	< 20	20	mg/Kg	1	01/19/24	GD	SW846 CH7 1
Reactivity	Negative		Pos/Neg	1	01/19/24	GD	SW846-React 1
Redox Potential	499		mV	1	01/18/24	MW	SM2580B-09 1
Total Cyanide (SW9010C Distill.)	< 0.56	0.56	mg/Kg	1	01/19/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/18/24	L/MQ	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/18/24	H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	87	mg/kg	10	01/19/24	JRB	NJEPH 10-08 R3 1
C9-C28	ND	170	mg/kg	10	01/19/24	JRB	NJEPH 10-08 R3 1
Total EPH	ND	87	mg/kg	10	01/19/24	JRB	NJEPH 10-08 R3 1

QA/QC Surrogates

% COD (surr)	76		%	10	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	87		%	10	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	6.0	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	98		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
2,4-D	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2700	ug/Kg	10	01/19/24	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
Dichloroprop	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A
Dinoseb	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	45		%	10	01/19/24	JRB	30 - 150 %
% DCAA (Confirmation)	44		%	10	01/19/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	72	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1221	ND	72	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1232	ND	72	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1242	ND	72	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1248	ND	72	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1254	ND	72	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1260	ND	72	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1262	ND	72	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1268	ND	72	ug/Kg	2	01/22/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	63		%	2	01/22/24	SC	30 - 150 %
% DCBP (Confirmation)	56		%	2	01/22/24	SC	30 - 150 %
% TCMX	55		%	2	01/22/24	SC	30 - 150 %
% TCMX (Confirmation)	58		%	2	01/22/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	ND	2.2	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	ND	2.2	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	4.0	2.2	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	ND	36	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.4	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	36	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	140	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	58		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	50		%	2	01/19/24	AW	30 - 150 %
% TCMX	51		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	52		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	47		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	49		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/22/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/22/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	47		%	10	01/22/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	50		%	10	01/22/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	58		%	10	01/22/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	64		%	10	01/22/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	270	mg/Kg	5	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	Interference		%	5	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	102		%	5	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,1-Dichloroethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,1-Dichloroethene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dibromoethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichloroethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichloropropane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
2-Hexanone	ND	27	ug/kg	1	01/18/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	27	ug/kg	1	01/18/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/18/24	JLI	SW8260D
Benzene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Bromochloromethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Bromodichloromethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Bromoform	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Bromomethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Carbon Disulfide	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Carbon tetrachloride	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Chlorobenzene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Chloroethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Chloroform	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Chloromethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Cyclohexane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Dibromochloromethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Dichlorodifluoromethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Ethylbenzene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Isopropylbenzene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
m&p-Xylene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Methyl ethyl ketone	ND	33	ug/kg	1	01/18/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	11	ug/kg	1	01/18/24	JLI	SW8260D
Methylacetate	ND	4.4	ug/kg	1	01/18/24	JLI	SW8260D
Methylcyclohexane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Methylene chloride	ND	27	ug/kg	1	01/18/24	JLI	SW8260D
o-Xylene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Styrene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Tetrachloroethene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Toluene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Total Xylenes	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Trichloroethene	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Trichlorofluoromethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
Vinyl chloride	ND	5.4	ug/kg	1	01/18/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	01/18/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylnaphthalene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitroaniline	ND	580	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitrophenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	430	ug/Kg	1	01/19/24	MR	SW8270E
3-Nitroaniline	ND	580	ug/Kg	1	01/19/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1000	ug/Kg	1	01/19/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloroaniline	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitroaniline	ND	580	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitrophenol	ND	1000	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthylene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Acetophenone	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Anthracene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Atrazine	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Benz(a)anthracene	910	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzaldehyde	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(a)pyrene	940	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(b)fluoranthene	1100	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(ghi)perylene	500	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(k)fluoranthene	370	250	ug/Kg	1	01/19/24	MR	SW8270E
Benzyl butyl phthalate	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Caprolactam	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Carbazole	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Chrysene	880	250	ug/Kg	1	01/19/24	MR	SW8270E
Dibenz(a,h)anthracene	ND	180	ug/Kg	1	01/19/24	MR	SW8270E
Dibenzofuran	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Diethyl phthalate	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Dimethylphthalate	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-butylphthalate	ND	720	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-octylphthalate	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Fluoranthene	1800	250	ug/Kg	1	01/19/24	MR	SW8270E
Fluorene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobenzene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobutadiene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Hexachloroethane	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	530	250	ug/Kg	1	01/19/24	MR	SW8270E
Isophorone	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Naphthalene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Nitrobenzene	ND	250	ug/Kg	1	01/19/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	180	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Pentachlorophenol	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Phenanthrene	1100	250	ug/Kg	1	01/19/24	MR	SW8270E
Phenol	ND	250	ug/Kg	1	01/19/24	MR	SW8270E
Pyrene	1600	250	ug/Kg	1	01/19/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	84		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorobiphenyl	76		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorophenol	63		%	1	01/19/24	MR	30 - 130 %
% Nitrobenzene-d5	66		%	1	01/19/24	MR	30 - 130 %
% Phenol-d5	73		%	1	01/19/24	MR	30 - 130 %
% Terphenyl-d14	77		%	1	01/19/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	81		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	68		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	75		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	65		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	63		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	95		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/23/24	E	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in an oxidizing state.

TPH Comment:

The sample chromatogram exhibited non-DRO material outside the C10-C28 range.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
 American Environmental Solutions, Inc
 42 West Avenue
 Patchogue, NY 11772

Sample Information

Matrix: SOIL
 Location Code: AES-EASTSIDE
 Rush Request: Standard
 P.O.#: 0897

Custody Information

Collected by:
 Received by: CP
 Analyzed by: see "By" below

Date

01/17/24
 01/18/24

Time

9:38
 16:16

Laboratory Data

SDG ID: GCP90643
 Phoenix ID: CP90646

Project ID: EAST SIDE COASTAL RESILIENCY
 Client ID: BH68

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Aluminum	6590	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Arsenic	4.56	0.74	mg/Kg	1	01/19/24	TH	SW6010D
Barium	139	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Beryllium	0.40	0.29	mg/Kg	1	01/19/24	TH	SW6010D
Calcium	9830	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Cadmium	< 0.37	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Cobalt	4.84	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Chromium	15.7	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Copper	33.7	0.7	mg/kg	1	01/19/24	TH	SW6010D
Iron	11600	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Mercury	0.43	0.03	mg/Kg	2	01/19/24	ZT	SW7471B
Potassium	907	55	mg/Kg	10	01/19/24	TH	SW6010D
Magnesium	5930	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Manganese	141	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Sodium	178	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Nickel	14.4	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Lead	174	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Antimony	< 3.7	3.7	mg/Kg	1	01/19/24	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Barium	1.11	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	01/19/24	GW	SW846 1311/7470
TCLP Lead	1.31	0.10	mg/L	1	01/19/24	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.3	3.3	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	15.7	0.37	mg/kg	1	01/23/24		CALC 6010-7196
Vanadium	22.4	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	124	0.7	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	86		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.43	0.43	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit
pH at 25C - Soil	8.18	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D
Reactivity Cyanide	< 6	6	mg/Kg	1	01/19/24	GD	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	01/19/24	GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	01/19/24	GD	SW846-React
Redox Potential	115		mV	1	01/18/24	MW	SM2580B-09
Total Cyanide (SW9010C Distill.)	< 0.58	0.58	mg/Kg	1	01/19/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/18/24	L/MQ	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/18/24	H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	46	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
C9-C28	ND	91	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
Total EPH	ND	46	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3

QA/QC Surrogates

% COD (surr)	77		%	5	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	84		%	5	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	6.3	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	95		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
2,4-D	ND	280	ug/Kg	10	01/19/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2800	ug/Kg	10	01/19/24	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
Dichloroprop	ND	280	ug/Kg	10	01/19/24	JRB	SW8151A
Dinoseb	ND	280	ug/Kg	10	01/19/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	41		%	10	01/19/24	JRB	30 - 150 %
% DCAA (Confirmation)	39		%	10	01/19/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	77	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1221	ND	77	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1232	ND	77	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1242	ND	77	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1248	ND	77	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1254	ND	77	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1260	ND	77	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1262	ND	77	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1268	ND	77	ug/Kg	2	01/19/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	67		%	2	01/19/24	SC	30 - 150 %
% DCBP (Confirmation)	66		%	2	01/19/24	SC	30 - 150 %
% TCMX	68		%	2	01/19/24	SC	30 - 150 %
% TCMX (Confirmation)	62		%	2	01/19/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	6.0	2.3	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	11	2.3	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	4.0	2.3	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	7.7	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	ND	3.9	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	3.9	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	7.7	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	ND	39	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	7.7	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	ND	3.9	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	7.7	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	7.7	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	7.7	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	7.7	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	7.7	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	7.7	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	ND	3.9	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	7.7	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	7.7	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	39	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	69		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	63		%	2	01/19/24	AW	30 - 150 %
% TCMX	58		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	60		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	44		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	45		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/22/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/22/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	46		%	10	01/22/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	50		%	10	01/22/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	55		%	10	01/22/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	61		%	10	01/22/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	280	mg/Kg	5	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	144		%	5	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	76		%	5	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,1-Dichloroethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,1-Dichloroethene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dibromoethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichloroethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,2-Dichloropropane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
2-Hexanone	ND	25	ug/kg	1	01/18/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	25	ug/kg	1	01/18/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/18/24	JLI	SW8260D
Benzene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Bromochloromethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Bromodichloromethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Bromoform	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Bromomethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Carbon Disulfide	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Carbon tetrachloride	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Chlorobenzene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Chloroethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Chloroform	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Chloromethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Cyclohexane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Dibromochloromethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Dichlorodifluoromethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Ethylbenzene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Isopropylbenzene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
m&p-Xylene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Methyl ethyl ketone	ND	30	ug/kg	1	01/18/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	10	ug/kg	1	01/18/24	JLI	SW8260D
Methylacetate	ND	4.0	ug/kg	1	01/18/24	JLI	SW8260D
Methylcyclohexane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Methylene chloride	ND	25	ug/kg	1	01/18/24	JLI	SW8260D
o-Xylene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Styrene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Tetrachloroethene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Toluene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Total Xylenes	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Trichloroethene	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Trichlorofluoromethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
Vinyl chloride	ND	5.1	ug/kg	1	01/18/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	93		%	1	01/18/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylnaphthalene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitroaniline	ND	600	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitrophenol	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	01/19/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	450	ug/Kg	1	01/19/24	MR	SW8270E
3-Nitroaniline	ND	600	ug/Kg	1	01/19/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	01/19/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloroaniline	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitroaniline	ND	600	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitrophenol	ND	1100	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthene	920	260	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthylene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Acetophenone	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Anthracene	1500	260	ug/Kg	1	01/19/24	MR	SW8270E
Atrazine	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Benz(a)anthracene	2400	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzaldehyde	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(a)pyrene	2300	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(b)fluoranthene	2600	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(ghi)perylene	1000	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(k)fluoranthene	890	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzyl butyl phthalate	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Caprolactam	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Carbazole	490	380	ug/Kg	1	01/19/24	MR	SW8270E
Chrysene	2100	260	ug/Kg	1	01/19/24	MR	SW8270E
Dibenz(a,h)anthracene	230	190	ug/Kg	1	01/19/24	MR	SW8270E
Dibenzofuran	370	260	ug/Kg	1	01/19/24	MR	SW8270E
Diethyl phthalate	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Dimethylphthalate	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-butylphthalate	ND	750	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-octylphthalate	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Fluoranthene	5700	260	ug/Kg	1	01/19/24	MR	SW8270E
Fluorene	730	260	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobenzene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobutadiene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Hexachloroethane	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	1200	260	ug/Kg	1	01/19/24	MR	SW8270E
Isophorone	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Naphthalene	400	260	ug/Kg	1	01/19/24	MR	SW8270E
Nitrobenzene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	380	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	01/19/24	MR	SW8270E
Pentachlorophenol	ND	380	ug/Kg	1	01/19/24	MR	SW8270E
Phenanthrene	5400	260	ug/Kg	1	01/19/24	MR	SW8270E
Phenol	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Pyrene	5000	260	ug/Kg	1	01/19/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	87		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorobiphenyl	79		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorophenol	70		%	1	01/19/24	MR	30 - 130 %
% Nitrobenzene-d5	71		%	1	01/19/24	MR	30 - 130 %
% Phenol-d5	77		%	1	01/19/24	MR	30 - 130 %
% Terphenyl-d14	79		%	1	01/19/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	97		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	78		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	81		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	81		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	70		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	103		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/23/24	E	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information

Matrix: SOIL
Location Code: AES-EASTSIDE
Rush Request: Standard
P.O.#: 0897

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

01/17/24
01/18/24

Time

9:54
16:16

Laboratory Data

SDG ID: GCP90643
Phoenix ID: CP90647

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: BH69

Table with 8 columns: Parameter, Result, RL/PQL, Units, Dilution, Date/Time, By, Reference. Lists various elements like Silver, Aluminum, Arsenic, etc., with their respective results and RL/PQL values.

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 4.3	4.3	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	21.7	0.48	mg/kg	1	01/23/24		CALC 6010-7196
Vanadium	43.4	0.48	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	293	1.0	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	74		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.46	0.46	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit
pH at 25C - Soil	8.11	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D
Reactivity Cyanide	< 7	7	mg/Kg	1	01/19/24	GD	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	01/19/24	GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	01/19/24	GD	SW846-React
Redox Potential	109		mV	1	01/18/24	MW	SM2580B-09
Total Cyanide (SW9010C Distill.)	< 0.68	0.68	mg/Kg	1	01/19/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/18/24	L/MQ	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/18/24	H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	53	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
C9-C28	ND	110	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
Total EPH	ND	53	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3

QA/QC Surrogates

% COD (surr)	79		%	5	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	81		%	5	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	8.5	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	96		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	170	ug/Kg	10	01/19/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	170	ug/Kg	10	01/19/24	JRB	SW8151A
2,4-D	ND	330	ug/Kg	10	01/19/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	3300	ug/Kg	10	01/19/24	JRB	SW8151A
Dalapon	ND	170	ug/Kg	10	01/19/24	JRB	SW8151A
Dicamba	ND	170	ug/Kg	10	01/19/24	JRB	SW8151A
Dichloroprop	ND	330	ug/Kg	10	01/19/24	JRB	SW8151A
Dinoseb	ND	330	ug/Kg	10	01/19/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	41		%	10	01/19/24	JRB	30 - 150 %
% DCAA (Confirmation)	39		%	10	01/19/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	89	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1221	ND	89	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1232	ND	89	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1242	ND	89	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1248	ND	89	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1254	ND	89	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1260	ND	89	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1262	ND	89	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1268	ND	89	ug/Kg	2	01/22/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	66		%	2	01/22/24	SC	30 - 150 %
% DCBP (Confirmation)	64		%	2	01/22/24	SC	30 - 150 %
% TCMX	57		%	2	01/22/24	SC	30 - 150 %
% TCMX (Confirmation)	62		%	2	01/22/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	53	2.7	ug/Kg	2	01/22/24	AW	SW8081B
4,4' -DDE	18	2.7	ug/Kg	2	01/22/24	AW	SW8081B
4,4' -DDT	8.7	2.7	ug/Kg	2	01/22/24	AW	SW8081B
a-BHC	ND	8.9	ug/Kg	2	01/22/24	AW	SW8081B
a-Chlordane	ND	4.4	ug/Kg	2	01/22/24	AW	SW8081B
Aldrin	ND	4.4	ug/Kg	2	01/22/24	AW	SW8081B
b-BHC	ND	8.9	ug/Kg	2	01/22/24	AW	SW8081B
Chlordane	ND	44	ug/Kg	2	01/22/24	AW	SW8081B
d-BHC	ND	8.9	ug/Kg	2	01/22/24	AW	SW8081B
Dieldrin	ND	4.4	ug/Kg	2	01/22/24	AW	SW8081B
Endosulfan I	ND	8.9	ug/Kg	2	01/22/24	AW	SW8081B
Endosulfan II	ND	8.9	ug/Kg	2	01/22/24	AW	SW8081B
Endosulfan sulfate	ND	8.9	ug/Kg	2	01/22/24	AW	SW8081B
Endrin	ND	8.9	ug/Kg	2	01/22/24	AW	SW8081B
Endrin aldehyde	ND	8.9	ug/Kg	2	01/22/24	AW	SW8081B
Endrin ketone	ND	8.9	ug/Kg	2	01/22/24	AW	SW8081B
g-BHC	ND	1.8	ug/Kg	2	01/22/24	AW	SW8081B
g-Chlordane	ND	4.4	ug/Kg	2	01/22/24	AW	SW8081B
Heptachlor	ND	8.9	ug/Kg	2	01/22/24	AW	SW8081B
Heptachlor epoxide	ND	8.9	ug/Kg	2	01/22/24	AW	SW8081B
Methoxychlor	ND	44	ug/Kg	2	01/22/24	AW	SW8081B
Toxaphene	ND	180	ug/Kg	2	01/22/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	75		%	2	01/22/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	65		%	2	01/22/24	AW	30 - 150 %
% TCMX	62		%	2	01/22/24	AW	30 - 150 %
% TCMX (Confirmation)	62		%	2	01/22/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	43		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	44		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/22/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/22/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/22/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/22/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	49		%	10	01/22/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	52		%	10	01/22/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	56		%	10	01/22/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	62		%	10	01/22/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	330	mg/Kg	5	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	101		%	5	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	71		%	5	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromoethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloroethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloropropane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
2-Hexanone	ND	33	ug/kg	1	01/19/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	33	ug/kg	1	01/19/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/19/24	JLI	SW8260D
Benzene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Bromochloromethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Bromodichloromethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Bromoform	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Bromomethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Carbon Disulfide	9.0	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Carbon tetrachloride	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Chlorobenzene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Chloroethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Chloroform	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Chloromethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Cyclohexane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Dibromochloromethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Dichlorodifluoromethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Ethylbenzene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Isopropylbenzene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
m&p-Xylene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Methyl ethyl ketone	ND	39	ug/kg	1	01/19/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	13	ug/kg	1	01/19/24	JLI	SW8260D
Methylacetate	ND	5.2	ug/kg	1	01/19/24	JLI	SW8260D
Methylcyclohexane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Methylene chloride	ND	33	ug/kg	1	01/19/24	JLI	SW8260D
o-Xylene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Styrene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Tetrachloroethene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Toluene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Total Xylenes	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Trichloroethene	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorofluoromethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
Vinyl chloride	ND	6.6	ug/kg	1	01/19/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	01/19/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-Dimethylphenol	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
2,4-Dinitrophenol	ND	7000	ug/Kg	10	01/19/24	PS	SW8270E
2,4-Dinitrotoluene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
2,6-Dinitrotoluene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
2-Chloronaphthalene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
2-Chlorophenol	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
2-Methylnaphthalene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
2-Methylphenol (o-cresol)	ND	330	ug/Kg	10	01/19/24	PS	SW8270E
2-Nitroaniline	ND	7000	ug/Kg	10	01/19/24	PS	SW8270E
2-Nitrophenol	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	4400	ug/Kg	10	01/19/24	PS	SW8270E
3,3'-Dichlorobenzidine	ND	5300	ug/Kg	10	01/19/24	PS	SW8270E
3-Nitroaniline	ND	7000	ug/Kg	10	01/19/24	PS	SW8270E
4,6-Dinitro-2-methylphenol	ND	13000	ug/Kg	10	01/19/24	PS	SW8270E
4-Bromophenyl phenyl ether	ND	4400	ug/Kg	10	01/19/24	PS	SW8270E
4-Chloro-3-methylphenol	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
4-Chloroaniline	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
4-Chlorophenyl phenyl ether	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
4-Nitroaniline	ND	7000	ug/Kg	10	01/19/24	PS	SW8270E
4-Nitrophenol	ND	13000	ug/Kg	10	01/19/24	PS	SW8270E
Acenaphthene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Acenaphthylene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Acetophenone	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Anthracene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Atrazine	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Benz(a)anthracene	ND	1000	ug/Kg	10	01/19/24	PS	SW8270E
Benzaldehyde	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Benzo(a)pyrene	1100	880	ug/Kg	10	01/19/24	PS	SW8270E
Benzo(b)fluoranthene	1200	1000	ug/Kg	10	01/19/24	PS	SW8270E
Benzo(ghi)perylene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Benzo(k)fluoranthene	ND	800	ug/Kg	10	01/19/24	PS	SW8270E
Benzyl butyl phthalate	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Bis(2-chloroethoxy)methane	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Bis(2-chloroethyl)ether	ND	4400	ug/Kg	10	01/19/24	PS	SW8270E
Bis(2-ethylhexyl)phthalate	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Caprolactam	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Carbazole	ND	4400	ug/Kg	10	01/19/24	PS	SW8270E
Chrysene	ND	1000	ug/Kg	10	01/19/24	PS	SW8270E
Dibenz(a,h)anthracene	ND	330	ug/Kg	10	01/19/24	PS	SW8270E
Dibenzofuran	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Diethyl phthalate	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Dimethylphthalate	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Di-n-butylphthalate	ND	8800	ug/Kg	10	01/19/24	PS	SW8270E
Di-n-octylphthalate	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Fluoranthene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Fluorene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Hexachlorobenzene	ND	330	ug/Kg	10	01/19/24	PS	SW8270E
Hexachlorobutadiene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Hexachlorocyclopentadiene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Indeno(1,2,3-cd)pyrene	710	500	ug/Kg	10	01/19/24	PS	SW8270E
Isophorone	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Naphthalene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Nitrobenzene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
N-Nitrosodimethylamine	ND	4400	ug/Kg	10	01/19/24	PS	SW8270E
N-Nitrosodi-n-propylamine	ND	2200	ug/Kg	10	01/19/24	PS	SW8270E
N-Nitrosodiphenylamine	ND	4400	ug/Kg	10	01/19/24	PS	SW8270E
Pentachlorophenol	ND	800	ug/Kg	10	01/19/24	PS	SW8270E
Phenanthrene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
Phenol	ND	330	ug/Kg	10	01/19/24	PS	SW8270E
Pyrene	ND	3100	ug/Kg	10	01/19/24	PS	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol (10x)	80		%	10	01/19/24	PS	30 - 130 %
% 2-Fluorobiphenyl (10x)	79		%	10	01/19/24	PS	30 - 130 %
% 2-Fluorophenol (10x)	74		%	10	01/19/24	PS	30 - 130 %
% Nitrobenzene-d5 (10x)	65		%	10	01/19/24	PS	30 - 130 %
% Phenol-d5 (10x)	68		%	10	01/19/24	PS	30 - 130 %
% Terphenyl-d14 (10x)	85		%	10	01/19/24	PS	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	105		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	90		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	84		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	89		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	75		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	113		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/19/24	E	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Semi-Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
 American Environmental Solutions, Inc
 42 West Avenue
 Patchogue, NY 11772

Sample Information

Matrix: SOIL
 Location Code: AES-EASTSIDE
 Rush Request: Standard
 P.O.#: 0897

Custody Information

Collected by:
 Received by: CP
 Analyzed by: see "By" below

Date

01/17/24
 01/18/24

Time

10:06
 16:16

Laboratory Data

SDG ID: GCP90643
 Phoenix ID: CP90648

Project ID: EAST SIDE COASTAL RESILIENCY
 Client ID: BH70

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Aluminum	6510	59	mg/Kg	10	01/19/24	TH	SW6010D
Arsenic	8.99	0.78	mg/Kg	1	01/19/24	TH	SW6010D
Barium	154	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Beryllium	0.59	0.31	mg/Kg	1	01/19/24	TH	SW6010D
Calcium	6580	5.9	mg/Kg	1	01/19/24	TH	SW6010D
Cadmium	0.94	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Cobalt	7.70	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Chromium	24.8	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Copper	52.9	0.8	mg/kg	1	01/19/24	TH	SW6010D
Iron	19400	5.9	mg/Kg	1	01/19/24	TH	SW6010D
Mercury	0.31	0.03	mg/Kg	2	01/19/24	ZT	SW7471B
Potassium	1100	59	mg/Kg	10	01/19/24	TH	SW6010D
Magnesium	3890	5.9	mg/Kg	1	01/19/24	TH	SW6010D
Manganese	217	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Sodium	968	5.9	mg/Kg	1	01/19/24	TH	SW6010D
Nickel	24.7	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Lead	273	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Antimony	< 3.9	3.9	mg/Kg	1	01/19/24	CPP	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Barium	1.38	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	01/19/24	GW	SW846 1311/7470
TCLP Lead	1.99	0.10	mg/L	1	01/19/24	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.5	3.5	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	24.8	0.39	mg/kg	1	01/23/24		CALC 6010-7196
Vanadium	46.5	0.39	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	255	0.8	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	82		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.41	0.41	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit
pH at 25C - Soil	8.30	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D
Reactivity Cyanide	< 6	6	mg/Kg	1	01/19/24	GD	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	01/19/24	GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	01/19/24	GD	SW846-React
Redox Potential	316		mV	1	01/18/24	MW	SM2580B-09
Total Cyanide (SW9010C Distill.)	< 0.61	0.61	mg/Kg	1	01/19/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/18/24	L/MQ	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/18/24	H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	48	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
C9-C28	ND	96	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
Total EPH	ND	48	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3

QA/QC Surrogates

% COD (surr)	73		%	5	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	78		%	5	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	9.5	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	98		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	150	ug/Kg	10	01/19/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	150	ug/Kg	10	01/19/24	JRB	SW8151A
2,4-D	ND	300	ug/Kg	10	01/19/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	3000	ug/Kg	10	01/19/24	JRB	SW8151A
Dalapon	ND	150	ug/Kg	10	01/19/24	JRB	SW8151A
Dicamba	ND	150	ug/Kg	10	01/19/24	JRB	SW8151A
Dichloroprop	ND	300	ug/Kg	10	01/19/24	JRB	SW8151A
Dinoseb	ND	300	ug/Kg	10	01/19/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	49		%	10	01/19/24	JRB	30 - 150 %
% DCAA (Confirmation)	48		%	10	01/19/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	81	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1221	ND	81	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1232	ND	81	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1242	ND	81	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1248	ND	81	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1254	ND	81	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1260	ND	81	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1262	ND	81	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1268	ND	81	ug/Kg	2	01/22/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	60		%	2	01/22/24	SC	30 - 150 %
% DCBP (Confirmation)	58		%	2	01/22/24	SC	30 - 150 %
% TCMX	53		%	2	01/22/24	SC	30 - 150 %
% TCMX (Confirmation)	54		%	2	01/22/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	4.4	2.4	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	6.4	2.4	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	5.4	2.4	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	8.1	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	ND	4.0	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	4.0	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	8.1	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	ND	40	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	8.1	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	ND	4.0	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	8.1	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	8.1	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	8.1	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	8.1	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	8.1	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	8.1	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	ND	4.0	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	8.1	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	8.1	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	40	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	160	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	62		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	66		%	2	01/19/24	AW	30 - 150 %
% TCMX	59		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	61		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	50		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	51		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/23/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/23/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	49		%	10	01/23/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	53		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	57		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	63		%	10	01/23/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	60	mg/Kg	1	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	67		%	1	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	75		%	1	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromoethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloroethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloropropane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
2-Hexanone	ND	36	ug/kg	1	01/19/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	36	ug/kg	1	01/19/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/19/24	JLI	SW8260D
Benzene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Bromochloromethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Bromodichloromethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Bromoform	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Bromomethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Carbon Disulfide	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Carbon tetrachloride	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Chlorobenzene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Chloroethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Chloroform	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Chloromethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Cyclohexane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Dibromochloromethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Dichlorodifluoromethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Ethylbenzene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Isopropylbenzene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
m&p-Xylene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Methyl ethyl ketone	ND	43	ug/kg	1	01/19/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	14	ug/kg	1	01/19/24	JLI	SW8260D
Methylacetate	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Methylcyclohexane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Methylene chloride	ND	36	ug/kg	1	01/19/24	JLI	SW8260D
o-Xylene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Styrene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Tetrachloroethene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Toluene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Total Xylenes	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Trichloroethene	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorofluoromethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
Vinyl chloride	ND	7.1	ug/kg	1	01/19/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	01/19/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylnaphthalene	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitroaniline	ND	630	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitrophenol	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	01/19/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	470	ug/Kg	1	01/19/24	MR	SW8270E
3-Nitroaniline	ND	630	ug/Kg	1	01/19/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	01/19/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloroaniline	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitroaniline	ND	630	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitrophenol	ND	1100	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthene	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthylene	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Acetophenone	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Anthracene	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Atrazine	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Benz(a)anthracene	680	280	ug/Kg	1	01/19/24	MR	SW8270E
Benzaldehyde	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(a)pyrene	760	280	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(b)fluoranthene	890	280	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(ghi)perylene	400	280	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(k)fluoranthene	310	280	ug/Kg	1	01/19/24	MR	SW8270E
Benzyl butyl phthalate	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Caprolactam	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Carbazole	ND	400	ug/Kg	1	01/19/24	MR	SW8270E
Chrysene	650	280	ug/Kg	1	01/19/24	MR	SW8270E
Dibenz(a,h)anthracene	ND	200	ug/Kg	1	01/19/24	MR	SW8270E
Dibenzofuran	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Diethyl phthalate	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Dimethylphthalate	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-butylphthalate	ND	790	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-octylphthalate	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Fluoranthene	1500	280	ug/Kg	1	01/19/24	MR	SW8270E
Fluorene	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobenzene	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobutadiene	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Hexachloroethane	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	450	280	ug/Kg	1	01/19/24	MR	SW8270E
Isophorone	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Naphthalene	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Nitrobenzene	ND	280	ug/Kg	1	01/19/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	400	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	01/19/24	MR	SW8270E
Pentachlorophenol	ND	400	ug/Kg	1	01/19/24	MR	SW8270E
Phenanthrene	740	280	ug/Kg	1	01/19/24	MR	SW8270E
Phenol	ND	280	ug/Kg	1	01/19/24	MR	SW8270E
Pyrene	1300	280	ug/Kg	1	01/19/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	79		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorobiphenyl	76		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorophenol	69		%	1	01/19/24	MR	30 - 130 %
% Nitrobenzene-d5	70		%	1	01/19/24	MR	30 - 130 %
% Phenol-d5	76		%	1	01/19/24	MR	30 - 130 %
% Terphenyl-d14	85		%	1	01/19/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	103		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	87		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	83		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	83		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	66		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	109		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/23/24	E	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
 American Environmental Solutions, Inc
 42 West Avenue
 Patchogue, NY 11772

Sample Information

Matrix: SOIL
 Location Code: AES-EASTSIDE
 Rush Request: 48 Hour
 P.O.#: 0897

Custody Information

Collected by:
 Received by: CP
 Analyzed by: see "By" below

Date

01/17/24
 01/18/24

Time

10:21
 16:16

Laboratory Data

SDG ID: GCP90643
 Phoenix ID: CP90649

Project ID: EAST SIDE COASTAL RESILIENCY
 Client ID: BH71

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.43	0.43	mg/Kg	1	01/19/24	TH	SW6010D
Aluminum	6110	6.4	mg/Kg	1	01/19/24	TH	SW6010D
Arsenic	3.86	0.85	mg/Kg	1	01/19/24	TH	SW6010D
Barium	55.5	0.43	mg/Kg	1	01/19/24	TH	SW6010D
Beryllium	< 0.34	0.34	mg/Kg	1	01/19/24	TH	SW6010D
Calcium	1900	6.4	mg/Kg	1	01/19/24	TH	SW6010D
Cadmium	< 0.43	0.43	mg/Kg	1	01/19/24	TH	SW6010D
Cobalt	4.74	0.43	mg/Kg	1	01/19/24	TH	SW6010D
Chromium	14.0	0.43	mg/Kg	1	01/19/24	TH	SW6010D
Copper	33.8	0.9	mg/kg	1	01/19/24	TH	SW6010D
Iron	11700	6.4	mg/Kg	1	01/19/24	TH	SW6010D
Mercury	2.26	0.30	mg/Kg	20	01/19/24	ZT	SW7471B
Potassium	914	64	mg/Kg	10	01/19/24	TH	SW6010D
Magnesium	2860	6.4	mg/Kg	1	01/19/24	TH	SW6010D
Manganese	137	0.43	mg/Kg	1	01/19/24	TH	SW6010D
Sodium	1430	6.4	mg/Kg	1	01/19/24	TH	SW6010D
Nickel	14.8	0.43	mg/Kg	1	01/19/24	TH	SW6010D
Lead	130	0.43	mg/Kg	1	01/19/24	TH	SW6010D
Antimony	< 4.3	4.3	mg/Kg	1	01/19/24	CPP	SW6010D
Selenium	< 1.7	1.7	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Barium	0.59	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	01/19/24	GW	SW846 1311/7470
TCLP Lead	6.67	0.10	mg/L	1	01/25/24	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.8	3.8	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Metals Digestion	Completed				01/25/24	AL/HL	SW3010A
Trivalent Chromium	14.0	0.43	mg/kg	1	01/23/24		CALC 6010-7196
Vanadium	18.1	0.43	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	99.3	0.9	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	84		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr 1
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.41	0.41	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit 1
pH at 25C - Soil	8.17	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D 1
Reactivity Cyanide	< 6	6	mg/Kg	1	01/19/24	GD	SW846 7.3.3.1/90 1
Reactivity Sulfide	< 20	20	mg/Kg	1	01/19/24	GD	SW846 CH7 1
Reactivity	Negative		Pos/Neg	1	01/19/24	GD	SW846-React 1
Redox Potential	350		mV	1	01/18/24	MW	SM2580B-09 1
Total Cyanide (SW9010C Distill.)	< 0.60	0.60	mg/Kg	1	01/19/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/18/24	L/MQ	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/18/24	H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/24/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/24/24	P/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	47	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1
C9-C28	ND	93	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1
Total EPH	ND	47	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1

QA/QC Surrogates

% COD (surr)	72		%	5	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	77		%	5	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	7.0	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	94		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	150	ug/Kg	10	01/19/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	150	ug/Kg	10	01/19/24	JRB	SW8151A
2,4-D	ND	290	ug/Kg	10	01/19/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2900	ug/Kg	10	01/19/24	JRB	SW8151A
Dalapon	ND	150	ug/Kg	10	01/19/24	JRB	SW8151A
Dicamba	ND	150	ug/Kg	10	01/19/24	JRB	SW8151A
Dichloroprop	ND	290	ug/Kg	10	01/19/24	JRB	SW8151A
Dinoseb	ND	290	ug/Kg	10	01/19/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	43		%	10	01/19/24	JRB	30 - 150 %
% DCAA (Confirmation)	44		%	10	01/19/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1221	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1232	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1242	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1248	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1254	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1260	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1262	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1268	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	72		%	2	01/19/24	SC	30 - 150 %
% DCBP (Confirmation)	66		%	2	01/19/24	SC	30 - 150 %
% TCMX	76		%	2	01/19/24	SC	30 - 150 %
% TCMX (Confirmation)	64		%	2	01/19/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	ND	2.4	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	ND	2.4	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	ND	2.4	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	ND	3.9	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	3.9	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	ND	39	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	ND	3.9	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	ND	3.9	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	39	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	160	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	68		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	69		%	2	01/19/24	AW	30 - 150 %
% TCMX	61		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	65		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	51		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	51		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/23/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/23/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	48		%	10	01/23/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	52		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	56		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	61		%	10	01/23/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	310	290	mg/Kg	5	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	Interference		%	5	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	111		%	5	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromoethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloroethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloropropane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
2-Hexanone	ND	29	ug/kg	1	01/19/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	29	ug/kg	1	01/19/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/19/24	JLI	SW8260D
Benzene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Bromochloromethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Bromodichloromethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Bromoform	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Bromomethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Carbon Disulfide	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Carbon tetrachloride	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Chlorobenzene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Chloroethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Chloroform	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Chloromethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Cyclohexane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Dibromochloromethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Dichlorodifluoromethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Ethylbenzene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Isopropylbenzene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
m&p-Xylene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Methyl ethyl ketone	ND	34	ug/kg	1	01/19/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	11	ug/kg	1	01/19/24	JLI	SW8260D
Methylacetate	ND	4.6	ug/kg	1	01/19/24	JLI	SW8260D
Methylcyclohexane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Methylene chloride	ND	29	ug/kg	1	01/19/24	JLI	SW8260D
o-Xylene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Styrene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Tetrachloroethene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Toluene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Total Xylenes	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Trichloroethene	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorofluoromethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
Vinyl chloride	ND	5.7	ug/kg	1	01/19/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	01/19/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylnaphthalene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitroaniline	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitrophenol	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	01/19/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	470	ug/Kg	1	01/19/24	MR	SW8270E
3-Nitroaniline	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	01/19/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloroaniline	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitroaniline	ND	620	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitrophenol	ND	1100	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthylene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Acetophenone	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Anthracene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Atrazine	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Benz(a)anthracene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Benzaldehyde	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(a)pyrene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(b)fluoranthene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(ghi)perylene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(k)fluoranthene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Benzyl butyl phthalate	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Caprolactam	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Carbazole	ND	390	ug/Kg	1	01/19/24	MR	SW8270E
Chrysene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	01/19/24	MR	SW8270E
Dibenzofuran	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Diethyl phthalate	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Dimethylphthalate	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-butylphthalate	ND	780	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-octylphthalate	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Fluoranthene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Fluorene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobenzene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobutadiene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Hexachloroethane	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Isophorone	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Naphthalene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Nitrobenzene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	390	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	01/19/24	MR	SW8270E
Pentachlorophenol	ND	390	ug/Kg	1	01/19/24	MR	SW8270E
Phenanthrene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Phenol	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
Pyrene	ND	270	ug/Kg	1	01/19/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	90		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorobiphenyl	79		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorophenol	75		%	1	01/19/24	MR	30 - 130 %
% Nitrobenzene-d5	72		%	1	01/19/24	MR	30 - 130 %
% Phenol-d5	79		%	1	01/19/24	MR	30 - 130 %
% Terphenyl-d14	83		%	1	01/19/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	91		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	80		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	78		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	74		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	66		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	100		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/19/24	E	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
 American Environmental Solutions, Inc
 42 West Avenue
 Patchogue, NY 11772

Sample Information

Matrix: SOIL
 Location Code: AES-EASTSIDE
 Rush Request: Standard
 P.O.#: 0897

Custody Information

Collected by:
 Received by: CP
 Analyzed by: see "By" below

Date

01/17/24
 01/18/24

Time

10:32
 16:16

Laboratory Data

SDG ID: GCP90643
 Phoenix ID: CP90650

Project ID: EAST SIDE COASTAL RESILIENCY
 Client ID: BH72

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Aluminum	6480	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Arsenic	5.46	0.73	mg/Kg	1	01/19/24	TH	SW6010D
Barium	95.8	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Beryllium	0.35	0.29	mg/Kg	1	01/19/24	TH	SW6010D
Calcium	25000	55	mg/Kg	10	01/19/24	TH	SW6010D
Cadmium	< 0.36	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Cobalt	6.29	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Chromium	17.1	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Copper	38.3	0.7	mg/kg	1	01/19/24	TH	SW6010D
Iron	13100	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Mercury	0.14	0.03	mg/Kg	2	01/19/24	ZT	SW7471B
Potassium	1390	55	mg/Kg	10	01/19/24	TH	SW6010D
Magnesium	12300	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Manganese	489	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Sodium	179	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Nickel	20.2	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Lead	122	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Antimony	< 3.6	3.6	mg/Kg	1	01/19/24	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Barium	1.43	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	01/19/24	GW	SW846 1311/7470
TCLP Lead	0.20	0.10	mg/L	1	01/19/24	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.3	3.3	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	17.1	0.36	mg/kg	1	01/23/24		CALC 6010-7196
Vanadium	22.3	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	200	0.7	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	87		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr 1
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.42	0.42	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit 1
pH at 25C - Soil	8.19	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D 1
Reactivity Cyanide	< 3	3	mg/Kg	1	01/19/24	GD	SW846 7.3.3.1/90 1
Reactivity Sulfide	< 20	20	mg/Kg	1	01/19/24	GD	SW846 CH7 1
Reactivity	Negative		Pos/Neg	1	01/19/24	GD	SW846-React 1
Redox Potential	409		mV	1	01/18/24	MW	SM2580B-09 1
Total Cyanide (SW9010C Distill.)	< 0.57	0.57	mg/Kg	1	01/19/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/18/24	L/MQ	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/19/24	J/H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	45	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1
C9-C28	ND	90	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1
Total EPH	ND	45	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1

QA/QC Surrogates

% COD (surr)	81		%	5	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	84		%	5	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	6.7	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	93		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
2,4-D	ND	290	ug/Kg	10	01/19/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2900	ug/Kg	10	01/19/24	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
Dichloroprop	ND	290	ug/Kg	10	01/19/24	JRB	SW8151A
Dinoseb	ND	290	ug/Kg	10	01/19/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	44		%	10	01/19/24	JRB	30 - 150 %
% DCAA (Confirmation)	45		%	10	01/19/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	76	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1221	ND	76	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1232	ND	76	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1242	ND	76	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1248	ND	76	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1254	ND	76	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1260	ND	76	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1262	ND	76	ug/Kg	2	01/22/24	SC	SW8082A
PCB-1268	ND	76	ug/Kg	2	01/22/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	71		%	2	01/22/24	SC	30 - 150 %
% DCBP (Confirmation)	69		%	2	01/22/24	SC	30 - 150 %
% TCMX	61		%	2	01/22/24	SC	30 - 150 %
% TCMX (Confirmation)	62		%	2	01/22/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	7.1	2.3	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	14	2.3	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	10	2.3	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	7.6	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	ND	3.8	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	7.6	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	ND	38	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	7.6	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	7.6	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	7.6	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	7.6	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	7.6	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	7.6	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	7.6	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	ND	3.8	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	7.6	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	7.6	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	69		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	76		%	2	01/19/24	AW	30 - 150 %
% TCMX	56		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	65		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	48		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	50		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/23/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/23/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	46		%	10	01/23/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	48		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	57		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	63		%	10	01/23/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	57	mg/Kg	1	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	53		%	1	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	71		%	1	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromoethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloroethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloropropane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
2-Hexanone	ND	29	ug/kg	1	01/19/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	29	ug/kg	1	01/19/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/19/24	JLI	SW8260D
Benzene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Bromochloromethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Bromodichloromethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Bromoform	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Bromomethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Carbon Disulfide	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Carbon tetrachloride	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Chlorobenzene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Chloroethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Chloroform	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Chloromethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Cyclohexane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Dibromochloromethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Dichlorodifluoromethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Ethylbenzene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Isopropylbenzene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
m&p-Xylene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Methyl ethyl ketone	ND	35	ug/kg	1	01/19/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	12	ug/kg	1	01/19/24	JLI	SW8260D
Methylacetate	ND	4.7	ug/kg	1	01/19/24	JLI	SW8260D
Methylcyclohexane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Methylene chloride	ND	29	ug/kg	1	01/19/24	JLI	SW8260D
o-Xylene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Styrene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Tetrachloroethene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Toluene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Total Xylenes	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Trichloroethene	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorofluoromethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
Vinyl chloride	ND	5.9	ug/kg	1	01/19/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	01/19/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylnaphthalene	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitroaniline	ND	610	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitrophenol	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	01/20/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	450	ug/Kg	1	01/20/24	MR	SW8270E
3-Nitroaniline	ND	610	ug/Kg	1	01/20/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	01/20/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloroaniline	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitroaniline	ND	610	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitrophenol	ND	1100	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthene	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthylene	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Acetophenone	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Anthracene	620	270	ug/Kg	1	01/20/24	MR	SW8270E
Atrazine	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Benz(a)anthracene	1100	270	ug/Kg	1	01/20/24	MR	SW8270E
Benzaldehyde	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(a)pyrene	1300	270	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(b)fluoranthene	1500	270	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(ghi)perylene	770	270	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(k)fluoranthene	520	270	ug/Kg	1	01/20/24	MR	SW8270E
Benzyl butyl phthalate	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Caprolactam	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Carbazole	ND	380	ug/Kg	1	01/20/24	MR	SW8270E
Chrysene	1400	270	ug/Kg	1	01/20/24	MR	SW8270E
Dibenz(a,h)anthracene	200	190	ug/Kg	1	01/20/24	MR	SW8270E
Dibenzofuran	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Diethyl phthalate	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Dimethylphthalate	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-butylphthalate	ND	760	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-octylphthalate	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Fluoranthene	2400	270	ug/Kg	1	01/20/24	MR	SW8270E
Fluorene	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobenzene	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobutadiene	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Hexachloroethane	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	890	270	ug/Kg	1	01/20/24	MR	SW8270E
Isophorone	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Naphthalene	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Nitrobenzene	ND	270	ug/Kg	1	01/20/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	380	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	01/20/24	MR	SW8270E
Pentachlorophenol	ND	380	ug/Kg	1	01/20/24	MR	SW8270E
Phenanthrene	1800	270	ug/Kg	1	01/20/24	MR	SW8270E
Phenol	ND	270	ug/Kg	1	01/20/24	MR	SW8270E
Pyrene	2100	270	ug/Kg	1	01/20/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	100		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorobiphenyl	67		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorophenol	71		%	1	01/20/24	MR	30 - 130 %
% Nitrobenzene-d5	78		%	1	01/20/24	MR	30 - 130 %
% Phenol-d5	80		%	1	01/20/24	MR	30 - 130 %
% Terphenyl-d14	81		%	1	01/20/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	104		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	99		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	90		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	92		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	76		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	114		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/21/24	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is neither in a reducing or an oxidizing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information

Matrix: SOIL
Location Code: AES-EASTSIDE
Rush Request: Standard
P.O.#: 0897

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

01/17/24
01/18/24

Time

11:19
16:16

Laboratory Data

SDG ID: GCP90643
Phoenix ID: CP90651

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: BH73

Table with 8 columns: Parameter, Result, RL/PQL, Units, Dilution, Date/Time, By, Reference. Lists various elements like Silver, Aluminum, Arsenic, Barium, Beryllium, Calcium, Cadmium, Cobalt, Chromium, Copper, Iron, Mercury, Potassium, Magnesium, Manganese, Sodium, Nickel, Lead, Antimony, Selenium, and TCLP elements with their respective results and RL/PQL values.

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.0	3.0	mg/Kg	1	01/19/24	CPP	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	12.1	0.33	mg/kg	1	01/23/24		CALC 6010-7196
Vanadium	19.1	0.33	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	118	0.7	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	91		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.40	0.40	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit
pH at 25C - Soil	8.89	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D
Reactivity Cyanide	< 5	5	mg/Kg	1	01/19/24	GD	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	01/19/24	GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	01/19/24	GD	SW846-React
Redox Potential	255		mV	1	01/18/24	MW	SM2580B-09
Total Cyanide (SW9010C Distill.)	< 0.55	0.55	mg/Kg	1	01/22/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/18/24	L/MQ	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/19/24	J/H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	8.7	mg/kg	1	01/19/24	JRB	NJEPH 10-08 R3
C9-C28	ND	17	mg/kg	1	01/19/24	JRB	NJEPH 10-08 R3
Total EPH	ND	8.7	mg/kg	1	01/19/24	JRB	NJEPH 10-08 R3

QA/QC Surrogates

% COD (surr)	86		%	1	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	111		%	1	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	6.2	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	94		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	130	ug/Kg	10	01/19/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	130	ug/Kg	10	01/19/24	JRB	SW8151A
2,4-D	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2700	ug/Kg	10	01/19/24	JRB	SW8151A
Dalapon	ND	130	ug/Kg	10	01/19/24	JRB	SW8151A
Dicamba	ND	130	ug/Kg	10	01/19/24	JRB	SW8151A
Dichloroprop	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A
Dinoseb	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	40		%	10	01/19/24	JRB	30 - 150 %
% DCAA (Confirmation)	39		%	10	01/19/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1221	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1232	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1242	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1248	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1254	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1260	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1262	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1268	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	74		%	2	01/19/24	SC	30 - 150 %
% DCBP (Confirmation)	70		%	2	01/19/24	SC	30 - 150 %
% TCMX	72		%	2	01/19/24	SC	30 - 150 %
% TCMX (Confirmation)	69		%	2	01/19/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	ND	2.1	ug/Kg	2	01/19/24	CN	SW8081B
4,4' -DDE	ND	2.1	ug/Kg	2	01/19/24	CN	SW8081B
4,4' -DDT	ND	2.1	ug/Kg	2	01/19/24	CN	SW8081B
a-BHC	ND	7.2	ug/Kg	2	01/19/24	CN	SW8081B
a-Chlordane	ND	3.6	ug/Kg	2	01/19/24	CN	SW8081B
Aldrin	ND	3.6	ug/Kg	2	01/19/24	CN	SW8081B
b-BHC	ND	7.2	ug/Kg	2	01/19/24	CN	SW8081B
Chlordane	ND	36	ug/Kg	2	01/19/24	CN	SW8081B
d-BHC	ND	7.2	ug/Kg	2	01/19/24	CN	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	01/19/24	CN	SW8081B
Endosulfan I	ND	7.2	ug/Kg	2	01/19/24	CN	SW8081B
Endosulfan II	ND	7.2	ug/Kg	2	01/19/24	CN	SW8081B
Endosulfan sulfate	ND	7.2	ug/Kg	2	01/19/24	CN	SW8081B
Endrin	ND	7.2	ug/Kg	2	01/19/24	CN	SW8081B
Endrin aldehyde	ND	7.2	ug/Kg	2	01/19/24	CN	SW8081B
Endrin ketone	ND	7.2	ug/Kg	2	01/19/24	CN	SW8081B
g-BHC	ND	1.4	ug/Kg	2	01/19/24	CN	SW8081B
g-Chlordane	ND	3.6	ug/Kg	2	01/19/24	CN	SW8081B
Heptachlor	ND	7.2	ug/Kg	2	01/19/24	CN	SW8081B
Heptachlor epoxide	ND	7.2	ug/Kg	2	01/19/24	CN	SW8081B
Methoxychlor	ND	36	ug/Kg	2	01/19/24	CN	SW8081B
Toxaphene	ND	140	ug/Kg	2	01/19/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	67		%	2	01/19/24	CN	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	68		%	2	01/19/24	CN	30 - 150 %
% TCMX	64		%	2	01/19/24	CN	30 - 150 %
% TCMX (Confirmation)	65		%	2	01/19/24	CN	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	40		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	38		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/23/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/23/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	45		%	10	01/23/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	47		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	54		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	59		%	10	01/23/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	270	mg/Kg	5	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	59		%	5	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	75		%	5	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromoethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloroethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloropropane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
2-Hexanone	ND	31	ug/kg	1	01/19/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	31	ug/kg	1	01/19/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/19/24	JLI	SW8260D
Benzene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Bromochloromethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Bromodichloromethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Bromoform	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Bromomethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Carbon Disulfide	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Carbon tetrachloride	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Chlorobenzene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Chloroethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Chloroform	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Chloromethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Cyclohexane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Dibromochloromethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Dichlorodifluoromethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Ethylbenzene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Isopropylbenzene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
m&p-Xylene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Methyl ethyl ketone	ND	37	ug/kg	1	01/19/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	12	ug/kg	1	01/19/24	JLI	SW8260D
Methylacetate	ND	5.0	ug/kg	1	01/19/24	JLI	SW8260D
Methylcyclohexane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Methylene chloride	ND	31	ug/kg	1	01/19/24	JLI	SW8260D
o-Xylene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Styrene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Tetrachloroethene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Toluene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Total Xylenes	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Trichloroethene	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorofluoromethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
Vinyl chloride	ND	6.2	ug/kg	1	01/19/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	01/19/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylnaphthalene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitroaniline	ND	580	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitrophenol	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	440	ug/Kg	1	01/20/24	MR	SW8270E
3-Nitroaniline	ND	580	ug/Kg	1	01/20/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	01/20/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloroaniline	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitroaniline	ND	580	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitrophenol	ND	1100	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthylene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Acetophenone	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Anthracene	300	250	ug/Kg	1	01/20/24	MR	SW8270E
Atrazine	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Benz(a)anthracene	830	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzaldehyde	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(a)pyrene	910	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(b)fluoranthene	1100	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(ghi)perylene	540	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(k)fluoranthene	370	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzyl butyl phthalate	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Caprolactam	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Carbazole	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Chrysene	800	250	ug/Kg	1	01/20/24	MR	SW8270E
Dibenz(a,h)anthracene	ND	180	ug/Kg	1	01/20/24	MR	SW8270E
Dibenzofuran	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Diethyl phthalate	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Dimethylphthalate	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-butylphthalate	ND	730	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-octylphthalate	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Fluoranthene	1900	250	ug/Kg	1	01/20/24	MR	SW8270E
Fluorene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobenzene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobutadiene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Hexachloroethane	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	600	250	ug/Kg	1	01/20/24	MR	SW8270E
Isophorone	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Naphthalene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Nitrobenzene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	180	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Pentachlorophenol	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Phenanthrene	1000	250	ug/Kg	1	01/20/24	MR	SW8270E
Phenol	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Pyrene	1700	250	ug/Kg	1	01/20/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	94		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorobiphenyl	65		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorophenol	70		%	1	01/20/24	MR	30 - 130 %
% Nitrobenzene-d5	77		%	1	01/20/24	MR	30 - 130 %
% Phenol-d5	75		%	1	01/20/24	MR	30 - 130 %
% Terphenyl-d14	81		%	1	01/20/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	104		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	78		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	83		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	81		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	69		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	117		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/21/24	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information

Matrix: SOIL
Location Code: AES-EASTSIDE
Rush Request: Standard
P.O.#: 0897

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

01/17/24
01/18/24

Time

11:31
16:16

Laboratory Data

SDG ID: GCP90643
Phoenix ID: CP90652

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: BH75

Table with 8 columns: Parameter, Result, RL/PQL, Units, Dilution, Date/Time, By, Reference. Lists various elements like Silver, Aluminum, Arsenic, Barium, Beryllium, Calcium, Cadmium, Cobalt, Chromium, Copper, Iron, Mercury, Potassium, Magnesium, Manganese, Sodium, Nickel, Lead, Antimony, Selenium, and TCLP elements with their respective results and RL/PQL values.

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.3	3.3	mg/Kg	1	01/19/24	TH	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	12.1	0.36	mg/kg	1	01/19/24		CALC 6010-7196
Vanadium	16.6	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	74.9	0.7	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	91		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.41	0.41	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit
pH at 25C - Soil	9.52	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D
Reactivity Cyanide	< 5	5	mg/Kg	1	01/19/24	GD	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	01/19/24	GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	01/19/24	GD	SW846-React
Redox Potential	288		mV	1	01/18/24	MW	SM2580B-09
Total Cyanide (SW9010C Distill.)	< 0.55	0.55	mg/Kg	1	01/22/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/18/24	L/MQ	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/19/24	J/H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	43	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
C9-C28	ND	86	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
Total EPH	ND	43	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3

QA/QC Surrogates

% COD (surr)	75		%	5	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	81		%	5	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	7.2	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	93		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
2,4-D	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2700	ug/Kg	10	01/19/24	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	01/19/24	JRB	SW8151A
Dichloroprop	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A
Dinoseb	ND	270	ug/Kg	10	01/19/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	54		%	10	01/19/24	JRB	30 - 150 %
% DCAA (Confirmation)	52		%	10	01/19/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1221	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1232	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1242	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1248	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1254	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1260	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1262	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1268	ND	72	ug/Kg	2	01/19/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	78		%	2	01/19/24	SC	30 - 150 %
% DCBP (Confirmation)	74		%	2	01/19/24	SC	30 - 150 %
% TCMX	64		%	2	01/19/24	SC	30 - 150 %
% TCMX (Confirmation)	66		%	2	01/19/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	ND	2.2	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	3.4	2.2	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	4.6	2.2	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	ND	36	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.4	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	7.2	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	36	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	140	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	63		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	58		%	2	01/19/24	AW	30 - 150 %
% TCMX	58		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	59		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	49		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	50		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/23/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/23/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	47		%	10	01/23/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	53		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	56		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	62		%	10	01/23/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	54	mg/Kg	1	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	70		%	1	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	67		%	1	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromoethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloroethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloropropane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
2-Hexanone	ND	27	ug/kg	1	01/19/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	27	ug/kg	1	01/19/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/19/24	JLI	SW8260D
Benzene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Bromochloromethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Bromodichloromethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Bromoform	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Bromomethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Carbon Disulfide	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Carbon tetrachloride	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Chlorobenzene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Chloroethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Chloroform	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Chloromethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Cyclohexane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Dibromochloromethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Dichlorodifluoromethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Ethylbenzene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Isopropylbenzene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
m&p-Xylene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Methyl ethyl ketone	ND	33	ug/kg	1	01/19/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	11	ug/kg	1	01/19/24	JLI	SW8260D
Methylacetate	ND	4.4	ug/kg	1	01/19/24	JLI	SW8260D
Methylcyclohexane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Methylene chloride	ND	27	ug/kg	1	01/19/24	JLI	SW8260D
o-Xylene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Styrene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Tetrachloroethene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Toluene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Total Xylenes	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Trichloroethene	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorofluoromethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
Vinyl chloride	ND	5.5	ug/kg	1	01/19/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	120		%	1	01/19/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylnaphthalene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitroaniline	ND	580	ug/Kg	1	01/19/24	MR	SW8270E
2-Nitrophenol	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	440	ug/Kg	1	01/19/24	MR	SW8270E
3-Nitroaniline	ND	580	ug/Kg	1	01/19/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	01/19/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
4-Chloroaniline	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitroaniline	ND	580	ug/Kg	1	01/19/24	MR	SW8270E
4-Nitrophenol	ND	1100	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Acenaphthylene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Acetophenone	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Anthracene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Atrazine	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Benz(a)anthracene	350	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzaldehyde	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(a)pyrene	410	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(b)fluoranthene	460	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(ghi)perylene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzo(k)fluoranthene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Benzyl butyl phthalate	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Caprolactam	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Carbazole	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Chrysene	330	260	ug/Kg	1	01/19/24	MR	SW8270E
Dibenz(a,h)anthracene	ND	180	ug/Kg	1	01/19/24	MR	SW8270E
Dibenzofuran	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Diethyl phthalate	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Dimethylphthalate	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-butylphthalate	ND	730	ug/Kg	1	01/19/24	MR	SW8270E
Di-n-octylphthalate	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Fluoranthene	570	260	ug/Kg	1	01/19/24	MR	SW8270E
Fluorene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobenzene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorobutadiene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Hexachloroethane	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	270	260	ug/Kg	1	01/19/24	MR	SW8270E
Isophorone	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Naphthalene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Nitrobenzene	ND	260	ug/Kg	1	01/19/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	180	ug/Kg	1	01/19/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Pentachlorophenol	ND	360	ug/Kg	1	01/19/24	MR	SW8270E
Phenanthrene	260	260	ug/Kg	1	01/19/24	MR	SW8270E
Phenol	ND	260	ug/Kg	1	01/19/24	MR	SW8270E
Pyrene	580	260	ug/Kg	1	01/19/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	102		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorobiphenyl	69		%	1	01/19/24	MR	30 - 130 %
% 2-Fluorophenol	73		%	1	01/19/24	MR	30 - 130 %
% Nitrobenzene-d5	79		%	1	01/19/24	MR	30 - 130 %
% Phenol-d5	81		%	1	01/19/24	MR	30 - 130 %
% Terphenyl-d14	77		%	1	01/19/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	103		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	86		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	84		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	80		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	70		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	108		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/21/24	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
 American Environmental Solutions, Inc
 42 West Avenue
 Patchogue, NY 11772

Sample Information

Matrix: SOIL
 Location Code: AES-EASTSIDE
 Rush Request: Standard
 P.O.#: 0897

Custody Information

Collected by:
 Received by: CP
 Analyzed by: see "By" below

Date

01/17/24
 01/18/24

Time

11:19
 16:16

Laboratory Data

SDG ID: GCP90643
 Phoenix ID: CP90653

Project ID: EAST SIDE COASTAL RESILIENCY
 Client ID: BH76

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Aluminum	7000	55	mg/Kg	10	01/19/24	TH	SW6010D
Arsenic	8.18	0.73	mg/Kg	1	01/19/24	TH	SW6010D
Barium	137	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Beryllium	0.45	0.29	mg/Kg	1	01/19/24	TH	SW6010D
Calcium	6920	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Cadmium	1.31	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Cobalt	7.77	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Chromium	17.6	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Copper	42.9	0.7	mg/kg	1	01/19/24	TH	SW6010D
Iron	18500	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Mercury	0.07	0.03	mg/Kg	2	01/19/24	ZT	SW7471B
Potassium	2210	55	mg/Kg	10	01/19/24	TH	SW6010D
Magnesium	3720	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Manganese	263	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Sodium	212	5.5	mg/Kg	1	01/19/24	TH	SW6010D
Nickel	18.7	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Lead	273	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Antimony	< 3.6	3.6	mg/Kg	1	01/19/24	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	01/19/24	TH	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Barium	0.39	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	01/19/24	GW	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	01/19/24	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	01/19/24	CPP	SW846 1311/6010D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.3	3.3	mg/Kg	1	01/19/24	TH	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	17.6	0.36	mg/kg	1	01/19/24		CALC 6010-7196
Vanadium	25.3	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	177	0.7	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	87		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr 1
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.41	0.41	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit 1
pH at 25C - Soil	8.08	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D 1
Reactivity Cyanide	< 6	6	mg/Kg	1	01/19/24	GD	SW846 7.3.3.1/90 1
Reactivity Sulfide	< 20	20	mg/Kg	1	01/19/24	GD	SW846 CH7 1
Reactivity	Negative		Pos/Neg	1	01/19/24	GD	SW846-React 1
Redox Potential	403		mV	1	01/18/24	MW	SM2580B-09 1
Total Cyanide (SW9010C Distill.)	< 0.57	0.57	mg/Kg	1	01/22/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/19/24	L/K	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/19/24	J/H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	46	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1
C9-C28	ND	91	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1
Total EPH	ND	46	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3 1

QA/QC Surrogates

% COD (surr)	77		%	5	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	88		%	5	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	12	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	93		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	140	ug/Kg	10	01/22/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	01/22/24	JRB	SW8151A
2,4-D	ND	280	ug/Kg	10	01/22/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2800	ug/Kg	10	01/22/24	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	01/22/24	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	01/22/24	JRB	SW8151A
Dichloroprop	ND	280	ug/Kg	10	01/22/24	JRB	SW8151A
Dinoseb	ND	280	ug/Kg	10	01/22/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	50		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	55		%	10	01/22/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	75	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1221	ND	75	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1232	ND	75	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1242	ND	75	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1248	ND	75	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1254	ND	75	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1260	ND	75	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1262	ND	75	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1268	ND	75	ug/Kg	2	01/19/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	69		%	2	01/19/24	SC	30 - 150 %
% DCBP (Confirmation)	66		%	2	01/19/24	SC	30 - 150 %
% TCMX	58		%	2	01/19/24	SC	30 - 150 %
% TCMX (Confirmation)	61		%	2	01/19/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	ND	2.3	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	13	2.3	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	14	2.3	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	7.5	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	ND	3.8	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	7.5	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	ND	38	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	7.5	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	7.5	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	7.5	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	7.5	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	7.5	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	7.5	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	7.5	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	ND	3.8	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	7.5	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	7.5	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	64		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	57		%	2	01/19/24	AW	30 - 150 %
% TCMX	58		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	61		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	43		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	42		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/23/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/23/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	50		%	10	01/23/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	54		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	55		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	60		%	10	01/23/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	280	mg/Kg	5	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	38		%	5	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	60		%	5	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromoethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloroethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloropropane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
2-Hexanone	ND	47	ug/kg	1	01/19/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	47	ug/kg	1	01/19/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/19/24	JLI	SW8260D
Benzene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Bromochloromethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Bromodichloromethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Bromoform	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Bromomethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Carbon Disulfide	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Carbon tetrachloride	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Chlorobenzene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Chloroethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Chloroform	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Chloromethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Cyclohexane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Dibromochloromethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Dichlorodifluoromethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Ethylbenzene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Isopropylbenzene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
m&p-Xylene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Methyl ethyl ketone	ND	56	ug/kg	1	01/19/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	19	ug/kg	1	01/19/24	JLI	SW8260D
Methylacetate	ND	7.4	ug/kg	1	01/19/24	JLI	SW8260D
Methylcyclohexane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Methylene chloride	ND	47	ug/kg	1	01/19/24	JLI	SW8260D
o-Xylene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Styrene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Tetrachloroethene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Toluene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Total Xylenes	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Trichloroethene	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorofluoromethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
Vinyl chloride	ND	9.3	ug/kg	1	01/19/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	01/19/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Bromofluorobenzene	89		%	1	01/19/24	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	01/19/24	JLI	70 - 130 %
% Toluene-d8	92		%	1	01/19/24	JLI	70 - 130 %

1,4-dioxane

1,4-dioxane	ND	100	ug/kg	1	01/19/24	JLI	SW8260D
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Volatiles

1,2,3-Trichloropropane	ND	9.3	ug/Kg	1	01/19/24	JLI	SW8260D
1,2,4-Trimethylbenzene	ND	9.3	ug/Kg	1	01/19/24	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	9.3	ug/Kg	1	01/19/24	JLI	SW8260D
1,3-Dichloropropane	ND	9.3	ug/Kg	1	01/19/24	JLI	SW8260D
n-Butylbenzene	ND	9.3	ug/Kg	1	01/19/24	JLI	SW8260D
n-Propylbenzene	ND	9.3	ug/Kg	1	01/19/24	JLI	SW8260D
p-Isopropyltoluene	ND	9.3	ug/Kg	1	01/19/24	JLI	SW8260D
sec-Butylbenzene	ND	9.3	ug/Kg	1	01/19/24	JLI	SW8260D
tert-Butylbenzene	ND	9.3	ug/Kg	1	01/19/24	JLI	SW8260D

QA/QC Surrogates

% 1,2-dichlorobenzene-d4	96		%	1	01/19/24	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	01/19/24	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	01/19/24	JLI	70 - 130 %
% Toluene-d8	92		%	1	01/19/24	JLI	70 - 130 %

TCLP Volatiles

1,1-Dichloroethene	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
1,2-Dichloroethane	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Benzene	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Carbon tetrachloride	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Chlorobenzene	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Chloroform	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Methyl ethyl ketone	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Tetrachloroethene	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Trichloroethene	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260
Vinyl chloride	ND	50	ug/L	10	01/19/24	HM	SW846 1311/8260

QA/QC Surrogates

% 1,2-dichlorobenzene-d4 (10x)	104		%	10	01/19/24	HM	70 - 130 %
% Bromofluorobenzene (10x)	95		%	10	01/19/24	HM	70 - 130 %
% Dibromofluoromethane (10x)	100		%	10	01/19/24	HM	70 - 130 %
% Toluene-d8 (10x)	100		%	10	01/19/24	HM	70 - 130 %

Volatile Library Search Completed 01/22/24 JLI

Semivolatiles

1,1-Biphenyl	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2,2'-Oxybis(1-Chloropropane)	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2,3,4,6-tetrachlorophenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2,4-Dichlorophenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-Dimethylphenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2,4-Dinitrophenol	ND	600	ug/Kg	1	01/20/24	MR	SW8270E
2,4-Dinitrotoluene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2,6-Dinitrotoluene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2-Chloronaphthalene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2-Chlorophenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylnaphthalene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitroaniline	ND	600	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitrophenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	01/20/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	450	ug/Kg	1	01/20/24	MR	SW8270E
3-Nitroaniline	ND	600	ug/Kg	1	01/20/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	01/20/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloroaniline	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitroaniline	ND	600	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitrophenol	ND	1100	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthylene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Acetophenone	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Anthracene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Atrazine	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Benz(a)anthracene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzaldehyde	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(a)pyrene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(b)fluoranthene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(ghi)perylene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(k)fluoranthene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzyl butyl phthalate	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Caprolactam	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Carbazole	ND	370	ug/Kg	1	01/20/24	MR	SW8270E
Chrysene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	01/20/24	MR	SW8270E
Dibenzofuran	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Diethyl phthalate	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Dimethylphthalate	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-butylphthalate	ND	750	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-octylphthalate	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Fluoranthene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Fluorene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobenzene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobutadiene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Isophorone	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Naphthalene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Nitrobenzene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodimethylamine	ND	370	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	01/20/24	MR	SW8270E
Pentachlorophenol	ND	370	ug/Kg	1	01/20/24	MR	SW8270E
Phenanthrene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Phenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Pyrene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E

QA/QC Surrogates

% 2,4,6-Tribromophenol	90		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorobiphenyl	72		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorophenol	68		%	1	01/20/24	MR	30 - 130 %
% Nitrobenzene-d5	83		%	1	01/20/24	MR	30 - 130 %
% Phenol-d5	71		%	1	01/20/24	MR	30 - 130 %
% Terphenyl-d14	70		%	1	01/20/24	MR	30 - 130 %

TCLP Acid/Base-Neutral

1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270

QA/QC Surrogates

% 2,4,6-Tribromophenol	91		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	99		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	95		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	95		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	80		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	125		%	1	01/23/24	MR	30 - 130 %

Semivolatile Library Search Completed 01/22/24 MR

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using a gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Hexavalent Chromium:

This sample is neither in a reducing or an oxidizing state.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information

Matrix: SOIL
Location Code: AES-EASTSIDE
Rush Request: Standard
P.O.#: 0897

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

01/17/24
01/18/24

Time

11:54
16:16

Laboratory Data

SDG ID: GCP90643
Phoenix ID: CP90654

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: BH77

Table with 8 columns: Parameter, Result, RL/PQL, Units, Dilution, Date/Time, By, Reference. Lists various elements like Silver, Aluminum, Arsenic, Barium, Beryllium, Calcium, Cadmium, Cobalt, Chromium, Copper, Iron, Mercury, Potassium, Magnesium, Manganese, Sodium, Nickel, Lead, Antimony, Selenium, and TCLP elements with their respective results and RL/PQL values.

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.3	3.3	mg/Kg	1	01/19/24	TH	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	7.57	0.36	mg/kg	1	01/19/24		CALC 6010-7196
Vanadium	12.7	0.36	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	33.6	0.7	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	91		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.39	0.39	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit
pH at 25C - Soil	10.2	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D
Reactivity Cyanide	< 5	5	mg/Kg	1	01/22/24	GD	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	01/22/24	GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	01/22/24	GD	SW846-React
Redox Potential	231		mV	1	01/18/24	MW	SM2580B-09
Total Cyanide (SW9010C Distill.)	< 0.55	0.55	mg/Kg	1	01/22/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/19/24	L/K	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/19/24	J/H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	88	mg/kg	10	01/19/24	JRB	NJEPH 10-08 R3
C9-C28	ND	180	mg/kg	10	01/19/24	JRB	NJEPH 10-08 R3
Total EPH	ND	88	mg/kg	10	01/19/24	JRB	NJEPH 10-08 R3

QA/QC Surrogates

% COD (surr)	54		%	10	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	70		%	10	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	6.5	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	94		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	130	ug/Kg	10	01/22/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	130	ug/Kg	10	01/22/24	JRB	SW8151A
2,4-D	ND	270	ug/Kg	10	01/22/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2700	ug/Kg	10	01/22/24	JRB	SW8151A
Dalapon	ND	130	ug/Kg	10	01/22/24	JRB	SW8151A
Dicamba	ND	130	ug/Kg	10	01/22/24	JRB	SW8151A
Dichloroprop	ND	270	ug/Kg	10	01/22/24	JRB	SW8151A
Dinoseb	ND	270	ug/Kg	10	01/22/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	45		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	52		%	10	01/22/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	71	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1221	ND	71	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1232	ND	71	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1242	ND	71	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1248	ND	71	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1254	ND	71	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1260	ND	71	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1262	ND	71	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1268	ND	71	ug/Kg	2	01/19/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	71		%	2	01/19/24	SC	30 - 150 %
% DCBP (Confirmation)	70		%	2	01/19/24	SC	30 - 150 %
% TCMX	65		%	2	01/19/24	SC	30 - 150 %
% TCMX (Confirmation)	69		%	2	01/19/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	4.9	2.1	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	7.5	2.1	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	3.7	2.1	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	7.1	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	7.7	3.6	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	7.1	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	46	36	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	7.1	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	7.1	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	7.1	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	7.1	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	7.1	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	7.1	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	7.1	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.4	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	7.9	3.6	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	7.1	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	7.1	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	36	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	140	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	70		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	68		%	2	01/19/24	AW	30 - 150 %
% TCMX	73		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	71		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	55		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	57		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/23/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/23/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	49		%	10	01/23/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	54		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	59		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	65		%	10	01/23/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	270	mg/Kg	5	01/20/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	36		%	5	01/20/24	JRB	50 - 150 %
% Terphenyl (surr)	56		%	5	01/20/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromoethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloroethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloropropane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
2-Hexanone	ND	30	ug/kg	1	01/19/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	30	ug/kg	1	01/19/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/19/24	JLI	SW8260D
Benzene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Bromochloromethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Bromodichloromethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Bromoform	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Bromomethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Carbon Disulfide	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Carbon tetrachloride	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Chlorobenzene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Chloroethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Chloroform	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Chloromethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Cyclohexane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Dibromochloromethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Dichlorodifluoromethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Ethylbenzene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Isopropylbenzene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
m&p-Xylene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Methyl ethyl ketone	ND	36	ug/kg	1	01/19/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	12	ug/kg	1	01/19/24	JLI	SW8260D
Methylacetate	ND	4.8	ug/kg	1	01/19/24	JLI	SW8260D
Methylcyclohexane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Methylene chloride	ND	30	ug/kg	1	01/19/24	JLI	SW8260D
o-Xylene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Styrene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Tetrachloroethene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Toluene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Total Xylenes	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Trichloroethene	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorofluoromethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
Vinyl chloride	ND	6.0	ug/kg	1	01/19/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	01/19/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylnaphthalene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitroaniline	ND	580	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitrophenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	440	ug/Kg	1	01/20/24	MR	SW8270E
3-Nitroaniline	ND	580	ug/Kg	1	01/20/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	01/20/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloroaniline	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitroaniline	ND	580	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitrophenol	ND	1100	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthylene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Acetophenone	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Anthracene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Atrazine	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Benz(a)anthracene	300	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzaldehyde	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(a)pyrene	360	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(b)fluoranthene	430	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(ghi)perylene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(k)fluoranthene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Benzyl butyl phthalate	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Caprolactam	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Carbazole	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Chrysene	320	260	ug/Kg	1	01/20/24	MR	SW8270E
Dibenz(a,h)anthracene	ND	180	ug/Kg	1	01/20/24	MR	SW8270E
Dibenzofuran	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Diethyl phthalate	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Dimethylphthalate	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-butylphthalate	ND	730	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-octylphthalate	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Fluoranthene	620	260	ug/Kg	1	01/20/24	MR	SW8270E
Fluorene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobenzene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobutadiene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Hexachloroethane	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	270	260	ug/Kg	1	01/20/24	MR	SW8270E
Isophorone	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Naphthalene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Nitrobenzene	ND	260	ug/Kg	1	01/20/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	180	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Pentachlorophenol	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Phenanthrene	300	260	ug/Kg	1	01/20/24	MR	SW8270E
Phenol	ND	260	ug/Kg	1	01/20/24	MR	SW8270E
Pyrene	600	260	ug/Kg	1	01/20/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	91		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorophenol	73		%	1	01/20/24	MR	30 - 130 %
% Nitrobenzene-d5	80		%	1	01/20/24	MR	30 - 130 %
% Phenol-d5	81		%	1	01/20/24	MR	30 - 130 %
% Terphenyl-d14	81		%	1	01/20/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	104		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	89		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	87		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	87		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	74		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	103		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/21/24	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using a gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information

Matrix: SOIL
Location Code: AES-EASTSIDE
Rush Request: Standard
P.O.#: 0897

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

01/17/24
01/18/24

Time

12:06
16:16

Laboratory Data

SDG ID: GCP90643
Phoenix ID: CP90655

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: BH78

Table with 8 columns: Parameter, Result, RL/PQL, Units, Dilution, Date/Time, By, Reference. Lists various elements like Silver, Aluminum, Arsenic, Barium, Beryllium, Calcium, Cadmium, Cobalt, Chromium, Copper, Iron, Mercury, Potassium, Magnesium, Manganese, Sodium, Nickel, Lead, Antimony, Selenium, and TCLP elements with their respective results and RL/PQL values.

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.4	3.4	mg/Kg	1	01/19/24	TH	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	9.15	0.38	mg/kg	1	01/19/24		CALC 6010-7196
Vanadium	15.4	0.38	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	65.5	0.8	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	83		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.43	0.43	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit
pH at 25C - Soil	8.49	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D
Reactivity Cyanide	< 6	6	mg/Kg	1	01/22/24	GD	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	01/22/24	GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	01/22/24	GD	SW846-React
Redox Potential	4.1		mV	1	01/18/24	MW	SM2580B-09
Total Cyanide (SW9010C Distill.)	< 0.60	0.60	mg/Kg	1	01/22/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/19/24	L/K	SW3546
NJ EPH Extraction	Completed				01/18/24	C/U	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/19/24	J/H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	47	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
C9-C28	ND	94	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3
Total EPH	ND	47	mg/kg	5	01/19/24	JRB	NJEPH 10-08 R3

QA/QC Surrogates

% COD (surr)	61		%	5	01/19/24	JRB	40 - 140 %
% Terphenyl (surr)	85		%	5	01/19/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	7.0	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	94		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	150	ug/Kg	10	01/22/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	150	ug/Kg	10	01/22/24	JRB	SW8151A
2,4-D	ND	300	ug/Kg	10	01/22/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	3000	ug/Kg	10	01/22/24	JRB	SW8151A
Dalapon	ND	150	ug/Kg	10	01/22/24	JRB	SW8151A
Dicamba	ND	150	ug/Kg	10	01/22/24	JRB	SW8151A
Dichloroprop	ND	300	ug/Kg	10	01/22/24	JRB	SW8151A
Dinoseb	ND	300	ug/Kg	10	01/22/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	44		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	51		%	10	01/22/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1221	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1232	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1242	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1248	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1254	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1260	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1262	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1268	ND	79	ug/Kg	2	01/19/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	71		%	2	01/19/24	SC	30 - 150 %
% DCBP (Confirmation)	74		%	2	01/19/24	SC	30 - 150 %
% TCMX	65		%	2	01/19/24	SC	30 - 150 %
% TCMX (Confirmation)	73		%	2	01/19/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	79	2.4	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	72	2.4	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	15	2.4	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	ND	4.0	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	4.0	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	ND	40	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	10	4.0	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	ND	4.0	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	7.9	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	40	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	160	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	81		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	63		%	2	01/19/24	AW	30 - 150 %
% TCMX	67		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	66		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	48		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	48		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/23/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/23/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	44		%	10	01/23/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	48		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	56		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	61		%	10	01/23/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	60	mg/Kg	1	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	75		%	1	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	74		%	1	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromoethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloroethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloropropane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
2-Hexanone	ND	26	ug/kg	1	01/19/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	26	ug/kg	1	01/19/24	JLI	SW8260D
Acetone	64	S 50	ug/kg	1	01/19/24	JLI	SW8260D
Benzene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Bromochloromethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Bromodichloromethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Bromoform	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Bromomethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Carbon Disulfide	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Carbon tetrachloride	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Chlorobenzene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Chloroethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Chloroform	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Chloromethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Cyclohexane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Dibromochloromethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Dichlorodifluoromethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Ethylbenzene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Isopropylbenzene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
m&p-Xylene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Methyl ethyl ketone	ND	31	ug/kg	1	01/19/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	10	ug/kg	1	01/19/24	JLI	SW8260D
Methylacetate	ND	4.1	ug/kg	1	01/19/24	JLI	SW8260D
Methylcyclohexane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Methylene chloride	ND	26	ug/kg	1	01/19/24	JLI	SW8260D
o-Xylene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Styrene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Tetrachloroethene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Toluene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Total Xylenes	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Trichloroethene	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorofluoromethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
Vinyl chloride	ND	5.1	ug/kg	1	01/19/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	93		%	1	01/19/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylnaphthalene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitroaniline	ND	640	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitrophenol	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	01/20/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	480	ug/Kg	1	01/20/24	MR	SW8270E
3-Nitroaniline	ND	640	ug/Kg	1	01/20/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1200	ug/Kg	1	01/20/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloroaniline	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitroaniline	ND	640	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitrophenol	ND	1200	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthylene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Acetophenone	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Anthracene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Atrazine	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Benz(a)anthracene	320	280	ug/Kg	1	01/20/24	MR	SW8270E
Benzaldehyde	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(a)pyrene	340	280	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(b)fluoranthene	370	280	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(ghi)perylene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(k)fluoranthene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Benzyl butyl phthalate	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Caprolactam	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Carbazole	ND	400	ug/Kg	1	01/20/24	MR	SW8270E
Chrysene	310	280	ug/Kg	1	01/20/24	MR	SW8270E
Dibenz(a,h)anthracene	ND	200	ug/Kg	1	01/20/24	MR	SW8270E
Dibenzofuran	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Diethyl phthalate	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Dimethylphthalate	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-butylphthalate	ND	800	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-octylphthalate	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Fluoranthene	600	280	ug/Kg	1	01/20/24	MR	SW8270E
Fluorene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobenzene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobutadiene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Hexachloroethane	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Isophorone	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Naphthalene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Nitrobenzene	ND	280	ug/Kg	1	01/20/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	400	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	01/20/24	MR	SW8270E
Pentachlorophenol	ND	400	ug/Kg	1	01/20/24	MR	SW8270E
Phenanthrene	360	280	ug/Kg	1	01/20/24	MR	SW8270E
Phenol	ND	280	ug/Kg	1	01/20/24	MR	SW8270E
Pyrene	550	280	ug/Kg	1	01/20/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	84		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorophenol	64		%	1	01/20/24	MR	30 - 130 %
% Nitrobenzene-d5	77		%	1	01/20/24	MR	30 - 130 %
% Phenol-d5	66		%	1	01/20/24	MR	30 - 130 %
% Terphenyl-d14	59		%	1	01/20/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	108		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	96		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	92		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	93		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	76		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	112		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/22/24	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 29, 2024

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information

Matrix: SOIL
Location Code: AES-EASTSIDE
Rush Request: Standard
P.O.#: 0897

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

01/17/24
01/18/24

Time

12:16
16:16

Laboratory Data

SDG ID: GCP90643
Phoenix ID: CP90656

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: BH79

Table with 8 columns: Parameter, Result, RL/PQL, Units, Dilution, Date/Time, By, Reference. Lists various elements like Silver, Aluminum, Arsenic, Barium, Beryllium, Calcium, Cadmium, Cobalt, Chromium, Copper, Iron, Mercury, Potassium, Magnesium, Manganese, Sodium, Nickel, Lead, Antimony, Selenium, and TCLP elements with their respective results and RL/PQL values.

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Thallium	< 3.3	3.3	mg/Kg	1	01/19/24	TH	SW6010D
TCLP Metals Digestion	Completed				01/19/24	AL/AL	SW3010A
Trivalent Chromium	16.9	0.37	mg/kg	1	01/19/24		CALC 6010-7196
Vanadium	27.1	0.37	mg/Kg	1	01/19/24	TH	SW6010D
Zinc	105	0.7	mg/Kg	1	01/19/24	TH	SW6010D
Percent Solid	90		%		01/18/24	AC1	SW846-%Solid
Corrosivity	Negative		Pos/Neg	1	01/18/24	MW	SW846-Corr
Flash Point	>200	200	Degree F	1	01/23/24	G	SW1010B
Chromium, Hex. (SW3060A digestion)	< 0.37	0.37	mg/Kg	1	01/19/24	NP	SW7196A
Ignitability	Passed	140	degree F	1	01/23/24	G	SW846-Ignit
pH at 25C - Soil	9.06	1.00	pH Units	1	01/18/24 21:52	MW	SW846 9045D
Reactivity Cyanide	< 5	5	mg/Kg	1	01/22/24	GD	SW846 7.3.3.1/90
Reactivity Sulfide	< 20	20	mg/Kg	1	01/22/24	GD	SW846 CH7
Reactivity	Negative		Pos/Neg	1	01/22/24	GD	SW846-React
Redox Potential	112		mV	1	01/18/24	MW	SM2580B-09
Total Cyanide (SW9010C Distill.)	< 0.56	0.56	mg/Kg	1	01/22/24	CL/GD	SW9012B
Mercury Digestion	Completed				01/19/24	AC1/AC1	SW7471B
Extraction of NY ETPH	Completed				01/18/24	H/JDW	SW3546
Soil Extraction for Herbicide	Completed				01/19/24	L/K	SW3546
NJ EPH Extraction	Completed				01/19/24	C/JDW	NJDEP 10-08 R3
Soil Extraction for PCB	Completed				01/18/24	C/JDW	SW3546
Soil Extraction for Pesticides	Completed				01/18/24	C	SW3546
Soil Extraction for SVOA	Completed				01/19/24	J/H/A	SW3546
TCLP Digestion Mercury	Completed				01/19/24	AL/AL	SW7470A
TCLP Herbicides Extraction	Completed				01/19/24	CV/K	SW8150 MOD
TCLP Extraction for Metals	Completed				01/18/24	AL	SW1311
TCLP Extraction for Organics	Completed				01/18/24	AL	SW1311
TCLP Pesticides Extraction	Completed				01/19/24	S/S	SW3510C
TCLP Semi-Volatile Extraction	Completed				01/22/24	S/S	SW3510C
TCLP Extraction Volatiles	Completed				01/18/24	CV	SW1311
Total Metals Digest	Completed				01/18/24	L/AG	SW3050B

NJ EPH Category 1 (Fuel #2/Diesel)

>C28-C40	ND	43	mg/kg	5	01/22/24	JRB	NJEPH 10-08 R3
C9-C28	ND	87	mg/kg	5	01/22/24	JRB	NJEPH 10-08 R3
Total EPH	ND	43	mg/kg	5	01/22/24	JRB	NJEPH 10-08 R3

QA/QC Surrogates

% COD (surr)	58		%	5	01/22/24	JRB	40 - 140 %
% Terphenyl (surr)	74		%	5	01/22/24	JRB	40 - 140 %

Gasoline Range Hydrocarbons (C6-C10)

GRO (C6-C10)	ND	6.4	mg/Kg	50	01/19/24	V	SW8015D GRO
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QA/QC Surrogates

% 2,5-Dibromotoluene (FID)	91		%	50	01/19/24	V	70 - 130 %
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Chlorinated Herbicides

2,4,5-T	ND	140	ug/Kg	10	01/22/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	01/22/24	JRB	SW8151A
2,4-D	ND	270	ug/Kg	10	01/22/24	JRB	SW8151A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2700	ug/Kg	10	01/22/24	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	01/22/24	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	01/22/24	JRB	SW8151A
Dichloroprop	ND	270	ug/Kg	10	01/22/24	JRB	SW8151A
Dinoseb	ND	270	ug/Kg	10	01/22/24	JRB	SW8151A
<u>QA/QC Surrogates</u>							
% DCAA	44		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	50		%	10	01/22/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>							
PCB-1016	ND	73	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1221	ND	73	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1232	ND	73	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1242	ND	73	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1248	ND	73	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1254	ND	73	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1260	ND	73	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1262	ND	73	ug/Kg	2	01/19/24	SC	SW8082A
PCB-1268	ND	73	ug/Kg	2	01/19/24	SC	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	73		%	2	01/19/24	SC	30 - 150 %
% DCBP (Confirmation)	68		%	2	01/19/24	SC	30 - 150 %
% TCMX	68		%	2	01/19/24	SC	30 - 150 %
% TCMX (Confirmation)	71		%	2	01/19/24	SC	30 - 150 %
<u>Pesticides - Soil</u>							
4,4' -DDD	ND	2.2	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDE	6.1	2.2	ug/Kg	2	01/19/24	AW	SW8081B
4,4' -DDT	8.9	2.2	ug/Kg	2	01/19/24	AW	SW8081B
a-BHC	ND	7.3	ug/Kg	2	01/19/24	AW	SW8081B
a-Chlordane	ND	3.7	ug/Kg	2	01/19/24	AW	SW8081B
Aldrin	ND	3.7	ug/Kg	2	01/19/24	AW	SW8081B
b-BHC	ND	7.3	ug/Kg	2	01/19/24	AW	SW8081B
Chlordane	ND	37	ug/Kg	2	01/19/24	AW	SW8081B
d-BHC	ND	7.3	ug/Kg	2	01/19/24	AW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan I	ND	7.3	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan II	ND	7.3	ug/Kg	2	01/19/24	AW	SW8081B
Endosulfan sulfate	ND	7.3	ug/Kg	2	01/19/24	AW	SW8081B
Endrin	ND	7.3	ug/Kg	2	01/19/24	AW	SW8081B
Endrin aldehyde	ND	7.3	ug/Kg	2	01/19/24	AW	SW8081B
Endrin ketone	ND	7.3	ug/Kg	2	01/19/24	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	01/19/24	AW	SW8081B
g-Chlordane	ND	3.7	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor	ND	7.3	ug/Kg	2	01/19/24	AW	SW8081B
Heptachlor epoxide	ND	7.3	ug/Kg	2	01/19/24	AW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	01/19/24	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	01/19/24	AW	SW8081B
<u>QA/QC Surrogates</u>							
% DCBP	66		%	2	01/19/24	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% DCBP (Confirmation)	61		%	2	01/19/24	AW	30 - 150 %
% TCMX	65		%	2	01/19/24	AW	30 - 150 %
% TCMX (Confirmation)	66		%	2	01/19/24	AW	30 - 150 %
<u>TCLP Herbicides</u>							
2,4,5-TP (Silvex)	ND	50	ug/L	10	01/22/24	JRB	SW846 1311/8151
2,4-D	ND	100	ug/L	10	01/22/24	JRB	SW846 1311/8151
<u>QA/QC Surrogates</u>							
% DCAA	43		%	10	01/22/24	JRB	30 - 150 %
% DCAA (Confirmation)	43		%	10	01/22/24	JRB	30 - 150 %
<u>TCLP Pesticides</u>							
4,4' -DDD	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDE	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
4,4' -DDT	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
a-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Alachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Aldrin	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
b-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Chlordane	ND	5.0	ug/L	10	01/23/24	CN	SW8081B
d-BHC	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Dieldrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan I	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Endosulfan II	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endosulfan Sulfate	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
Endrin Aldehyde	ND	1.0	ug/L	10	01/23/24	CN	SW8081B
g-BHC (Lindane)	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Heptachlor epoxide	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Methoxychlor	ND	0.50	ug/L	10	01/23/24	CN	SW8081B
Toxaphene	ND	20	ug/L	10	01/23/24	CN	SW8081B
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	36		%	10	01/23/24	CN	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	39		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec)	58		%	10	01/23/24	CN	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	65		%	10	01/23/24	CN	30 - 150 %
<u>TPH DRO (C10-C28)</u>							
Diesel Range Organics (C10-C28)	ND	55	mg/Kg	1	01/19/24	JRB	SW-846 8015
<u>QA/QC Surrogates</u>							
% COD (surr)	77		%	1	01/19/24	JRB	50 - 150 %
% Terphenyl (surr)	81		%	1	01/19/24	JRB	50 - 150 %
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,1-Dichloroethene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dibromoethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloroethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,2-Dichloropropane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
2-Hexanone	ND	28	ug/kg	1	01/19/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	28	ug/kg	1	01/19/24	JLI	SW8260D
Acetone	ND	50	ug/kg	1	01/19/24	JLI	SW8260D
Benzene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Bromochloromethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Bromodichloromethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Bromoform	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Bromomethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Carbon Disulfide	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Carbon tetrachloride	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Chlorobenzene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Chloroethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Chloroform	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Chloromethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Cyclohexane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Dibromochloromethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Dichlorodifluoromethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Ethylbenzene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Isopropylbenzene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
m&p-Xylene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Methyl ethyl ketone	ND	34	ug/kg	1	01/19/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	11	ug/kg	1	01/19/24	JLI	SW8260D
Methylacetate	ND	4.5	ug/kg	1	01/19/24	JLI	SW8260D
Methylcyclohexane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Methylene chloride	ND	28	ug/kg	1	01/19/24	JLI	SW8260D
o-Xylene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Styrene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Tetrachloroethene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Toluene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Total Xylenes	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Trichloroethene	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorofluoromethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
Vinyl chloride	ND	5.6	ug/kg	1	01/19/24	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	01/19/24	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorophenol	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylnaphthalene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitroaniline	ND	580	ug/Kg	1	01/20/24	MR	SW8270E
2-Nitrophenol	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	440	ug/Kg	1	01/20/24	MR	SW8270E
3-Nitroaniline	ND	580	ug/Kg	1	01/20/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	01/20/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
4-Chloroaniline	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitroaniline	ND	580	ug/Kg	1	01/20/24	MR	SW8270E
4-Nitrophenol	ND	1100	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Acenaphthylene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Acetophenone	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Anthracene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Atrazine	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Benz(a)anthracene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzaldehyde	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(a)pyrene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(b)fluoranthene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(ghi)perylene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzo(k)fluoranthene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Benzyl butyl phthalate	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Caprolactam	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Carbazole	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Chrysene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Dibenz(a,h)anthracene	ND	180	ug/Kg	1	01/20/24	MR	SW8270E
Dibenzofuran	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Diethyl phthalate	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Dimethylphthalate	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-butylphthalate	ND	730	ug/Kg	1	01/20/24	MR	SW8270E
Di-n-octylphthalate	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Fluoranthene	310	250	ug/Kg	1	01/20/24	MR	SW8270E
Fluorene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobenzene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorobutadiene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Hexachloroethane	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Isophorone	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Naphthalene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Nitrobenzene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodimethylamine	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	180	ug/Kg	1	01/20/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Pentachlorophenol	ND	360	ug/Kg	1	01/20/24	MR	SW8270E
Phenanthrene	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Phenol	ND	250	ug/Kg	1	01/20/24	MR	SW8270E
Pyrene	310	250	ug/Kg	1	01/20/24	MR	SW8270E
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	97		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorobiphenyl	76		%	1	01/20/24	MR	30 - 130 %
% 2-Fluorophenol	73		%	1	01/20/24	MR	30 - 130 %
% Nitrobenzene-d5	87		%	1	01/20/24	MR	30 - 130 %
% Phenol-d5	76		%	1	01/20/24	MR	30 - 130 %
% Terphenyl-d14	74		%	1	01/20/24	MR	30 - 130 %
<u>TCLP Acid/Base-Neutral</u>							
1,4-Dichlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	01/23/24	MR	SW-846 1311/8270
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	104		%	1	01/23/24	MR	15 - 110 %
% 2-Fluorobiphenyl	88		%	1	01/23/24	MR	30 - 130 %
% 2-Fluorophenol	89		%	1	01/23/24	MR	15 - 110 %
% Nitrobenzene-d5	86		%	1	01/23/24	MR	30 - 130 %
% Phenol-d5	72		%	1	01/23/24	MR	15 - 110 %
% Terphenyl-d14	109		%	1	01/23/24	MR	30 - 130 %
Semivolatile Library Search	Completed				01/22/24	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

January 29, 2024

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102



QA/QC Report

January 29, 2024

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 714706 (mg/kg), QC Sample No: CP87143 40X (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)

Chromium, Hexavalent - Soil

Chromium, Hexavalent	BRL	0.40	<0.41	<0.37	NC	95.8						85 - 115	30
Chromium, Hexavalent (Ins)						95.1			95.7			85 - 115	30
Chromium, Hexavalent (Sol)						90.6			<10			85 - 115	30 m

Comment:

The QC sample is in a reducing state, acceptance criteria are not applicable for samples in a reducing state. The soluble spike was analyzed twice with similar recoveries.

QA/QC Batch 714700 (mg/kg), QC Sample No: CP80128 2X (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651)

Mercury - Soil	BRL	0.03	0.08	0.10	22.2	98.8	110	10.7	103	118	13.6	70 - 130	30
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Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 714701 (mg/kg), QC Sample No: CP90057 2X (CP90652, CP90653, CP90654, CP90655, CP90656)

Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	102	110	7.5	101	94.5	6.6	70 - 130	30
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Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 714705 (mg/L), QC Sample No: CP90613 (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)

Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	120			106			80 - 120	20
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Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 714645 (mg/kg), QC Sample No: CP80128 (CP90652, CP90653, CP90654, CP90655, CP90656)

ICP Metals - Soil

Aluminum	BRL	5.0	9760	8730	11.1	109	83.6	26.4	NC			75 - 125	35
Antimony	BRL	3.3	<4.2	<3.7	NC	105	103	1.9	85.7			75 - 125	35
Arsenic	BRL	0.67	6.86	8.76	24.3	94.2	89.4	5.2	94.7			75 - 125	35
Barium	BRL	0.33	86.6	92.9	7.00	109	97.8	10.8	111			75 - 125	35
Beryllium	BRL	0.27	0.59	0.65	NC	103	99.5	3.5	101			75 - 125	35
Cadmium	BRL	0.33	1.45	1.56	NC	99.1	97.6	1.5	94.6			75 - 125	35
Calcium	BRL	5.0	3200	2960	7.80	92.6	88.0	5.1	NC			75 - 125	35
Chromium	BRL	0.33	19.8	18.2	8.40	96.4	92.5	4.1	92.2			75 - 125	35
Cobalt	BRL	0.33	7.40	8.33	11.8	98.7	93.8	5.1	94.9			75 - 125	35
Copper	BRL	0.67	33.4	42.0	22.8	104	98.1	5.8	99.3			75 - 125	35
Iron	BRL	5.0	20800	22400	7.40	107	105	1.9	NC			75 - 125	35
Lead	BRL	0.33	118	127	7.30	103	97.9	5.1	101			75 - 125	35
Magnesium	BRL	5.0	2340	2450	4.60	109	85.6	24.0	NC			75 - 125	35
Manganese	BRL	0.33	298	358	18.3	93.9	90.8	3.4	88.2			75 - 125	35
Nickel	BRL	0.33	14.7	17.6	18.0	105	101	3.9	93.9			75 - 125	35
Potassium	BRL	5.0	1120	1220	8.50	99.9	95.1	4.9	>130			75 - 125	35 m
Selenium	BRL	1.3	<1.7	<1.5	NC	94.0	92.2	1.9	80.6			75 - 125	35

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Silver	BRL	0.33	<0.42	<0.37	NC	96.8	90.6	6.6	92.9			75 - 125	35
Sodium	BRL	5.0	115	111	3.50	99.3	93.6	5.9	>130			75 - 125	35 m
Thallium	BRL	3.0	<2.2	<3.3	NC	95.0	90.9	4.4	93.1			75 - 125	35
Vanadium	BRL	0.33	27.2	29.2	7.10	99.3	95.4	4.0	94.0			75 - 125	35
Zinc	BRL	0.67	80.3	87.2	8.20	101	96.5	4.6	99.1			75 - 125	35

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

QA/QC Batch 714618 (mg/kg), QC Sample No: CP90386 (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90650, CP90651)

ICP Metals - Soil

Aluminum	BRL	5.0	4200	4460	6.00	101	87.7	14.1	NC			75 - 125	35
Antimony	BRL	3.3	<3.6	<4.0	NC	105	90.7	14.6	93.5			75 - 125	35
Arsenic	BRL	0.67	8.27	2.68	NC	87.9	95.3	8.1	93.6			75 - 125	35
Barium	BRL	0.33	33.0	20.7	45.8	91.3	83.6	8.8	95.9			75 - 125	35 r
Beryllium	BRL	0.27	<0.29	<0.32	NC	95.3	81.1	16.1	102			75 - 125	35
Cadmium	BRL	0.33	0.67	<0.40	NC	91.0	79.0	14.1	97.0			75 - 125	35
Calcium	BRL	5.0	1030	1290	22.4	92.3	81.3	12.7	NC			75 - 125	35
Chromium	BRL	0.33	248	58.9	123	94.2	81.3	14.7	0			75 - 125	35 m,r
Cobalt	BRL	0.33	10.8	5.92	58.4	93.3	81.0	14.1	96.1			75 - 125	35 r
Copper	BRL	0.67	283	76.8	115	92.8	81.8	12.6	0			75 - 125	35 m,r
Iron	BRL	5.0	18600	11800	44.7	97.2	83.1	15.6	NC			75 - 125	35 r
Lead	BRL	0.33	21.6	6.58	107	92.5	80.1	14.4	96.3			75 - 125	35 r
Magnesium	BRL	5.0	1540	2070	29.4	97.9	88.6	10.0	NC			75 - 125	35
Manganese	BRL	0.33	212	185	13.6	92.3	83.3	10.3	59.7			75 - 125	35 m
Nickel	BRL	0.33	26.8	8.65	102	94.4	82.1	13.9	86.7			75 - 125	35 r
Potassium	BRL	5.0	1210	886	30.9	89.4	77.9	13.7	106			75 - 125	35
Selenium	BRL	1.3	<1.5	<1.6	NC	82.9	87.8	5.7	85.5			75 - 125	35
Silver	BRL	0.33	<0.36	<0.40	NC	89.4	76.4	15.7	100			75 - 125	35
Sodium	BRL	5.0	90.1	89.7	0.40	86.4	78.1	10.1	>130			75 - 125	35 m
Thallium	BRL	3.0	<3.3	<3.6	NC	90.5	78.7	13.9	99.2			75 - 125	35
Vanadium	BRL	0.33	81.0	28.9	94.8	97.5	84.3	14.5	61.7			75 - 125	35 m,r
Zinc	BRL	0.67	159	56.9	94.6	96.5	84.7	13.0	20.5			75 - 125	35 m,r

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

QA/QC Batch 714709 (mg/L), QC Sample No: CP90722 (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)

ICP Metals - TCLP Extraction

Arsenic	BRL	0.05	0.02	<0.05	NC	117	116	0.9	115			80 - 120	20
Barium	BRL	0.01	2.13	2.11	0.90	109	107	1.9	99.6			80 - 120	20
Cadmium	BRL	0.005	0.069	0.068	1.50	109	107	1.9	103			80 - 120	20
Chromium	BRL	0.010	<0.010	<0.010	NC	107	105	1.9	103			80 - 120	20
Lead	BRL	0.010	2.24	2.23	0.40	109	106	2.8	108			80 - 120	20
Selenium	BRL	0.05	0.03	<0.05	NC	125	125	0.0	123			80 - 120	20 l
Silver	BRL	0.010	<0.010	<0.010	NC	115	114	0.9	117			80 - 120	20

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

QA/QC Batch 715487 (mg/kg), QC Sample No: CP93546 (CP90649)

ICP Metals - Soil

Aluminum	BRL	5.0	7000	8930	24.2	95.7	99.1	3.5	NC			75 - 125	35
Antimony	BRL	3.3	<3.9	<3.6	NC	115	117	1.7	89.0			75 - 125	35
Arsenic	BRL	0.67	2.33	2.16	NC	97.3	99.8	2.5	97.4			75 - 125	35

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Barium	BRL	0.33	163	182	11.0	102	101	1.0	102			75 - 125	35
Beryllium	BRL	0.27	0.39	0.47	NC	102	103	1.0	100			75 - 125	35
Cadmium	BRL	0.33	<0.39	<0.36	NC	99.5	101	1.5	96.0			75 - 125	35
Calcium	BRL	5.0	42600	15400	93.8	99.1	102	2.9	NC			75 - 125	35
Chromium	BRL	0.33	20.3	23.0	12.5	103	103	0.0	103			75 - 125	35
Cobalt	BRL	0.33	7.60	9.23	19.4	101	103	2.0	98.7			75 - 125	35
Copper	BRL	0.67	19.8	20.7	4.40	104	105	1.0	107			75 - 125	35
Iron	BRL	5.0	13500	15900	16.3	102	105	2.9	NC			75 - 125	35
Lead	BRL	0.33	86.3	108	22.3	98.7	102	3.3	102			75 - 125	35
Magnesium	BRL	5.0	19000	5100	115	102	106	3.8	NC			75 - 125	35
Manganese	BRL	0.33	275	294	6.70	103	103	0.0	121			75 - 125	35
Nickel	BRL	0.33	16.9	19.2	12.7	101	103	2.0	99.8			75 - 125	35
Potassium	BRL	5.0	2560	4510	55.2	86.2	88.6	2.7	>130			75 - 125	35
Selenium	BRL	1.3	<1.6	<1.4	NC	90.6	91.1	0.6	87.9			75 - 125	35
Silver	BRL	0.33	<0.39	<0.36	NC	99.0	102	3.0	101			75 - 125	35
Sodium	BRL	5.0	314	487	43.2	92.3	94.4	2.2	>130			75 - 125	35
Thallium	BRL	3.0	<1.6	<3.2	NC	100	102	2.0	95.9			75 - 125	35
Vanadium	BRL	0.33	28.5	33.8	17.0	106	108	1.9	104			75 - 125	35
Zinc	BRL	0.67	99.6	134	29.5	100	102	2.0	98.4			75 - 125	35

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

QA/QC Batch 715543 (mg/L), QC Sample No: CP93849 (CP90649)

ICP Metals - TCLP Extraction

Arsenic	BRL	0.50	<0.50	<0.50	NC	110	111	0.9	113			80 - 120	20
Barium	BRL	0.10	1.39	1.44	3.50	101	102	1.0	105			80 - 120	20
Cadmium	BRL	0.050	<0.050	<0.050	NC	101	101	0.0	103			80 - 120	20
Chromium	BRL	0.10	<0.10	<0.10	NC	99.6	100	0.4	102			80 - 120	20
Lead	BRL	0.10	0.15	0.15	NC	102	103	1.0	105			80 - 120	20
Selenium	BRL	0.50	<0.50	<0.50	NC	115	116	0.9	116			80 - 120	20
Silver	BRL	0.10	<0.10	<0.10	NC	106	107	0.9	110			80 - 120	20

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.

m = This parameter is outside laboratory MS/MSD specified recovery limits.

r = This parameter is outside laboratory RPD specified recovery limits.



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QA/QC Report

January 29, 2024

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 714713 (mg/Kg), QC Sample No: CP80128 5X (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652, CP90653)													
Reactivity Cyanide	BRL	5	<6	<5.8	NC	99.6						85 - 115	30
Reactivity Sulfide	BRL	20	<20	<20	NC	94.5						80 - 120	30
QA/QC Batch 714477 (mg/Kg), QC Sample No: CP89327 50X (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.52	<0.52	NC	97.7			106			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 714924 (mg/Kg), QC Sample No: CP90525 5X (CP90654, CP90655, CP90656)													
Reactivity Cyanide	BRL	5	<6	<5.4	NC	101						85 - 115	30
Reactivity Sulfide	BRL	20	<20	<20	NC	90.8						80 - 120	30
QA/QC Batch 714836 (mg/Kg), QC Sample No: CP90651 50X (CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.55	<0.55	NC	110			104			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 714688 (PH), QC Sample No: CP80128 (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649)													
pH			7.96	7.96	0	100						85 - 115	20
QA/QC Batch 715103 (Degree F), QC Sample No: CP90552 (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650)													
Flash Point			>200	>200	NC	101						75 - 125	30
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 714689 (PH), QC Sample No: CP90650 (CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)													
pH			8.19	8.17	0.20	101						85 - 115	20
QA/QC Batch 715102 (Degree F), QC Sample No: CP90651 (CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)													
Flash Point			>200	>200	NC	100						75 - 125	30
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													



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Tel. (860) 645-1102



QA/QC Report

January 29, 2024

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 714646 (mg/kg), QC Sample No: CP90648 (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655)

Extractable Petroleum Hydrocarbons - Soil

C9-C28	ND	10	59	76	25.2	82	64	24.7	40 - 140	25
C9-C28 #2 Fuel / Diesel			137	138	0.7				40 - 140	25
>C28-C40	ND	10	74	78	5.3	82	58	34.3	40 - 140	25 r
C9 - Nonane	ND	3.3	40	60	40.0	50	46	8.3	40 - 140	25 r
C10 - Decane	ND	3.3	46	70	41.4	66	56	16.4	40 - 140	25 r
C12 - Dodecane	ND	3.3	53	81	41.8	76	67	12.6	40 - 140	25 r
C14 - Tetradecane	ND	3.3	55	83	40.6	83	72	14.2	40 - 140	25 r
C16 - Hexadecane	ND	3.3	58	85	37.8	83	71	15.6	40 - 140	25 r
C18 - Octadecane	ND	3.3	75	102	30.5	105	89	16.5	40 - 140	25 r
C20 - Eicosane	ND	3.3	63	73	14.7	92	64	35.9	40 - 140	25 r
C21 - Heneicosane	ND	3.3	58	67	14.4	88	67	27.1	40 - 140	25 r
C22 - Docosane	ND	3.3	74	84	12.7	106	71	39.5	40 - 140	25 r
C24 - Tetracosane	ND	3.3	62	68	9.2	82	56	37.7	40 - 140	25 r
C26 - Hexacosane	ND	3.3	64	71	10.4	83	55	40.6	40 - 140	25 r
C28 - Octacosane	ND	3.3	67	71	5.8	80	52	42.4	40 - 140	25 r
C30 - Tricotane	ND	3.3	67	74	9.9	80	57	33.6	40 - 140	25 r
C32 - Dotriacontane	ND	3.3	69	76	9.7	77	54	35.1	40 - 140	25 r
C34 - Tetratriacontane	ND	3.3	72	70	2.8	82	54	41.2	40 - 140	25 r
C36 - Hexatriacontane	ND	3.3	73	79	7.9	77	51	40.6	40 - 140	25 r
C38 - Octatriacontane	ND	3.3	75	79	5.2	83	69	18.4	40 - 140	25
C40 - Tetracontane	ND	3.3	91	92	1.1	95	68	33.1	40 - 140	25 r
% COD (surr)	72	%	60	71	16.8	83	68	19.9	40 - 140	25
% Terphenyl (surr)	69	%	58	78	29.4	79	69	13.5	40 - 140	25 r

Comment:

Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5%

QA/QC Batch 714827 (mg/kg), QC Sample No: CP90656 (CP90656)

Extractable Petroleum Hydrocarbons - Soil

C9-C28	ND	10	62	80	25.4	70	71	1.4	40 - 140	25
C9-C28 #2 Fuel / Diesel			101	107	5.8				40 - 140	25
>C28-C40	ND	10	62	85	31.3	58	65	11.4	40 - 140	25 r
C9 - Nonane	ND	3.3	49	62	23.4	56	53	5.5	40 - 140	25
C10 - Decane	ND	3.3	58	74	24.2	65	64	1.6	40 - 140	25
C12 - Dodecane	ND	3.3	65	83	24.3	76	76	0.0	40 - 140	25
C14 - Tetradecane	ND	3.3	68	85	22.2	79	77	2.6	40 - 140	25
C16 - Hexadecane	ND	3.3	68	86	23.4	77	79	2.6	40 - 140	25
C18 - Octadecane	ND	3.3	76	100	27.3	91	93	2.2	40 - 140	25 r
C20 - Eicosane	ND	3.3	64	78	19.7	75	80	6.5	40 - 140	25
C21 - Heneicosane	ND	3.3	57	69	19.0	68	68	0.0	40 - 140	25
C22 - Docosane	ND	3.3	66	87	27.5	76	79	3.9	40 - 140	25 r
C24 - Tetracosane	ND	3.3	57	76	28.6	57	59	3.4	40 - 140	25 r

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
	Blank	RL									
C26 - Hexacosane	ND	3.3	59	80	30.2	55	58	5.3	40 - 140	25	r
C28 - Octacosane	ND	3.3	60	82	31.0	57	58	1.7	40 - 140	25	r
C30 - Tricotane	ND	3.3	61	85	32.9	65	67	3.0	40 - 140	25	r
C32 - Dotriacontane	ND	3.3	61	86	34.0	52	57	9.2	40 - 140	25	r
C34 - Tetratriacontane	ND	3.3	62	86	32.4	56	62	10.2	40 - 140	25	r
C36 - Hexatriacontane	ND	3.3	59	83	33.8	62	65	4.7	40 - 140	25	r
C38 - Octatriacontane	ND	3.3	59	79	29.0	58	75	25.6	40 - 140	25	r
C40 - Tetracontane	ND	3.3	71	90	23.6	54	64	16.9	40 - 140	25	
% COD (surr)	52	%	61	78	24.5	68	74	8.5	40 - 140	25	
% Terphenyl (surr)	53	%	64	86	29.3	72	74	2.7	40 - 140	25	r

Comment:

Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5%

QA/QC Batch 714660 (mg/Kg), QC Sample No: CP90653 (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum HC	ND	50	76	79	3.9	73	67	8.6	30 - 130	30	
% COD (surr)	96	%	89	82	8.2	94	88	6.6	50 - 150	30	
% Terphenyl (surr)	92	%	82	77	6.3	80	83	3.7	50 - 150	30	

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 714951 (mg/Kg), QC Sample No: CP90643 50X (CP90643 (50X) , CP90644 (50X) , CP90645 (50X) , CP90646 (50X) , CP90647 (50X) , CP90648 (50X) , CP90649 (50X) , CP90650 (50X) , CP90651 (50X) , CP90652 (50X) , CP90653 (50X) , CP90654 (50X) , CP90655 (50X) , CP90656 (50X))

Gasoline Range Hydrocarbons (C6C10) - Soil

GRO (C6-C10)	ND	5.0	97	98	1.0	96	98	2.1	70 - 130	30	
% 2,5-Dibromotoluene (FID)	96	%	98	99	1.0	97	97	0.0	70 - 130	30	

QA/QC Batch 714739 (ug/L), QC Sample No: CP88488 10X (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)

TCLP Herbicides

2,4,5-TP (Silvex)	ND	50	59	68	14.2	72			40 - 140	20	
2,4-D	ND	100	65	74	12.9	76			40 - 140	20	
% DCAA	42	%	47	51	8.2	53			30 - 150	20	
% DCAA (Confirmation)	42	%	46	51	10.3	52			30 - 150	20	

Comment:

Additional criteria: LCS acceptance range is 40-140% MS acceptance range 30-150%.

QA/QC Batch 714666 (ug/Kg), QC Sample No: CP90555 10X (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652)

Chlorinated Herbicides - Soil

2,4,5-T	ND	130	46	40	14.0	45	44	2.2	40 - 140	30	
2,4,5-TP (Silvex)	ND	130	45	42	6.9	47	46	2.2	40 - 140	30	
2,4-D	ND	250	49	42	15.4	52	51	1.9	40 - 140	30	
2,4-DB	ND	2500	39	31	22.9	40	40	0.0	40 - 140	30	i
Dalapon	ND	130	42	50	17.4	38	38	0.0	40 - 140	30	
Dicamba	ND	130	51	57	11.1	54	52	3.8	40 - 140	30	
Dichloroprop	ND	130	59	55	7.0	63	60	4.9	40 - 140	30	
Dinoseb	ND	130	54	60	10.5	52	53	1.9	40 - 140	30	
% DCAA (Surrogate Rec)	68	%	59	52	12.6	63	63	0.0	30 - 150	30	
% DCAA (Surrogate Rec) (Confirm)	69	%	59	50	16.5	62	63	1.6	30 - 150	30	

Comment:

Additional criteria: LCS acceptance range is 40-140% MS acceptance range 30-150%.

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 714830 (ug/Kg), QC Sample No: CP90655 10X (CP90653, CP90654, CP90655, CP90656)

Chlorinated Herbicides - Soil

2,4,5-T	ND	130	56	62	10.2	52			40 - 140	30
2,4,5-TP (Silvex)	ND	130	48	53	9.9	47			40 - 140	30
2,4-D	ND	250	68	67	1.5	73			40 - 140	30
2,4-DB	ND	2500	49	41	17.8	73			40 - 140	30
Dalapon	ND	130	50	57	13.1	56			40 - 140	30
Dicamba	ND	130	50	64	24.6	65			40 - 140	30
Dichloroprop	ND	130	66	78	16.7	76			40 - 140	30
Dinoseb	ND	130	86	64	29.3	69			40 - 140	30
% DCAA (Surrogate Rec)	64	%	63	69	9.1	61			30 - 150	30
% DCAA (Surrogate Rec) (Confirm)	65	%	71	82	14.4	68			30 - 150	30

Comment:

This batch consists of a Blank, LCS, LCSD and MS.

Additional criteria: LCS acceptance range is 40-140% MS acceptance range 30-150%.

QA/QC Batch 714658 (ug/Kg), QC Sample No: CP90651 2X (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	33	92	98	6.3	88	86	2.3	40 - 140	30
PCB-1221	ND	33							40 - 140	30
PCB-1232	ND	33							40 - 140	30
PCB-1242	ND	33							40 - 140	30
PCB-1248	ND	33							40 - 140	30
PCB-1254	ND	33							40 - 140	30
PCB-1260	ND	33	101	104	2.9	92	90	2.2	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	85	%	100	102	2.0	89	86	3.4	30 - 150	30
% DCBP (Surrogate Rec) (Confirm)	84	%	100	103	3.0	92	87	5.6	30 - 150	30
% TCMX (Surrogate Rec)	74	%	80	87	8.4	79	78	1.3	30 - 150	30
% TCMX (Surrogate Rec) (Confirm)	70	%	77	84	8.7	77	77	0.0	30 - 150	30

QA/QC Batch 714813 (ug/L), QC Sample No: CP90028 10X (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)

Pesticides

4,4' -DDD	ND	0.25	64	64	0.0	63			40 - 140	20
4,4' -DDE	ND	0.25	72	61	16.5	60			40 - 140	20
4,4' -DDT	ND	0.25	66	58	12.9	58			40 - 140	20
a-BHC	ND	0.15	69	59	15.6	56			40 - 140	20
Alachlor	ND	0.50	NA	NA	NC	NA			40 - 140	20
Aldrin	ND	0.15	71	62	13.5	61			40 - 140	20
b-BHC	ND	0.15	81	63	25.0	63			40 - 140	20
Chlordane	ND	5.0	70	64	9.0	62			40 - 140	20
d-BHC	ND	0.50	82	56	37.7	54			40 - 140	20
Dieldrin	ND	0.15	75	66	12.8	71			40 - 140	20
Endosulfan I	ND	0.50	76	70	8.2	68			40 - 140	20
Endosulfan II	ND	0.50	79	67	16.4	66			40 - 140	20
Endosulfan sulfate	ND	0.50	70	68	2.9	66			40 - 140	20
Endrin	ND	0.50	76	61	21.9	63			40 - 140	20
Endrin aldehyde	ND	0.50	70	64	9.0	63			40 - 140	20
g-BHC	ND	0.15	72	69	4.3	67			40 - 140	20
Heptachlor	ND	0.50	75	65	14.3	63			40 - 140	20

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Heptachlor epoxide	ND	0.50	70	68	2.9	67			40 - 140	20
Methoxychlor	ND	0.50	71	67	5.8	60			40 - 140	20
Toxaphene	ND	20	NA	NA	NC	NA			40 - 140	20
% DCBP	54	%	63	60	4.9	50			30 - 150	20
% DCBP (Confirmation)	56	%	60	66	9.5	55			30 - 150	20
% TCMX	52	%	63	54	15.4	57			30 - 150	20
% TCMX (Confirmation)	59	%	67	60	11.0	62			30 - 150	20

QA/QC Batch 714659 (ug/Kg), QC Sample No: CP90651 2X (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)

Pesticides - Soil

4,4' -DDD	ND	1.7	100	97	3.0	109	108	0.9	40 - 140	30
4,4' -DDE	ND	1.7	96	94	2.1	102	107	4.8	40 - 140	30
4,4' -DDT	ND	1.7	92	92	0.0	100	103	3.0	40 - 140	30
a-BHC	ND	1.0	81	77	5.1	73	78	6.6	40 - 140	30
a-Chlordane	ND	3.3	88	90	2.2	92	97	5.3	40 - 140	30
Aldrin	ND	1.0	89	87	2.3	84	88	4.7	40 - 140	30
b-BHC	ND	1.0	95	93	2.1	95	103	8.1	40 - 140	30
Chlordane	ND	33	88	86	2.3	89	93	4.4	40 - 140	30
d-BHC	ND	3.3	58	57	1.7	47	60	24.3	40 - 140	30
Dieldrin	ND	1.0	93	92	1.1	92	96	4.3	40 - 140	30
Endosulfan I	ND	3.3	90	85	5.7	85	87	2.3	40 - 140	30
Endosulfan II	ND	3.3	102	103	1.0	98	104	5.9	40 - 140	30
Endosulfan sulfate	ND	3.3	87	86	1.2	85	88	3.5	40 - 140	30
Endrin	ND	3.3	101	100	1.0	99	103	4.0	40 - 140	30
Endrin aldehyde	ND	3.3	92	93	1.1	80	84	4.9	40 - 140	30
Endrin ketone	ND	3.3	100	100	0.0	97	100	3.0	40 - 140	30
g-BHC	ND	1.0	96	93	3.2	98	101	3.0	40 - 140	30
g-Chlordane	ND	3.3	88	86	2.3	89	93	4.4	40 - 140	30
Heptachlor	ND	3.3	80	78	2.5	76	83	8.8	40 - 140	30
Heptachlor epoxide	ND	3.3	91	89	2.2	89	93	4.4	40 - 140	30
Methoxychlor	ND	3.3	91	89	2.2	93	98	5.2	40 - 140	30
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30
% DCBP	79	%	76	76	0.0	76	80	5.1	30 - 150	30
% DCBP (Confirmation)	71	%	70	67	4.4	70	73	4.2	30 - 150	30
% TCMX	71	%	72	68	5.7	65	68	4.5	30 - 150	30
% TCMX (Confirmation)	72	%	73	68	7.1	64	66	3.1	30 - 150	30

QA/QC Batch 714643 (ug/kg), QC Sample No: CP88367 (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649)

Semivolatiles - Soil

1,1-Biphenyl	ND	230	84	78	7.4	77	79	2.6	40 - 140	30
1,2,4,5-Tetrachlorobenzene	ND	230	84	76	10.0	82	82	0.0	40 - 140	30
2,2'-Oxybis(1-Chloropropane)	ND	230	46	44	4.4	45	45	0.0	40 - 140	30
2,3,4,6-tetrachlorophenol	ND	230	100	88	12.8	83	89	7.0	30 - 130	30
2,4,5-Trichlorophenol	ND	230	96	87	9.8	89	88	1.1	40 - 140	30
2,4,6-Trichlorophenol	ND	130	96	91	5.3	88	88	0.0	30 - 130	30
2,4-Dichlorophenol	ND	130	88	81	8.3	86	85	1.2	30 - 130	30
2,4-Dimethylphenol	ND	230	91	83	9.2	94	94	0.0	30 - 130	30
2,4-Dinitrophenol	ND	230	92	80	14.0	49	57	15.1	30 - 130	30
2,4-Dinitrotoluene	ND	130	90	82	9.3	83	85	2.4	30 - 130	30
2,6-Dinitrotoluene	ND	130	93	87	6.7	89	87	2.3	40 - 140	30
2-Chloronaphthalene	ND	230	84	78	7.4	79	79	0.0	40 - 140	30
2-Chlorophenol	ND	230	80	75	6.5	79	78	1.3	30 - 130	30
2-Methylnaphthalene	ND	230	82	76	7.6	80	81	1.2	40 - 140	30

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blank		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
	Blank	BLK RL									
2-Methylphenol (o-cresol)	ND	230	78	69	12.2	80	78	2.5	40 - 140	30	
2-Nitroaniline	ND	330	85	88	3.5	95	94	1.1	40 - 140	30	
2-Nitrophenol	ND	230	87	82	5.9	82	82	0.0	40 - 140	30	
3&4-Methylphenol (m&p-cresol)	ND	230	79	70	12.1	79	78	1.3	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	45	94	70.5	106	55	63.4	40 - 140	30	r
3-Nitroaniline	ND	330	46	72	44.1	82	60	31.0	40 - 140	30	r
4,6-Dinitro-2-methylphenol	ND	230	95	90	5.4	67	72	7.2	30 - 130	30	
4-Bromophenyl phenyl ether	ND	230	94	87	7.7	85	83	2.4	40 - 140	30	
4-Chloro-3-methylphenol	ND	230	89	80	10.7	88	88	0.0	30 - 130	30	
4-Chloroaniline	ND	230	28	38	30.3	50	36	32.6	40 - 140	30	l,m,r
4-Chlorophenyl phenyl ether	ND	230	88	81	8.3	84	83	1.2	40 - 140	30	
4-Nitroaniline	ND	230	83	77	7.5	77	78	1.3	40 - 140	30	
4-Nitrophenol	ND	230	89	78	13.2	80	85	6.1	30 - 130	30	
Acenaphthene	ND	230	84	78	7.4	80	80	0.0	30 - 130	30	
Acenaphthylene	ND	130	74	71	4.1	76	74	2.7	40 - 140	30	
Acetophenone	ND	230	72	66	8.7	69	69	0.0	40 - 140	30	
Anthracene	ND	230	90	85	5.7	87	86	1.2	40 - 140	30	
Atrazine	ND	130	68	79	15.0	82	71	14.4	40 - 140	30	
Benz(a)anthracene	ND	230	90	86	4.5	85	83	2.4	40 - 140	30	
Benzaldehyde	ND	230	87	80	8.4	88	77	13.3	40 - 140	30	
Benzo(a)pyrene	ND	130	100	91	9.4	87	86	1.2	40 - 140	30	
Benzo(b)fluoranthene	ND	160	94	83	12.4	81	85	4.8	40 - 140	30	
Benzo(ghi)perylene	ND	230	108	89	19.3	83	80	3.7	40 - 140	30	
Benzo(k)fluoranthene	ND	230	100	87	13.9	84	86	2.4	40 - 140	30	
Benzyl butyl phthalate	ND	230	84	81	3.6	77	75	2.6	40 - 140	30	
Bis(2-chloroethoxy)methane	ND	230	72	69	4.3	68	70	2.9	40 - 140	30	
Bis(2-chloroethyl)ether	ND	130	81	79	2.5	76	79	3.9	40 - 140	30	
Bis(2-ethylhexyl)phthalate	ND	230	83	79	4.9	75	74	1.3	40 - 140	30	
Caprolactam	ND	230	86	78	9.8	82	83	1.2	40 - 140	30	
Carbazole	ND	230	85	79	7.3	84	83	1.2	40 - 140	30	
Chrysene	ND	230	90	85	5.7	79	81	2.5	40 - 140	30	
Dibenz(a,h)anthracene	ND	130	102	85	18.2	84	82	2.4	40 - 140	30	
Dibenzofuran	ND	230	83	78	6.2	80	79	1.3	40 - 140	30	
Diethyl phthalate	ND	230	92	83	10.3	85	83	2.4	40 - 140	30	
Dimethylphthalate	ND	230	88	83	5.8	82	80	2.5	40 - 140	30	
Di-n-butylphthalate	ND	670	95	88	7.7	89	90	1.1	40 - 140	30	
Di-n-octylphthalate	ND	230	91	84	8.0	74	74	0.0	40 - 140	30	
Fluoranthene	ND	230	94	86	8.9	89	91	2.2	40 - 140	30	
Fluorene	ND	230	91	83	9.2	86	87	1.2	40 - 140	30	
Hexachlorobenzene	ND	130	93	84	10.2	82	86	4.8	40 - 140	30	
Hexachlorobutadiene	ND	230	78	76	2.6	74	76	2.7	40 - 140	30	
Hexachlorocyclopentadiene	ND	230	66	60	9.5	43	42	2.4	40 - 140	30	
Hexachloroethane	ND	130	70	66	5.9	65	65	0.0	40 - 140	30	
Indeno(1,2,3-cd)pyrene	ND	230	113	93	19.4	89	87	2.3	40 - 140	30	
Isophorone	ND	130	67	62	7.8	63	63	0.0	40 - 140	30	
Naphthalene	ND	230	77	72	6.7	72	74	2.7	40 - 140	30	
Nitrobenzene	ND	130	69	62	10.7	66	65	1.5	40 - 140	30	
N-Nitrosodimethylamine	ND	230	56	52	7.4	36	34	5.7	40 - 140	30	m
N-Nitrosodi-n-propylamine	ND	130	70	65	7.4	66	67	1.5	40 - 140	30	
N-Nitrosodiphenylamine	ND	130	74	79	6.5	81	80	1.2	40 - 140	30	
Pentachlorophenol	ND	230	90	81	10.5	68	82	18.7	30 - 130	30	
Phenanthrene	ND	130	92	84	9.1	83	84	1.2	40 - 140	30	
Phenol	ND	230	82	76	7.6	77	82	6.3	30 - 130	30	

QA/QC Data

SDG I.D.: GCP90643

Parameter	BIK		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Pyrene	ND	230	89	84	5.8	87	90	3.4	30 - 130	30
% 2,4,6-Tribromophenol	89	%	91	84	8.0	82	82	0.0	30 - 130	30
% 2-Fluorobiphenyl	80	%	85	78	8.6	76	79	3.9	30 - 130	30
% 2-Fluorophenol	77	%	76	69	9.7	68	68	0.0	30 - 130	30
% Nitrobenzene-d5	71	%	72	64	11.8	69	69	0.0	30 - 130	30
% Phenol-d5	76	%	82	72	13.0	77	78	1.3	30 - 130	30
% Terphenyl-d14	84	%	84	77	8.7	77	80	3.8	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 714974 (ug/L), QC Sample No: CP90643 (CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)

Semivolatiles - TCLP

1,4-Dichlorobenzene	ND	17	59	67	12.7	68			40 - 140	20
2,4,5-Trichlorophenol	ND	17	99	107	7.8	93			40 - 140	20
2,4,6-Trichlorophenol	ND	17	102	103	1.0	102			30 - 130	20
2,4-Dinitrotoluene	ND	58	102	102	0.0	103			30 - 130	20
2-Methylphenol (o-cresol)	ND	17	99	102	3.0	100			40 - 140	20
3&4-Methylphenol (m&p-cresol)	ND	17	84	85	1.2	83			30 - 130	20
Hexachlorobenzene	ND	58	90	96	6.5	99			40 - 140	20
Hexachlorobutadiene	ND	58	68	73	7.1	73			40 - 140	20
Hexachloroethane	ND	58	61	67	9.4	70			40 - 140	20
Nitrobenzene	ND	58	97	97	0.0	99			40 - 140	20
Pentachlorophenol	ND	58	118	113	4.3	114			30 - 130	20
Pyridine	ND	83	76	65	15.6	82			40 - 140	20
% 2,4,6-Tribromophenol	93	%	101	103	2.0	108			15 - 110	20
% 2-Fluorobiphenyl	85	%	89	95	6.5	95			30 - 130	20
% 2-Fluorophenol	83	%	81	87	7.1	86			15 - 110	20
% Nitrobenzene-d5	83	%	95	96	1.0	96			30 - 130	20
% Phenol-d5	70	%	75	77	2.6	78			15 - 110	20
% Terphenyl-d14	100	%	93	97	4.2	103			30 - 130	20

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 714824 (ug/kg), QC Sample No: CP90652 (CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656)

Semivolatiles - Soil

1,1-Biphenyl	ND	230	66	69	4.4	61	65	6.3	40 - 140	30
1,2,4,5-Tetrachlorobenzene	ND	230	61	64	4.8	59	60	1.7	40 - 140	30
2,2'-Oxybis(1-Chloropropane)	ND	230	64	67	4.6	64	69	7.5	40 - 140	30
2,3,4,6-tetrachlorophenol	ND	230	75	79	5.2	83	74	11.5	30 - 130	30
2,4,5-Trichlorophenol	ND	230	70	76	8.2	73	72	1.4	40 - 140	30
2,4,6-Trichlorophenol	ND	130	71	77	8.1	70	73	4.2	30 - 130	30
2,4-Dichlorophenol	ND	130	70	73	4.2	69	73	5.6	30 - 130	30
2,4-Dimethylphenol	ND	230	82	85	3.6	79	86	8.5	30 - 130	30
2,4-Dinitrophenol	ND	230	50	49	2.0	94	81	14.9	30 - 130	30
2,4-Dinitrotoluene	ND	130	80	87	8.4	90	83	8.1	30 - 130	30
2,6-Dinitrotoluene	ND	130	76	81	6.4	79	78	1.3	40 - 140	30
2-Chloronaphthalene	ND	230	66	69	4.4	62	66	6.3	40 - 140	30
2-Chlorophenol	ND	230	73	76	4.0	72	80	10.5	30 - 130	30
2-Methylnaphthalene	ND	230	67	71	5.8	67	69	2.9	40 - 140	30
2-Methylphenol (o-cresol)	ND	230	78	80	2.5	77	85	9.9	40 - 140	30
2-Nitroaniline	ND	330	137	144	5.0	169	139	19.5	40 - 140	30

l,m

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
	Blank	RL									
2-Nitrophenol	ND	230	71	74	4.1	68	73	7.1	40 - 140	30	
3&4-Methylphenol (m&p-cresol)	ND	230	82	86	4.8	81	89	9.4	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	82	87	5.9	69	74	7.0	40 - 140	30	
3-Nitroaniline	ND	330	87	92	5.6	96	90	6.5	40 - 140	30	
4,6-Dinitro-2-methylphenol	ND	230	78	77	1.3	113	95	17.3	30 - 130	30	
4-Bromophenyl phenyl ether	ND	230	67	73	8.6	59	64	8.1	40 - 140	30	
4-Chloro-3-methylphenol	ND	230	81	85	4.8	84	82	2.4	30 - 130	30	
4-Chloroaniline	ND	230	89	90	1.1	87	89	2.3	40 - 140	30	
4-Chlorophenyl phenyl ether	ND	230	70	75	6.9	72	71	1.4	40 - 140	30	
4-Nitroaniline	ND	230	88	92	4.4	89	88	1.1	40 - 140	30	
4-Nitrophenol	ND	230	106	109	2.8	134	110	19.7	30 - 130	30	m
Acenaphthene	ND	230	68	73	7.1	67	69	2.9	30 - 130	30	
Acenaphthylene	ND	130	64	67	4.6	64	65	1.6	40 - 140	30	
Acetophenone	ND	230	71	75	5.5	71	78	9.4	40 - 140	30	
Anthracene	ND	230	72	79	9.3	73	72	1.4	40 - 140	30	
Atrazine	ND	130	79	85	7.3	79	80	1.3	40 - 140	30	
Benz(a)anthracene	ND	230	73	79	7.9	64	64	0.0	40 - 140	30	
Benzaldehyde	ND	230	35	35	0.0	32	51	45.8	40 - 140	30	l,m,r
Benzo(a)pyrene	ND	130	78	85	8.6	67	67	0.0	40 - 140	30	
Benzo(b)fluoranthene	ND	160	71	77	8.1	62	61	1.6	40 - 140	30	
Benzo(ghi)perylene	ND	230	75	84	11.3	66	66	0.0	40 - 140	30	
Benzo(k)fluoranthene	ND	230	74	81	9.0	67	67	0.0	40 - 140	30	
Benzyl butyl phthalate	ND	230	79	85	7.3	78	80	2.5	40 - 140	30	
Bis(2-chloroethoxy)methane	ND	230	68	70	2.9	66	70	5.9	40 - 140	30	
Bis(2-chloroethyl)ether	ND	130	71	74	4.1	70	77	9.5	40 - 140	30	
Bis(2-ethylhexyl)phthalate	ND	230	80	86	7.2	78	77	1.3	40 - 140	30	
Caprolactam	ND	230	82	87	5.9	94	84	11.2	40 - 140	30	
Carbazole	ND	230	74	81	9.0	79	76	3.9	40 - 140	30	
Chrysene	ND	230	75	81	7.7	65	66	1.5	40 - 140	30	
Dibenz(a,h)anthracene	ND	130	74	84	12.7	69	68	1.5	40 - 140	30	
Dibenzofuran	ND	230	69	73	5.6	69	70	1.4	40 - 140	30	
Diethyl phthalate	ND	230	79	83	4.9	82	79	3.7	40 - 140	30	
Dimethylphthalate	ND	230	73	78	6.6	72	74	2.7	40 - 140	30	
Di-n-butylphthalate	ND	670	81	88	8.3	83	80	3.7	40 - 140	30	
Di-n-octylphthalate	ND	230	87	92	5.6	80	79	1.3	40 - 140	30	
Fluoranthene	ND	230	76	82	7.6	77	73	5.3	40 - 140	30	
Fluorene	ND	230	74	79	6.5	77	76	1.3	40 - 140	30	
Hexachlorobenzene	ND	130	72	78	8.0	64	65	1.6	40 - 140	30	
Hexachlorobutadiene	ND	230	56	59	5.2	56	56	0.0	40 - 140	30	
Hexachlorocyclopentadiene	ND	230	39	38	2.6	25	16	43.9	40 - 140	30	l,m,r
Hexachloroethane	ND	130	59	62	5.0	55	57	3.6	40 - 140	30	
Indeno(1,2,3-cd)pyrene	ND	230	78	89	13.2	69	69	0.0	40 - 140	30	
Isophorone	ND	130	65	68	4.5	63	67	6.2	40 - 140	30	
Naphthalene	ND	230	62	64	3.2	61	64	4.8	40 - 140	30	
Nitrobenzene	ND	130	74	77	4.0	73	79	7.9	40 - 140	30	
N-Nitrosodimethylamine	ND	230	67	69	2.9	65	71	8.8	40 - 140	30	
N-Nitrosodi-n-propylamine	ND	130	77	81	5.1	76	84	10.0	40 - 140	30	
N-Nitrosodiphenylamine	ND	130	73	77	5.3	81	75	7.7	40 - 140	30	
Pentachlorophenol	ND	230	77	79	2.6	80	76	5.1	30 - 130	30	
Phenanthrene	ND	130	70	76	8.2	66	66	0.0	40 - 140	30	
Phenol	ND	230	93	97	4.2	92	104	12.2	30 - 130	30	
Pyrene	ND	230	77	84	8.7	79	71	10.7	30 - 130	30	
% 2,4,6-Tribromophenol	100	%	87	94	7.7	82	83	1.2	30 - 130	30	

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
% 2-Fluorobiphenyl	68	%	66	69	4.4	60	64	6.5	30 - 130	30
% 2-Fluorophenol	73	%	70	73	4.2	70	76	8.2	30 - 130	30
% Nitrobenzene-d5	78	%	73	77	5.3	72	78	8.0	30 - 130	30
% Phenol-d5	77	%	77	80	3.8	76	83	8.8	30 - 130	30
% Terphenyl-d14	76	%	74	79	6.5	81	74	9.0	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 714761 (ug/kg), QC Sample No: CP80129 (CP90643, CP90644, CP90645, CP90646, CP90648, CP90649, CP90650, CP90651, CP90652, CP90654, CP90655, CP90656)

Volatiles - Soil (Low Level)

1,1,1-Trichloroethane	ND	5.0	97	98	1.0	93	93	0.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	102	100	2.0	104	102	1.9	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	103	101	2.0	91	91	0.0	70 - 130	30
1,1-Dichloroethane	ND	5.0	97	99	2.0	95	94	1.1	70 - 130	30
1,1-Dichloroethene	ND	5.0	100	101	1.0	96	94	2.1	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	103	102	1.0	56	56	0.0	70 - 130	30 m
1,2,3-Trichloropropane	ND	5.0	94	92	2.2	96	95	1.0	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	100	101	1.0	60	60	0.0	70 - 130	30 m
1,2,4-Trimethylbenzene	ND	1.0	101	100	1.0	107	103	3.8	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	115	112	2.6	99	101	2.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	100	101	1.0	89	90	1.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	104	103	1.0	93	92	1.1	70 - 130	30
1,2-Dichloroethane	ND	5.0	100	100	0.0	91	91	0.0	70 - 130	30
1,2-Dichloropropane	ND	5.0	102	100	2.0	97	96	1.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	100	100	0.0	109	107	1.9	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	101	99	2.0	93	91	2.2	70 - 130	30
1,3-Dichloropropane	ND	5.0	98	98	0.0	91	92	1.1	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	103	103	0.0	93	92	1.1	70 - 130	30
1,4-dioxane	ND	100	103	101	2.0	108	102	5.7	70 - 130	30
2-Hexanone	ND	25	86	86	0.0	52	50	3.9	70 - 130	30 m
4-Methyl-2-pentanone	ND	25	98	95	3.1	73	69	5.6	70 - 130	30 m
Acetone	ND	10	77	72	6.7	61	57	6.8	70 - 130	30 m
Benzene	ND	1.0	100	99	1.0	95	95	0.0	70 - 130	30
Bromochloromethane	ND	5.0	99	100	1.0	92	91	1.1	70 - 130	30
Bromodichloromethane	ND	5.0	104	103	1.0	95	95	0.0	70 - 130	30
Bromoform	ND	5.0	110	109	0.9	86	90	4.5	70 - 130	30
Bromomethane	ND	5.0	103	103	0.0	89	87	2.3	70 - 130	30
Carbon Disulfide	ND	5.0	99	98	1.0	89	88	1.1	70 - 130	30
Carbon tetrachloride	ND	5.0	101	100	1.0	94	95	1.1	70 - 130	30
Chlorobenzene	ND	5.0	100	102	2.0	95	95	0.0	70 - 130	30
Chloroethane	ND	5.0	99	102	3.0	95	97	2.1	70 - 130	30
Chloroform	ND	5.0	95	96	1.0	91	92	1.1	70 - 130	30
Chloromethane	ND	5.0	98	99	1.0	88	88	0.0	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	98	99	1.0	93	93	0.0	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	108	107	0.9	90	90	0.0	70 - 130	30
Cyclohexane	ND	5.0	95	95	0.0	89	88	1.1	70 - 130	30
Dibromochloromethane	ND	3.0	108	107	0.9	96	99	3.1	70 - 130	30
Dichlorodifluoromethane	ND	5.0	89	89	0.0	74	74	0.0	70 - 130	30
Ethylbenzene	ND	1.0	99	100	1.0	97	97	0.0	70 - 130	30
Isopropylbenzene	ND	1.0	102	100	2.0	117	114	2.6	70 - 130	30
m&p-Xylene	ND	2.0	97	98	1.0	93	93	0.0	70 - 130	30

QA/QC Data

SDG I.D.: GCP90643

Parameter	BIK		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
	Blank	RL									
Methyl ethyl ketone	ND	5.0	85	79	7.3	56	52	7.4	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	97	98	1.0	92	91	1.1	70 - 130	30	
Methylacetate	ND	5.0	97	95	2.1	77	67	13.9	70 - 130	30	m
Methylcyclohexane	ND	5.0	100	98	2.0	91	88	3.4	70 - 130	30	
Methylene chloride	ND	5.0	96	96	0.0	112	110	1.8	70 - 130	30	
n-Butylbenzene	ND	1.0	104	105	1.0	103	99	4.0	70 - 130	30	
n-Propylbenzene	ND	1.0	103	101	2.0	115	110	4.4	70 - 130	30	
o-Xylene	ND	2.0	101	101	0.0	97	97	0.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	103	101	2.0	105	99	5.9	70 - 130	30	
sec-Butylbenzene	ND	1.0	101	101	0.0	110	106	3.7	70 - 130	30	
Styrene	ND	5.0	97	97	0.0	83	83	0.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	102	101	1.0	115	111	3.5	70 - 130	30	
Tetrachloroethene	ND	5.0	103	102	1.0	98	96	2.1	70 - 130	30	
Toluene	ND	1.0	102	102	0.0	96	96	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	100	101	1.0	95	93	2.1	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	111	110	0.9	87	88	1.1	70 - 130	30	
Trichloroethene	ND	5.0	103	101	2.0	96	95	1.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	103	103	0.0	98	97	1.0	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	101	102	1.0	98	97	1.0	70 - 130	30	
Vinyl chloride	ND	5.0	100	99	1.0	90	90	0.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	95	%	101	101	0.0	98	99	1.0	70 - 130	30	
% Bromofluorobenzene	98	%	98	99	1.0	92	93	1.1	70 - 130	30	
% Dibromofluoromethane	100	%	94	95	1.1	94	93	1.1	70 - 130	30	
% Toluene-d8	93	%	100	99	1.0	100	99	1.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 714934 (ug/kg), QC Sample No: CP90389 (CP90647, CP90653)

Volatiles - Soil (Low Level)

1,1,1-Trichloroethane	ND	5.0	90	87	3.4	95	97	2.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	93	89	4.4	98	100	2.0	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	94	90	4.3	100	100	0.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	89	87	2.3	93	93	0.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	95	91	4.3	96	96	0.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	94	93	1.1	96	97	1.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	84	82	2.4	96	90	6.5	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	94	91	3.2	92	93	1.1	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	93	92	1.1	96	96	0.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	101	93	8.2	104	111	6.5	70 - 130	30	
1,2-Dibromoethane	ND	5.0	91	89	2.2	98	100	2.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	94	94	0.0	99	101	2.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	90	88	2.2	95	97	2.1	70 - 130	30	
1,2-Dichloropropane	ND	5.0	91	90	1.1	98	100	2.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	92	92	0.0	96	96	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	93	91	2.2	95	96	1.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	89	87	2.3	95	95	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	95	94	1.1	97	98	1.0	70 - 130	30	
1,4-dioxane	ND	100	94	91	3.2	95	96	1.0	70 - 130	30	
2-Hexanone	ND	25	77	74	4.0	78	81	3.8	70 - 130	30	
4-Methyl-2-pentanone	ND	25	86	83	3.6	92	94	2.2	70 - 130	30	
Acetone	ND	10	72	64	11.8	68	81	17.4	70 - 130	30	l,m
Benzene	ND	1.0	92	90	2.2	97	98	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCP90643

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Bromochloromethane	ND	5.0	92	88	4.4	96	101	5.1	70 - 130	30
Bromodichloromethane	ND	5.0	93	89	4.4	96	98	2.1	70 - 130	30
Bromoform	ND	5.0	96	87	9.8	95	101	6.1	70 - 130	30
Bromomethane	ND	5.0	95	98	3.1	102	98	4.0	70 - 130	30
Carbon Disulfide	ND	5.0	94	90	4.3	95	94	1.1	70 - 130	30
Carbon tetrachloride	ND	5.0	94	87	7.7	94	97	3.1	70 - 130	30
Chlorobenzene	ND	5.0	93	93	0.0	98	100	2.0	70 - 130	30
Chloroethane	ND	5.0	93	93	0.0	96	96	0.0	70 - 130	30
Chloroform	ND	5.0	87	85	2.3	91	98	7.4	70 - 130	30
Chloromethane	ND	5.0	95	91	4.3	97	99	2.0	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	89	88	1.1	94	96	2.1	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	95	93	2.1	99	103	4.0	70 - 130	30
Cyclohexane	ND	5.0	90	87	3.4	92	102	10.3	70 - 130	30
Dibromochloromethane	ND	3.0	97	90	7.5	99	103	4.0	70 - 130	30
Dichlorodifluoromethane	ND	5.0	98	95	3.1	94	95	1.1	70 - 130	30
Ethylbenzene	ND	1.0	93	92	1.1	95	97	2.1	70 - 130	30
Isopropylbenzene	ND	1.0	94	93	1.1	99	99	0.0	70 - 130	30
m&p-Xylene	ND	2.0	91	90	1.1	94	95	1.1	70 - 130	30
Methyl ethyl ketone	ND	5.0	68	65	4.5	79	81	2.5	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	87	85	2.3	93	92	1.1	70 - 130	30
Methylacetate	ND	5.0	86	80	7.2	88	89	1.1	70 - 130	30
Methylcyclohexane	ND	5.0	92	90	2.2	92	94	2.2	70 - 130	30
Methylene chloride	ND	5.0	86	84	2.4	92	91	1.1	70 - 130	30
n-Butylbenzene	ND	1.0	99	97	2.0	98	98	0.0	70 - 130	30
n-Propylbenzene	ND	1.0	95	95	0.0	99	99	0.0	70 - 130	30
o-Xylene	ND	2.0	93	92	1.1	98	99	1.0	70 - 130	30
p-Isopropyltoluene	ND	1.0	95	94	1.1	98	99	1.0	70 - 130	30
sec-Butylbenzene	ND	1.0	95	94	1.1	97	97	0.0	70 - 130	30
Styrene	ND	5.0	89	88	1.1	92	93	1.1	70 - 130	30
tert-Butylbenzene	ND	1.0	94	94	0.0	99	100	1.0	70 - 130	30
Tetrachloroethene	ND	5.0	96	95	1.0	99	100	1.0	70 - 130	30
Toluene	ND	1.0	93	92	1.1	99	100	1.0	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	93	90	3.3	97	95	2.1	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	98	94	4.2	101	104	2.9	70 - 130	30
Trichloroethene	ND	5.0	94	93	1.1	99	100	1.0	70 - 130	30
Trichlorofluoromethane	ND	5.0	99	97	2.0	100	101	1.0	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	96	95	1.0	99	100	1.0	70 - 130	30
Vinyl chloride	ND	5.0	95	93	2.1	96	97	1.0	70 - 130	30
% 1,2-dichlorobenzene-d4	94	%	101	101	0.0	101	101	0.0	70 - 130	30
% Bromofluorobenzene	99	%	100	100	0.0	99	100	1.0	70 - 130	30
% Dibromofluoromethane	100	%	94	93	1.1	93	98	5.2	70 - 130	30
% Toluene-d8	93	%	100	100	0.0	100	101	1.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 714933 (ug/L), QC Sample No: CP90645 (CP90643 (10X), CP90644 (10X), CP90645 (10X), CP90646 (10X), CP90647 (10X), CP90648 (10X), CP90649 (10X), CP90650 (10X), CP90651 (10X), CP90652 (10X), CP90653 (10X), CP90654 (10X), CP90655 (10X), CP90656 (10X))

Volatiles - TCLP

1,1-Dichloroethene	ND	5.0	100	100	0.0	108	111	2.7	70 - 130	30
1,2-Dichloroethane	ND	0.60	102	103	1.0	106	110	3.7	70 - 130	30
Benzene	ND	0.70	103	102	1.0	108	112	3.6	70 - 130	30
Carbon tetrachloride	ND	5.0	124	123	0.8	112	114	1.8	70 - 130	30

QA/QC Data

SDG I.D.: GCP90643

Parameter	BIK		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Chlorobenzene	ND	1.0	106	105	0.9	110	115	4.4	70 - 130	30
Chloroform	ND	5.0	95	93	2.1	100	103	3.0	70 - 130	30
Methyl ethyl ketone	ND	5.0	108	107	0.9	100	98	2.0	70 - 130	30
Tetrachloroethene	ND	1.0	104	104	0.0	110	113	2.7	70 - 130	30
Trichloroethene	ND	5.0	104	103	1.0	109	113	3.6	70 - 130	30
Vinyl chloride	ND	5.0	107	106	0.9	115	119	3.4	70 - 130	30
% 1,2-dichlorobenzene-d4	101	%	101	102	1.0	101	103	2.0	70 - 130	30
% Bromofluorobenzene	98	%	104	103	1.0	103	104	1.0	70 - 130	30
% Dibromofluoromethane	101	%	100	100	0.0	101	101	0.0	70 - 130	30
% Toluene-d8	99	%	103	104	1.0	103	104	1.0	70 - 130	30

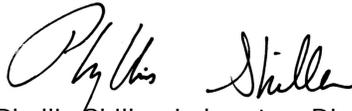
Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

- l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
- m = This parameter is outside laboratory MS/MSD specified recovery limits.
- r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference


 Phyllis Shiller, Laboratory Director
 January 29, 2024

Monday, January 29, 2024

Criteria: NY: 375, 375COM, 375RRS

State: NY

Sample Criteria Exceedances Report

GCP90643 - AES-EASTSIDE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CP90643	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	14	2.6	3.3	3.3	ug/Kg
CP90643	\$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	18	2.6	3.3	3.3	ug/Kg
CP90643	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	99.9	0.40	63	63	mg/Kg
CP90644	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	2300	250	1000	1000	ug/Kg
CP90644	\$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	2100	250	1000	1000	ug/Kg
CP90644	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	2300	250	1000	1000	ug/Kg
CP90644	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	2700	250	1000	1000	ug/Kg
CP90644	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1300	250	500	500	ug/Kg
CP90644	\$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2100	250	1000	1000	ug/Kg
CP90644	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2300	250	1000	1000	ug/Kg
CP90644	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2700	250	1000	1000	ug/Kg
CP90644	\$8270_TCLR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	830	250	800	800	ug/Kg
CP90644	\$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2000	250	1000	1000	ug/Kg
CP90644	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1300	250	500	500	ug/Kg
CP90644	\$PESTSM_NY	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	5.4	2.1	3.3	3.3	ug/Kg
CP90644	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	20	2.1	3.3	3.3	ug/Kg
CP90644	\$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	13	2.1	3.3	3.3	ug/Kg
CP90644	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.44	0.03	0.18	0.18	mg/Kg
CP90644	PB-SM	Lead	NY / 375-6.8 Metals / Residential Restricted	425	0.37	400	400	mg/Kg
CP90644	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	425	0.37	63	63	mg/Kg
CP90644	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	225	0.7	109	109	mg/Kg
CP90645	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	530	250	500	500	ug/Kg
CP90645	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	1100	250	1000	1000	ug/Kg
CP90645	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1100	250	1000	1000	ug/Kg
CP90645	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	530	250	500	500	ug/Kg
CP90645	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	4.0	2.2	3.3	3.3	ug/Kg
CP90645	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.55	0.03	0.18	0.18	mg/Kg
CP90645	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	151	0.39	63	63	mg/Kg
CP90646	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	2300	260	1000	1000	ug/Kg
CP90646	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1200	260	500	500	ug/Kg
CP90646	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	2600	260	1000	1000	ug/Kg
CP90646	\$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	2400	260	1000	1000	ug/Kg
CP90646	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	2300	260	1000	1000	ug/Kg
CP90646	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2300	260	1000	1000	ug/Kg
CP90646	\$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2400	260	1000	1000	ug/Kg
CP90646	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2600	260	1000	1000	ug/Kg
CP90646	\$8270_TCLR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	890	260	800	800	ug/Kg
CP90646	\$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2100	260	1000	1000	ug/Kg
CP90646	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1200	260	500	500	ug/Kg
CP90646	\$PESTSM_NY	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	6.0	2.3	3.3	3.3	ug/Kg

Monday, January 29, 2024

Criteria: NY: 375, 375COM, 375RRS

State: NY

Sample Criteria Exceedances Report

GCP90643 - AES-EASTSIDE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CP90646	\$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	11	2.3	3.3	3.3	ug/Kg
CP90646	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	4.0	2.3	3.3	3.3	ug/Kg
CP90646	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.43	0.03	0.18	0.18	mg/Kg
CP90646	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	174	0.37	63	63	mg/Kg
CP90646	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	124	0.7	109	109	mg/Kg
CP90647	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	1200	1000	1000	1000	ug/Kg
CP90647	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1200	1000	1000	1000	ug/Kg
CP90647	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	1100	880	1000	1000	ug/Kg
CP90647	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1100	880	1000	1000	ug/Kg
CP90647	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1100	880	1000	1000	ug/Kg
CP90647	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	710	500	500	500	ug/Kg
CP90647	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	710	500	500	500	ug/Kg
CP90647	\$PESTSM_NY	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	53	2.7	3.3	3.3	ug/Kg
CP90647	\$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	18	2.7	3.3	3.3	ug/Kg
CP90647	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	8.7	2.7	3.3	3.3	ug/Kg
CP90647	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	70.9	1.0	50	50	mg/kg
CP90647	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.34	0.03	0.18	0.18	mg/Kg
CP90647	NI-SM	Nickel	NY / 375-6.8 Metals / Unrestricted Use Soil	33.3	0.48	30	30	mg/Kg
CP90647	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	177	0.48	63	63	mg/Kg
CP90647	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	293	1.0	109	109	mg/Kg
CP90648	\$PESTSM_NY	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	4.4	2.4	3.3	3.3	ug/Kg
CP90648	\$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	6.4	2.4	3.3	3.3	ug/Kg
CP90648	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	5.4	2.4	3.3	3.3	ug/Kg
CP90648	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	52.9	0.8	50	50	mg/kg
CP90648	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.31	0.03	0.18	0.18	mg/Kg
CP90648	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	273	0.39	63	63	mg/Kg
CP90648	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	255	0.8	109	109	mg/Kg
CP90649	HG-SM	Mercury	NY / 375-6.8 Metals / Residential Restricted	2.26	0.30	0.81	0.81	mg/Kg
CP90649	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	2.26	0.30	0.18	0.18	mg/Kg
CP90649	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	130	0.43	63	63	mg/Kg
CP90649	TCLP-PB	TCLP Lead	EPA / 40 CFR 261.24 / Toxicity Characteristics	6.67	0.10	5	5	mg/L
CP90650	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	1300	270	1000	1000	ug/Kg
CP90650	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1300	270	1000	1000	ug/Kg
CP90650	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	1500	270	1000	1000	ug/Kg
CP90650	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	890	270	500	500	ug/Kg
CP90650	\$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	1100	270	1000	1000	ug/Kg
CP90650	\$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1100	270	1000	1000	ug/Kg
CP90650	\$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1300	270	1000	1000	ug/Kg
CP90650	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1500	270	1000	1000	ug/Kg

Monday, January 29, 2024

Criteria: NY: 375, 375COM, 375RRS

State: NY

Sample Criteria Exceedances Report GCP90643 - AES-EASTSIDE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CP90650	\$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1400	270	1000	1000	ug/Kg
CP90650	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	890	270	500	500	ug/Kg
CP90650	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	10	2.3	3.3	3.3	ug/Kg
CP90650	\$PESTSM_NY	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	7.1	2.3	3.3	3.3	ug/Kg
CP90650	\$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	14	2.3	3.3	3.3	ug/Kg
CP90650	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	122	0.36	63	63	mg/Kg
CP90650	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	200	0.7	109	109	mg/Kg
CP90651	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	1100	250	1000	1000	ug/Kg
CP90651	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	600	250	500	500	ug/Kg
CP90651	\$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1100	250	1000	1000	ug/Kg
CP90651	\$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	600	250	500	500	ug/Kg
CP90651	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.23	0.03	0.18	0.18	mg/Kg
CP90651	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	160	0.33	63	63	mg/Kg
CP90651	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	118	0.7	109	109	mg/Kg
CP90652	\$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	3.4	2.2	3.3	3.3	ug/Kg
CP90652	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	4.6	2.2	3.3	3.3	ug/Kg
CP90652	AS-SM	Arsenic	NY / 375-6.8 Metals / Unrestricted Use Soil	13.3	0.72	13	13	mg/Kg
CP90653	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	14	2.3	3.3	3.3	ug/Kg
CP90653	\$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	13	2.3	3.3	3.3	ug/Kg
CP90653	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	273	0.36	63	63	mg/Kg
CP90653	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	177	0.7	109	109	mg/Kg
CP90654	\$PESTSM_NY	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	4.9	2.1	3.3	3.3	ug/Kg
CP90654	\$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	7.5	2.1	3.3	3.3	ug/Kg
CP90654	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	3.7	2.1	3.3	3.3	ug/Kg
CP90655	\$8260_TCL_SM	Acetone	NY / 375-6.8 Volatiles / Unrestricted Use Soil	64	50	50	50	ug/kg
CP90655	\$PESTSM_NY	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	79	2.4	3.3	3.3	ug/Kg
CP90655	\$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	72	2.4	3.3	3.3	ug/Kg
CP90655	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	15	2.4	3.3	3.3	ug/Kg
CP90655	\$PESTSM_NY	Dieldrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	10	4.0	5	5	ug/Kg
CP90655	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	91.8	0.38	63	63	mg/Kg
CP90656	\$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	6.1	2.2	3.3	3.3	ug/Kg
CP90656	\$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	8.9	2.2	3.3	3.3	ug/Kg
CP90656	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	73.6	0.37	63	63	mg/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Comments

January 29, 2024

SDG I.D.: GCP90643

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

PEST Narration

AU-ECD4 01/22/24-1: CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656

The following Continuing Calibration compounds did not meet % deviation criteria:

Samples: CP90648, CP90649, CP90650, CP90651, CP90652, CP90653, CP90654, CP90655, CP90656

Preceding CC 122B043 - None.

Succeeding CC 122B055 - d-BHC 21%L (20%)

A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

SVOA Narration

CHEM07 01/19/24-1: CP90650, CP90651, CP90652, CP90654

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

The following Initial Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.062 (0.1), Hexachlorobenzene 0.086 (0.1)

The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet % deviation criteria: 4-Nitrophenol 33%H (30%)

The following Continuing Calibration compounds did not meet Maximum % deviation criteria: None.

The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.071 (0.1), Hexachlorobenzene 0.088 (0.1)

The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM22 01/18/24-2: CP90643, CP90644, CP90645, CP90646, CP90647, CP90648, CP90649

The following Initial Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.090 (0.1), Hexachlorobenzene 0.096 (0.1)

The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet % deviation criteria: 2-Nitroaniline 35%L (30%)

The following Continuing Calibration compounds did not meet Maximum % deviation criteria: None.

The following Continuing Calibration compounds did not meet recommended response factors: Hexachlorobenzene 0.092 (0.1)

The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM29 01/19/24-1: CP90653, CP90655, CP90656



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Analysis Comments

January 29, 2024

SDG I.D.: GCP90643

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

The following Initial Calibration compounds did not meet recommended response factors: % 2,4,6-Tribromophenol 0.043 (0.05), 2-Nitrophenol 0.034 (0.1), Hexachlorobenzene 0.077 (0.1)

The following Initial Calibration compounds did not meet minimum response factors: % 2,4,6-Tribromophenol 0.043 (0.05), 2-Nitrophenol 0.034 (0.05)

The following Continuing Calibration compounds did not meet % deviation criteria: 2-Nitrophenol 35%H (30%)

The following Continuing Calibration compounds did not meet Maximum % deviation criteria: None.

The following Continuing Calibration compounds did not meet recommended response factors: % 2,4,6-Tribromophenol 0.047 (0.05), 2-Nitrophenol 0.046 (0.1), Hexachlorobenzene 0.074 (0.1)

The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

VOA Narration

CHEM14 01/18/24-2: CP90643, CP90644, CP90645, CP90646, CP90648, CP90649, CP90650, CP90651, CP90652, CP90654, CP90655, CP90656

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 35% (20%), Chloroethane 21% (20%)

The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

The following Initial Calibration compounds did not meet recommended response factors: Ethylbenzene 0.379 (0.4)

The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: Ethylbenzene 0.387 (0.4)

The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM14 01/19/24-1: CP90647, CP90653

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 35% (20%), Chloroethane 21% (20%)

The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

The following Initial Calibration compounds did not meet recommended response factors: Ethylbenzene 0.379 (0.4)

The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet % deviation criteria: Acetone 32%L (30%), Methyl ethyl ketone 34%L (30%)

The following Continuing Calibration compounds did not meet Maximum % deviation criteria: None.

The following Continuing Calibration compounds did not meet recommended response factors: Bromodichloromethane 0.280 (0.3), Ethylbenzene 0.345 (0.4), trans-1,3-Dichloropropene 0.297 (0.3)

The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.



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NY Temperature Narration

January 29, 2024

SDG I.D.: GCP90643

The samples in this delivery group were received at 1.6°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)



NY/NJ/PA CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
 Email: Makrina Nolan, makrina@phoenixlabs.com Fax (860) 645-0823
 Client Services (860) 645-1102

Cooler: Yes No
 Coolant: IPK ICE No

Temp: 16 °C Pg 1 of 2
 Contact Options:
 Phone:
 Fax: pendyenveng@phoenixlabs.com
 Email: empendyenveng@phoenixlabs.com

Customer: AES Project: EAST SIDE COASTAL RESILIENCY Project P.O.: 0897
 Address: 42 West Avenue Report to: AES
Patchogue, NY 11772 Invoice to: AES
 QUOTE #: AE090921BA

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [Signature] Date: 1.17.24
 Matrix Code: WW
 DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water OIL-Oil
 RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe
 B=Bulk L=Liquid

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request
900043	FIELD 3+4 S.P.	S	1.17.24	10:45	MS/MSD (see table for analysis unit rate)
900044	BH66			9:18	TAL/TCL+30+NY add
900045	BH67			9:28	HEX+TRI+Chrominim
900046	BH68			9:38	KRIS
900047	BH69			9:54	GL Amber 9 oz 1 WH PO [MS/MSD]
900048	BH70			10:06	GL Amber 100ml 1 AS [1 FC]
900049	BH71			10:21	GL Amber 100ml 1 AS [1 FC]
900050	BH72			10:32	GL Amber 100ml 1 AS [1 FC]
900051	BH73			11:19	GL Amber 100ml 1 AS [1 FC]
900052	BH75			11:31	GL Amber 100ml 1 AS [1 FC]
900053	BH76			11:19	GL Amber 100ml 1 AS [1 FC]

Relinquished by: [Signature] Accepted by: [Signature] Date: 1/18/24 Time: 1100
 Date: 1/18/24 Time: 1616

Turnaround:
 1 Day*
 2 Days*
 3 Days*
 4 Days*
 5 Days*
 Standard
 * SURCHARGE APPLIES

Res. Criteria Res. Criteria
 Non-Res. Criteria Non-Res. Criteria
 Impact to GW Soil Impact to GW Soil
 Cleanup Criteria Cleanup Criteria
 Impact to GW soil screen Criteria Impact to GW soil screen Criteria
 GW Criteria GW Criteria

NY TOGS GW
 CP-51 SOIL
 375SSCO Unrestricted Soil
 375SSCO Residential Soil
 375SSCO Residential
 375SSCO Restricted Soil
 Commercial Soil
 Industrial Soil
 Subpart 5 DW

PA Clean Fill Limits
 PA-GW
 Reg Fill Limits
 PA Soil Restricted
 PA Soil non-restricted

Data Package:
 NJ Reduced Deliv.* Other
 NY Enhanced (ASP B)*

Data Format:
 Phoenix Std Report EQUIS
 Excel NJ Hazsite EDD
 PDF NY EZ EDD (ASP)
 GIS/Key Other

Comments, Special Requirements or Regulations:
BH75 - Refusal 71

State Samples Collected? NY

*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

Sarah Bell

From: empendergast <empendergast@aol.com>
Sent: Tuesday, January 23, 2024 5:42 PM
To: Sarah Bell
Subject: RE: GCP90643

Thanks Sarah

Can you check the TCLP Lead result on 90649? The total lead is only 130 but tcpl is over 6

Have a great night

Eileen

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----
From: Sarah Bell <sarah@phoenixlabs.com>
Date: 1/23/24 4:47 PM (GMT-05:00)
To: empendergast@aol.com
Subject: GCP90643